

Information Technology Support Center

Project Information Report for Fiscal Year 2001

**Version 1.0
November 03, 2000**

Table of Contents

Application Software Development and Support Team.....	3
Accounts Receivable Debt Collection	4
Accounts Receivable V.1.4 Reports Generation.....	5
Administrative Resource Management System Certification.....	6
Administrative Resource Management System DHR Database Redesign And Consolidation.....	8
Administrative Resource Management System Open Document Update.....	10
Administrative Resource Management System Travel Advance Form Automation.....	11
Adverse Reactions Tracking V.4.0.....	12
AIB Modifications.....	14
Ambulatory Payment Class/Group Migration Plan.....	15
ARMS and CHS CORE Header Format Update.....	16
Average Wholesale Price Quarterly Update.....	17
Contract Health System Bemidji Area Enhancements	18
Contract Health System Data Enhancements.....	19
Contract Health System Interest Accrual Enhancement.....	21
Contract Health System Master Delivery Order List Enhancements.....	22
Contract Health System Purchase Order Enhancement.....	23
Contract Health System V.3.1 Completion and Deployment.....	24
Customizable Encounter Form and Health Summary.....	25
Data Modeling Planning and Implementation.....	27
Enterprise Data Warehouse and DataMarts.....	29
ENVOY Electronic Data Interchange Deployment.....	30
Evaluation of CORBAMed and COAS Services for GCPR.....	32
File 200 Conversion.....	33
GCPR Framework Alpha Planning and Deployment Activities.....	34
GCPR Framework Pilot IHS Implementation Activities	35
GCPR Pilot LOINC Implementation.....	37
GCPR Program Level Support.....	39
Health Level 7 Maintenance for IHS.....	41
ICD Code Updates.....	43
Immunizations Information Exchange Support	44
Inpatient Medications V. 4.0/4.5 Deployment.....	47
ITSC Customer Service and User Policies & Procedures.....	50
ITSC Lifecycle Development Plan and Implementation	51
ITSC Project Planning Workgroup Activities	52
Lab Electronic Review and Signature Enhancement.....	53
Lab Package Interface to Reference Labs.....	55
Lab Package Reference Range Development	57
LOINC Deployment Planning	58
Master Patient Index Evaluation and Implementation.....	59
National Drug File V. 4.0 Distribution	61
National Provider ID Planning and Implementation	63
Nursing Modifications	64
Palm Pilot for Provider Demo.....	65
Patient Account Component Development	66
Patient Chart IHS Evaluation, Deployment and Training	67
Patient Information Management System.....	68
Patient Registration V7.0	70

PCC Enhancements.....	71
Pharmacy Point of Sale Project.....	73
Pyxis Implementation	74
Referred Care Information System Modification.....	76
RPMS Application Ongoing Support	77
RPMS Growth Plan Integration Implementation Plan.....	78
SQL Interface Evaluation and Implementation Plan	79
Standards and Conventions Review	80
Supply Accounting Management System Certification.....	81
Supply Accounting Management System Interfaces Enhancements.....	82
Third Party Billing V. 3.0 Redesign	83
VHA Application Patch Evaluation and Implementation Plan.....	84
VHA Clinical Data Repository Evaluation	85
VHA Common Tool Set Evaluation.....	86
VHA Corporate Data Registry Evaluation	87
VHA Lexical Services Project Evaluation	88
VHA Patient Record Architecture Project Evaluation.....	89
VHA Web-accessible Patient Record Pilot Evaluation	90
VistAion Evaluation	91
Web Mailman Implementation	92
WebTop Deployment.....	93
WebTop Pilot and Evaluation.....	94
X12 Evaluation and Implementation	96
National Patient Information Resource System Projects	100
CORE Reports.....	101
FY98 and FY99 APC and Inpatient Workload Verification	103
HACMP Implementation	104
Handheld Data Collection	105
National Data Warehouse for NPIRS Archive	106
National Interface Clearinghouse.....	107
NPIRS and RPMS Executive Information System.....	108
NPIRS Data Movement Automation	110
NPIRS Historic Report/Data Requests	112
NPIRS Lifecycle Development Process and Implementation	114
NPIRS Production Tasks.....	115
NPIRS Web Data Sets.....	117
NPIRS Web Reports.....	118
OPH SAS Program Support.....	120
PHN Project Phase II.....	121
PVCS Tracker and Version Manager Upgrade and Enhancement.....	122
Registration Information Inquiry/Update Screens.....	123
Standard Code Book Table Updates/Modifications via Intranet.....	124
User Population Report 1999 Verification	126
ASDS Web Team Projects.....	127
Americans with Disabilities Act Web Compliancy Initiative.....	128
Geographic Information Systems Data and Application Development	130
Internet Privacy Issues Evaluation and Implementation	132
ITSC Resource Schedule Center Enhancements.....	133
Job Vacancies Database Consolidation and Enhancement.....	135

Links & Document Management System Integration into Web Infrastructure.....	137
MyIHS Web Portal Enhancements.....	138
Online Dental Training Site.....	140
Project Management Web-based COTS Evaluation and Implementation	141
Web Ad Hoc Application Enhancements`.....	142
Web Conference Registration Services Development and Pilot.....	143
Web Infrastructure Design & Implementation.....	144
Web Server Relocation	145
Web-based IHS Work Order System.....	147
Computer Systems Management Team	148
Cache Conversion from MSM: Project Plan and Pilot Site	149
Cloverleaf Integration Engine Deployment	151
Cloverleaf Integration Engine Pilot.....	152
Computer Emergency Response Team Formation and Implementation.....	154
GCPR Pilot Environment Setup and Maintenance.....	155
Generic Interface System IHS Deployment	156
Generic Interface System Pilot	157
Implement Part 3 of Kernel 8 Security Options	158
Internet/Intranet Services Operation and Maintenance.....	159
Seat Management Evaluation and Recommendation for Sites	160
Terminal Server Replacement Evaluation	161
Verification Gold Version UCIs	162
Windows 2000 Migration.....	163
DIR Headquarters Projects.....	164
Electronic Document & Signature Alternatives.....	165
IHS Information Technology Architecture.....	167
RPMS Financial Applications Growth Path Evaluation	169
Security Documentation	170
Security Implementation Plan.....	171
Security Training Plan and Implementation	172
Information Technology Support Center Projects	173
Diabetes Data Projects	174
Evaluation of RPMS Software Applications	175
GPRA Data Quality Initiatives	177
IHS Information Technology Conference.....	178
IHS It Outsourcing Review and Recommendation	179
ITSC Training Program.....	180
Medicare Measures Project	182
ORYX Maintenance	183
Software Implementation Response Team.....	184
Telecommunications Management Team Projects	185
Anti-virus Procurement for IHS Enterprise.....	186
Banyan Elimination Plan and Implementation	187
Cache Flow Server Implementation	188
Disaster Recovery Plan for Servers.....	189
E-Mail Management and Etiquette	190
Fax Server Implementation at ITSC-ABQ.....	191
FTS Conversion from 2000 to 2001	192
IHS Firewall Installation	193

IHS WAN Support of ATM Voice and Video.....	194
Implement Multi-Media Streaming Server.....	195
Network Intrusion Detection	196
Network Intrusion Monitoring	197
Norton Anti Virus Gateway.....	198
PKI Pilot and Evaluation	199
Public Key Infrastructure Deployment Plan and Implementation	203
Session Wall 3 Implementation	204
VA Connectivity Liaison.....	205
Virtual Private Network Installation	206
WAN/LAN/OA/Servers Maintenance and Troubleshooting.....	207
Wide Area Network Backup System.....	208
Wireless Point of Care Evaluation and Recommendation	209
X.25 Elimination Plan.....	210

Lead Department:
ASDS
Application Software Development and
Support Team

ITSC FY01 Project Plans

Lead Department: ASDS

Accounts Receivable Debt Collection Package (Transworld)

A-038

Project Category: Applications : Patient Administrative

The purpose of this project is to develop new functionality for the Accounts Receivable package which will export outstanding accounts receivables to Transworld for collection. After successful collection, Transworld will transfer the monies to IHS who then closes the respective claims. This new functionality will allow sites to set up the automatic export process.

Project Status: In Progress

Type: New

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 01 Billing

Drivers?

Staffing Requirements:

Est Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	4	61 Hours
1	Sr Programmer	50.00%	4	304 Hours
1	Jr Technical Writer	15.00%	1	23 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 4 Staff				403 Hours

Justification:

This effort will provide a means of submitting delinquent third party bills to an outside collector for reimbursement.

Task Description:

1. Clarify requirements for new functionality.
2. Design code requirements to implement functionality.
3. Program the functionality.
4. Perform integration testing with standard packages/software.
5. Perform testing with Transworld to verify export process.
5. Modify documentation.
6. Assemble for verification and testing.
7. Alpha and beta test, fix and modify as necessary, release.

Background:

Comments/Status:

Accounts Receivable V.1.4 Reports Generation

A-052

Project Category: Applications : Financial & Admin

This project consists of developing additional, necessary reports for the A/R package including the following:

1. Aging Management Report aging outstanding claims by generation date.
2. Transaction Report tracking previous postings, with multiple sorting options and detail or summary form.
3. Adjustment Detail Report listing all adjustments, with multiple sorting options and totals.
4. Period Summary Report listing all transactions during the last 30 days, with amounts opened and closed and sorting options.
5. Large Balance Report listing all amounts received that were greater than a designated amount.

This version will also include itemized and/or summarized patient statements.

Project Status: In Progress **Type:** Enhancement **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
 ISAC Goals: 01 Billing **Drivers?**

Staffing Requirements: **Est Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Jr Programmer	100.00%	3	456 Hours
1	Sr Technical Writer	25.00%	1	38 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 3 Staff				509 Hours

Justification:

There are very few reports in the A/R System. Users are expected to generate new reports using FILEMAN which is difficult for most users not familiar with this utility.

Task Description:

1. Clarify specific report requirements for sorting options and criteria.
2. Design and make code modifications.
3. Test new reports in house and verify with the SAC.
4. Conduct beta testing, make revisions as necessary and release.

Background:

Comments/Status:

Version 1.4 with A/R reports in Alpha test in California. Awaiting results.

Administrative Resource Management System (ARMS) Certification

Project Category: Applications : Financial & Admin

The Administrative Resource Patient Management (ARMS) software needs to be standardized across all areas to facilitate management and support. Many Areas are running different variations of the ARMS and Finance software in that modifications have been made at one Area and not at another. This presents a maintenance and support problem as these variations behave somewhat differently or unexpectedly from one Area to another. This situation makes it virtually impossible to create patches to correct problems. Because of the many difficulties inherent in the software, old non-used software, and changing business practices, many portions of the software need to be rewritten. ARMS, AO Financial Data Mgmt System and 1166 Approvals For Payment software have become extremely integrated and co-dependent on each other. ARMS has absorbed much of the 1166 functionality. The three software packages have independently developed what have become redundant databases and functionality. These need to be merged with ARMS to promote efficiency and ease of handling. Old obsolete routines, options, databases, etc., need to be identified and deleted.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	7.5	1,140 Hours
1	Sr Technical Writer	100.00%	3	456 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				1,748 Hours

Justification:

ARMS software needs to be standardized across all areas to facilitate management and support. Many Areas are running different variations of the ARMS and Finance software in that modifications have been made at one Area and not at another. This presents a maintenance and support problem as these variations behave somewhat differently or unexpectedly from one Area to another. This situation makes it virtually impossible to create patches to correct problems. Because of the difficulties inherent in the software, old non-used software, and changing business practices, many portions of the software need to be rewritten. ARMS, AO Financial Data Mgmt System, and 1166 Approvals For Payment software have become extremely integrated and co-dependent on each other. Much of the 1166 functionality has been absorbed by ARMS. Much of the Finance software contains bugs and is generally inefficient. The three software packages have independently developed, redundant databases and functionality which need to be merged with ARMS to promote efficiency and ease of handling. Old obsolete routines, options, databases, etc., need to be identified and deleted.

Task Description:

Standardize ARMS Across all Areas

1. Evaluate all software and databases across all Areas to determine a "gold standard" software set.

2. Create a "gold standard" software set to be distributed to all Areas. Determine the locations that are up-to-date so that set can be used.
3. Distribute and implement the software set at all Areas.

Stabilize ARMS Software.

1. Identify and evaluate redundant databases to determine how to merge them. Identify obsolete software. Redesign software for efficiency.
2. Write conversion routines to merge databases and resolve pointers. Modify routines to reference the proper databases. Rewrite routines to make them function more efficiently. Delete old non-used routines, options, databases, etc.
3. Release the modified software for beta testing.
4. Release to field for implementation.

Adhere to Standards and Conventions (SAC).

1. Evaluate and identify SAC violations and determine how to eliminate them.
2. Development. Modify routines and databases as necessary to eliminate SAC violations.
3. Pre-release Testing. Release the modified software for beta testing.
4. Release to the field for implementation.

Write User and Technical Documentation.

Background:

Comments/Status:

1. Item 1 was accomplished with development and release of the Y2K version of ARMS V2.0T1 and AO Financial Data Mgmt System V3.0T1.
2. Item 2 is in progress.
3. Item 3 is in progress and is 75% complete.
4. Item 4 is in progress.

Administrative Resource Management System (ARMS) DHR Database Redesign & Consolidation

Project Category: Applications : Financial & Admin

Redundant databases resulted from the merger of the ARMS 1166 Approvals for Payments and the AO Financial Data Management System software packages. The databases containing DHR data need to be consolidated for efficiency and ease of handling. Also, no historical record of payment and obligation batch transmissions to HAS/CORE is being kept. Additionally, no record whatsoever of manual DHR data entry is being kept. This makes it extremely difficult to recover DHR records for retransmission in the event of a transmission failure and at times causes data entry clerks to have to re-enter large amounts transaction data for retransmission. The redesign and consolidation of these databases should also include transmission history data.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	7.5	1,140 Hours
Totals: 1 Staff				1,140 Hours

Justification:

This effort will consolidate redundant databases, provide an historical record of obligation and payment batch transmissions to CORE, and aid in the recovery of transmission failure or accidental batch deletion.

Task Description:

1. Pre-development evaluation, planning and design. Evaluate the existing databases to determine which database elements to merge and how to handle pointers to the databases. Design a new database or restructure an existing database to contain the merged data and include transmission history data. Design conversion routines as necessary to merge these databases and resolve pointers. Design an interface to enter data into the database and retrieve data from it. Evaluate software such as routines and other databases which reference these DHR databases to determine which modifications need to be made to reference the new database, add transmission history data, and where to add hooks into the interface routines.
2. Development. Add/delete fields as necessary to the DHR database. Write conversion routines to merge databases and re-point pointers. Write interface routines to access the database. Modify existing M routines to reference the new database or add hooks into the interface routines. Delete the obsolete databases.
3. Pre-release testing. Release the modified software via an ARMS patch to beta test sites.
4. Release and implementation. Upon completion of beta testing, release to the field for implementation.

Background:

Comments/Status:

Item #1 described in the Task Description section is in progress.

ITSC FY01 Project Plans

Lead Department: ASDS

Administrative Resource Management System (ARMS) Open Document Update

A-041

Project Category: Applications : Financial & Admin

This project adds to ARMS the process of updating the Open Document file with obligations. The Open Document file is used as a commitment register, updated with obligation transactions as they were processed under the obsolete 1166 Approvals For payment software. When ARMS took over the obligation and payment processing, the process of updating the Open Document file with obligations was not included.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	7.5	1,140 Hours
Totals: 1 Staff				1,140 Hours

Justification:

This effort will provide an accurate commitment register of obligation transactions against which to post payment transactions.

Task Description:

1. Pre-development evaluation, planning and design. Evaluate the current software and database set to determine at which point the data is available for use in updating the Open Document file. Design a generic interface to the Open Document file which can be used by the obligation update function as well as the posting of payment transactions and upload of the CORE open document data to the Open Document file.
2. Development. Add new fields as necessary to the Open Document file. Write interface routines to update the Open Document file with obligation and payment transactions. Insert hooks from the current software to the interface.
3. Pre-release testing. Release the modified software via and ARMS patch to beta test sites.
4. Release and implementation. Upon completion of beta testing, release to the field for implementation.

Background:

Comments/Status:

Item 1 in the Task Description section is completed and Item 2 is underway.

ITSC FY01 Project Plans

Lead Department: ASDS

**Administrative Resource Management System (ARMS) Travel
Advance Form Automation**

A-037

Project Category: Applications : Financial & Admin

The Travel Advance form SF1038 needs to be automated in ARMS to provide a means of entering and tracking travel advances and provide a printed form. This will make this an official process in ARMS which can be implemented across all Areas. Since policy and guidelines will be set for the use of automated travel advances, the problems with the current travel advance procedures in ARMS can be resolved.

Project Status: In Progress **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	7.5	1,140 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 2 Staff				1,292 Hours

Justification:

This effort will resolve the problems with the current travel advance procedures in ARMS.

Task Description:

1. Analyze the current procedure for capturing travel advance data in ARMS. Determine what if any additional data needs to be captured.
2. Design and program the Travel Advance Form. Write ARMS interface to the form.
3. Beta test travel advance software at Area level.
4. Verify the travel advance software.
5. Release and implement the software.

Background:

Comments/Status:

The programming effort on this project is approximately 50% completed at the time of this writing.

ITSC FY01 Project Plans
Adverse Reactions Tracking V. 4.0

Lead Department: ASDS
A-051

Project Category: Applications : Clinical

The goal of this project is to make V.4.0 of the Adverse Reaction Tracking software package available for general distribution to all IHS pharmacy customers. This package is listed as a VA prerequisite for Version 4.0 of the National Drug File software package, PIMS V. 5.3, and the Pharmacy upgrade.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?**

Staffing Requirements: **Est Duration:** 8 Months

#	Labor Category	%	Months	Total Hours
1	Sr Programmer	100.00%	7.5	1,140 Hours
1	Jr Programmer	100.00%	7.5	1,140 Hours
Totals: 2 Staff				2,280 Hours

Justification:

The ART V4.0 upgrade is needed to provide IHS facilities with the latest VA allergy tracking software. This is in keeping with the decision to align IHS packages with their most current VHA equivalents.

Task Description:

1. Environment Creation at HQW for Adverse Reaction Tracking V4.0. Create a new partition/UCI large enough to hold version 4.0 and all supporting software on the HQW system. This will include identification of all software packages required to run Adverse Reaction Tracking (ART) V4.0, determination of space requirements, creation of UCI, and installation of supporting software into the new environment. Installation of the GMRA*3*13 patch is required if the new environment is established with a lesser version of the ART, or Allergy Tracking, software. Running of the GMRP*2.5*32 patch is required for the Progress Notes software package. In addition, access and security for the environment and software packages will need to be established.
2. Installation of Version 4.0 on HQW system. All VA patches for the VA version of Adverse Reaction Tracking V4.0 need to be identified, reviewed, and when appropriate, readied for installation. Review and verify that all mandatory files needed to run Adverse Reaction Tracking are available. Install and configure V4.0 on the ASDST system. This includes, but is not limited to, backing up of the current environment, securing access to the system, initializing the environment, restoration of the routines, files, and documentation to the system, installation of appropriate patches, as well as establishing the proper security and access following the completion of the restoration. In addition, required background jobs will need to be initiated, journaling for the ^GMR global needs to be accomplished and translation of the ^GMR and ^GMRD globals needs to be done if multiple CPUs are used.
3. Clinical Programming Team Testing and Verification of Adverse Reaction Tracking V4.0. Verify that all options are functioning properly for Adverse Reaction Tracking V4.0 in the environment established. Verify that the documentation matches the performance of the software, including all interactions that take place with all files and routines outside of Adverse Reaction Tracking V4.0. Document, resolve and re-test any discrepancies identified.

Background:

Comments/Status:

Adverse Reactions Tracking version 4.0 has been loaded in the MIH UCI. Environment check routines had to be checked and modified to bypass any references to non-RPMS applications. Several IHS Pharmacists have offered to dial in and test this application. Menu's have been setup and a pharmacy user access has been created that will allow to our MIH UCI test environment.

4. Pharmacist/Customer/PSG Testing on HQW system. Customer/Pharmacist/PSG testing of Adverse Reaction Tracking needs to be done on the HQW system to insure that needed functionality is available prior to Alpha release. Monitor and document all identified problems, or lacking functionality. Resolve, re-test and re-package enhancements/fixes for all identified issues. Obtain certification from testers that software is ready to move on to Alpha testing.

5. Identify and Release Software to Alpha Test Site(s). Install V4.0 of the Adverse Reaction Tracking package, including all pre-requisite software, to the alpha system(s). Distribute documentation to all those who will be working with and testing the software on the Alpha System, in addition to providing training if needed. Monitor and document all identified problems. Resolve, re-test, re-package and install fixes for all identified problems. Obtain certification from testers that software is ready to move on to a Beta testing classification.

ITSC FY01 Project Plans

Lead Department:

ASDS

AIB Modifications

A-084

Project Category: Applications : General

This project will prepare AIB for certification. It includes adding the year to Julian date tag; creating a utility to check old files and replace the Julian date; and adding flexibility so users can choose their own directory in which to store files.

Old files Julian date is the same as new files Julian date. Areas want to use other directories/files to store backup files. Certification is needed to ensure standards compatibility. These modifications support improved data movement and data quality.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals:

Drivers?

Staffing Requirements:

Est Duration: 5 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	5	760 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 2 Staff				912 Hours

Justification:

The old files Julian date is the same as the new files Julian date. The Areas was to use other directories/files to store backup files. Certification is needed to ensure the package is in compliance with the SAC standards.

Task Description:

1. Certify software.
2. Modify code to add the year to the julian date tag.
3. Create a utility to modify the julian date tag for old/previous files.
4. Add flexibility for the Areas to choose the directory.

Background:

Comments/Status:

Ambulatory Payment Class/Group Migration Plan

A-005

Project Category: Applications : Financial & Admin

HCFA Ambulatory Payment Classes (APCs) and Ambulatory Payment Groups (APGs), based on procedure codes, now require itemizing of Medicare claims for outpatient visits. IHS has been billing outpatient visits at a flat rate via the Third Party Billing (3PB) package using data and coding from the Primary Care Component (PCC). These packages are already capable of itemizing claims, so programming modifications would include only minimal changes to the PCC by way of an additional file or a new separate component and consistency checking in both packages. The largest effort would need to be made by the site data entry people where additional training would be necessary.

This request is included in the event the migration to itemizing is deemed necessary.

Project Status: Not Started

Type: New

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 01 Billing

Drivers? HCFA

Staffing Requirements:

Est Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	1	15 Hours
Totals: 1 Staff				15 Hours

Justification:

If discussions between HCFA and IHS result in the need to itemize Medicare claims for outpatient visits, this project will be necessary to meet that requirement.

Task Description:

1. Determine what programming modifications are necessary to the 3PB and PCC packages to produce itemized outpatient Medicare claims and any necessary consistency checking.
2. Develop and deliver additional training for PCC data entry personnel to support claim itemizing.
3. Coordinate modifications made to the packages with ongoing programming, interfacing, or testing activities involving those packages (e.g., the interface to the 3M system).

Background:

Comments/Status:

HCFA is now working with IHS to develop a plan to address this need for itemizing in light of the flat rate billing history of IHS. The outcome of these discussions will determine if this project needs to be done and/or in what way.

This project has to be completed by July FY03 or thereafter, to be determined. HCFA will work on a plan for IHS. Deployment is a low priority for FY01.

ARMS and CHS CORE Header Format Update

A-034

Project Category: Applications : Patient Administrative

This project will update the CHS and ARMS header record format to comply with the CORE 650 character requirement. To meet the CORE requirement, ITSC has been sending this header record in two pieces and CORE has been manually merging the two headers. CORE has now sent specifications for the 650-character header. This project will meet those specifications. There are two difficulties: Testing with CORE and the need to add a setup switch to the software that can be set at each Area so that all Areas can schedule to begin sending the 650-character header at the same time on a given date.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: **Drivers?** CORE

Staffing Requirements: **Est Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	3	456 Hours
Totals: 1 Staff				456 Hours

Justification:

This project is required in order to comply with CORE requirements. CORE changed their record formats over a year ago and asked for compliance by August 1999.

Task Description:

1. Software design and development according to the CORE specifications.
2. Test software functionality inhouse.
3. Test new software live with CORE. Coordinating this effort with CORE is where the bulk of the time will be used because the work involves several unknowns and will entail scheduling difficulties.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ASDS

Average Wholesale Price (AWP) Quarterly Update

A-050

Project Category: Applications :Clinical

The goal of this project is to make the quarterly Average Wholesale Price (AWP) updates from First Data Bank available for general distribution in a timely manner for all IHS pharmacy customers. These releases are needed to insure that accurate tracking of drug costs occur, while increasing the chances of proper reimbursement from 3rd party payers.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing

Drivers?

Staffing Requirements:

Est Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	3	456 Hours
1	Jr Programmer	100.00%	3	456 Hours
Totals: 2 Staff				912 Hours

Justification:

The AWP is an important component used in IHS for the purpose of revenue generation and 3rd Party Billing of outpatient medications.

Task Description:

- Several steps are involved when processing the First Databank CD containing the AWP including:
 - File Transfer from First Databank CD to a UNIX file
 - Rename all "MED" files to Lowercase
 - Run processing program that extracts AWP data from several Med files
 - Note file modification
 - Global save and restore to a different UCI for testing
 - Forward AWP to a test site
 - Patch Module update
 - Forward to Verification for release
- Several modifications have been requested by the Pharmacy PSG that involve the way we handle the AWP data. Most changes will be done in the Outpatient Patient package and will be included in future patch releases.

Background:

Comments/Status:

The 3rd Quarter AWP was released on 07/03/2000.

ITSC FY01 Project Plans

Lead Department: ASDS

Contract Health System (CHS) Bemidji Area Enhancements

A-032

Project Category: Applications : Patient Administrative

The Bemidji Area has requested modifications to the Contract Health software that will automate legal requirements in that Area. Part of the proposed project will be to work with Bemidji Area staff to determine what modifications are required.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing **Drivers?**
13 Administrative Environment

Staffing Requirements: **Est Duration:** 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	4	608 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				912 Hours

Justification:

Such modifications will affect the Bemidji Area only and will not be incorporated into the package generally distributed among all sites.

Task Description:

1. Determine modification requirements with Bemidji. Coordination of this effort will require the bulk of the time indicated above.
2. Design and develop modifications to the code.
3. Test the new code inhouse and verify with the SAC.
4. Test the new code with the Bemidji Area.

Background:

Comments/Status:

Contract Health System (CHS) Data Enhancements

A-033

Project Category: Applications : Patient Administrative

This project will enhance the way the Contract Health Management Information System package handles and reports data transmission with the goal of increasing accountability and accuracy of data transmission.

The database does not keep track of enough basic statistics. This project calls for improving the software and documentation to make it possible to tell what POs have been processed/forwarded, what’s been paid, how much, and when. Some reports contain information on what has been sent that is not accurate; other reports require someone to perform manual calculations. For instance, only the number of records sent is recorded, not what those records were, and not any information about those records and their contents (e.g., what providers, etc.).

The process of exporting data from the facilities to the Areas, then transmitting the data from the Areas to the FI and CORE needs to be more stable, robust, and easier to use, understand, and support. Currently this process requires a great deal of developer time to support. The software doesn’t capture anything about the data it sends so that any specific data collection and interpretation must be performed manually. If an error occurs during transmission, the process cannot start up from where the error occurred, it has to be begun again from the beginning. Any indication of the error(s) that occurred is overwritten by the restarted process.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing **Drivers?**
13 Administrative Environment

Staffing Requirements: **Est Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
3	Sr Programmer	100.00%	8	3,648 Hours
1	Sr Technical Writer	100.00%	4	608 Hours
1	Verifier	100.00%	2	304 Hours
Totals: 5 Staff				4,560 Hours

Justification:

The PSG and the FI have requested improvement in the basis statistics the database tracks and provides to users. This development effort will also make it easier to resend data and the users require it.

Task Description:

1. Statistics tracking and provision involves modifying the following reports:
 - Regular reports
 - CHEF reports
 - Export/transmit reports
 - New reports

Improving data transmission involves the following tasks:

1. Redesign the MUMPS software portion.
2. Rewrite and test MUMPS portion.
3. Redesign the Unix/NT portions of it.
4. Rewrite and test Unix/NT portions of it.
5. Document the process for the users, the support desk, future programmers, and administrative and supervisory staff.

Background:

The database does not keep track of enough basic statistics. This project calls for improving the software and documentation to make it possible to tell what POs have been processed/forwarded, what's been paid, how much, and when. Some reports contain information on what has been sent for a week that is not accurate; other reports require someone to perform manual calculations. For instance, only the number of records sent is recorded, not what those records were, and not any information about those records and their contents (e.g., what providers, etc.). This project has been requested by the PSG and the FI.

2. The process of exporting data from the facilities to the Areas, then transmitting the data from the Areas to the FI and CORE needs to be more stable, robust, and easier to use, understand, and support. Currently this process requires a great deal of developer time to support. The software doesn't capture anything about the data it sends so that any specific data collection and interpretation must be performed manually. If an error occurs during transmission, the process cannot start up from where the error occurred, it has to be begun again from the beginning. Any indication of the error(s) that occurred is overwritten by the restarted process. This development effort will also make it easier to resend data. The users require it; in fact, if this work isn't performed on CHS, the whole package is unnecessary.

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ASDS

Contract Health System (CHS) Interest Accrual Enhancement

A-030

Project Category: Applications : Patient Administrative

This project will implement tracking of payment amounts in the Contract Health Management Information System package. Project staff will change the method by which CHS calculates interest as well as the timing of when interest accrues.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing **Drivers?** PPA
13 Administrative Environment

Staffing Requirements: **Est, Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	2	304 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				608 Hours

Justification:

Currently dollars are not tracked efficiently in CHS. Amounts appear overspent at times and underspent at other times. Also, the law has changed as to when interest accrues. Tribes want interest calculated and collected on claims whose payments are delayed to and from the contract holder.

Task Description:

1. Gather requirements with the workgroup to determine the formula for calculating the interest and the method for handling the interest collected on closed accounts, etc.
2. Design the approach and method to be used.
3. Develop the code.
4. Test functionality and verify it with the SAC.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ASDS

Contract Health System (CHS) Master Delivery Order List (MDOL) Enhancements

A-029

Project Category: Applications : Patient Administrative

The CHS Master Delivery Order List component has been developed and is now in alpha test at several facilities. This project will modify the component according to the recommendations of users at the alpha site who have indicated that some improvements be made before it is released nationally.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	4	608 Hours
1	Sr Technical Writer	100.00%	2	304 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				1,064 Hours

Justification:

Since the Master Delivery Order List will improve the usability of the CHS package for all users, it is important to ensure that suggestions coming from the field alpha testers be implemented.

Task Description:

1. Determine specific requirements with alpha testers and the CHS workgroup.
2. Design and develop the required code modifications.
3. Test the modifications and verify them against the SAC.

Background:

Comments/Status:

The estimate of work will be more accurate once project staff determine what improvements are required.

ITSC FY01 Project Plans

Lead Department: ASDS

Contract Health System (CHS) Purchase Order Enhancement

A-028

Project Category: Applications : Patient Administrative

This enhancement to the Contract Health Management Information System package will allow the user to reopen a purchase order after it has been closed. Purchase orders often must be reopened occasionally to handle outstanding charges missed or not incurred at the time the original PO was prepared and additional payments or reimbursements received since it was closed. To develop this enhancement requires changing the relationship of the order to the RCIS system.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing **Drivers?**
13 Administrative Environment

Staffing Requirements: **Est. Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	2	304 Hours
1	Sr Technical Writer	50.00%	1	76 Hours
1	Verifier	50.00%	1	76 Hours
Totals: 3 Staff				456 Hours

Justification:

The users not only want this change, it will make the software more closely imitate the regular business process.

Task Description:

1. Design the change.
2. Develop the code modifications.
3. Test the functionality and verify with the SAC.

Background:

Comments/Status:

Contract Health System (CHS) V. 3.1 Completion and Deployment

Project Category: Applications : Patient Administrative

This project effort will enhance the Contract Health Management Information System software component that automates recording and reporting of denied and deferred services. The deferral component is ready and now must be incorporated into a version 3.1 of the package. Project staff also need to define all the areas in the software that need to be modified to make the package more robust, consistent, and maintainable. At the same time, developers will create detailed technical documentation for both the software and the enhancements made to it.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**
 13 Administrative Environment

Staffing Requirements: **Est. Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	100.00%	8	2,432 Hours
1	Sr Technical Writer	100.00%	3	456 Hours
1	Verifier	100.00%	3	456 Hours
Totals: 4 Staff				3,344 Hours

Justification:
Users have requested enhancements to the software that automates recording and reporting of denied services.

- Task Description:**
1. Establish a base release for CHS.
 2. Apply the software to the established base and test.
 3. Alpha test the new software.
 4. Compile feedback from the user/testers to determine future direction.

Background:

Comments/Status:
The initial software changes have been made and a clean 3.0 database is available as a baseline. Inhouse testing is now being performed.

Customizable Encounter Form and Health Summary (ILC)

A-074

Project Category: Applications :Clinical

There are four main objectives for this project:

1. Implement one encounter form for each site, one standard form. Additional forms will be developed after the first form has been successfully tested and implemented.
2. Implement a new version of the Health Summary to be printed with encounter forms.
3. Train superusers how to customize forms and how to develop additional forms. The superusers will train appropriate other local staff regarding maintenance and changes to the Encounter Form.
4. Initiate necessary process/workflow changes to achieve maximum value from this new technology.

Project Status: In Progress

Type: New

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 09 Decision Support

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
6	Contractor Support		12	Hours
Totals: 7 Staff				182 Hours

Justification:

The IHS has been using the same encounter form and process for over 30 years. Technologies both in the medical and the IT worlds have been improving and evolving to allow for better capture of data and more comprehensive medical records. The IHS has not implemented or kept up with some of the new advances in technology. Also new requirements for billing and managed care have appeared, but better technology to support these requirements has not yet been fully developed.

Task Description:

Phase I: The Encounter Form/Health Summary will be developed and implemented in two alpha sites, Warm springs and Crowe.

1. Program the Encounter Form, including research and development on how to best integrate the form into a clinic's operational environment.
2. Develop ability to extract historical data from RPMS and create User Preferences.
3. Develop ability for sites to customize encounter forms.
4. Develop a training course along with curriculum and training manual.

5. Develop technical process and guidelines for pre-implementation, customization, hardware purchase, and implementation steps.

6. Develop operational guidelines for workflow review, project planning, pre-implementation and requirements are gathered from alpha and beta sites. Training, manuals, implementation guidelines and implementation steps.

Phase II: Install the Encounter Form into three beta sites -- GIMC, UIHS, and Puyallup.

1. Perform additional research and gather additional requirements on implementing the encounter form into the various different clinic settings, such as small clinics vs large multi-clinic facilities.

2. Develop additional functionality to accommodate variances and to ensure that basic operational needs are covered.

3. Refine documentation for training.

4. Update/change training curriculum.

5. Review, verify, and update technical process and guidelines for pre-implementation, set up, hardware purchase, and implementation.

6. Review, verify, and update processes for operational guidelines for workflow review, project planning, pre-implementation, and implementation steps.

7. Develop process for implementing enhancements (patches) for ongoing production sites.

8. Update alpha and beta sites with production version of software.

Phase III: Implement production system into 48 sites, assuming 4 per month. Each implementation will consist of a pre-implementation meeting, hardware order, hardware configuration, monthly training, site installation, and post-installation follow-up.

Background:

Evaluation of the options for better data capture has led to this new encounter form which makes use of customized encounter forms that can pull and display historical data, capture ICD9 and CPT4 codes, and capture data more accurately.

Comments/Status:

Implementation is in process at the two alpha sites. Two training sessions have been held and three beta sites have confirmed their attendance. Development of the encounter form continues as new processes are being updated. This project is under contract to ILC whose staffing includes the following functions:

- Project Oversight
- Project Management
- Programming
- Documentation Development

Estimated Contract Cost:
Phase I and II \$105,372
Phase III \$633,984
Total Cost: \$739,356

Data Modeling Planning and Implementation

R-006

Project Category: Applications :General

Using the Unified Modeling Language (UML), create object-oriented (OO) models of IHS systems, including data structures, use cases, and sequence diagrams. A Modeling Development Plan will be developed with short and long term approaches to introducing and training I/T/U staff to concepts and applications for modeling. A pilot application will be selected to work through the modeling process.

Project Status: In Progress

Type: Continuation

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 12 CPR

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Systems Analyst	100.00%	12	1,824 Hours
1	Project Lead	10.00%	12	182 Hours
1	Contractor Support	50.00%	12	912 Hours
Totals: 3 Staff				2,918 Hours

Justification:

A key component of the IHS ITA is to move into object oriented (OO) programming, which will also bring IHS closer to the VA. By beginning to formally model IHS's existing systems in UML, application developers and process engineers will be better able to visualize what systems and information are available throughout an enterprise and facilitate new application development along with process reengineering. OO modeling will contribute substantially to a key ITA goal of strategic reuse through consistency, provability, and process control and improvement.

Task Description:

1. Orient IHS IT staff to the modeling processes and associated products through training and mentor them through small- to medium-scale projects to develop a core set of skills, create a baseline of modeling artifacts, and make refinements to the modeling development plan through lessons learned from these pilot deployments.
2. Determine how best to introduce the concepts, tools, and techniques of modeling across IHS and across the 12 IHS Regional Areas.
3. Refine and introduce the methodology and tools for modeling throughout IHS by extending the efforts begun during the orientation of IHS IT staff (#1).
4. Develop a long-term plan that will identify the timeframes and sequence needed to deploy the modeling tools and training throughout all areas of IHS, including the following tasks:
 - a. Develop Training Requirements on area-by-area basis
 - b. Identify Alternate Modeling and Standards approaches
 - c. Determine Project Modeling, Standards, and Training Priorities
 - d. Prepare Modeling Development Plan

Background:

Comments/Status:

Primarily contracted to Doug Felton via EDS. Modeling requirements session held mid-September with a variety of I/T/U technical staff. Draft Modeling Development Plan has been delivered 9/28/00 and under review.

Enterprise Data Warehouse and DataMarts

I-007

Project Category: Infrastructure : General

This project will establish data warehouse systems that use XML and an open standard compliant RDMS with tools available for on-line analysis. The data warehouses will be scalable from a facility level up to an enterprise level. It will contain information aggregated from the I/T/U's administrative systems, healthcare systems, and other external data sources such as Medicare, Medicaid, and Private Insurance entities. This is a Billings Area project that is being partially funded by DIR.

Project Status: Not Started **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**
09 Decision Support

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	12	456 Hours
1	Sr Programmer	100.00%	12	1,824 Hours
1	Jr Systems Analyst	50.00%	12	912 Hours
1	Sr Database	100.00%	12	1,824 Hours
1	Sr Technical Writer	25.00%	3	114 Hours
1	Verifier	75.00%	1	114 Hours
Totals: 6 Staff				5,244 Hours

Justification:

A common repository of information currently does not exist for reporting and decision-support at the various enterprise levels. Currently, the I/T/U's and health care partners are sending data to multiple sources in multiple formats, making it impossible to ensure the validity and accuracy of data. This inconsistency limits the I/T/U's ability to effectively analyze its organization through the use of information at enterprise level.

Task Description:

1. Perform database design and analysis.
2. Determine message protocols for information exchange.
3. Create SML DTD's from various federal data sources.
4. Test information exchange process.
5. Select reports and tools to utilize on the data warehouse or data mart.

Background:

Comments/Status:

ENVOY Electronic Data Interchange (EDI) Deployment

A-055

Project Category: Applications : General

IHS intends to use a Contractor as needed to electronically route and translate healthcare claims and related documents such as carrier remittance advice documents to and from both billing and payment entities. It is the Agency's intent to use the UB92, HCFA 1500 Print Image, and the National Council for Prescription Drug Programs (NCPDP) format standards for accomplishing electronic data interchange of healthcare transactions with ENVOY.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**

Staffing Requirements: **Est; Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Systems Analyst	10.00%	12	182 Hours
1	Sr Programmer	25.00%	6	228 Hours
1	Jr Systems Analyst	25.00%	6	228 Hours
1	Sr Management	10.00%	12	182 Hours
1	Sr Technical Writer	50.00%	4	304 Hours
1	Project Lead	40.00%	12	730 Hours
1	Sr Network Specialist	25.00%	1	38 Hours
Totals: 7 Staff				1,892 Hours

Justification:

The need for revenue generation support is a priority for the Indian Health Service (IHS). The use of electronic data exchange is a Federal Legislative mandate, also cost effective and necessary to conduct business. The agency requires a full range of services for electronic processing of healthcare transactions and exchanging data with other Federal Agencies, State Entities, Private Sector Payers, also Medicare and Medicare Fiscal Intermediaries, Contractors, and Carriers. IHS is in need of a solution that will allow Area Offices, Service Units, Tribal and 638 Facilities to submit, receive and distribute healthcare transaction data directly or through a central point in a timely and secure manner.

Task Description:

IHS is developing the capability to effectively support the activities required by the providers as well as the increased need for business functions for it's hospitals and clinics. IHS intends to migrate all healthcare claims, payments, collections, and related transactions (e.g. status notifications, insurance coverage verification, eligibility checking) from it's current mix of decentralized, proprietary (EDI) and manual, paper based systems to the electronic commerce standards set forth under the Health Insurance Portability and Accountability Act. (HIPAA) of 1996. Specific tasks include:

1. Identify upcoming I/T/U customers and expected levels to plan for ITSC support.
2. Identify additional programming on Patient Registration and other related applications that is needed.
3. Prepare project plan.

Background:

The primary objective of using the VA's Government Wide Contract would be to use a healthcare clearinghouse or value added network (VAN) to translate transactions to and from proprietary fiscal intermediaries and carrier transaction formats, including paper UB 92 , HCFA 1500, Electronic Remittance Advice and Eligibility Checking and Verification.

The clearinghouse shall translate all IHS healthcare information into the appropriate formats or any proprietary format specifically acceptable to electronically enabled payers or it shall print and mail the claims, whichever is appropriate to IHS Trading Partners. It is planned that eventually all claims and eligibility transmissions will be internally translated by the agency. Initially IHS will submit batch data for breakout by the Contractor and will receive reconstituted batch data for update of insurance eligibility. Electronic processing is required to provide timely data interchange methods to improve the third party billing processing. For each transaction, IHS envisions functional acknowledgment. IHS envisions the clearinghouse crosswalking the proprietary status notification from the payer's system. Claims edit checking will be performed on rejected claims specific to payers and error reports generated to notify IHS staff of the reason (s)for the rejection. Claims will be submitted electronically using the UB92 version 5 or HCFA1500 as required by the payer. Once the claim is adjudicated in the payers system IHS may choose to have the electronic remittance advice flow from the payer to IHS via the clearinghouse, or may choose to split the transaction with the explanation of benefits (EOB) returned to IHS. The payment/remittance advice (RA) is sent to the designated financial institute using the services of an EDI Lockbox Bank for these transactions.

Comments/Status:

4. Prepare instructions and other user material for acquisition, installation, and implementation. SIMC has implemented Veriquest, additional sites have signed up, and a planning meeting has been held.
5. Work with the I/T/Us on deployment.

Project Category: Research & Development :GCPR-Related

This project will evaluate IHS's need and ability to implement CORBA and COAS. Clinical Observation Access Service (COAS) is a service defined by OMG's CORBAMED domain task force. This service provides a mechanism for medical content data interchange from a client to a server in a Common Object Request Broker Architecture (CORBA) environment. This is the service that is used by the GCPR framework and therefore must be interfaced with any participating members of the framework, e.g., RPMS for IHS. If approved, IHS will implement the client-side code that will call the COAS server-side functions. It will include query for population studies.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 02 Interoperability

Drivers?

Staffing Requirements:

Est. Duration: 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	75.00%	6	1,368 Hours
1	Project Lead	10.00%	8	122 Hours
2	Contractor Support	50.00%	6	912 Hours
1	Sr Systems Analyst	25.00%	8	304 Hours
Totals: 6 Staff				2,706 Hours

Justification:

This project is required to provide an interface from RPMS to the GCPR Framework in alpha. Moving to an object-oriented environment, specifically CORBAMED and COAS, will bring IHS closer to the VA environment.

Task Description:

1. Work with VA and ESI on evaluating IHS's short- and long-term needs for CORBA and COAS.
2. Plan a pilot implementation strategy.
3. Implement the client-side code that will call the server-side functions. This will require extensive collaboration of IHS programmers with PRC personnel since this task involves developing a client-server interface, where IHS applications are the client and PRC software written for the GCPR Framework is the server.

Background:

Comments/Status:

Discussions are still underway as to whether or not IHS should undertake a COAS evaluation and test this year.

File 200 Conversion

I-063

Project Category: Infrastructure : General

This project involves implementation of the conversion of the PCC V files at RPMS facilities. Within the RPMS software suite there have been four "people" files: user file #3, provider file #6, person file #16, and new person file #200. Existence of these different files has traditionally caused a good deal of difficulty with RPMS software and its customers. In this project, developers will merge data in the user file, the provider file, and the person file into the new person file (#200) where files 3,6 and 16 will no longer be used or needed.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?**

Staffing Requirements: **Est Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	30.00%	7.5	342 Hours
1	Sr Programmer	50.00%	7.5	570 Hours
1	Jr Programmer	50.00%	7.5	570 Hours
Totals: 3 Staff				1,482 Hours

Justification:

This conversion of files 3, 6, 16 into file 200 should eliminate the difficulty that customers have with the RPMS software. Completion of this project is also a prerequisite for PIMS.

Task Description:

1. An analysis will be made to determine the needs for a conversion routine to merge files 3, 6, 16 into 200. If conversion is needed to merge data into file 200, a conversion routine(s) will be developed and executed.
2. Files 3, 6 and 16 will be deleted.
3. Each modified routine will be tested separately from PCC using simulations of data conversion.
4. All packages will be fully tested as a unit. This will assure how all options and functions still operate correctly together. All problems will be dealt with as appropriate.
5. All software will be packaged into a single installation where possible. This is to avoid any implementation coordination problems. Since all facilities do not use the same suite of packages, the install will be smart enough to determine the precise packages to load, and load them.

Background:

Comments/Status:

Version 1 (the program that prepares a site for the conversion) is in beta at PIMA. Project staff is currently working a problem arising from duplicate records. Staff hope to go to general release within two weeks of this writing. A marketing letter has been drafted, and staff are awaiting results of its review by management.

ITSC FY01 Project Plans

Lead Department: ASDS

GCPR Framework Alpha Planning and Deployment Activities

R-012

Project Category: Research & Development : GCPR-Related

This project would encompass all IHS ITSC technical activities required to implement and participate in the GCPR Framework alpha phase, currently proposed for Alaska.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA?

RPMS Growth Plan?

ISAC Goals: 02 Interoperability
15 Partnerships

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

Justification:

Task Description:

Background:

Comments/Status:

Dependent on successful completion of GCPR Framework pilot phase

Task descriptions and staffing will be determined when a go/no go decision is reached.

GCPR Framework Pilot IHS Implementation Activities

R-025

Project Category: Research & Development :GCPR-Related

This project encompasses all of the technical activities required to enable the RPMS demo database to become "Framework ready" for GCPR Framework Phase II (Pilot) testing. Key activities include: set up and maintenance of the RPMS development environment (see #R-001); RPMS Framework Pilot database set up and maintenance (#R-001); terminology modeling and related software modifications such as Lab (see #R-005 LOINC) and Pharmacy standard codeset mapping; modifying the Patient Chart as the interface layer to the Framework; implementing SQL capabilities; validating and implementing user roles, RAD, PKI and other security features as needed; develop APIs for Framework interface; etc.

Project Status: In Progress

Type: Continuation

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 02 Interoperability
15 Partnerships
12 CPR

Drivers?

Staffing Requirements:

Est Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	75.00%	6	1,368 Hours
1	Sr Systems Analyst	25.00%	6	228 Hours
2	Contractor Support	15.00%	6	274 Hours
Totals: 5 Staff				1,870 Hours

Justification:

A successful implementation of the Framework Project can assist the IHS in reaching many of its technology goals. Even if the Framework is not immediately or fully deployable, the IHS will garner many benefits. 1) Enhance our technical understanding of new techniques and technologies, such as CORBA and CORBAMed, Unified Software Development Process (USDP), HL7, and others. 2) Keep current with solutions for similar organizations. 3) Participate in standards development and acceptance. 4) Leverage the agency's limited technical resources so don't reinvent the wheel.

In the longer term, IHS must focus on the ability of RPMS to support integration of Commercial or Government Off-the-Shelf (COTS/GOTS) software using inter-application and inter-site messaging. The increased use of COTS/GOTS products, use of private sector outsourcing, buy versus build analyses, and other directives have generated a number of real IHS business needs. This currently includes near-term migration to local architecture based on regional repositories, and message-enabled clinical data integration and most likely a longer-term evolution to an object based distributed architecture.

Task Description:

1. Purchase and install a CORBA/COM bridge so that the IHS Visual Basic client can connect with the GCPR Framework.
2. Integrate the bridge into Patient Chart.
3. Map appropriate codesets to V Med and V Lab and ensure that COAS template traits are supported.

4. Validate STM mapping.
5. Install and test SQL schema.
6. Add triggers to A04 and A08 messages and identify trigger events to support cache updates.
7. Define and implement how IHS will support query for population studies.
8. Implement RAD.
9. Validate roles in RPMS and define data access and develop appropriate DDs and utilities to support.
10. Modify the IHS Patient Chart v. 1.05 to serve as the presentation layer from RPMS to the GCPR Framework.
11. Develop APIs for Lab, Meds, Demographics and Population
12. Implement PKI.

Background:

The GCPR Framework is an enabling infrastructure for the exchange of clinical patient records and information, initially among the three cooperating Federal agencies responsible for providing healthcare. It will provide communication and operation services for the larger, Federal healthcare enterprise and access to the continuum of patient care among internal agency facilities and from any or all external sources as appropriate. Designed to assemble an individual patient's medical information from various disparate systems, the GCPR Framework will construct a single view of that data. Ideally, from the care provider's view, the various healthcare systems should operate as though they were one large system with a single user interface and operational environment to provide online, real-time, worldwide data access and processing.

See #R-002 GCPR Framework Program Activities for additional background on GCPR.

Comments/Status:

All activities are underway.

ITSC FY01 Project Plans
GCPR Pilot LOINC Implementation

Lead Department: ASDS
R-008

Project Category: Research & Development : GCPR-Related

LOINC provides standardized names and ID codes for identifying laboratory and clinical test results to enable disparate applications and systems to exchange data. A "gold standard" RPMS Lab package will be mapped with the LOINC codes prioritized for use with the GCPR Framework. Under this contract, mapping will continue as necessary beyond GCPR, but IHS-wide LOINC deployment will be planned and implemented under #A-011.

Project Status: In Progress **Type:** Enhancement **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 02 Interoperability **Drivers?** HIPAA

Staffing Requirements: **Est. Duration:** 6 Months

#	Labor Category	%	Months	Total Hours
1	Contractor Support	90.00%	6	821 Hours
1	Sr User Support	15.00%	6	137 Hours
Totals: 2 Staff				958 Hours

Justification:

LOINC has become the nationally-accepted standard codeset for Laboratory values. Far more important than LOINC's role in HL7 version 3 is its role in HIPAA Claims and other Attachments. Logical Observations Identifiers Names and Codes is planned to be the primary coding schema for identifying data included in ultimately dozens of electronic attachments.

Task Description:

1. Map RPMS Lab Package tests to LOINC codes.
2. Develop LOINC patch for IHS.
3. Design and create Fileman file and transfer all entries from file 60 to this conversion file.
4. Write routines like the 5.2 conversion routine to auto load potential matched names with LOINC.
5. Modify Data Dictionary of V lab-related files to accept and cross-reference by LOINC codes.
6. Write routines to populate V Lab, V Micro, V BB with LOINC code based on site/specimen.
7. Create the additional patch releases through the normal SAC process.
8. Apply to the pilot database.
9. Transfer codes to GCPR Pilot database.

Background:

Logical Observations Identifiers Names and Codes (LOINC) is part of a larger movement that seeks to overcome a longstanding "islands of information" problem in health care by developing universal identifiers (names and codes), reference terminologies, and vocabularies for use in exchanging, integrating, and analyzing data. Although it has wider implications, the development of LOINC to date has focused on developing standard codes and names for laboratory test results.

One of the key issues LOINC is intended to address arises from the lack of consistency in test naming conventions from lab to lab, a condition that complicates the process of interfacing and exchanging laboratory data. Beyond the simple ability to communicate test result data between systems is the possibility that LOINC may facilitate the dissemination of medical expertise throughout a network.

ITSC FY01 Project Plans

Lead Department: ASDS

First released in April 1996, LOINC quickly met with strong interest and has been endorsed or adopted by a broad spectrum of organizations, including the College of American Pathologists (CAP), American Clinical Laboratory Association, and recently the Centers for Disease Control and Prevention (CDC). The aim is to facilitate the exchange and pooling of results, such as blood hemoglobin, serum potassium, or vital signs for clinical care, outcomes management, and research.

As part of the IHS Division of Information Resources's (DIR) mandate from the Information Systems Advisory Committee (ISAC) to achieve RPMS interoperability, IHS is planning to use LOINC as its standard in collecting and storing laboratory data within its systems, and exchanging those data via any type of interface, e.g. LEDI, reference laboratory interfaces, etc. (See #A-011 LOINC IHS Deployment Planning)

Comments/Status:

Contract with EDS was finalized in early October. Contractor has received IHS Lab Package file and LOINC information. Priorities for GCPR Framework Pilot are chemistry, Hematology, Urinalysis, Reference testing and Microbiology. Mapped tests will be transfer to the laboratory tests in the GCPR pilot database.

ITSC FY01 Project Plans
GCPR Program Level Support

Lead Department: ASDS
R-002

Project Category: Research & Development : GCPR-Related

GCPR Program activities include those activities performed at the multi-agency Project team level that manages the project and develops and delivers clinical and technical requirements and approaches for implementation by the prime contractor. In FY01, IHS will continue to participate actively within each of the main areas of focus: program management, technical, clinical and modeling.

Project Status: Ongoing (O&M) **Type:** Continuation **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 02 Interoperability **Drivers?**
 15 Partnerships
 12 CPR

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	12	456 Hours
1	Sr Management	15.00%	12	274 Hours
3	Subject Matter Expert	40.00%	12	2,189 Hours
2	Sr Programmer	15.00%	12	547 Hours
1	Project Manager	10.00%	12	182 Hours
5	Contractor Support	25.00%	12	2,280 Hours
1	Sr Systems Analyst	25.00%	12	456 Hours
Totals: 14 Staff				6,384 Hours

Justification:

A successful implementation of the Framework Project can assist the IHS in reaching many of its technology goals. Even if the Framework is not immediately or fully deployable, the IHS will garner many benefits. 1) Enhance our technical understanding of new techniques and technologies, such as CORBA and CORBAMed, Unified Software Development Process (USDP), HL7, and others. 2) Keep current with solutions for similar organizations. 3) Participate in standards development and acceptance. 4) Leverage the agency's limited technical resources so don't reinvent the wheel.

In the longer term, IHS must focus on the ability of RPMS to support integration of Commercial or Government Off-the-Shelf (COTS/GOTS) software using inter-application and inter-site messaging. The increased use of COTS/GOTS products, use of private sector outsourcing, buy versus build analyses, and other directives have generated a number of real IHS business needs. This currently includes near-term migration to local architecture based on regional repositories, and message-enabled clinical data integration and most likely a longer-term evolution to an object based distributed architecture.

Task Description:

In addition to managing budgets, schedules and contractor deliverables, inter-agency government responsibilities include the following tasks:

1. Complete and deliver the Government and Terminology Reference Models.

2. Identify standards to adopt.
3. Build an interagency telecommunications network.
4. Address security and confidentiality issues.
5. Outline application and systems integration issues.

Background:

Three Federal agencies, the Department of Defense (DoD), Department of Veterans Affairs (VA), and the Indian Health Service (IHS), have embarked on the Government Computer-based Patient Record (GCPR) Program, a joint effort to improve information sharing and collaborative decision-making across the continuum of Federal healthcare. The goal of the GCPR Program is to improve public and individual healthcare by using existing technology to share patient health-related information in a secure manner at a level unachievable with a paper record.

The GCPR Framework is an enabling infrastructure for the exchange of clinical patient records and information, initially among the three cooperating Federal agencies responsible for providing healthcare. It will provide communication and operation services for the larger, Federal healthcare enterprise and access to the continuum of patient care among internal agency facilities and from any or all external sources as appropriate. Designed to assemble an individual patient's medical information from various disparate systems, the GCPR Framework will construct a single view of that data. Ideally, from the care provider's view, the various healthcare systems should operate as though they were one large system with a single user interface and operational environment to provide online, real-time, worldwide data access and processing.

The GCPR Project Management Team uses technical and clinical participants from each cooperating agency to develop and deliver information through two different types of activities: government-led Workgroups and prime contractor-led Integrated Product Teams (IPTs). While the government Workgroups are concerned with requirements definition, the IPTs will ensure the requirements are being addressed, as well as enhance the efficiency, effectiveness and quality of the deliverables and Framework products.

Comments/Status:

Ongoing. Currently Theresa Cullen represents IHS on the GCPR Project Management Team; and Jim McCain on the Executive Committee. George Huggins is the IHS Technical Lead. Mitretek provides substantial technical support in the Security and Telecommunications Workgroups.

ITSC FY01 Project Plans

Lead Department: ASDS

Health Level 7 (HL7) Maintenance for IHS

A-013

Project Category: Applications :Clinical

The I/T/Us currently have a number of systems utilizing IHS and contract developed HL7 messages and tools to provide interoperability and information exchange. This project establishes a DIR HL7 support group to support these interfaces and the utilization of this ANSI Standard for healthcare information exchange and interoperability.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing **Drivers?** HIPAA
 02 Interoperability

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
1	Sr Programmer	50.00%	12	912 Hours
1	Jr Programmer	50.00%	12	912 Hours
1	Sr Technical Writer	25.00%	7.5	285 Hours
1	Verifier	25.00%	2	76 Hours
1	Sr Network Specialist	10.00%	12	182 Hours
Totals: 6 Staff				2,550 Hours

Justification:

The objective of this project is to assist the Indian Health Service in continuing its implementation of standards-based information exchange in a coordinated approach, in near term support of the GCPR Framework Project, and for the longer-term benefit of RPMS users. This task will support the Agency’s requirement to comply with current legislation using standards-based information resources management, identifying the need for integration/incorporation of Commercial-off-the-Shelf (COTS) and Government-off-the-Shelf (GOTS) products with IHS information systems. IHS has been using the HL7 standard for clinical information exchange since the mid 90s. The definition and creation of the HL7 messages, the maintenance of the HL7 tools, and the HL7 Help Desk services were provided by DIR personnel. When the existing DIR personnel left the agency the support left with them. With the renewed effort to enhance RPMS interoperability and the distribution of the agency Laboratory Package and its HL7 instrument interface there is an increasing need to re-establish these support packages.

Task Description:

Provide technical resources familiar with the I/T/U computing environment to provide technical support, user support, and programming and maintenance support of HL7 applications. Tasks will include, but not be limited to:

1. Programming maintenance and support of the VA HL7 application.
2. Consultation to COTS vendors using HL7 messages to communicate with I/T/U information systems and to I/T/U and national programming and technical personnel for applications using HL7 messaging.

3. Assisting in the migration of existing RPMS HL7 interfaces to GIS, based on a case-by-case determination of need, technical feasibility, cost.
4. Support and maintenance of IHS GCPR HL7 messages necessary for MPI/MPIL, and other HL7 messaging required in the GCPR Framework project.
5. Support and consultation of I/T/U use of the Cloverleaf Integration Engine, and other messaging integration engines.
6. Assisting in the establishment of the IHS HL7 Message Standards for subsequent versions of HL7.
7. Providing support of requested IHS RPMS HL7 messages with an IHS chosen COTS regional data repository.
8. Develop a plan for interapplication communication using GIS, HL7, and the Cloverleaf Integration Engine.

Background:

Although HL7 is already part of the Division of Information Resource's (DIR) technology architecture and some initial steps have been undertaken by the Agency, further work is needed. For example, currently within IHS, HL7 is not used for query capabilities in RPMS, although the capability exists. RPMS needs to support the full range of queries supported by HL7. Additionally, IHS must plan for and support the migration from current to subsequent HL7 Versions. This could include continued support of existing versions of HL7. The existing HL7 message generating system within RPMS is being replaced by GOTS.

Comments/Status:

Project staff have been providing training in the background and use of HL7. This will become an ongoing O&M project in future years. Technical support will be provided primarily by Cimarron Medical Informatics. A more detailed support plan is being developed under contract.

ITSC FY01 Project Plans

Lead Department:

ASDS

ICD Code Updates

A-042

Project Category: Applications : Patient Administrative

In this project, staff update and distribute the ICD Diagnosis, ICD Procedure, and related tables with current ICD code information, for direct and contract inpatient record submissions to NPIRS and PCC.

Project Status: Not Started **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing

Drivers? HCFA

Staffing Requirements:

Est. Duration: 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	50.00%	1	76 Hours
1	Verifier	10.00%	0.5	8 Hours
Totals: 2 Staff				84 Hours

Justification:

When there is an annual update to these codes, it is required that they be distributed to the field to maintain coding currency in support of appropriate billing.

Task Description:

1. Download the code updates.
2. Prepare them for the IHS community.
3. Test the application.
4. Release them through Verification.

Background:

Comments/Status:

- Consultation to State employees and contractors in establishing their exchange of IMM data;
- Consultation and support to programming and technical personnel at I/T/Us using IMM;
- Consultation and support on IMM to national programming and technical personnel;
- Assisting I/T/Us in the migration of any existing immunization applications onto IMM;
- Support and consultation to the IIE work group, including regular participation in IIE conference calls and meetings;
- Development of data import functionality into the IMM;
- Investigation, study, research and testing in use of the Cloverleaf Integration Engine, or any other integration engine identified by the COTR, in routing and managing messages containing IMM data, either outbound or inbound;
- Consultation and programming maintenance and support in the movement of IMM messages among I/T/Us;
- Consultation and support of IHS representatives to immunization or messaging standards boards or committees, e.g., CIRSET or HL7;
- Consultation and support to the IIE, COTR, and/or IMM owner when considering exchanging IMM data using non-standard formats and/or methods.

Task 2: Training on the RPMS Immunization application: provide training in IMM, including up to three formal classroom training courses. The location will normally be at national training classrooms located in Albuquerque, NM, and Phoenix, AZ, but could be in Area or I/T/U classroom facilities, e.g., the Navajo Area IT Training Center in Window Rock, AZ.

The course curricula will include but not be limited to: the CDC NIP; IMM setup, data entry, reports, forecasting, data export, and data import. Length of the course will be determined in consultation with, and approval by, the IIE and/or the IMM owner.

Background:

Arizona was one of the early entrants into the field of creating and utilizing immunization registries. In 1996, the Arizona State Legislature passed a law mandating that all immunizations given to children be reported to the Arizona Department of Health Services (ADHS) for inclusion in the state's immunization registry, effective January 1, 1997.

Knowing that the Indian Health Service (IHS) did not have the resources to comply with the law as written (either double data entry, or paper record), a query was sent to the IHS Privacy Act Coordinator (HQ), asking whether the IHS facilities had to comply with this Arizona law. The response that came, along with commentary and interpretation from the Office of General Counsel (OGC), was that under "the doctrine of Federal superiority," IHS did not have to comply. Also discussed with OGC was that state Immunization Data Registries were a special project of the Centers for Disease Control and Prevention (CDC), an IHS "sister agency" within the Department of Health and Human Services, and that IHS should seek to cooperate with, rather than oppose, its sister agency.

Knowing that exchanging information with the state registry had distinct advantages that would benefit Indian children, the three IHS Areas in Arizona (Phoenix, Navajo, Tucson) responded to HQ that they wanted to comply, but electronically, rather than in paper fashion. All Areas were already entering IHS immunization data into RPMS, and did not wish to re-enter data, with the possibility of introduction of new data errors. It was also reasoned by the IHS clinicians that data obtained from the state registry would improve IHS immunization rates, since children who were being "lost" to the IHS system could still be tracked via the state's database. This was particularly important in the IHS, Tribal, and Urban

(I/T/U) Service Units having a large urban population such as Phoenix, where highly mobile urban children comprise 40% of the Phoenix Area's immunization database, and may receive care from multiple providers.

Liaison activities then proceeded between ADHS, the ADHS data system contractor, Scientific Technologies Corporation (STC), the Phoenix Area Office, Division of Information Resource Management (DIRM-Phoenix), and the Division of Information Resources (DIR, Office of Management Support, IHS HQ) on elements of the database and exchange. Contact was made by DIR staff with CDC for assistance, as the ADHS database (using the proprietary program PCImmunize, funded under a CDC grant) was not then compliant with the Health Level 7 (HL7) messaging standards. The IHS RPMS immunization application (IMM) was already HL7 compliant, and the new version, v. 7.0, was deployed, which also had data export functionality.

The STC subsequently revised PCImmunize to make it HL7 compliant. The State of Arizona has been active in advocating enhanced immunization information exchange standards through their communications with the Committee on Immunization Registry Standards and Electronic Transactions (CIRSET), a CDC group that works on standards.

As of February, 1998, CDC reported that 22 states have laws authorizing a state immunization registry, with 12 of the states mandating reporting. As of April, 1999, CDC reported 43 of the 64 (67%) immunization project grantees under their National Immunization Program (NIP) have registries that are beyond pilot testing with one or more sites routinely providing data to a central database. Twenty-six States and the District of Columbia have 1 or more private physicians enrolled.

In April, 2000, the IHS Immunization Information Exchange (IIE) work group was formed by DIR and I/T/U personnel to manage and guide the project. Representatives of STC and ADHS regularly participate in IIE conference calls.

Comments/Status:

Continuation of FY00 project. As of 11/01/00, the task order to CMI for FY01 support has been drafted and is waiting final approval.

Inpatient Medications v. 4.0/4.5 Deployment

A-049

Project Category: Applications :Clinical

The goal of this project is to make V. 4.0 and V. 4.5 of the Inpatient Medications software packages available for general distribution to all IHS pharmacy customers. The ultimate goal of this project would be to combine V. 4.0 and V. 4.5 into one package for release to the service units. This would reduce the amount of work involved at each site for installation – however, one of the tasks within this project is to determine if this is a viable option and technically achievable.

These versions of the Inpatient Medication software package were produced to primarily allow IV orders to be included on the Medication Administration Record, and to provide enhancements to several functions found in previous releases. This is a prerequisite for successful implementation of Inpatient Meds V 5.

Project Status: In Progress

Type: Continuation

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 01 Billing

Drivers?

Staffing Requirements:

Est. Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	4	608 Hours
1	Jr Programmer	100.00%	4	608 Hours
1	Jr Technical Writer	20.00%	1	30 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 4 Staff				1,262 Hours

Justification:

The Inpatient Med upgrade is needed to improve the process of dispensing inpatient medications at IHS inpatient sites. These packages are also listed as VA prerequisites for V. 4.0 of the National Drug File software package.

Task Description:

1. Determine IHS list of prerequisite software and software dependencies. Full analysis will determine which of these packages are required to run the IHS version of this package and what modifications are needed (if any) to ready the packages for installation, or upgrade.
2. Determine if IHS sites intend on running Unit Dose. IHS sites are not currently running the Unit Dose portion of the VA Inpatient Medications. Poling of the IHS pharmacy sites needs to occur and a decision must be made as to whether this feature will be offered in the IHS Inpatient Medications V4.0/V4.5 release. Modifications to the software package will need to be made if the final decision is to disable the Unit Dose functionality.
3. Create a new partition/UCI large enough to hold version 4.0, version 4.5, and all supporting software on the HQW system. This includes completion of tasks 1 and 2, determination of space requirements, creation of UCI, installation of supporting software, and establishment of access and security.

4. Install and configure Version 4.0 and Version 4.5 on HQW system. All VA patches for the VA version of Inpatient Medications V4.0 and V4.5 need to be identified, reviewed, and when appropriate, readied for installation.
5. Perform testing and verification of Inpatient Medications V4.0 and V4.5, ensuring that all options are functioning properly. Verify that the documentation matches the performance of the software. Document, resolve, and re-test any discrepancies identified.

Background:

Comments/Status:

Tasks #1-4 have been completed in FY00 and Inpatient Medications V4.5 is now being inhouse tested.

ITSC FY01 Project Plans

Lead Department: ASDS

ITSC Customer Service and User Policies & Procedures

O-030

Project Category: Other :

Review existing policies and procedures for internal users and external customers; update and revise or develop as needed; and publish and communicate. Specific areas of concern include 1) IHS Web Page Maintenance & Staffing Policy and 2) ITSC Resource Library Maintenance & Notification

Project Status: Not Started

Type: New

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Jr Management	5.00%	6	46 Hours
1	Jr Systems Analyst	5.00%	6	46 Hours
1	Project Lead	5.00%	6	46 Hours
1	Jr Technical Writer	10.00%	6	91 Hours
1	Jr Web Developer	10.00%	6	91 Hours
Totals: 5 Staff				319 Hours

Justification:

Task Description:

1. Policy Review and Development

2. Resource Library Maintenance and Notification

This project will provide an Intranet page of latest products and software (including RPMS) downloads and will include development of a list manager for auto notification of new entries. The list will include a summary of each product and its use. This page will provide a quick, centralized place for users to see what's new and available without having to browse multiple pages of products and documentation.

- a) Develop page
- b) Develop auto notify function

3. Maintain page

Background:

Comments/Status:

Review group and Project Lead need to be designated.

ITSC Lifecycle Development Plan and Implementation

O-002

Project Category: Other :

This project will prepare a standard approach to package development and modification based upon accepted lifecycle development methodology. This effort will define the comprehensive process that ITSC developers will use to obtain customer needs and requirements, create a reviewed and approved application design, and develop, test, and verify the resulting software. The goal of this process development will be to achieve the Software Engineering Institute (SEI) Capability Maturity Model (CMM) Level 2 (Repeatable Process) status. With the process defined, project staff will determine the way in which to implement it into the ITSC development environment.

Project Status: Not Started

Type: New

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	10.00%	3	91 Hours
1	Jr Management	10.00%	3	46 Hours
1	Sr Technical Writer	10.00%	3	46 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 5 Staff				198 Hours

Justification:

Having a lifecycle development process in place standardizes the approach to clarifying customer requirements, design, and programming, improving the results of each stage and involving reviews along the way. Results would include some improved degree of cross-training among the package developers, more standardization in design and coding styles, and more predictability in estimating timeframes and resource requirements.

Task Description:

1. Assign workgroup members.
2. Assemble references and distribute to members for review.
3. In group, define lifecycle components to be included in the IHS model and where review by colleagues would be implemented.
4. Determine a implementation plan.
5. Document the process and its implementation for management approval.
6. Distribute to professional staff and implement.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ASDS

ITSC Project Planning Workgroup Activities

O-020

Project Category: Other :

This project acknowledges the need for continuous effort by a defined workgroup to assemble and review on a quarterly basis ongoing and planned projects for purposes of funding and progress reporting. Project plan reports and summaries will be designed and published quarterly. Key projects for each team will be selected for detailed tracking; all projects over 2 months in duration will be expected to have a designated Project Lead who will develop and maintain a WBS. Intranet-based tracking and reporting tools will be selected and deployed.

Project Status: In Progress

Type: New

ITSC Priority: 1 - Required

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 03 Annual Plan

Drivers? CCA

13 Administrative Environment

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
4	Project Manager	5.00%	12	365 Hours
10	Project Lead	5.00%	12	912 Hours
2	Sr Management	20.00%	12	730 Hours
Totals: 16 Staff				2,006 Hours

Justification:

ITSC is working towards more formalized and standardized project tracking and reporting throughout all teams.

Task Description:

1. Develop and maintain the Project Plan database.
2. Review and evaluate multiple tracking systems in different departments; need to identify requirements for all uses and standardize on one or two applications, preferably Web-based (see #A-020 Project Central Evaluation)
3. Develop quarterly review and evaluation process for Project Plan.
4. Develop and distribute time-tracking policies and procedures.

Background:

Comments/Status:

The ITSC Project Planning Workgroup (IPP WG) was formed and began meeting in August 2000. Project requests from all ITSC teams were submitted and reviewed by the WG. A Project Plan database was developed and populated. ITSC FY01 Project Plan v. 1.0 was delivered on October 27.

Lab Electronic Review and Signature Enhancement

A-035

Project Category: Applications :Clinical

The Chinle Service Unit of the Navajo Area Indian Health Service would like to pursue enhancements to the RPMS Laboratory Package to add the capability of facilitating and tracking review of laboratory results by clinicians. The enhancements should minimize modifications to existing module code (i.e., be considered more of an "add-on" product than a module enhancement), be Y2K compliant, and go through the IHS verification process before operational implementation. The work to be completed is the development and documentation necessary to add functionality to the RPMS Laboratory Package.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?** GPEA

Staffing Requirements: **Est. Duration:** 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	9	137 Hours
1	Jr Programmer	50.00%	9	684 Hours
1	Jr Technical Writer	10.00%	1	15 Hours
1	Jr Network Specialist	10.00%	1	15 Hours
Totals: 4 Staff				851 Hours

Justification:

There are a number of review processes within the Lab package written for lab supervisors, but to date there is no mechanism to track the electronic review of an individual test by the ordering provider.

Task Description:

1. Add an alert upon user sign-on to RPMS indicating that the clinician has laboratory results that require review. These alerts would only be displayed to providers.
2. Allow the clinician to pull-up all laboratory results, either "by patient" or "by provider," that have been completed and have not been electronically acknowledged as "reviewed".
3. Allow the clinician to review on-line all laboratory results that they have ordered and provide an option for the following. One or more of these options may be used while reviewing the results, with the clinician being able to return to the menu of options after completing a particular option.
4. Allow the clinician to transfer unreviewed lab results (which would include alerts) to another clinician for review. This would allow a permanent or temporary provider to transfer all results from "X" to "Y" dates to another provider. After the "Y" date, lab results and alerts would automatically be sent to the ordering clinician.
5. Include the electronic signature and the date of the signature in the historic record of the laboratory accession. The enhancement should be designed so that a site is not required to use the electronic signature, nor be "penalized" for not using the signature. For example, if they choose not to use the signature, they should not get the alerts upon RPMS sign-on telling them that they have labs to review.

Also they should not have to go through extra steps/screens to avoid the electronic signature module.

6. Modify all on-line reports containing detail data about the laboratory accession to include the signature and signature date of review.

7. Allow a view-only supervisor capability to pull up laboratory accessions within their Service Unit that have not been reviewed within "X" days (with "X" being a variable entered by the supervisor).

Background:

Comments/Status:

This project is being partially funded by the Navajo Nation because it is a high priority to them.

Comments/Status:

This may be provided by a VA patch.

Lab Package Reference Range Development

A-019

Project Category: Applications :Clinical

This project focuses on the correspondence of laboratory reference ranges to patient results. It involves creating a mechanism for programming complex reference ranges for laboratory tests based on age and sex and storing the ranges with the results.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?** CLIA 88

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	3	456 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				760 Hours

Justification:

CLIA 88 regulations require that reference ranges for laboratory tests reflect this patient data.

Task Description:

1. Review current method of attaching reference ranges to patient results.
2. Create a program that could be used by the site to define complex reference ranges for each laboratory test based on sex and age.
3. Develop a method to store the reference ranges with the results.

Background:

Comments/Status:

ITSC FY01 Project Plans
LOINC Deployment Planning

Lead Department: ASDS
A-011

Project Category: Applications : Clinical

This project represents a continuing phase in the LOINC project and is dependent on successful completion of the initial mapping process under #R-008. In this phase, staff begins the education and planning for LOINC deployment to take plan in FY02. They also prepare the files, routines, and patches necessary to support RPMS use of LOINC.

Project Status: Not Started **Type:** New **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 02 Interoperability **Drivers?** HIPAA

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	6	228 Hours
1	Jr Programmer	25.00%	6	228 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
1	Sr Network Specialist	100.00%	3	456 Hours
Totals: 4 Staff				1,064 Hours

Justification:

Task Description:

TBD -- will depend on how much of the work performed for GCPR Pilot can be transferred into IHS "gold standard" Lab database.

Work will include communications plan, cookbook and other user materials.

Background:

See LOINC information in #R-008 LOINC Implementation for GCPR Pilot

Comments/Status:

Dependent on successful completion of the LOINC implementation for GCPR Pilot R-008.

Master Patient Index (MPI) Evaluation and Implementation

I-004

Project Category: Infrastructure : General

A Master Person Index (MPI)/Master Person Information Locator (MPIL) will provide an index of patients (MPI) within the IHS enterprise, and information on sites which hold information on those patients (MPIL). The IHS MPI is also expected to serve as the storage location for the national provider ID, a unique identifier of all health care providers required by HIPAA that is expected to be implemented during FY2000 (see #I-015 National Provider ID Implementation). The term Master Person Index (MPI) is defined as a dynamic, secured directory of uniquely identifiable patients and “pointers” to where respective medical and insurance data about those patients can be located. An MPI can be characterized as: Consisting of a set of patient data that is used strictly and exclusively for coordinated and consistent patient identification; and not serving as a repository for medical records. This project focuses on identifying IHS's requirements for an MPI, evaluating available technical solutions, making recommendations for implementation, and implementing a solution.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 10 Comparability of Public Health Data **Drivers?** HIPAA
 09 Decision Support

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	25.00%	12	912 Hours
1	Project Lead	25.00%	12	456 Hours
1	Jr Programmer	25.00%	12	456 Hours
1	Jr Systems Analyst	25.00%	12	456 Hours
1	Sr Database	25.00%	12	456 Hours
1	Sr Technical Writer	25.00%	12	456 Hours
1	Verifier	25.00%	12	456 Hours
2	Contractor Support	25.00%	12	912 Hours
Totals: 10 Staff				4,560 Hours

Justification:

Task Description:

1. Monitor GCPR/MPI activity and provide input relating to RPMS and the NPIRS database.
2. Upon notification from GCPR workgroup, implement necessary modifications in RPMS and the NPIRS database.
 - Software and hardware identification and acquisition.
 - Software and hardware installation and testing.
 - Development and implementation of PIDS (client and server).
 - HDD mapping and loading for ADT, Pharmacy, Lab and Text data as well as IHS and facility specific code sets.

- EMPI data loading, with patients from Pilot site.
- Implementation of RPMS API using PIDS
- Ensure that the IHS and GCPR MPI can be updated with new admission, discharge, and transfer (ADT) patient information.
- Ensure that specific trigger events in RPMS will generate transactions to update the IHS and GCPR MPIs.
- Ensure interoperability through the use of OMG CORBAMed's Person Identification Services (PIDS) for the IHS MPI.
- Ensure the development of IHS data standards through the population of an IHS and GCPR Health Data Dictionary (HDD) with demographic, laboratory, pharmacy, and textual code sets and data based upon a government reference terminology model.

Background:

As a directory, the MPI can exist within a single facility, a region, or at a national level. At a minimum, an MPI must provide pointers or locators to patient medical information that should be reasonably available and, when automated, accessible using real time, interactive information technology. The term EMPI refers to an MPI that is owned and operated by an enterprise (e.g., healthcare business entity such as a hospital system, a group practice, or a health care plan).

Persons that are contained in an EMPI may be identified in more than one system across multiple organizations in a variety of settings over time. Large, complex healthcare systems such as IHS, Department of Defense (DoD), and Veterans Affairs (VA), may employ more than one EMPI within and across their respective agencies. If more than one EMPI is in place, then the agencies must establish a policy for handling people who have activity in more than one system.

Comments/Status:

MPI Workgroup has been created; first strategy/planning session will be held in late November to develop an approach to IHS MPI requirements and product evaluation. Some preliminary evaluation work of types of products and decision points has been performed by Mitretek.

There may be some duplication of staff estimates with I-015 National Provider ID Implementation. There will be additional substantial costs associated with purchased an MPI product.

National Drug File (NDF) V. 4.0 Distribution

A-047

Project Category: Applications :Clinical

NDF provides standardization of local drug files within each service unit & Area. Keeping current with the latest versions of the NDF is vital as it provides standardization of the local drug files within each service unit/area. This particular version of the NDF has a new design of the National Drug files that will lay the foundation for timely data releases by the Pharmacy Benefits Management (PBM), which will make frequent updating of the NDF easier and faster, with minimal time for installation and downtime. This project will make Version 4.0 of the National Drug File (NDF) software package available for general distribution to all IHS pharmacy customers.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**
 02 Interoperability

Staffing Requirements: **Est. Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	7.5	1,140 Hours
1	Jr Programmer	100.00%	7.5	1,140 Hours
Totals: 2 Staff				2,280 Hours

Justification:

Keeping current with the latest versions of the NDF is vital as it provides standardization of the local drug files within each service unit/area. This particular version of the NDF has a new design of the National Drug files that will lay the foundation for timely data releases by the Pharmacy Benefits Management (PBM), which will make frequent updating of the NDF possible with minimal time for installation and downtime.

Task Description:

1. Determine the IHS list of prerequisite software and software dependencies. Full analysis must be done to determine which packages are required to run the IHS version of this package, and what modifications are needed (if any) to ready the packages for installation, or upgrade. (It is possible that identified prerequisite/required packages will affect the projected timeline and cost of the National Drug File project.)
2. Environment Creation at ASDST for NDF V4.0. Create a new partition/UCI large enough to hold version 4.0 and all supporting software on the ASDST system. This will include identification of all software packages required to run NDF V4.0, determination of space requirements, creation of UCI, and installation of supporting software into the new environment. In addition, access and security for the environment and software packages will need to be established. (This step may be eliminated if an environment is created previously for prerequisite/required packages.)
3. Installation of Version 4 on ASDST system. All VA patches for NDF V4.0 need to be identified and readied for installation. Install and configure Version 4.0 on the ASDST system. This includes, but is not limited to, backing up of the current environment, securing access to the system, initialization of the environment, restoration of the routines, files, and documentation to the system, installation of patches,

and establishing proper security and access following the completion of the restoration.

4. Clinical Programming Team Testing and Verification of NDF V4.0. Verify that all options are functioning properly for NDF V4.0 in the environment established. Verify that the documentation matches the performance of the software, including all interactions that take place with all files and routines outside of NDF V4.0 realm. Document, resolve and re-test any discrepancies identified.

5. Identify and Release Software to Alpha Test Site(s). Install NDF 4.0 and all pre-requisite software to the Alpha System(s). Distribute documentation to all those who will be working with and testing the software on the Alpha System, in addition to providing training if needed. Monitor and document all identified problems. Resolve, re-test, re-package and install fixes for all identified problems. Obtain certification from testers that software is ready to move on to a Beta testing classification.

Background:

Comments/Status:

The National Drug File Version 4.0 has been loaded in the MIH UCI. Environment check routines had to be checked and modified to bypass any references to non-RPMS applications. Several IHS Pharmacists have offered to dial in and test this application. Menus have been set up and a pharmacy user access has been created that will allow us to our MIH UCI test environment.

National Provider ID Planning and Implementation

I-015

Project Category: Infrastructure : General

IHS needs to create and maintain the capability to assign a unique provider identification number to health care providers in order to meet legislative requirements (HIPAA) and provide a maintainable National Provider Index database. This project is closely linked with the Master Person Index (MPI) planning and evaluation project #I-004, as the Provider ID would likely be generated by and reside in the MPI.

Project Status: Not Started

Type: New

ITSC Priority: 1 - Required

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 09 Decision Support

Drivers? HIPAA

13 Administrative Environment

Staffing Requirements:

Est. Duration: 10 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	10	380 Hours
1	Sr Programmer	25.00%	10	380 Hours
1	Jr Systems Analyst	25.00%	10	380 Hours
1	Sr Management	25.00%	10	380 Hours
1	Sr Database	25.00%	10	380 Hours
1	Sr Technical Writer	25.00%	8	304 Hours
1	Verifier	25.00%	1	38 Hours
Totals: 7 Staff				2,242 Hours

Justification:

The Health Information Portability and Accountability Act of 1996 (HIPAA, Public Law 104-191) requires that the Secretary of Health and Human Services (HHS) adopt standards for electronic health care transactions, unique health identifiers, code sets, security, and privacy. Within the scope of HIPAA, the Health Care Financing Administration (HCFA) is to establish and maintain a program for identification and enumeration of all health care providers.

Task Description:

1. Determine trait set used to identify providers and health care facilities.
2. Collect identifying and trait set information from each I/T/U for their providers and facilities.
3. Select tools and services to create and maintain National Provider Index Database.
4. Create a National Provider Index Database and assign unique ID to each provider and facility.
5. Maintain the database and provide information to HCFA.

Background:

Comments/Status:

MPI Working Group will meet in late November, and the Provider ID topic will be on the agenda.

ITSC FY01 Project Plans

Lead Department: ASDS

Nursing Modifications

A-087

Project Category: Applications : Clinical

The ADT package uses a 24-hour clock, but the Nursing Acuity package uses the shift clock. This project will change the nursing package to a 24-hour clock and link it to the ADT package.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	3	456 Hours
1	Sr Programmer	100.00%	3	456 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				1,064 Hours

Justification:

Since nurses need to enter data in both packages, having two different clocks makes it difficult and confusing, and as a result, time consuming.

Task Description:

1. Modify the code in the nursing package to accept the 24-hour date/time format.
2. Test the code changes.
3. Verify the changes.
4. Send out a patch for the Nursing Acuity package.

Background:

Comments/Status:

Patient Account Component (PAC) Development

A-053

Project Category: Applications : Financial & Admin

To accommodate billing, PCC has made changes in the past which didn't really fit in with PCC's clinical focus. As the business office side becomes increasingly important, it is time to develop a Patient Accounts Component (PAC) to complement PCC. As with PCC, RPMS applications would feed information to PAC.

This project involves development of a Patient Accounts Component (PAC) to be used as a patient accounts information repository with a design similar to PCC. Unlike PCC, PAC will provide a consolidated per-encounter summary but with the needed business office focus. A repository such as PAC would better serve the business office applications than making changes to PCC to accommodate billing.

Project Status: In Progress **Type:** New **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**

Staffing Requirements: **Est. Duration:** 5 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	5	760 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 3 Staff				1,064 Hours

Justification:

PCC supports clinical activities, PAC will provide a consolidated per-encounter summary but with a business office focus. A repository such as PAC would better serve the business office applications than making changes to PCC to accommodate billing. In the past, PCC has made some changes to accommodate billing, which didn't really fit in with PCC's clinical focus.

Task Description:

1. Provide framework for point of sale, time of sale data entry.
2. Develop Service Unit Chargemaster.
3. Capture billable workload by cost center for all visits, not just for patients with third party coverage.
4. Provide management reports currently not available showing profit/loss by cost center.

Background:

Comments/Status:

ITSC has received the proposal from the contractor and is reworking it to ensure that it meets the needs of IHS.

Project requirements were identified for Informatix in a recent meeting. ITSC is now awaiting a plan from Informatix for how they will implement the project

Patient Chart IHS Evaluation, Deployment and Training

A-001

Project Category: Applications :Clinical

This project will deploy the Graphical User Interface (GUI)-based RPMS Patient Chart Application to use as a benchmark for the full use of GUI based applications in RPMS and to allow non-RPMS traditional users to assist with the order entry process. The project includes preparation of standards and modifications to SAC to support the GUI and providing a standard deployment, support, and enhancements as an RPMS application.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 07 GUI

Drivers? ADA

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	10.00%	12	182 Hours
1	Sr Technical Writer	25.00%	3	114 Hours
1	Project Lead	10.00%	12	182 Hours
1	Sr Training Specialist	10.00%	8	122 Hours
1	Sr Management	20.00%	2	61 Hours
1	Subject Matter Expert	20.00%	2	61 Hours
Totals: 6 Staff				722 Hours

Justification:

A web-accessible patient record is a goal for the IHS user community and also will meet IHS requirements for the Government Computer-based Patient Record (GCPR) Framework Project.

Task Description:

1. implementation and feedback. Install and configure Patient Chart at a number of alpha and beta sites. Establish proper installation contacts and assist with site training process. Review and modify existing documentation;
2. Implementation of documentation. Have current documentation reviewed for completeness;
3. Deployment, support and enhancements. Establish direction for the full deployment, installation, support, training and modifications to activate the Patient Chart on appropriate workstations.

Background:

Comments/Status:

Preparation for formal evaluation of Patient Chart v. 1.05 is underway and expected to be completed by the end of December. Deployment will not begin until formal evaluations at two alpha sites, Chinle and Warm Springs, have been completed, and the application has been approved.

Patient Information Management System (PIMS)

A-100

Project Category: Applications : Patient Administrative

The Patient Information Management System (PIMS) version 5.3 will be released in three phases. The first phase is a small enhancement to the current Medical Administration Services (MAS) v5.0 application. The enhancement is part of released MAS patch #5 and allows sites to create Primary Care Component (PCC) visits when checking patients in for appointments. Phase II will be the release of DPT version 5.3. This release will include the new data dictionary for the VA Patient file (#2) and the Sensitive Patient Tracking module. The early release of file 2 gives other developers the opportunity to work with the most current version of this basic file. Phase III will be the complete release of PIMS version 5.3 including Admission/Discharge/Transfer (ADT) and Clinic Scheduling with the Primary Care Management Module (PCMM).

Project Status: In Progress **Type:** Enhancement **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
 ISAC Goals: 09 Decision Support **Drivers?**
 13 Administrative Environment

Staffing Requirements: **Est. Duration:** 12 Months

#	Labor Category	%	Months	Total Hours
2	Sr Programmer	80.00%	12	2,918 Hours
1	Sr Technical Writer	25.00%	2	76 Hours
1	Verifier	10.00%	2	30 Hours
Totals: 4 Staff				3,025 Hours

Justification:

The PIMS incorporates enhancements to several RPMS functions and packages including Admission-Discharge-Transfer, Scheduling, Primary Care Management Module, and the Ambulatory Care Reporting Project. Enhancements will provide, for instance, up-to-date online patient information, patient data consistency check, and improved cost recovery for care.

Task Description:

1. Identify, research, and ready all prerequisite packages and patches required for PIMS 5.3. At the time of this writing those packages are:
 Kernel v8.0 up to patch #134 sequence 128
 FileMan v22 up to patch #37 sequence 34
 HL7 v1.6 up to patch #58 sequence 51
 Broker v1.1 up to patch 15 sequence 11.
2. Finish modifications/test in IHS environment.
3. Developer verification (SAC Checker and %INDEX).
4. Install in an IHS testing environment accessible by users.
5. Review by selected users (includes alpha test trainers).
6. Make modifications per user review.
7. Last user review & update of on-line documentation.
8. Submit for initial technical verification.
9. Install in alpha test environment; select beta test sites.

10. Alpha test (includes writing of technical manual).
11. Installation at beta test sites.
12. Beta test (includes finalizing technical and user manuals).
13. Release PIMS v5.3.

Background:

Comments/Status:

Phase I, release of the small MAS v5.0 enhancement has been completed. Phase II has been completed and is waiting for the release of FileMan v22 to test in IHS environments.

ITSC FY01 Project Plans
Patient Registration v. 7.0

Lead Department: ASDS
A-070

Project Category: Applications : Patient Administrative

Patient Registration 7.0 needs to update demographic data collection. This version will include the grouping of like information on specific pages. The new Patient Registration will also include a major overhaul of the Insurance Eligibility pages.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	100.00%	3	912 Hours
1	Project Lead	100.00%	6	912 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
Totals: 4 Staff				1,976 Hours

Justification:

These changes will facilitate more rapid and accurate data collection. The Eligibility page changes will improve billing with cleaner and greater information on eligibility.

Task Description:

1. Revamp eligibility pages.
2. Add documents page.
3. Add summary eligibility page.
4. Test these modifications and verify against SAC standards.

Background:

Comments/Status:

The team has completed 10% of this project.

ITSC FY01 Project Plans

Lead Department: ASDS

PCC Enhancements

A-082

Project Category: Applications : Clinical

The Patient Care Component software will be supported and enhanced as requested by the IHS throughout the year. This project addresses the one task order currently in place to provide the list of enhancements listed below in the Task Description section.

Project Status: In Progress **Type:** Enhancement **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	75.00%	2	228 Hours
Totals: 1 Staff				228 Hours

Justification:

The Primary Care Component is the primary 'doorway' to the RPMS suite of applications and, as such, must be maintained at a level that is current with all the data entry requirements of other packages that rely on it. The changes identified below keep this package in step with the other packages it serves.

Task Description:

1. Modify the PCC Health Maintenance Reminders functionality.
2. Incorporate in the new Health Maintenance Reminders the capability for providers to modify follow-up dates on an individual basis. Modify PC Data Entry to facilitate entry of "Override Dates" for individual reminders for individual patients.
3. Modify the PCC Statistical Export Record to accommodate up to 9 immunizations per visit.
4. Modify the BMI Overweight and Obesity Prevalence Report to count obese patients in the column of overweight patients in addition to counting them in the column for obese patients.
5. Modify the Provider Data Entry option in PCC to permit providers to enter a cohort of patients for whom they wish to perform data entry. The user will be able to identify the type of visit, the data elements that he or she wishes to enter for the visits, and then be prompted to enter of the name of a patient or a cohort. If cohort is selected, the system will loop the provider through each patient in the cohort, creating and filing visits following the provider's entry of the pre-selected data items.
6. Develop a report of patients who do not have Diabetes on their PCC Problem List, but who are on a specific Diabetes Register or have a user-selectable number of diagnoses of Diabetes in a user-selectable time period.
7. Modify the PCC 1999 Diabetes Audit to reflect the new and modified data elements and logic of the 2000 Audit. Provide national maintenance and support of this product for a period of one year.

Background:

Comments/Status:

This project will be completed via contractual support from Cimarron Medical Informatics.

ITSC FY01 Project Plans
Pharmacy Point of Sale Project

Lead Department: ASDS
A-103

Project Category: Applications : NPIRS

The intent of this project is to increase revenue generation from pharmacy sales using an electronic interface to payor organizations via the ENVOY clearinghouse, with real time, online response from payors about patient claims. It includes training and assistance with process/workflow changes as necessary.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
5	Contractor Support	0.00%	12	0 Hours
Totals: 6 Staff				182 Hours

Justification:

This point of sale product is expected to increase revenue generation by pharmacy sales.

Task Description:

Phase II consists of beta testing and development of standard documentation and formats for roll-out to production in Phase III. Phase III is the implementation to production in 50 sites at approximately 4 sites per month. Implementation activities include pre-implementation surveys; equipment order, installation, and testing; training; testing payor formats; testing claim transmission; post installation followup.

Background:

Comments/Status:

Phase I (POS product developed, tested, certified for ENVOY) has been completed. Project staff in early stages of Phase II (POS product beta test, documentation, formats for rollout). This project is being done under contract to Informatix Laboratories whose staff includes the following positions:
Project Oversight
Project Management
Senior Programmer
Pharmacy Lead
Documentation Developer

Contract Costs include:
Phase II: \$147,225
Phase III: \$122,200
Total: \$289,244

4. With Pyxis, refine Interface as necessary for live implementation.
5. Cimarron develop documentation and provide training to the appropriate groups at NNMC. Implement the Interface in the live environment.
6. With Pyxis, install and implement the Interface at Pine Ridge and Tahlequah Hospitals.
7. Submit software to DIR for Verification and Distribution.
8. Cimarron provide software maintenance and telephone user support through September 30, 2001.

Background:

Comments/Status:

Technical specifications have been developed and are now under review by potential users and other affected customers. ASDS is awaiting those comments from the field.
This project is under contract to Cimarron Medical Informatics.

Referred Care Information System (RCIS) Modifications

A-086

Project Category: Applications : Clinical

The Referred Care Information System automates the clinical and administrative management of all referred care, including in-house referrals, referrals to other IHS facilities, and referrals to outside contract providers. This project effort includes two new distributions of the RCIS package that will include major modifications to enhance the “In-house Referral Component” and to provide the ability to print multiple Vendors of the Referral Form. Both distributions will require new User and Technical Manuals.

Project Status: In Progress

Type: Continuation

ITSC Priority: 3 - Medium

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 01 Billing
04 Technical Support

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	6	912 Hours
1	Subject Matter Expert	10.00%	6	91 Hours
1	Jr Technical Writer	20.00%	1	30 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 4 Staff				1,049 Hours

Justification:

RCIS gathers essential information that provides timely and accurate referral data on individuals and groups of patients for the key clinical and administrative managers at care delivery sites, IHS Areas, and IHS Headquarters. By tracking information on referred care, the goal of the RCIS is to help ensure that IHS provides appropriate, effective, and high-quality referred care services to American Indian/Alaska Native people at fair and reasonable prices.

Task Description:

1. Design and program the code modifications.
2. Incorporate the changes into the User and Technical Manuals.
3. Perform testing and verification against SAC standards, make modifications as required, then release.

Background:

Comments/Status:

The requirements for these enhancements have been clarified and development efforts can begin.

ITSC FY01 Project Plans
RPMS Application Ongoing Support

Lead Department: ASDS
A-048

Project Category: Applications : General

This project represents the ongoing support required by all RPMS applications. In addition to the specific package projects detailed throughout this document, RPMS developers and support staff must attend to the continuous stream of user requests for corrections to existing software, guidance in using the packages in the field, assistance (both remote and onsite) in installing and configuring packages and patches as well as using the packages to address site-specific operational processes.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
 ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Subject Matter Expert	75.00%	12	2,736 Hours
4	Sr Programmer	100.00%	12	7,296 Hours
4	Jr Programmer	100.00%	12	7,296 Hours
2	Jr Systems Analyst	100.00%	12	3,648 Hours
1	Verifier	25.00%	12	456 Hours
Totals: 13 Staff				21,432 Hours

Justification:

Regardless of what else is taking place in the development of new packages, interfaces, or functionality, users require support in their daily operation of existing packages and operational workgroups require the assistance of developers and project leads to help determine the direction to be taken with their packages. Developers and support staff must attend to these demands on their time and threat them with a high priority.

Task Description:

Tasks depend upon user and workgroup requirements. They require for instance, troubleshooting problems, extensive communication with users and ITSC management, developing fixes, coordinating activities with workgroups and colleagues, assembling packages for verification and release, and assisting in the documentation process.

Background:

Comments/Status:

RPMS Growth Plan Integrated Implementation Plan

A-009

Project Category: Applications :Clinical

The RPMS Growth Plan, developed with consultation with Professional Standards Groups, Information Systems Advisory Council, top management, and program officials, documents the customer expectations and development schedule for RPMS over the next five years. The plan includes annual goals, specific interfaces and functionality, and the use of GOTS and COTS products.

This project will identify and document the schedule, dependencies, interactions with the VA, and plans for evaluating and implementing VA solutions to support implementation of this RPMS Growth Plan.

Project Status: Not Started

Type: New

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 03 Annual Plan

Drivers?

Staffing Requirements:

Est. Duration: 1 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Management	25.00%	1	38 Hours
1	Sr Systems Analyst	15.00%	1	23 Hours
1	Project Lead	15.00%	1	23 Hours
2	Project Manager	15.00%	1	46 Hours
Totals: 5 Staff				129 Hours

Justification:

With the RPMS Growth Plan in place (upon completion of Project A-007 which plans the growth of the RPMS financial and administrative packages), it will be necessary to plan its implementation. Without an implementation plan, ITSC is not in a position to effectively manage development and maintenance of the RPMS packages, nor can it ensure that the objectives documented in the Growth Plan will be achieved.

Task Description:

1. Determine workgroup membership.
2. In group meetings, lay out the implementation schedule using MS Project and include dependencies among the projects, milestones, time estimates, and allocation of resources in detail.
3. Publish the document for comment.
4. Use the document to both monitor project status and guide decision-making process.

Background:

Comments/Status:

Completion of this process will be greatly influenced by the result of the # A-016 VA Patch Evaluation project and depends on the growth path for the RPMS financial and administrative packages being determined via project #A-007.

ITSC FY01 Project Plans
Standards and Conventions (SAC) Review

Lead Department: ASDS
O-007

Project Category: Other :

Project members will review the Programming Standards And Conventions (SAC) for M development and create an IHS SAC for non-M development using new VA SAC as a starting point.

Project Status: Not Started **Type:** Operations & **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 1 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	40.00%	3	182 Hours
5	Sr Programmer	10.00%	3	228 Hours
1	Jr Technical Writer	20.00%	1	30 Hours
2	Verifier	10.00%	3	91 Hours
Totals: 9 Staff				532 Hours

Justification:

Task Description:

1. Identify core group to review the current IHS standards and the VA standards and make recommendations to the larger group.
2. Conduct a broader review of the core group recommendations among all the RPMS developers and determine from it what changes will be made to the existing standards.
3. Publish and implement the new standards.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ASDS

Supply Accounting Management System (SAMS) Certification

A-044

Project Category: Applications : Financial & Admin

This project effort will develop and distribute the Supply Accounting Management System (SAMS) software as a fully certified package. The SAMS software needs to be standardized and enhanced across all areas to facilitate management and support. Many Areas are running different variations of the SAMS. This presents a maintenance and support problem as these variations behave somewhat differently or unexpectedly from one Area to another.

With a fully certified version of SAMS, project staff will be able to begin work on the ultimate goal of interfacing the package with the Patient Care Component, Administration and Resource Management Systems, Third Party Billing, Accounts Receivable and Cost Accounting.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	3	456 Hours
1	Sr Technical Writer	10.00%	1	15 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 3 Staff				486 Hours

Justification:

The SAMS package must be certified before it can be interfaced with the other packages. Interfacing the package supports inventory management by department, billing, quality assurance, and auditing processes necessary to financial accountability.

Task Description:

1. Evaluate and identify SAC violations and modify routines.
2. Complete user-defined enhancements and other items on Action/Problem task list.
3. Modify user-defined problem areas such as inventory, due-ins and back orders.
4. Modify routines to conform to optimal Mumps coding standards and conventions.
5. Maximize and stabilize the input /process/report functions.

Background:

Comments/Status:

The package is currently in Alpha test at several sites.

ITSC FY01 Project Plans

Lead Department: ASDS

Supply Accounting Management System (SAMS) Interfaces Enhancements

A-045

Project Category: Applications : Financial & Admin

This project is to begin once SAMS is standardized and certified (see A-044). SAMS is to be interfaced with Patient Care Component, Administration and Resource Management Systems, Third Party Billing, Accounts Receivable and Cost Accounting. This project begins with a evaluation and analysis of the interfaces needed and how they can be done effectively to work with the other packages. Based on results of the analysis, the development effort will involve modifying existing code and developing new code as needed to interface with each target package, the extent of which is unknown at this time.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	9	1,368 Hours
1	Sr Programmer	100.00%	9	1,368 Hours
1	Sr Technical Writer	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
Totals: 4 Staff				3,040 Hours

Justification:

Interfacing will make it possible to keep track of inventory, to bill for supplies, to support quality assurance and auditing, and to give a more accurate picture of supply usage by department.

Task Description:

1. Evaluate and analyze the interface requirements with each package (3PB, AR, PCC, Cost Accounting, ARMS).
2. Design the interface structure and functionality.
3. Develop the actual interface code, reusing code where possible among the interfaces and using table references where possible.
4. Test and verify interfaces.
5. Deploy and support.

Background:

Comments/Status:

This project will be launched as soon as the current SAMS package is certified.

ITSC FY01 Project Plans
Third Party Billing V. 3.0 Redesign

Lead Department: ASDS
A-054

Project Category: Applications : Financial & Admin

This project is the creation of a combination Third Party Billing and Accounts Receivable package, using code wherever possible from the previous separate packages. The development effort is to be completed under contract to Informatix.

Project Status: Not Started **Type:** New **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 01 Billing **Drivers?**

Staffing Requirements: **Est. Duration:** 7 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Technical Writer	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
2	Contractor Support	100.00%	7	2,128 Hours
1	Project Lead	10.00%	7	106 Hours
Totals: 5 Staff				2,538 Hours

Justification:

This rewrite will enhance the billing process by making it easier to use and improve accuracy of the data interchange between billing and receivables. A cost accounting feature will be included, it will have a new file structure, claim tracking, and new reports (including a report to CORE with an itemized listing of outstanding receivables).

Task Description:

1. Develop new file structure.
2. Combine Third Party Billing package and Accounts Receivable package, reusing code whenever possible.
3. Develop a Cost Accounting component in the package.
4. Generate new reports for Billing and Accounts Receivable.
5. Develop the What You See Is What You Get (WYSIWYG).

Background:

Comments/Status:

This project is under contract to Informatix for services of two senior programmers.

VA Application Patch Evaluation and Implementation Plan

Project Category: Applications : General

The intent of this project is to review all RPMS applications and their equivalent VA applications to evaluate the extent of update necessary to bring the RPMS up to the VA version and patch level. The evaluation will also address the extent of outstanding modifications to the RPMS packages which are not covered in their VA equivalents but which must be retained. Project staff will assess the benefits to be derived by the functionality upgrades and weigh the known costs. They will rank the updates by priority and determine schedule and resource needs. They will then determine what upgrades can be performed during FY01 and plan their implementation.

Project Status: Not Started

Type: Operations &

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support

Drivers?

Staffing Requirements:

Est. Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
3	Sr Programmer	50.00%	3	684 Hours
1	Project Lead	10.00%	3	46 Hours
1	Jr Management	10.00%	3	46 Hours
Totals: 5 Staff				775 Hours

Justification:

Task Description:

1. Assemble workgroup and plan the project work schedule.
2. Obtain the VA patches and assess the coverage and content differences for each package, including the benefits and costs by package of upgrading.
3. As a group, rank the upgrades by package priority and determine FY01 implementation objectives, schedule, and level of required effort.
4. Document and report results of the project to management.

Background:

Comments/Status:

VHA Clinical Data Repository Evaluation

I-017

Project Category: Infrastructure : General

As part of the renewed effort to leverage the VHA IT architecture and ensure the highest level of compatibility and re-use, IHS needs to monitor and evaluate the VHA Clinical Repository project for applicability for possible direct involvement by IHS. The VHA’s project will consist of multiple phases. The first phase will consist of a contracted study of how best to institute a clinical repository in VHA followed by a cost benefit analysis. Subsequent phases will depend on the outcome of the initial phase. The ultimate goal is to implement a clinical repository that is based on a patient record architecture and supported by a lexicon and lexical services.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**
15 Partnerships
09 Decision Support

Staffing Requirements:

Est. Duration: 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	10.00%	9	137 Hours
1	Jr Systems Analyst	10.00%	9	137 Hours
Totals: 2 Staff				274 Hours

Justification:

Providers have difficulty accessing complete patient information from heterogeneous systems in a standard format. In many cases, the information is text-based and cannot be used to support computational needs (e.g. alerts, reminders, drug interactions, etc.). The current approach of presenting patient information from departmental applications is resource intensive (both personnel and systems) and difficult to modify to meet changing needs.

Task Description:

1. Establish liaison with VHA project leader.
2. Establish connectivity to online VHA project tools.
3. Participate in project meetings and conference calls as applicable and allowed by VHA.
4. Analyze project outcomes for potential re-use or deployment within IHS
5. If project outcome is deployable in IHS, develop a deployment plan.

Background:

Comments/Status:

ITSC FY01 Project Plans
VHA Common Tool Set Evaluation

Lead Department: ASDS
O-008

Project Category: Other :

As part of the renewed effort to leverage the VHA IT architecture and ensure the highest level of compatibility and reuse, IHS needs to monitor the VHA Common Tool Set Evaluation project for applicability and possible involvement by IHS. The VHA plans to analyze and select different development tools for use in the creation of applications and databases, both for the development of in-house software and the management of COTS/GOTS software. A standard set of requirements for all products will be developed so that the highest level of interoperability can be achieved. Standards for data access, query and interchange will be defined with the objective that users perceive VISTA as a seamless system. Selection of COTS/GOTS solutions will be weighed against criteria for database features. New in-house products will be developed using the newly identified technologies.

Project Status: Not Started **Type:** New **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**
 ISAC Goals: 15 Partnerships **Drivers?**

Staffing Requirements: **Est. Duration:** 9 Months

#	Labor Category	%	Months	Total Hours
1	Sr Programmer	10.00%	9	137 Hours
1	Jr Systems Analyst	10.00%	9	137 Hours
Totals: 2 Staff				274 Hours

Justification:

Like the VHA, HIS currently uses an M-based suite of software products augmented by use of Delphi for GUI front ends. While this suite has served HIS' needs in the past, the need for additional development capabilities and the need to incorporate COTS and GOTS products into RPMS necessitates the expansion of this tool set. Expansion of the RPMS tool set will ensure HIS users have state-of-the-art tools for delivering IT solutions.

Task Description:

1. Establish liaison with VHA project leader.
2. Establish connectivity to online VHA project tools.
3. Participate in project meetings and conference calls as applicable and allowed by VHA.
4. Analyze project outcomes for potential re-use or deployment within IHS.
5. If project outcome is deployable in IHS, develop an IHS deployment plan.

Background:

Comments/Status:

VHA Corporate Data Registry Evaluation

I-018

Project Category: Infrastructure : General

As part of the renewed effort to leverage the VHA IT architecture and ensure the highest level of compatibility and reuse, IHS needs to monitor and evaluate the VHA Corporate Data Registry project for applicability to and possible direct involvement by IHS. The VHA will create a corporate data registry that identifies detailed information about the data in its systems, (a data encyclopedia of sorts). This data registry will provide standards for the development of data elements and will help users in assimilating information. A corporate data registry will provide VHA and IHS with a consistent, sharable set of data across systems and will increase the quality of information captured.

Project Status: Not Started **Type:** New **ITSC Priority:** 4 - Low

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**
15 Partnerships
09 Decision Support

Staffing Requirements: **Est. Duration:** 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	10.00%	9	137 Hours
1	Jr Systems Analyst	10.00%	9	137 Hours
Totals: 2 Staff				274 Hours

Justification:

Individuals and systems that access IHS data are often unclear as to what the data is and how it was developed. The current information environment of IHS consists of multiple systems with minimal information regarding metadata (“the information and documentation which makes data sets understandable and shareable for users” - ISO Standard 11179). There are currently no standards that identify the classification, attribution, definition, naming, and registration of data elements within IHS systems. Additionally, it is often not known whether IHS collects a certain element or what system(s) it resides on.

Task Description:

1. Establish liaison with VHA project leader.
2. Establish connectivity to online VHA project tools.
3. Participate in project meetings and convenience calls as applicable and allowed by VHA.
4. Analyze project outcomes for potential re-use or deployment within IHS.
5. If project outcome is deployable in IHS, develop a deployment plan.

Background:

Comments/Status:

VHA Lexical Services Project Evaluation

I-019

Project Category: Infrastructure : General

As part of the renewed effort to leverage the VHA IT architecture and ensure the highest level of compatibility and re-use, IHS needs to monitor the VHA Lexical Services project for applicability and possible involvement by IHS. The VHA will create a set of lexical services that supports the exchange of health care information. Complete lexical services not only serve to translate different terms of like conceptual meaning, but more importantly, include conceptual maps that support expressing and transmitting complex and modified concepts while retaining their expressive details.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**
15 Partnerships

Staffing Requirements:

Est. Duration: 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	10.00%	9	137 Hours
1	Jr Systems Analyst	10.00%	9	137 Hours
Totals: 2 Staff				274 Hours

Justification:

The lack of a standardized reference for clinical terminology across IHS, as well as between IHS, VHA and other health care organizations, inhibits the recording, transmission, retrieval, and analysis of clinical information in a precise manner and independent of clinic or hospital. As a result, sharing of information within and between health care organizations is also inhibited.

Task Description:

1. Establish liaison with VhA project leader.
2. Establish connectivity to online VHA project tools
3. Participate in project meetings and conference calls as applicable and allowed by VHA.
4. Analyze project outcomes for potential re-use or deployment within IHS.
5. If project outcome is deployable in IHS, develop a deployment plan.

Background:

Comments/Status:

VHA Patient Record Architecture Project Evaluation

I-020

Project Category: Infrastructure : General

As part of the renewed effort to leverage the VHA IT architecture and ensure the highest level of compatibility and reuse, IHS needs to monitor and evaluate the VHA Patient Record Architecture project for applicability to and possible direct involvement by IHS. VHA plans to do an analysis of multiple patient record architectures that can be used to construct a structure that support the exchange of patient information. This project proposes to adopt a patient record architecture (PRA) that can be used as the basis for implementing a clinical repository and that supports the exchange of patient information.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 12 CPR
15 Partnerships

Drivers?

Staffing Requirements:

Est. Duration: 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	10.00%	9	137 Hours
1	Jr Systems Analyst	10.00%	9	137 Hours
Totals: 2 Staff				274 Hours

Justification:

Providers have difficulty accessing complete patient information from heterogeneous systems in a standard format. In many cases, the information is text-based and cannot be used to support computational needs (e.g., alerts, reminders, drug interactions, etc.). Providers also have difficulty exchanging health information electronically with other providers.

Task Description:

1. Establish liaison with VHA project leader.
2. Establish connectivity to online VHA project tools.
3. Participate in project meetings and conference calls as applicable and allowed by VHA.
4. Analyze project outcomes for potential re-use or deployment within IHS.
5. If project outcome is deployable in IHS, develop a deployment plan.

Background:

Comments/Status:

VistAion Evaluation

R-020

Project Category: Research & Development :

This project effort will adapt the VistAion graphical user interface (GUI) to the RPMS environment. The effort involves separating the VistAion components to enable IHS sites to customize the GUI according to their site-specific configuration of RPMS packages and version/patch levels. Project staff will also develop an installation process that sites can use to customize their installation.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 12 CPR

Drivers?

Staffing Requirements:

Est. Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	4	608 Hours
1	Project Lead	10.00%	4	61 Hours
1	Jr Technical Writer	20.00%	1	30 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 4 Staff				714 Hours

Justification:

RPMS users have been requesting a graphical user interface for some time and efforts are underway to meet that need. This particular solution offers two advantages over its alternatives: It is compatible with the RPMS Growth Path and ITA directives of maintaining the RPMS suite alignment with the VA software and it can be implemented more rapidly than its alternatives.

Task Description:

1. Obtain VistAion source software for the GUI.
2. "Burst" the application into separate components and confirm its interaction with the respective packages.
3. Develop an installation process that addresses the components separately.
4. Document the GUI technically and prepare an installation guide for user sites.
5. Verify the software and GUI functionality and documentation, perform alpha and beta testing, fix and modify as necessary, and release.
6. Publicize the availability via the established communication tools of the ITSC (e.g., webpage, newsletter).

Background:

Comments/Status:

ITSC FY01 Project Plans
Web Mailman Implementation

Lead Department: ASDS
I-016

Project Category: Infrastructure : General

SAIC, under contract to the VA, developed a browser-based interface for Mailman. This version maintains the threading capability of Mailman, considered by most users as its primary strength. Threading makes Mailman a significant group communications tool used heavily by field and PSG people. This project will implement the browser-based Mailman into the IHS environment.

Project Status: Not Started **Type:** New **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	75.00%	3	342 Hours
1	Sr Technical Writer	10.00%	1	15 Hours
Totals: 2 Staff				357 Hours

Justification:

Field and PSG Mailman users want this browser-based version made available to them via the IHS network. It is anticipated that some sites may also select to make it available within their local network.

Task Description:

1. Bring the IHS version of Mailman current with the VA version and patch level. This involves making sure that changes made to Mailman by IHS are address in the those VA versions and patches. It also invovles making sure the current VA version is compatible via porting to the IHS MSM environment and/or to the Cache environment.
2. Implement required modifications.
3. Port the version to TCP-IP and test the system.
4. Document and publicize the availability and use of the new version.

Background:

Comments/Status:

WebTop Deployment

A-012

Project Category: Applications : Clinical

WebTop V 3.0 is a network-based Graphical User Interface clinical application that provides users with an integrated view of patient care data drawn from multiple facilities through a web browser.

The WebTop application was developed for, and used within the VA.

Project Status: Not Started **Type:** New **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 07 GUI **Drivers?**

Staffing Requirements: **Est. Duration:** 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	9	137 Hours
2	Contractor Support	20.00%	3	182 Hours
1	Jr Technical Writer	25.00%	2	76 Hours
2	Jr Training Specialist	10.00%	9	274 Hours
1	Jr User Support	5.00%	8	61 Hours
Totals: 7 Staff				730 Hours

Justification:

Drivers for this project are the Physician, Nurse, and Midlevel Provider PSG and the GCPR Framework project.

Task Description:

1. Prepare deployment plan.
2. Develop cookbook and other necessary system and user documentation.
3. Develop training plan and materials.
4. Work with I/T/Us on deploying application.
5. Provide user support as needed.

Background:

Work done to analyze the requirements needed, and to port this application to RPMS began during FY 2000 with a contract with SAIC.

Comments/Status:

Initiation of this project is dependent on successful completion of the WebTop Pilot and Evaluation (#A-002) and the results of that project, anticipated in mid December.

ITSC FY01 Project Plans
WebTop Pilot and Evaluation

Lead Department: ASDS
A-002

Project Category: Applications : Clinical

WebTop V 3.0 is a network-based Graphical User Interface clinical application that provides users with an integrated view of patient care data drawn from multiple facilities through a web browser. This project will complete porting WebTop 3.0 to RPMS environment; evaluate and verify in development environment; document, train and implement at pilot site.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 07 GUI **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	3	114 Hours
4	Contractor Support	100.00%	3	1,824 Hours
Totals: 5 Staff				1,938 Hours

Justification:

Task Description:

A pilot test of a Web-accessible patient record will be conducted to determine whether current Web-based technologies can support the sharing of health care information required by IHS. The goals of the pilot test will be to:

- Determine the impact of a Web-accessible patient record on the wide area network
- Determine if security needs such as single sign-on, access control, authentication and authorization can be met
- Determine if the Web-based technologies can support efficient access to health care information stored on heterogeneous hardware and software platforms and in heterogeneous databases
- Determine if the implementation of Web-based object technology can provide an adaptable and efficient interface between heterogeneous applications
- Determine if the IHS Master Patient Index (MPI) can be efficiently integrated into a Web-accessible patient record
- Identify and sustain Sponsorship/Development of the Web-accessible patient record

FY01 tasks remaining are to:

- 1) Complete modifications as required by Task Manager
- 2) Implement Web Top Port in contractor and IHS development environments (SAIC)
- 3) Identify alpha test site, prepare site and install Web Top (IHS and SAIC)
- 4) Test and evaluate (IHS and Messaging Team)
- 5) Provide Go/No Go decision on WebTop implementation for IHS

Background:

Major advances are being made in Web-based technologies to support information sharing. These technologies have the potential to support the secure, reliable and efficient sharing of health care information. Web Top is a DVA product that will allow a Web-based interface to the PCC. The product

will be implemented in a development environment prior to installation at a pilot site (Billings Area). During the pilot, the Web Top product will be evaluated for both short-term GCPR Framework pilot needs and for other IHS web-accessible patient record needs as well. A Go/No Go decision will be made by the User Interface team, with possible input from an ad hoc clinical team.

Comments/Status:

Porting is expected to be completed by mid-November. The alpha test at Billings is expected to be completed by early December.

This project was funded in FY00 and is under contract with SAIC.

ITSC FY01 Project Plans
X12 Evaluation and Implementation

Lead Department: ASDS
A-003

Project Category: Applications : Financial & Admin

This project is an effort to re-engineer the IHS Business process using the most cost effective and efficient method to use Electronic Data Interchange (EDI) to accomplish electronic commerce and ensure compliance to legislation for the Federal Acquisition Act and the Health Insurance Portability and Accountability Act (HIPAA). IHS needs to plan and implement a coordinated approach to identifying, evaluating and implementing X12 standards within its infrastructure.

Electronic commerce services remains critical to IHS revenue generation efforts. Electronic Data Interchange (EDI) is the computer-to-computer exchange of business data in standard formats, resulting in streamlined business transactions. X12 standards facilitate these transactions by establishing a common, uniform business language for computers to communicate across town or around the world. Legislation has decentralized funding for IHS, with each tribe and self-governing sites exhibiting more control over their own funding for different initiatives. It is IHS's desire that each tribe and/or self-governing site be able to take advantage of the electronic commerce solutions.

Project Status: Not Started **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 02 Interoperability **Drivers?** HIPAA

Staffing Requirements: **Est. Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	8	122 Hours
3	Sr Programmer	100.00%	6	2,736 Hours
1	Jr Programmer	100.00%	8	1,216 Hours
1	Sr Technical Writer	25.00%	1	38 Hours
1	Verifier	25.00%	1	38 Hours
Totals: 7 Staff				4,150 Hours

Justification:

The Federal Acquisition Act requires Agency's and Partners to use Electronic Data Interchange (EDI) and Electronic Funds Transfer (EFT) to conduct financial business transactions. HIPAA requires Federal Agencies, Contractor, Carriers and Fiscal Intermediaries to use ANSC X12 Standard formats perform electronic healthcare transaction, including medical claim format.

Task Description:

1. Analyze ongoing HIPAA requirements and determine effect on IHS business process and applications.
2. Establish formal working group to understand both X12 standards and existing IHS EDI-related applications.
3. Develop and implement plan for meeting HIPAA requirements.

Background:

To extend the scope of IHS information systems between IHS facilities and to include participation by external users and organizations, IHS is focusing on a variety of messaging standards to enable appropriate and secure access to IHS data systems. These standards include HL7 for clinical applications, X.12 for administrative applications, and DICOM for image transmission.

Electronic Data Interchange (EDI) is defined as the inter-process (computer application to computer application) communication of business information in a standardized electronic form. In EDI, information is organized according to a specified format set by both parties, allowing a “hands off” computer transaction that requires no human intervention or rekeying on either end.

ASC X12 standards facilitate electronic interchange relating to such business transactions as order placement and processing, shipping and receiving information, invoicing, and payment and cash application data, and data to and from entities involved in finance, insurance, education, and state and federal governments. X12 standards facilitate business transactions by establishing a common, uniform business language for computers to communicate across town or around the world. With more than 275 transaction sets, X12 standards can be used to electronically conduct nearly every facet of business-to-business operations.

The shipping and transportation industries first developed EDI about 25 years ago to reduce the burden of paperwork, a significant factor in the cost of doing business. Traditional applications of EDI are purchase orders, bills of lading, invoices, shipping orders and payments. However, the development of standards and the widespread use of computers has encouraged the use of EDI in many new arenas including health care insurance and management, record-keeping, financial services, government procurement, and transactions over the Internet.

Organizations adopt EDI for the same reasons they have embraced much of today’s modern technology—enhanced efficiency and increased profits. Benefits of EDI include: a) Administrative cost reduction; b) Value added to products and services through more rapid and accurate information processing; c) Improved inventory control; d) Strategic integration of EDI data and information processing.

In order for EDI to work effectively, standards must be employed to ensure that the information being transmitted is universally acceptable. Standards are structured so that computer programs can translate data from in-house to standard formats and vice versa, either through the use of software at the user location or by the services of value-added network (VAN) communications vendors.

There are several hundred standards currently being used to conduct a wide variety of business-to-business transactions. The Accredited Standards Committee (ASC) X12 standards are designed to work across industry and company boundaries. Changes and updates to the standards are made by consensus, reflecting the needs of the entire base of EDI users rather than those of a single organization or business sector.

Comments/Status:

Ongoing projects relating to EDI include: 1) IHS Area Offices are using the Treasury Electronic Credit System for electronic funds transfers for payments and travel reimbursements; 2) IHS is also pursuing the use of translation and mapping software as well as the use of commercial interface engines such as GIS (#R-004) and Cloverleaf (#I-002). 3) IHS has only tested the submission of an ASC X12 820 Electronic Commerce format for a payment submission to the Treasury over the IHS WAN through a

ITSC FY01 Project Plans

Lead Department: ASDS

Gateway at NIH to the Department of the Treasury's FMSNet for electronic funds transfer to the vendors; 4) IHS is deploying various electronic commerce solutions offered under the existing Department of Veteran's Affairs contract with the ENVOY Corporation (#A-055).

Lead Department:
ASDS-NPIRS
National Patient Information Resource
System

CORE Reports

I-062

Project Category: Infrastructure :NPIRS

This effort will create and implement a methodology for storing and distributing CORE information to support financial reporting. The service is currently outsourced through CDC, but it is not well funded. This project will bring it in house.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 02 Interoperability

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
1	Sr Network Specialist	10.00%	12	182 Hours
2	Sr Programmer	10.00%	12	365 Hours
2	Jr Systems Analyst	10.00%	12	365 Hours
2	Sr Database	10.00%	12	365 Hours
2	Verifier	10.00%	12	365 Hours
4	Jr Programmer	10.00%	12	730 Hours
Totals: 15 Staff				2,736 Hours

Justification:

Bringing this activity in house will increase the amount on local control and hands-on maintenance afforded it.

Task Description:

1. The Systems analyst will discuss with the I/T/Us to determine what is needed for the project, both hardware and software; develop functional requirements, including the layout of the file and/or report; and obtain written acceptance from the customer prior to any program development occurring.
2. The Systems analyst will write detailed program specifications which identify the logic of the program in pseudo code, including the inputs, process, and outputs of the program.
3. The project will be assigned to a programmer who will be provided with copies of the requirements document and program specifications.
4. During development, the systems analyst will create the test plan and test data that will be used to verify the program is coded correctly. When ready, the program will be tested by the systems analyst and programmer.
5. The fully tested deliverable will be provided to the customer for acceptance. Upon acceptance, the development of the project will be closed and it will be moved into production in the event the data file/report will be provided periodically, such as annually, to the customer.

ITSC FY01 Project Plans

Lead Department: ASDS-NPI

Background:

Comments/Status:

Project Category: Infrastructure :NPIRS

Run and post on the NPIRS web site the FY98 and FY99 APC and Inpatient workload reports for the Area Statistical Officers. NPIRS staff will work with the Area Statistical Officers to identify where counts are lower or higher than expected and determine the action to be taken to bring the counts to their expected levels, which could include re-exporting of data.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 11 Data Quality **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	50.00%	3	228 Hours
2	Sr Programmer	50.00%	3	456 Hours
1	Sr Systems Analyst	25.00%	3	114 Hours
2	Verifier	20.00%	3	182 Hours
1	Jr Database	25.00%	3	114 Hours
Totals: 7 Staff				1,094 Hours

Justification:

Required by IHS for the annual User Population Verification project and these reports are used to determine facility planning needs.

Task Description:

Provide a brief description of up to 5 major tasks or categories of effort involved in successfully completing this project:

1. Run the reports for all Areas.
2. Conduct an internal review to determine if any obvious errors with the data are present.
3. Post on the NPIRS web site and notify Areas the reports are available for review.
4. Work with the Area Statistical Officers to identify where counts are lower or higher than expected and determine the action to be taken to bring the counts to their expected levels, which could include re-exporting of data.
5. Ensure all data has been processed and loaded onto DB2 and all outstanding direct APC and Inpatient data issues have been resolved before any workload reports are officially approved by the Area Statistical Officers since any unresolved issues may result in fluctuating counts.

Background:

Comments/Status:

11/02/00: FY98 and FY99 Inpatient and APC reports were posted on the NPIRS web site as of 11/02/00. Will begin verification of the data with the Area Statistical Officers.

ITSC FY01 Project Plans
Handheld Data Collection

Lead Department: ASDS-NPI
R-024

Project Category: Research & Development :

To successfully automate information collection at point of origination for use upon demand by any IHS data collection system.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 05 Connectivity

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	15.00%	12	274 Hours
1	Sr Programmer	15.00%	12	274 Hours
2	Jr Programmer	15.00%	12	547 Hours
1	Sr Systems Analyst	15.00%	12	274 Hours
1	Jr Database	15.00%	12	274 Hours
1	Jr Network Specialist	15.00%	12	274 Hours
1	Sr Technical Writer	15.00%	12	274 Hours
Totals: 8 Staff				2,189 Hours

Justification:

Improve data integrity and efficiency in collection.

Task Description:

1. Evaluate handheld solutions/technologies.
2. Consult with IHS to address needs.
3. System integration assessment.
4. Design, develop, test, and implement application.

Background:

Comments/Status:

Prototype for NECOP system has been developed.

ITSC FY01 Project Plans

Lead Department: ASDS-NPI

National Data Warehouse for NPIRS Archive

I-061

Project Category: Infrastructure :NPIRS

This project will create a national data warehouse to support data requests for NPIRS data that has been archived and is no longer available on the NPIRS production database.

Project Status: In Progress

Type: New

ITSC Priority: 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 09 Decision Support

Drivers? GPEA

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	12	456 Hours
1	Sr Programmer	25.00%	12	456 Hours
1	Jr Systems Analyst	25.00%	12	456 Hours
1	Sr Database	25.00%	12	456 Hours
1	Sr Technical Writer	25.00%	12	456 Hours
1	Verifier	25.00%	12	456 Hours
1	Sr LAN Specialist	15.00%	12	274 Hours
1	Sr Network Specialist	15.00%	12	274 Hours
3	Jr Programmer	25.00%	12	1,368 Hours
Totals: 11 Staff				4,651 Hours

Justification:

This effort will provide statistical and analytical services to all I/T/Us and outside sources (e.g., CDC, Census Bureau, etc) in a more efficient and easily accessible manner (i.e., create a mechanism for immediate access to all archived data currently in storage within IHS).

Task Description:

1. Hardware installation (i.e., Enterprise Storage Server (ESS) and digital linear tape (DLT) library).
2. Convert all archived data to state of the art storage media.
3. Design, develop, test, and implement software to access the archived data upon demand.

Background:

Comments/Status:

10/01/00 Investigating hardware technologies and media manager software.

11/2/00 The IBM hardware is on order to implement the first stage of the project. Delivery date should be in the next 60 days.

ITSC FY01 Project Plans
National Interface Clearinghouse

Lead Department: ASDS-NPI
I-069

Project Category: Infrastructure : NPIRS

This project effort will create central point of contact for all national interfaces with which to transmit data to and/or receive data from all I/T/Us and outside contacts (e.g., HCFA, SSA, and BCBS). For example, the HCFA interface will transmit patient data to HCFA for verification of Medicare eligibility in order to increase revenue generation. This verified data will be provided to the Area offices for distribution to the facilities in order to update their patient eligibility data. This data will then be provided to NPIRS via patient eligibility modifications. This will synchronize the service unit, NPIRS, and HCFA databases.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing
 02 Interoperability

Drivers? GPRA
 HCFA

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
1	Jr Systems Analyst	10.00%	12	182 Hours
1	Sr Database	10.00%	12	182 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
1	Verifier	10.00%	12	182 Hours
1	Sr LAN Specialist	10.00%	12	182 Hours
2	Sr Programmer	10.00%	12	365 Hours
3	Jr Programmer	10.00%	12	547 Hours
Totals: 11 Staff				2,006 Hours

Justification:

A centralized point of contact will facilitate implementation and support of current and new interfaces between national, regional, and local systems and distributed RPMS systems in order to improve data integrity, increase revenue, and decrease processing costs incurred by the I/T/Us.

Task Description:

1. Coordinate interfaces, including requirements analysis, with national interfacing agencies.
2. Develop, test, and implement the interface.
3. Maintain data serving capacity for interface information between interfacing agency and the I/T/Us.

Background:

Comments/Status:

Project Category: Infrastructure :NPIRS

This project will provide an integrated series of applications for information delivery, which will enable our customers to display critical management-level information about the enterprise with graphs or reports (e.g., anticipated revenue from TPB claims for a specific month).

Project Status: In Progress

Type: Continuation

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 07 GUI

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	30.00%	12	547 Hours
1	Sr Database	20.00%	12	365 Hours
1	Sr Technical Writer	30.00%	3	137 Hours
1	Verifier	30.00%	12	547 Hours
2	Sr Programmer	30.00%	12	1,094 Hours
2	Jr Programmer	20.00%	12	730 Hours
2	Jr Systems Analyst	30.00%	12	1,094 Hours
Totals: 10 Staff				4,514 Hours

Justification:

An executive information system helps to overcome some of the difficulties in combining data from widely varying sources in a standard way. An EIS will provide easily understood summaries and displays for key decision-makers in the organization.

Task Description:

1. Review with I/T/U customers the type of reports that have been developed and others that would be useful for their management teams. Systems analysts will develop any additional functional requirements necessary, including layout of the file and/or report, and will obtain project acceptance from customers prior to beginning further program development.
2. Systems analysts will write detailed program specifications reflecting additional reports or revisions to those previously drafted.
3. Project will be assigned to a programmer for the development effort.
4. Programs will be tested and verified.
5. Once fully tested and verified by ASDS and NPIRS staff, the product will be provided to the customer for acceptance.

Background:

Comments/Status:

10/01/00: An EIS has been drafted with a pilot user interface and Mumps routines that assemble the data and make it available to the Visual Basic front end. This pilot will be used with customers to demonstrate what can be done and gather clear requirements for what they need.

11/02/00: The EIS Project is 70% completed. The VB front-end is 90% completed with 2 charts remaining to be completed. Currently working with the MUMPS programmers to retrieve a new data set. Version 1 is almost ready to start Alpha Testing.

ITSC FY01 Project Plans
NPIRS Data Movement Automation

Lead Department: ASDS-NPI
A-065

Project Category: Applications :NPIRS

This project has four major purposes:

1. Develop the format of a single export file, which will combine the existing PCC and registration export files to be used by all RPMS users.
2. Develop the formats of separate export files for non-RPMS users.
3. Identify and utilize standard filenames for all data files exported to ITSC in order to provide for automated processing and archiving of the data.
4. Revise the existing NPIRS automated tracking and update system to accommodate the revised file formats and filenames.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 09 Decision Support **Drivers?**
 10 Comparability of Public Health Data

Staffing Requirements: **Est. Duration:** 7 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	20.00%	7	426 Hours
3	Verifier	20.00%	7	638 Hours
4	Project Lead	20.00%	7	851 Hours
1	Jr Systems Analyst	20.00%	7	213 Hours
1	Sr Database	20.00%	7	213 Hours
1	Sr Technical Writer	10.00%	7	106 Hours
Totals: 12 Staff				2,447 Hours

Justification:

Completion of this project will:

1. Ensure export files comply with GPRA data tracking requirements.
2. Increase data integrity within the centralized database by tying visit data with registration data.
3. Enable the non-RPMS users (e.g., Tribes such as Norton Sound and CRIHB) to send only the data they are capturing. For example, if they only provide outpatient services, they would not have to send in null values for Inpatient data, as they currently do when they send data in the existing PCC format.
4. Eliminate the need to manually process data files because they would be named according to standard naming conventions and they would be in a format that allows for automated processing.

Task Description:

1. Develop the proposed format of a single export file for RPMS users.
2. Develop the proposed formats of separate export files for non-RPMS users.

3. Develop proposed file naming conventions for all data files exported to ITSC.
4. HQ staff (i.e., Edna Paisano and Linda Querec) present proposed formats and file naming conventions to the Indian Health Service/Tribal/Urban (I/T/U) representatives to make them aware of the patient data that is being collected, stored, and reported both in RPMS and NPIRS and to obtain their approval/concurrence. Any problem areas noted during this process will have to be resolved first before the project can continue.
5. Revise, test, and implement the changes agreed upon (in tasks 1 - 4 above) in both RPMS and the NPIRS automated tracking and update system.

Background:

Comments/Status:

In order to accomplish tasks 1 and 2, it was agreed upon by the Data Movement Team that we first identify the fields applicable to each system (i.e., PCC [includes both direct APC and direct inpatient], CHS inpatient, CHS outpatient, and dental). The Team felt this step is needed because of the fact that the current PCC export file contains new fields that were added without notifying the I/T/U representatives.

As a starting point, a spreadsheet was created that identifies all of the fields contained in the historical mainframe formats for APC, inpatient, CHS inpatient, CHS outpatient, and dental. The spreadsheet also identifies which fields in the current PCC export file were not included in any of the historical mainframe formats and which fields in the historical mainframe formats are not included in the current PCC export file. We are now awaiting review/input.

NPIRS Historic Report/Data Requests

A-067

Project Category: Applications : NPIRS

This project will provide data files and/or reports for historical data as requested by IHS and outside agencies such as Justice, Census, and others. Currently there are several types of these requests that are ongoing:

1. DOJ Tobacco Litigation
2. DOJ Bone Screw Case (ACROMED settlement)
3. Medicare Reporting for Elmer Brewster
4. Epidemiology Cancer Research (IHS)
5. UNM Tumor Registry
6. DASPRO Indian Elder Data
7. Johns Hopkins University Limb Loss Study

Project Status: Ongoing (O&M) **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
 ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	40.00%	12	1,459 Hours
2	Jr Systems Analyst	40.00%	12	1,459 Hours
2	Verifier	30.00%	12	1,094 Hours
1	Jr Programmer	40.00%	12	730 Hours
1	Sr Database	15.00%	12	274 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
Totals: 9 Staff				5,198 Hours

Justification:

This reporting is a responsibility of NPIRS since it is the national IHS database. All requests for data files and/or reports for IHS data are directed to and approved by HQ staff. If HQ staff approves the request, we provide the requester with the data.

Task Description:

1. Systems analyst discusses with the customer what is needed for the project, develops functional requirements, including the layout of the file and/or report, and obtains written acceptance from the customer prior to any program development occurring.
2. Systems analyst writes detailed program specifications, which identify the logic of the program in pseudo code, including the inputs, process, and outputs of the program.
3. Project assigned to a programmer for development of the program. The developer is provided with copies of the requirements document and program specifications.

4. During development, the systems analyst creates the test plan, including creating test data that will be used to verify the program is coded correctly. When ready, the program is tested by the systems analyst and programmer.

5. Fully tested deliverable is provided to the customer for acceptance. Upon acceptance, the development of the project is closed and moved into production in the event the data file/report will be provided periodically, such as annually, to the customer.

Background:

Comments/Status:

Ongoing. The NPIRS response to requests for these files and/or reports continues from year to year.

Project Category: Other :

Document and formalize requirements analysis through customer acceptance, Including test plans for new as well as existing, to include all NPIRS subsystems and interfaces

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Jr Systems Analyst	20.00%	12	365 Hours
1	Sr Technical Writer	60.00%	12	1,094 Hours
1	Verifier	40.00%	12	730 Hours
Totals: 3 Staff				2,189 Hours

Justification:

Task Description:

1. Analyze and document current processes, including all NPIRS systems and subsystems.
2. Make selected documentation available from the N PIRS web site.

Background:

Comments/Status:

Process analysis has begun. Product should eventually be incorporated into # O-002 ITSC Lifecycle Plan.

ITSC FY01 Project Plans
NPIRS Production Tasks

Lead Department: ASDS-NPI
A-068

Project Category: Applications :NPIRS

The following production tasks are performed by NPIRS staff on a recurring basis:

1. PCC Updates
2. Registration Updates
3. Third Party Billing
4. Dental Updates
5. CHS Updates

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 01 Billing **Drivers?** GPRA
 10 Comparability of Public Health Data
 04 Technical Support

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Project Lead	20.00%	12	730 Hours
2	Sr Programmer	20.00%	12	730 Hours
2	Jr Systems Analyst	20.00%	12	730 Hours
2	Sr Database	20.00%	12	730 Hours
2	Verifier	20.00%	12	730 Hours
1	Jr Programmer	20.00%	12	365 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
Totals: 12 Staff				4,195 Hours

Justification:

These are all services provided by NPIRS staff to support the national database.

Task Description:

1. Updates.
2. Database Maintenance.
3. Report Modifications.
4. Third Party Billing.
5. Data Audit Reporting and Evaluation.

Background:

1. PCC Updates – Export files containing PCC data (i.e., direct APC, direct inpatient, and sometimes CHS outpatient, CHS inpatient, and Dental) are received from the Areas and programs are run automatically to update the NPIRS database with the export data. After the updates are complete, the files are archived and the tables that supply data for the Export Files Status report are updated.

2. Registration Updates – Export files containing patient registration data are received from the Areas and programs are run automatically to update the NPIRS database with the export data. After the updates are complete, the files are archived and the tables that supply data for the Export Files Status report are updated.

3. Third Party Billing – Medicare (i.e., BCBS) and/or Medicaid (i.e., AHCCCS) third party billing are performed for several Areas on a monthly basis.
4. Dental Updates – Export files containing dental data are received from the I/T/Us and private contractors to update the NPIRS database with the export data. After the updates are complete, the files are archived.
5. CHS Updates - Export files containing CHS data are received from the I/T/Us and private contractors to update the NPIRS database with the export data. After the updates are complete, the files are archived.

Comments/Status:

Ongoing.

ITSC FY01 Project Plans
NPIRS Web Data Sets

Lead Department: ASDS-NPI
A-073

Project Category: Applications :NPIRS

This effort will create common data sets for the I/T/Us to be accessed via the Intranet (i.e., NPIRS web site) and also provided to the I/T/Us via compact discs. This may be accomplished with the use of OLAP cubes in Crystal Info. This technology enables the user to view a data set, such as direct Inpatient data and determine the dimensions used to view that data. A user basically builds his/her own query by identifying which dimensions to include, such as fiscal year, ASUFAC, sex of patient, date of service, diagnosis codes, etc. And, the user can apply filters to those dimensions, such as displaying data for only fiscal year 1999 for female patients diagnosed with a specific ICD9 code.

Project Status: Not Started **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	30.00%	12	1,094 Hours
2	Verifier	20.00%	12	730 Hours
3	Jr Programmer	30.00%	12	1,642 Hours
1	Project Lead	30.00%	12	547 Hours
1	Jr Systems Analyst	20.00%	12	365 Hours
1	Sr Database	20.00%	12	365 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
Totals: 11 Staff				4,925 Hours

Justification:

Completion of this project will improve the reporting capabilities offered by NPIRS in order to empower the I/T/Us to accomplish their workload responsibilities in a more efficient and productive manner.

Task Description:

1. Purchase hardware and software to support the application.
2. Evaluate security issues and purchase software to implement security procedures.
3. Develop method of data viewing with the I/T/Us.
4. Design OLAP cubes with the I/T/Us.
5. Test and implement OLAP cubes on the NPIRS web site.

Background:

Comments/Status:

We are currently evaluating issues concerning tasks #1 and #2.

ITSC FY01 Project Plans

Lead Department: ASDS-NPI

NPIRS Web Reports

A-071

Project Category: Applications :NPIRS

This project will create additional production and on-request reports as requested by customers, including a new requirement for Dental and PHN reports.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	40.00%	12	1,459 Hours
2	Jr Systems Analyst	40.00%	12	1,459 Hours
2	Verifier	30.00%	12	1,094 Hours
3	Jr Programmer	40.00%	12	2,189 Hours
1	Sr Database	15.00%	12	274 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
Totals: 11 Staff				6,658 Hours

Justification:

These reports have been and are requested by our customers.

Task Description:

1. Systems analyst discusses with the customer what is needed for the project, develops functional requirements, including the layout of the file and/or report, and obtains written acceptance from the customer prior to any program development occurring.
2. Systems analyst writes detailed program specifications, which identify the logic of the program in pseudo code, including the inputs, process, and outputs of the program.
3. Project assigned to a programmer for development of the program. The developer is provided with copies of the requirements document and program specifications.
4. During development, the systems analyst creates the test plan, including creating test data that will be used to verify the program is coded correctly. When ready, the program is tested by the systems analyst and programmer.
5. Fully tested deliverable is provided to the customer for acceptance. Upon acceptance, the development of the project is closed and moved into production in the event the data file/report will be provided periodically, such as annually, to the customer.

Background:

Comments/Status:

This is an ongoing activity as team members respond to the periodic requests of customers.

ITSC FY01 Project Plans
OPH SAS Program Support

Lead Department: ASDS-NPI
I-059

Project Category: Infrastructure :NPIRS

This project involves ongoing SAS support and application development for the Office of Public Health programs. This project represents continuing support of Office of Public Health Programs such as ORYX, GPRA, Epi/Research and behavioral health programs currently use SAS.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	50.00%	12	912 Hours
1	Jr Programmer	50.00%	12	912 Hours
1	Jr Systems Analyst	10.00%	12	182 Hours
1	Sr Database	10.00%	12	182 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
Totals: 5 Staff				2,371 Hours

Justification:

This project is required in order to continue this necessary support of these OPH programs.

Task Description:

1. Identify access/functionality for SAS IntrNet software. Initial focus will target GPRA/ORYX applications, which will then be used as the prototype for other clinical applications.
2. Consult with OPH components to develop a coordinated plan to meet program needs.
3. SAS specialist will work with clinical programs regarding GPRA programming/testing, data movement, database structure, data storage and access.
4. Help to facilitate data and analytical needs for the merging of the two behavioral health programs.

Background:

Comments/Status:

An SAS specialist has been hired. SAS IntrNet software has been installed and is operational. SAS web development for ORYX needs will be completed during FY00 and other tasks to be completed in FY01.

ITSC FY01 Project Plans

Lead Department: ASDS-NPI

PHN Project Phase II

A-064

Project Category: Applications :NPIRS

Phase II is the enhancement phase of this project which includes corrections, additional criteria to improve the processing and reporting requirements.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Verifier	20.00%	12	730 Hours
1	Project Lead	20.00%	12	365 Hours
1	Sr Programmer	20.00%	12	365 Hours
1	Jr Systems Analyst	20.00%	12	365 Hours
1	Sr Database	20.00%	12	365 Hours
1	Sr Technical Writer	10.00%	12	182 Hours
Totals: 7 Staff				2,371 Hours

Justification:

This project will enhance areas of inadequacies in the previous PHN system.

Task Description:

1. Define the input record.
2. Monitor production process.
3. Modify AIB to accept the new PHN record.
4. Test AIB process.
5. Implement AIB process.

Background:

Comments/Status:

Two reports are web-ready and awaiting modification to the PCC export file.

PVCS Tracker and Version Manager Upgrade and Enhancement

A-101

Project Category: Applications :NPIRS

Implement an enhancement needed to PVCS Tracker to enable I/T/Us and other users to track Data Center tasks. Also identify other enhancements needed to make both Tracker and Version Manager more efficient applications for tracking tasks and software modifications. This shall include a justification for the enhancements, obtaining a cost estimate from Merant (developer of PVCS Tracker and Version Manager), and approximate time needed for Merant to complete the enhancements.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	15.00%	3	68 Hours
1	Sr Programmer	20.00%	3	91 Hours
1	Sr Technical Writer	10.00%	3	46 Hours
1	Verifier	20.00%	3	91 Hours
Totals: 4 Staff				296 Hours

Justification:

This effort will make PVCS a more efficient and usable application, improve communication with the I/T/Us, and improve workload reporting capabilities.

Task Description:

1. Schedule a date/time for Merant to be on-site to make the modifications/enhancements.
2. Merant staff will work with NPIRS staff to implement and test the modifications/enhancements.

Background:

Comments/Status:

A list of desired modifications and enhancements have been identified. This product will be evaluated by the Project Management Workgroup in light of IHS requirements and with an eye to merging it with the #O-015 Project Management Tools Harmonization project and the A-078 Work Order System.

Standard Code Book (SCB) Table Updates/Modifications via Intranet

A-060

Project Category: Applications :NPIRS

This project will develop an application that enables a user at the HQ level to modify and/or make additions to the Standard Code Tables (SCTs) by accessing the NPIRS web site. Only users assigned specific permissions will be able to edit the data; all other users will only be able to view the SCTs. The application should include features to ensure data is entered in the correct format, where applicable, and should require the user to confirm the changes to be made prior the changes actually being made in the system. For example, a message should be displayed that states: “You have requested to add Facility Code XXXXXX. Are you sure?” [OK/Cancel].

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**

Staffing Requirements: **Est. Duration:** 1 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	1	15 Hours
1	Sr Programmer	10.00%	1	15 Hours
1	Sr Database	10.00%	1	15 Hours
1	Sr Technical Writer	10.00%	1	15 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 5 Staff				76 Hours

Justification:

This effort will streamline the process by eliminating the need for a “middle man” to make the changes since the HQ staff are the ones who actually review and approve all requests for changes to the SCTs. With this application, HQ staff will not only review and approve all changes, they will also make the changes themselves. NPIRS staff will compile all changes that occurred in a monthly report and forward that file to RPMS staff, who will create the patch that is sent to the Area Offices.

Task Description:

1. Develop procedures, including flowcharts, for making the different types of SCT changes. This information will be provided to HQ staff in order to assist them with making the changes using this application.
2. Coordinate with RPMS staff to identify what information is needed in the file that is sent to them when changes are made to the SCTs, including determining how often changes are to be sent to RPMS.
3. Design and develop the application that will be used to make the changes to the SCTs.
4. Test the application, including testing by HQ staff to ensure they understand how the application works. Implement any changes that were identified as needed during testing.

5. Implement the application at the HQ level and provide this service at NPIRS only as a backup to HQ as directed by HQ.

Background:

Comments/Status:

11/02/00 Tasks 1 – 3 have been completed. Testing at the NPIRS level is complete. A plan to train HQ staff on using the application will be developed prior to implementation.

User Population Report 1999 Verification

A-058

Project Category: Applications :NPIRS

This project will create and verify User Population reports to adequately reflect the user populations in the I/T/Us.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Verifier	20.00%	12	730 Hours
1	Project Lead	20.00%	12	365 Hours
2	Sr Programmer	20.00%	12	730 Hours
1	Sr Database	20.00%	12	365 Hours
Totals: 6 Staff				2,189 Hours

Justification:

These reports are required by IHS.

Task Description:

1. Incorporate policy modifications as dictated by HQ, such as methodology for unduplicating records.
2. Increase data integrity within the NPIRS database as per input from the I/T/Us.
3. Verify initial User Population counts with the I/T/Us.

Background:

Comments/Status:

11/02/00: The two prerequisite projects, FY98 and FY99 APC and Inpatient Workload Verification, are currently underway and preliminary FY99 User Population reports are anticipated to run and posted on the NPIRS web site the week of November 6. There are several issues, primarily with the CHS data, that we are currently working on and need resolution before any final user population counts may be officially approved.

Lead Department:
ASDS-Web
Application Software Development and
Support Web Team

Project Category: Infrastructure : Web-Related

All the IHS Internet web pages will require a review to insure they meet usability requirements to comply with P.L. 106-246's amendment to section 508 of the Workforce Investment Act. At a minimum, the first three levels of the entire web site must be readable by devices that read or interpret web page content for the visually challenged. The IHS goal is to insure that all pages are accessible. It is possible that an independent organization, such as the New Mexico Commission for the Blind, will be contracted to evaluate the IHS site after the modifications have been made to verify its usability.

The interface design for the index page and all core sub-level web pages have to be converted from its current jpeg format to html/asp files to increase download speed and functionality. This includes the creation of new graphics, backend adjustments/cleanup, and java scripting. No major reorganization of file/folder structure will be required.

The current Internet site needs to be updated and streamlined to increase the delivery speed of pages and documents as well as to accommodate new web application needs, such as the MYIHS portal and anticipated future expansion.

Project Status: In Progress

Type: New

ITSC Priority: 1 - Required

Influences: ITA? RPMS Growth Plan?

ISAC Goals:

Drivers? PL 106-246

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	40.00%	6	730 Hours
1	Project Lead	100.00%	1	152 Hours
1	Verifier	100.00%	6	912 Hours
Totals: 4 Staff				1,794 Hours

Justification:

Public law requires this project be completed in the spring of 2001. All the IHS Internet web pages will require review to insure they meet usability requirements to comply with P.L. 106-246's amendment to section 508 of the Workforce Investment Act.

Task Description:

1. Perform site analysis by contractor and prepare plan.
2. Modify Internet navigation tools and redesign and implement header and footer. Remove large graphics and use alternate methods to create attractive navigation interface. Convert all navigational links to text-based design for revision speed and convenience.
3. Modify all Internet pages to meet usability and Section 508 requirements.
4. Certify Internet pages after revisions are made.

Background:

Comments/Status:

The new internet header and footer design has been deployed.

Geographic Information Systems (GIS) Data and Application Development

A-021

Project Category: Applications : General

This project will provide spatial and cartographic data and analyses to IHS personnel using the web as the primary delivery medium. The project will encompass data collection and verification, database design and support, web-based applications and cataloging systems, user training and various types of spatial and statistical analyses. It will involve communicating to generate GIS awareness, developing user requirements, collecting and validating data, and developing plans for specific applications.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	6	228 Hours
1	Sr Web Developer	25.00%	4	152 Hours
1	Sr Database	100.00%	1	152 Hours
1	Sr Technical Writer	50.00%	1	76 Hours
1	Sr PC Specialist	50.00%	1	76 Hours
1	Sr LAN Specialist	50.00%	1	76 Hours
1	Sr Network Specialist	50.00%	1	76 Hours
Totals: 7 Staff				836 Hours

Justification:

Implementation of the GIS in the IHS environment supports a wide range of research and management efforts to improve health care. GIS makes it possible to track diseases and manage patient care sites and clinical resources using clinical data distributed in a visual and geographical form.

Task Description:

1. Define and analyze user requirements and available resources including software, hardware, data and web application infrastructure.
2. Develop GIS-awareness programs including web site "brochureware", user training, documentation, and GIS Day activities.
3. Collect, organize and validate data to be cataloged in the GIS system. The data will include NPIRS, RPMS, network and telecomm data, patient records and epidemiological data. The development of a stable, accurate and well-managed database is key to the project.
4. Design and develop web-based applications that make the aforementioned data accessible to users and allow personnel from any level of the agency to perform spatial analysis. These web-based products would be specifically designed for varying levels of user expertise and a variety of client platforms. The primary goal will be web-based GIS but the data and other analyses would be available to those using desktop GIS products like ESRI's ArchView or ArcInfo.

Background:

Comments/Status:

The web GIS initiative began last fall and basic GIS capabilities are now available on the IHS Web. The GIS project has been a medium-priority project and much development has been done on an ad hoc basis. Under existing software maintenance contracts we have ordered additional products that will be deployed as they are received. We conducted our first GIS training in September and are meeting with GIS users to access future needs.

Internet Privacy Issues Evaluation and Implementation

O-009

Project Category: Other :

In this project, the Web Team will develop concise, understandable privacy policy statements, navigational tools, and informational materials that will allow users to access and fully understand privacy issues related to any technologies implemented, such as “cookies,” that may impact the user while using the IHS Internet site. This project will bring the agency into compliancy with Public Law, HHS mandates, and, specifically, the COPPA Act of 1998.

Project Status: Not Started **Type:** New **ITSC Priority:** 1 - Required

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: **Drivers?** COPPA

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	3	114 Hours
1	Verifier	25.00%	3	114 Hours
Totals: 2 Staff				228 Hours

Justification:

To bring the agency into compliancy with Public Law, HHS mandates, and, specifically, the COPPA Act of 1998.

Task Description:

1. Modify the IHS Web Privacy Statement to reflect current HHS as well as agency policies and guidelines.
2. Add a link to the IHS Privacy Statement to all appropriate Intranet/Internet web pages.
3. Certify that all IHS Internet Kids pages meet the Children's Online Privacy Protection Act of 1998 (COPPA).
4. Add a "Good-bye" page to all the Internet Kids pages and external links.

Background:

Concern over privacy issues is becoming a serious concern as the government moves toward the expansion of “e-gov” services. The IHS, like all other federal agencies, is required to insure its Internet services users have access to information regarding if and how data is being collected.

Comments/Status:

Inclusion of the Children's Online Privacy Statement and Good-bye page is in place on the IHS Kids pages.

ITSC Resource Schedule Center Enhancements

A-023

Project Category: Applications : Financial & Admin

This project effort will identify, evaluate, and implement modifications and enhancements to the web-based ITSC Resource Schedule Center to expand its usefulness. The system is being piloted at the ITSC and is built so that other buildings throughout the IHS can be added at a later date.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 4 - Low

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Technical Writer	25.00%	2	76 Hours
1	Sr Programmer	50.00%	1	76 Hours
1	Sr Database	25.00%	1	38 Hours
Totals: 3 Staff				190 Hours

Justification:

With the rapid adoption of the RSC system by the user community, requests have been made to implement modifications, upgrades, and improvements to the system to make it even more useful for those who are switching to it in lieu of the older paper-based system.

Task Description:

1. Switch major navigation/filtering functionality from links to a set of pull-down menus for efficient records management.
2. Create mail response to all parties on processing of request. For example, when a record is process, an e-mail will be sent to all e-mail values in the system notifying them of the status of the request (approved, denied, canceled, deleted, etc.
3. Implement additional validation of requests before acceptance to reduce any unnecessary administrative processing.
4. Migrate main request form from an ASP component to a ColdFusion component.
5. Investigate the feasibility of implementing a monthly calendar view.

Background:

Comments/Status:

This project is currently at the start of the design/planning process of the second phase. Note: The system has been designed to incorporate into the IHS Web Infrastructure and uses the Fusebox standard. It currently leverages the Universal Login as well as other infrastructure components. Because this application was designed with the IHS Web Infrastructure in mind, no further effort is needed to bring this application into the Infrastructure.

This project is currently at the start of the design/planning process of the second phase. Note: The system has been designed to incorporate into the IHS Web Infrastructure and uses the Fusebox standard. It currently leverages the Universal Login as well as other infrastructure components. Because this application was designed with the IHS Web Infrastructure in mind, no further effort is needed to bring this application into the Infrastructure.

Project Category: Applications : Financial & Admin

This project will consolidate the IHS Job Vacancies Database and the Health Professionals Job Database (HPJD) into one upgraded system. The IHS Job Vacancies Database was developed several years ago to facilitate the IHS recruitment efforts. The original developer is no longer with the agency and the system is long overdue for a major re-work. The Health Professionals Job Database (HPJD) is another jobs database on the IHS Web and also gets a large amount of traffic. Users of the HPJD have been requesting increased functionality to the system much like that currently employed in the IHS Job Vacancies Database. This presents an interesting win-win opportunity to merge both systems into one system, decreasing the associated overhead of having to maintain two separate applications. This project may expand to include Dental, Pharmacy and/or Navajo Jobs Sites.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	6	228 Hours
1	Sr Web Developer	50.00%	6	456 Hours
1	Jr Web Developer	50.00%	6	456 Hours
1	Sr Database	75.00%	1	114 Hours
1	Sr Technical Writer	50.00%	2	152 Hours
1	Verifier	50.00%	1	76 Hours
1	Sr PC Specialist	25.00%	1	38 Hours
Totals: 7 Staff				1,520 Hours

Justification:

This application is consistently the most visited site throughout the entire IHS Web and the system is in need of consolidation as well as upgrades.

Task Description:

1. Implement Fusebox standards and role-based security that integrates with the IHS Web Infrastructure.
2. Merge two separate databases into one consolidated database.
3. Upgrade administration section to allow full delegation of permissions, roles, and privileges through the system by selected administrators.

Background:

The IHS Job Vacancies Database was developed several years ago to facilitate the IHS recruitment efforts. The original developer is no longer with the agency and the system is long overdue for a major re-work. The Health Professionals Job Database (HPJD) is another jobs database on the IHS Web and also gets a large amount of traffic. Users of the HPJD have been requesting increased functionality to

the system much like that currently employed in the IHS Job Vacancies Database. This presents an interesting win-win opportunity to merge both systems into one system, decreasing the associated overhead of having to maintain two separate applications. This project may expand to include Dental, Pharmacy and/or Navajo Jobs Sites.

Comments/Status:

Project staff have begun the process of clarifying requirements for this rewrite.

Links & Document Management System Integration into Web Infrastructure

I-022

Project Category: Infrastructure : Web-Related

The Links & Document Management System was developed as a Y2K initiative to facilitate the rapid dissemination of Y2K related information, Internet links, and Government documents. The system was developed before an IHS Web Infrastructure existed. This project will bring the Links & Document Management System into the IHS Web Infrastructure to gain the benefits of leveraging the two systems. Because core components will be modified/ upgraded during the infrastructure upgrade, other improvements will be implemented after the critical components are in place.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?**

Staffing Requirements: **Est. Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	2	30 Hours
1	Sr Programmer	100.00%	2	304 Hours
1	Sr Database	25.00%	1	38 Hours
1	Verifier	25.00%	1	38 Hours
Totals: 4 Staff				410 Hours

Justification:

The system continually is being requested to manage links and documents for various programs within the IHS. As the user base has grown, so have the demands on and of the system. As such, we look to incorporate the most requested features to continue to provide quality products and services to our customer base.

Task Description:

1. Move to Universal Login/IHS Web Infrastructure.
2. Move to a recursive surrogate key structure from smart code for increased flexibility and capacity.
3. Implement the Fusebox standard coding practice.
4. Allow users to create/maintain their own categories.
5. Implement Internet/Intranet spanning capability. Move documents to a non-replicated non-web folder.
6. Investigate the feasibility of allowing field developers to call the listing component as a custom tag so

Background:

Comments/Status:

This project is currently at the start of the design and planning process of the second phase.

5. Write "How to Develop/Program a MyIHS Portlet" documentation for use in developing content portlets for the system.

Background:

Comments/Status:

This project is currently at the start of the design and planning process of the second phase. Note: The system has been designed to incorporate into the IHS Web Infrastructure and uses the Fusebox standard. It currently leverages the Universal Login as well as other infrastructure components. Because this application was designed with the IHS Web Infrastructure in mind, no further effort is needed to bring this application into the IHS Web Infrastructure.

ITSC FY01 Project Plans
Online Dental Training Site

Lead Department: ASDS-Web
A-025

Project Category: Applications : Clinical

This project involves creating an online, Cold Fusion-based course catalog for the IHS Dental Program at their request.

Project Status: Completed **Type:** New **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 08 Training **Drivers?**
13 Administrative Environment

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	3	456 Hours
Totals: 1 Staff				456 Hours

Justification:

Task Description:

Per Mark Kroska, this project is completed.

Background:

Comments/Status:

Project Management Web-based COTS Evaluation and Implementation

A-020

Project Category: Applications : Financial & Admin

ITSC will evaluate Microsoft Project Central and other web-based project management COTS by all project teams. Microsoft Project is the HHS and IHS project management tool standard. The chosen solution will also replace the Account Management System (AMS) that is in use for reporting purposes only. When matured, the system would be able track any project within IHS. PMIS will track project requests, status, and progress, display all requirements, progress, status, notes, memos, participants and their involvement, allow for communication between management, clients, developers, and certification, and use graphical representation for displaying numeric data when possible.

Project Status: In Progress **Type:** Enhancement **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?**
 13 Administrative Environment
 03 Annual Plan

Staffing Requirements: **Est. Duration:** 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Web Developer	25.00%	2	76 Hours
2	Sr Management	15.00%	3	137 Hours
2	Sr Network Specialist	10.00%	3	91 Hours
Totals: 5 Staff				304 Hours

Justification:

ITSC needs a centralized, standards-based web-based project management tool to enable project leads to schedule and track progress and DIR management and customers to monitor progress. Solution will also be dependent on Harmonization Project # O-015.

Task Description:

1. Identify requirements and evaluation criteria.
2. Investigate software options and obtain evaluation copies.
3. Evaluate and document results and recommend solution.

Background:

Comments/Status:

Project Central has been purchased, and a demo version installed. Evaluation is expected to begin in mid-November.
Implementation of this project will depend on successful evaluation of MS Project 2000 and Project Central.

Web Ad Hoc Application Enhancements

A-081

Project Category: Applications : Web-Related

This project reflects the continuous support provided website clients by the Web Team. This support consists primarily of ad hoc requests for enhancement of existing Web applications.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Jr Web Developer	25.00%	12	912 Hours
2	Sr Web Developer	25.00%	12	912 Hours
Totals: 4 Staff				1,824 Hours

Justification:

The Web Team is committed to client support and considers requests to be a high priority for which ongoing development activities are interrupted.

Task Description:

Tasks in this project are based on client requests and are thus difficult to define. They generally consist of requests for help with website design, resolution of difficulties in attempts to use new languages or techniques, resolution of linking or connectivity issues, etc.

Background:

Comments/Status:

Web team members continue to receive and respond to customer requests for revisions to their websites or help in their own development efforts.

Web Conference Registration Services Development and Pilot

A-024

Project Category: Applications : Financial & Admin

In collaboration with the Clinical Support Center (CSC) in Phoenix, AZ, the Web Team will purchase one year of conference registration services from Peopleware, Inc. This project will test, for one year, the feasibility of using off-site web services for conference registration.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 13 Administrative Environment

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
1	Jr Web Developer	25.00%	3	114 Hours
1	Jr Programmer	50.00%	1	76 Hours
1	Sr Database	50.00%	1	76 Hours
1	Sr Network Specialist	50.00%	1	76 Hours
Totals: 5 Staff				524 Hours

Justification:

The Web Team has had many requests for this service from IHS Areas, Offices, and Tribal groups.

Task Description:

1. Purchase Peopleware services on contract.
2. Develop preliminary registration pages for CSC sponsored meetings Oct. 2000 - Jan. 2001.
3. Set up one "seat" of the Peopleware meeting management client software package for testing.
4. Develop seamless mechanism for linking to Peopleware web site from IHS pages.
5. Insure Peopleware database download does not compromise IHS WAN security.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ASDS-Web

Web Server Relocation

I-028

Project Category:

This project involves the physical move of IHS web development, intranet, and primary SQL servers from Tucson to Albuquerque. Under the umbrella of this project, an existing, newer, and more powerful server will be established as the primary WWW server in Albuquerque.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 05 Connectivity

14 Staff Equipment

Drivers?

Staffing Requirements:

Est. Duration: 1 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	1	152 Hours
1	Sr Programmer	100.00%	1	152 Hours
1	Jr Systems Analyst	50.00%	1	76 Hours
1	Sr Database	100.00%	1	152 Hours
1	Verifier	100.00%	1	152 Hours
5	Sr LAN Specialist	100.00%	0.1	76 Hours
1	Sr Network Specialist	25.00%	1	38 Hours
Totals: 11 Staff				798 Hours

Justification:

This effort will consolidate the administration of all Web servers in one location. Centralizing the location of all Intranet and Internet servers, as well as upgrading existing machines and software, is critical to the long-term effectiveness of Internet information services for the agency. Further, administration of the servers by a strong server administration team in one single location is critical to long term success.

Task Description:

CSMT Tasks:

1. Prepare computer room to accept additional power usage
2. Purchase racks for systems.
3. Physically move servers from current location to ABQ
4. Install and test
5. Implement

Web Team Tasks:

1. Complete preparation of space in the Albuquerque computer room for the three servers
2. Complete build of the new WWW server
3. Notify all users, staff, and clients utilizing machines to be moved , of any changes in addressing, accounts, trusts, etc.
4. Arrange logistics for physical move including personnel scheduling, vehicle rental, travel arrangements, etc.
5. Accomplish move over a weekend to insure minimal downtime.

Background:

Comments/Status:

Power is installed in the first floor computer room and are ordering racks.

Web-based IHS Work Order System

A-078

Project Category: Applications : Financial & Admin

This project proposes to continue development of an Information Technology Work Order System for use by the IHS nationwide as well as Tribes and Urban programs. This is a senior management initiative that relates specifically to requests received from I/T/Us. Similar projects will be coordinated so that, if possible, one comprehensive solution will be developed. (See #I-033 NPIRS Tracker Enhancement and #O-015 Project Management Application Harmonization.)

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 13 Administrative Environment **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Programmer	100.00%	3	456 Hours
Totals: 1 Staff				456 Hours

Justification:

There is a growing demand, legislative driven, for greater project management and oversight in government agencies. This effort at the IHS is an attempt to consolidate into one system the tools required to manage and monitor project status with the existing tools, or those under current development, used to record and track problem calls on the RPMS packages (NOIS) and the Work Order system. It is an attempt to develop a single efficient way to manage activities and the resources required for them, from the single RPMS problem call to the multi-layered project.

Task Description:

1. Create universal facility and personnel table that will be used for all categories of work orders.
2. Complete the remaining categories, PC/LAN, web, NOIS for RPMS calls, etc.
3. Convert current NOIS (RPMS) work orders to this system.
4. Enhance security, such as HTML execution of entered text.
5. Convert to Infrastructure Subsystem.

Background:

Comments/Status:

The system is now available for general category use and generates valid work orders in that category.

Lead Department:
CSMT
Computer Systems Management Team

Cache' conversion from MSM: Project Plan and Pilot Site

I-006

Project Category: Infrastructure : General

The purpose of this project is to identify and plan a conversion to Cache'. Specific areas of effort include developing an Architecture Design Document; defining and documenting a process for converting the RPMS database; examining the ability to have a smaller, more manageable active database; and defining and documenting a process for converting an RPMS database from an MSM environment to that of Cache. The Cache environment is expected to operate in such a manner as to emulate how RPMS currently operates in an MSM environment.

Project Status: In Progress

Type: New

ITSC Priority: 2 - High

Influences: ITA? RPMS Growth Plan?

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Sr Programmer	25.00%	12	912 Hours
2	Sr Management	40.00%	12	1,459 Hours
2	Sr Technical Writer	10.00%	12	365 Hours
2	Verifier	10.00%	12	365 Hours
2	Sr Network Specialist	15.00%	12	547 Hours
3	Jr Systems Analyst	25.00%	12	1,368 Hours
1	Project Lead	100.00%	12	1,824 Hours
1	Jr Programmer	25.00%	12	456 Hours
Totals: 15 Staff				7,296 Hours

Justification:

Since the face of technology is changing, Cache is the M solution we must eventually migrate to. Some RPMS customers are wanting to explore Cache. Some are perhaps even now using it. A follow-on project is also recommended for researching how to exploit the benefits of Cache's integration of capabilities: web, objects and SQL.

Task Description:

1. Identify operating procedures and systems to use during the port. These include:
 - Target hardware
 - Target host operating systems
 - Source file, notes and documentation archival repositories

All documents, notes and routines (procured or developed in-house) will be maintained in an archival directory.

2. Identify syntax specific to MSM that is not supported by Cache and search the target database for the specified strings. The findings will be analyzed to determine the proper course of action to bring about similar functionality in the Cache environment. The required code changes will not be made until the target database is moved to the Cache system. Any changes cannot be tested in the affected routines

until the routines are in the Cache environment. Search strings and any routines created or used will be included in the formal documentation.

3. Install and configure the Cache environment(s) on the host operating system(s). Special routines, such as startup for Taskman and user log in to Kernel will be developed. The final system configuration and developed routines will be formally documented.

4. Migrate the target database to the Cache environment. Recordings will be made on the procedures used so formal documentation can be created.

5. Make the modifications required from searching for MSM specific syntax. Modifications made will be documented in detail.

6. Formally document the conversion process to create install procedures and technical and user manuals.

Background:

Comments/Status:

Cache' Workgroup has been meeting monthly. Several activities are ongoing.

Cloverleaf Integration Engine Deployment

I-001

Project Category: Infrastructure : General

This project and its scope, staffing requirements, and even tasks depends upon the findings and results of the Cloverleaf Engine Pilot project #I-002. Once the pilot proves successful, the Cloverleaf Engine model will be made available to the I/T/Us. The extent of the deployment effort depends on what I/T/Us decide to implement the model and how much support each implementing I/T/U requires. The estimated labor requirements below clearly cannot represent accurately what the actual requirements will be without knowing how many interfaces will need to be developed, how many sites will decide to implement the model, and the amount of technical support those sites will need from ITSC to complete the implementation.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 02 Interoperability

Drivers?

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	6	91 Hours
1	Sr Programmer	10.00%	6	91 Hours
1	Jr Network Specialist	10.00%	6	91 Hours
Totals: 3 Staff				274 Hours

Justification:

The cost of maintaining many interfaces requires significant hardware (e.g., ports for interfacing) and staffing resources. The more sites that elect to adopt this Cloverleaf Integration Engine model, the lower these costs will be.

Task Description:

Specific tasks for this deployment depend upon the sites electing to implement this model, the number of interfaces needing to be developed, and the type and extent of technical support required by those implementing sites. Those sites requiring full support will be provided with interface programming, system installation and configuration, message monitoring, and networking assistance.

Background:

Comments/Status:

Startup of this project depends upon successful test results from project #I-002, Cloverleaf Integration Engine Pilot.

ITSC FY01 Project Plans
Cloverleaf Integration Engine Pilot

Lead Department: CSMT
I-002

Project Category: Infrastructure : General

This project will demonstrate the usefulness and utilization of a commercial integration engine called Cloverleaf. This intergration engine monitors ports from other systems through which those systems exchange messages. It acts as a router, receiving, storing, and forwarding messages when the target systems can receive them. It also translates messages from one format to another according to mapped formats, requiring applications to use only one format for messaging and letting the engine do the reformatting based on its mapping. It will be housed at the ITSC. The pilot utilization will be determined, possibly working with ENVOY service transactions and the 3M system that gathers information (diagnosis, visits, length of stays) from RPMS and determines appropriate billing codes.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 02 Interoperability **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	3	46 Hours
1	Sr Programmer	25.00%	3	114 Hours
1	Jr Network Specialist	10.00%	3	46 Hours
1	Jr Technical Writer	10.00%	3	46 Hours
1	Verifier	10.00%	3	46 Hours
Totals: 5 Staff				296 Hours

Justification:

The cost of maintaining many interfaces requires significant hardware (e.g., ports for interfacing) and staffing resources, and this project will reduce those costs.

Task Description:

1. Evaluate and select commercial interface engine.
2. Purchase and install hardware and software at ITSC.
3. Determine the pilot project scope and sites/projects.
4. Develop interface engine strategy.
5. Determine interface engine architecture.
6. Build the interfaces.
7. Testing the interfaces internally.
8. Evaluate the pilot and determine Go/NoGo decision on implementation.
9. Publicize the Cloverleaf Integration Engine model with the pilot results and promote its acceptance by I/T/U sites.
10. Develop a plan for interapplication communication using GIS, HL7, and the Cloverleaf Integration Engine.

Background:

Comments/Status:

Task #1 is completed. Hardware and software have been purchased and are now being installed at ITSC. The interface engine strategy is being developed.

Computer Emergency Response Team Formation and Implementation

Project Category: Infrastructure :General

This project creates a computer emergency response team (CERT) for IHS. It will involve the development of polices and procedures that deal with database recovery, viruses, attacks, down telecommunications, and other events that would otherwise produce infrastructure and environment downtime and data loss.

Project Status: Not Started **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?** PDD-63

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
3	Sr Network Specialist	5.00%	12	274 Hours
1	Project Lead	5.00%	12	91 Hours
Totals: 4 Staff				365 Hours

Justification:

Identification and preparation of this team completes the capability of the IHS to respond appropriately and effectively to a catastrophe that might otherwise compromise Agency ability to conduct normal operations.

Task Description:

1. Define goals, objectives of the CERT.
2. Define policies and procedures to be followed by the CERT in the event of an actual or suspected catastrophe.
3. Identify necessary team positions and team/individual functions in response to an actual or suspected catastrophe.
4. Document the plan, make it available for comment, revise it as necessary, and ensure its availability to team leads for ready access when needed.
5. Exercise the plan through a mock catastrophe and evaluate team functioning for necessary corrections.
6. Publicize the Team's existence with its objectives/policies, procedures, etc. so that IHS staff are aware of the plan and know how and who to contact in the event of a disaster.

Background:

Comments/Status:

GCPR Pilot Environment Setup and Maintenance

R-001

Project Category: Research & Development :GCPR-Related

This effort will establish and maintain the necessary environment for an effective GCPR pilot. This includes the server setup in Albuquerque, telecommunications, and the set up of a demonstration database.

Project Status: In Progress

Type: Continuation

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 02 Interoperability
15 Partnerships
12 CPR

Drivers?

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	6	228 Hours
2	Sr Network Specialist	10.00%	6	182 Hours
1	Sr Programmer	25.00%	6	228 Hours
Totals: 4 Staff				638 Hours

Justification:

This environment setup and maintenance is required for a successful pilot of the GCPR.

Task Description:

1. Evaluate and determine the telecommunications needs of the pilot environment.
2. Evaluate and determine the hardware/software needs.
3. Set up and configure the pilot environment.
4. Design and populate a demonstration database.
5. Test the new environment and maintain it.

Background:

Comments/Status:

The pilot machine in Albuquerque is accessible through the VPN, via telnet and ftp. We still need to install/configure: KB-SQL; ODBC driver (dll or ocx?); GIS, MPI updates; M-side apps for IHS Patient Chart; etc. Pilot RPMS demos database is being created from several sources.

Generic Interface System (GIS) IHS Deployment

I-009

Project Category: Infrastructure : General

RPMS will use a message generating system, the Generic Interface System (GIS), to generate HL7 messages. GIS will replace the current HL and BHL packages. The purpose of the GIS is to provide data interchange via HL7 not only between the GCPR Framework and RPMS, but also for ongoing data exchange for IHS sites' internal application needs, such as pharmacy (Viking), lab instrument interfaces (Data Innovations), Third Party Billing (3M), special interfaces to outside entities, e.g. the Center for Disease Control (CDC), etc.

Project Status: Not Started

Type: New

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 02 Interoperability

Drivers?

Staffing Requirements:

Est. Duration: 9 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	9	137 Hours
2	Contractor Support	30.00%	9	821 Hours
Totals: 3 Staff				958 Hours

Justification:

Adaptation of the GIS into RPMS communication is a prerequisite to full adoption of the GCPR Framework. Promoting use of standards-based messaging and interface engines will provide IHS with many benefits. Among these are reducing the cost of interfacing, which without an enterprise strategy can be a major and often unanticipated capital investment. Standardized messaging assists in reducing the number of customized interfaces between local applications, corporate level systems, and communication with systems operated by external partners.

Task Description:

1. Marshal GIS through testing, certification, release, and deployment.
2. Provide programming maintenance, support, and implementation of the GIS.
3. Develop a plan for interapplication communication using GIS, HL7, and the Cloverleaf Integration Engine.

Background:

Comments/Status:

Startup of this project throughout IHS depends upon successful completion of V&V for GIS Pilot #R-004. Primary support will be provided by Cimarron Medical Informatics (CMI).
Startup of this project depends upon successful completion of verification and validation for the GIS pilot in Project #R-004.

ITSC FY01 Project Plans
Generic Interface System (GIS) Pilot

Lead Department: CSMT
R-004

Project Category: Infrastructure : General

RPMS will use a message generating system, the Generic Interface System (GIS), to generate HL7 messages. GIS will replace the current HL and BHL packages. The purpose of the GIS is to provide data interchange via HL7 not only between the GCPR Framework and RPMS, but also for ongoing data exchange for IHS sites' internal application needs, such as pharmacy (Viking), lab instrument interfaces (Data Innovations), Third Party Billing (3M), special interfaces to outside entities, e.g. the Center for Disease Control (CDC), etc.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
 ISAC Goals: 02 Interoperability **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

#	Labor Category	%	Months	Total Hours
1	Project Lead	25.00%	3	114 Hours
1	Contractor Support	50.00%	3	228 Hours
Totals: 2 Staff				342 Hours

Justification:

Implementing GIS will provide one standard interface from RPMS to other applications, reducing the need for custom coding. Promoting use of standards-based messaging and interface engines will provide IHS with many benefits. Among these are reducing the cost of interfacing, which without an enterprise strategy can be a major and often unanticipated capital investment. Standardized messaging assists in reducing the number of customized interfaces between local applications, corporate level systems, and communication with systems operated by external partners.

Task Description:

1. Identify alpha test site, prepare site and install GIS.
2. Test and evaluate.
3. Provide Go/No Go decision on GIS implementation.

Background:

The Generic Interface System originally was developed by the VA and then used by SAIC for DoD's CHCS I. IHS evaluated several tools. In FY00, SAIC was contracted to port GIS into the IHS test environment.

Comments/Status:

Primary support for GIS pilot is being provided by Cimarron Medical Informatics (CMI). FY01 task order is being approved. GIS pilot is expected to be installed at Billings Area.

ITSC FY01 Project Plans

Lead Department: CSMT

Implement Part 3 of Kernel 8 Security Options

I-030

Project Category: Infrastructure : Security

This project will implement Part 3 of VA Kernel 8 security options to increase the security of the RPMS software platform. It is a subset of # I-014 VA Infrastructure Patch and will have major impact on field staff.

Project Status: Not Started **Type:** Enhancement **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support **Drivers?** HIPAA

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Systems Analyst	30.00%	6	274 Hours
Totals: 1 Staff				274 Hours

Justification:

This effort will increase security of the RPMS software platform.

Task Description:

1. Review VA Kernel Part 3 and determine impact on IHS version of Kernel.
2. Program changes needed.
3. Test and verify.
4. Implement at test sites.
5. Implement nationwide.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: CSMT

Internet/Intranet Services Operation and Maintenance

I-024

Project Category: Infrastructure : General

This project reflects the ongoing operation and management of the IHS WWW server, intranet servers, discussion boards, listserver, and video conferencing server. This includes day-to-day maintenance of web sites and infrastructure, basic web site development, and client services and support.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
3	Jr Programmer	100.00%	12	5,472 Hours
4	Sr Programmer	100.00%	12	7,296 Hours
1	Project Lead	75.00%	12	1,368 Hours
1	Jr Systems Analyst	100.00%	12	1,824 Hours
1	Sr Database	50.00%	12	912 Hours
1	Sr Technical Writer	100.00%	12	1,824 Hours
1	Verifier	50.00%	12	912 Hours
1	Sr PC Specialist	50.00%	12	912 Hours
1	Sr LAN Specialist	25.00%	12	456 Hours
8	Sr Network Specialist	75.00%	12	10,944 Hours
Totals: 22 Staff				31,920 Hours

Justification:

This project is required to provide the best possible Internet technology-related services to our customers.

Task Description:

1. Maintain existing services and web sites.
2. Design and develop new routine sites (brochureware). Note: Web-based application development and enhancements and new large scale web site developments are listed under separate project plans.
3. Customer support and liaison activities with IHS and other agencies.
4. Skills enhancement, study, training.
5. Administrative duties.

Background:

Comments/Status:

Seat Management Evaluation and Recommendation for Sites

I-053

Project Category: Infrastructure : General

This project involves evaluation of the Seat Management contracts available via DHHS and other sources (GSA, ODIN, etc.) to determine benefits and cost-savings available via centralized, outsourced purchases and support of common desktop software.

Project Status: Not Started

Type:

ITSC Priority: 3 - Medium

Influences: ITA? RPMS Growth Plan?

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	20.00%	4	122 Hours
Totals: 1 Staff				122 Hours

Justification:

This effort will determine if cost-savings are available through centralized purchases of common software.

Task Description:

1. Evaluate DHHS seat management contract.
2. Evaluate other options for seat management and the volume purchase of common software.
3. Prepare report of evaluation with results and recommendations for management.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: CSMT

Terminal Server Replacement Evaluation (RPMS Hardware)

I-055

Project Category: Infrastructure : General

Terminal server support and maintenance expires May 2001. This effort will determine if replacements are required or if maintenance should be extended. Staff will evaluate benefits of using Terminal Servers to support Thin Client use within IHS, including their potential cost savings, security issues, and support of desktop software.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 04 Technical Support

Drivers?

Staffing Requirements:

Est. Duration: 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	20.00%	2	61 Hours
1	Jr LAN Specialist	0.05%	2	0 Hours
Totals: 2 Staff				61 Hours

Justification:

This review of the Terminal server/Thin Client is required to determine the cost-benefit status of these systems to the IHS.

Task Description:

Evaluate the various vendor solutions that are available.

Background:

Comments/Status:

Evaluation of Pros and Cons of Thin Client architecture is completed.

ITSC FY01 Project Plans
Verification Gold Version UCIs

Lead Department: CSMT
A-015

Project Category: Applications : General

This project effort will create a separate environment of RPMS gold version packages with data and another separate environment for VA gold version packages. These environments would include all applications that have been certified, released, and in use in the field. Access would be restricted and monitored and the environments maintained to current level of all packages at all times.

Project Status: Not Started **Type:** **ITSC Priority:** 2 - High

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?** HIPAA
 13 Administrative Environment

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Systems Analyst	50.00%	6	456 Hours
Totals: 1 Staff				456 Hours

Justification:

This separate environment with the complete suite of current RPMS packages and patches would be used by newly hired professional staff in learning the packages they require and for display purposes with visiting groups. It will be particularly important to developers working on interfaces among the packages.

Task Description:

1. Set up a new and separate UCI in the development environment with appropriate security and access levels.
2. Install every package and its patches to bring them to the current release level.

Background:

Comments/Status:

ITSC FY01 Project Plans
Windows 2000 Migration

Lead Department: CSMT
I-012

Project Category: Infrastructure : General

This project involves migration of the IHS desktop environment to Windows 2000. This upgrade is necessary to improve the IHS infrastructure. This project is anticipated to be 24-months in duration.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
7	Sr LAN Specialist	30.00%	12	3,830 Hours
1	Project Lead	30.00%	12	547 Hours
Totals: 8 Staff				4,378 Hours

Justification:

This migration will provide the Agency with a more robust and secure operating system.

Task Description:

1. Implement WIN 2000 DNS solution.
2. Evaluate WIN 2000 implementation ramifications for all IHS.
3. Train administrators.
4. Implement WIN 2000, Exchange 2000, etc., on ITSC Servers, TEST.
5. Implement IHS Wide.

Background:

Comments/Status:

Currently evaluating DNS solution and implementation. Some training occurring.

Lead Department:
HQ
DIR Headquarters

Electronic Document & Signature Alternatives

I-021

Project Category: Infrastructure : Security

This project is a study to determine how to establish an electronic signature capability that meets HIPAA standards. During FY01, in Phase I, this study will monitor the VHA's Electronic Signature Study for applicability to and possible direct involvement by IHS. In Phase II, project staff will conduct will evaluate the technology choices/options and the costs related to the technology choices.

As VHA and IHS move to a mixed application environment (COTS and in-house), the current M-based methods of supporting electronic signatures are no longer sufficient. Federal regulations that the Department of Health and Human Services (HHS) is issuing based on HIPAA legislation will require a much more stringent electronic signature implementation than currently exists. VHA and IHS both must adopt new standard methods to support electronic signatures that meet HIPAA requirements.

Project Status: Not Started

Type: New

ITSC Priority: 1 - Required

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 13 Administrative Environment

Drivers? GPEA
Privacy Act

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
5	Sr Programmer	25.00%	1	190 Hours
3	Subject Matter Expert	25.00%	1	114 Hours
1	Sr Technical Writer	50.00%	1	76 Hours
1	Verifier	10.00%	1	15 Hours
Totals: 11 Staff				578 Hours

Justification:

The GPEA requires Federal agencies, by October 21, 2003, to allow individuals or entities that deal with the agencies the option to submit information or transact with the agency electronically, when practicable, and to maintain records electronically. GPEA specifically states that electronic records and their related electronic signatures are not to be denied legal effect, validity, or enforceability merely because they are in electronic form. It also encourages Federal government use of a range of electronic signature alternatives. Sections 1703 and 1705 of GPEA charge the Office of Management and Budget (OMB) with developing procedures for Executive agencies to follow in using and accepting electronic documents and signatures, including records required to be maintained under Federal programs and information that employers are required to store and file with Federal agencies about their employees. On March 5, 1999, OMB published the "Proposed Implementation of the Government Paperwork Elimination Act" for public comment.(64 FR 10896). It was also sent directly to Federal agencies for comment and made available via the Internet. Based on a review of all comments received, OMB published the final implementation guidelines in May 2000 which call for a definitive evaluation and implementation plan by October 2000 with annual updates on the progress.

Task Description:

1. Establish a liaison with the VA.
2. Provide design documentation and establish the group to conduct a design review.
3. Perform analyses of the modifications to those RPMS packages that will adopt the electronic signature features.
4. Modify the packages according to the design and defined approach.
5. Modify package documentation to incorporate the new features and prepare separate documentation on the electronic signature functionality.
6. Verify the packages with the new functionality, alpha and beta test, modify as necessary, and release.

Background:

Comments/Status:

Includes a GPEA Impact Assessment and Implementation Plan (Electronic Document & Signature Alternatives) and an Electronic Release of Information.

Project Category: Other :

The IHS Information Technology Architecture (ITA) document is an integrated framework of principles, guidelines, and rules for evolving and maintaining existing IT and acquiring new IT to achieve strategic and information resource management goals. The ITA is intended to be a dynamic document that will be updated on a continuous basis with new versions released annually, or as changes in the organization and/or technology dictate. This document is not meant to stand-alone; it stands side-by-side with the organization’s business plans, Information Technology (IT) strategic plans, and specific implementation plans. Several sections of the FY02 ITA need to be expanded, including Business Process and Security Architecture.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 03 Annual Plan

Drivers? CCA

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	20.00%	6	182 Hours
1	Contractor Support	75.00%	6	684 Hours
1	Sr Technical Writer	50.00%	1	76 Hours
Totals: 3 Staff				942 Hours

Justification:

The IHS ITA meets the requirements of the Clinger-Cohen Act (CCA) and HHS.

Task Description:

1. Identify specific areas that need substantial input.
2. Assign research and writing assignments.
3. Develop and implement a communication plan.
4. Plan and implement a review process with the ITA Workgroup.
5. Incorporate all changes into a final FY02 version for ISAC and CIO review and approval.

Background:

The ITA focuses on four objectives: 1) to institute an adaptive architecture that aligns with and enables IHS business requirements; 2) provide a blueprint to guide the Chief Information Office in planned and future work efforts; 3) meet the requirements of the Clinger-Cohen Act of 1996 and related expectations of the Office of Management and Budget (OMB); and 4) be consistent with the Veterans Administration’s (VA) ITA and Health and Human Services (HHS) ITA. To this end, this ITA has adopted ideas and concepts from both ITAs as well as from the Healthcare Finance Administration (HCFA) ITA.

Specifically, the ITA document:

- Presents a high-level architectural vision of a future ITA for IHS
- Identifies tactical initiatives for strategic investment that support the architectural vision
- Establishes a reference architecture model for IHS

- Aggregates and establishes a set of broadly applicable technical and security standards
- Presents a set of architectural models that depict the technical, operational, data and systems environments
- Provides guidance and recommendations for future development efforts to ensure their consistency with the architecture

Comments/Status:

IHS ITA FY01 has been submitted to ISAC for review and approval. Contract support is being provided by EDS.

RPMS Financial Applications Growth Path Evaluation and

A-007

Project Category: Applications : Financial & Admin

Business Office and Headquarters staff will perform detailed analysis and planning specifically for the RPMS financial and administrative applications to be included in the overall RPMS Growth Plan document. The RPMS Growth Plan documents customer expectations and the development schedule for RPMS over the next five years, including annual goals, specific interfaces and functionality, and the use of GOTS and COTS products.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 01 Billing

Drivers?

Staffing Requirements:

Est. Duration: 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	2	76 Hours
1	Sr Management	25.00%	2	76 Hours
1	Sr Technical Writer	25.00%	2	76 Hours
Totals: 3 Staff				228 Hours

Justification:

Analysis and planning has been completed for the RPMS clinical packages Growth Plan. It is now necessary to complete this planning process for the financial and administrative packages and document the result in the RPMS Growth Plan.

Task Description:

1. Determine workgroup composition.
2. Review the Growth Plan in relation to the Business Office applications.
3. Determine the preferred growth for the Business Office applications and document it in the formal RPMS Growth Plan.

Background:

Comments/Status:

ITSC FY01 Project Plans
Security Documentation

Lead Department: HQ
O-010

Project Category: Other :

This project involves assembling all security documentation relevant to IHS into one library and making it available to IHS personnel, including Areas and other sites.

Project Status: Not Started **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?** Comp Sec Act
PDD-63

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Technical Writer	10.00%	6	91 Hours
3	Jr Systems Analyst	25.00%	4	456 Hours
4	Project Lead	10.00%	6	365 Hours
Totals: 8 Staff				912 Hours

Justification:

This effort is necessary to bring the Agency into compliance with PDD-63, Computer Security Act.

Task Description:

1. Coordinate all applicable security regulations, policies, etc. into one library.
2. Disseminate information to Areas as others as required.
3. Update as required.

Background:

Comments/Status:

The four project leads indicated above represent ITSC Team Leads.

ITSC FY01 Project Plans
Security Implementation Plan

Lead Department: HQ
O-012

Project Category: Other :

This effort will develop and implement a plan to secure IHS infrastructures and to meet PDD-63, Computer Security Act, and other security regulations and guidelines.

Project Status: Not Started **Type:** New **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers? PDD-63

Staffing Requirements:

Est. Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	4	608 Hours
Totals: 1 Staff				608 Hours

Justification:

This effort will bring the Agency into compliance with PDD-63, Computer Security Act, and other security regulations and guidelines.

Task Description:

1. Develop the security plan.
2. Implement the plan.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: HQ

Security Training Plan and Implementation

O-011

Project Category: Other :

This project effort will produce a Security Training Plan to meet PDD-63, Computer Security Act, and other security regulations. It will include an implementation plan.

Project Status: Not Started **Type:** New **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?** Comp Sec Act
PDD-63

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	4	152 Hours
2	Subject Matter Expert	25.00%	6	456 Hours
Totals: 3 Staff				608 Hours

Justification:

Task Description:

1. Design training plan from existing security documentation.
2. Train the trainer(s).
3. Deploy the training nationwide.

Background:

Comments/Status:

Lead Department:
ITSC
Information Technology Support
Center

ITSC FY01 Project Plans
Diabetes Data Projects

Lead Department: ITSC
O-027

Project Category: Other :

This project effort will determine a logic using data in the RPMS that will produce an understandable, reproducible, and useful denominator list of patients that can then be used by the diabetes audit to produce measures that can be validly compared across sites. Project staff will look at the Diabetic population who receive their primary care at identified facilities to determine a logic and gold standard denominator that can be applied to other programs and their data. One project intent is to publish aggregated data from this internal analysis and its conclusions in a manner in which the data are statistically anonymous by individual and in which neither Tribes, facilities, nor the Areas in which they reside are identified.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**
 ISAC Goals: 09 Decision Support **Drivers?** Leg

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	12	456 Hours
1	Sr Management	25.00%	12	456 Hours
Totals: 2 Staff				912 Hours

Justification:

Results from this project with the Diabetes data can be applicable to other program data as a proven, refined research method and statistical approach.

Task Description:

The Project Lead provides consultation services during the startup of this project, sets up contracts as necessary, provides oversight for the ITSC contribution to the project, and works with other programs interested in adopting the logic and research method developed with the Diabetes data. The Sr. Management Analyst provides the statistical and analytical support to the project.

Background:

Comments/Status:

Evaluation of RPMS Software Applications

O-022

Project Category: Other :

Submitted as grant request. The project proposes to evaluate the effectiveness and outcome of new software applications within the RPMS system. This current proposal will evaluate three areas of IHS's current health care IT system. Applications to be evaluated include 1) Lab package, including baselining before and evaluation of sites after Lab deployment; 2) Health Summary, assessing the impact of changing where the prevention prompts occur; and 3) Use of Health Summary.

Project Status: Not Started **Type:** New **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**
ISAC Goals: 09 Decision Support **Drivers?**
 12 CPR

Staffing Requirements: **Est. Duration:** 8 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	9	137 Hours
1	Sr Systems Analyst	10.00%	9	137 Hours
1	Subject Matter Expert	10.00%	9	137 Hours
1	Sr Technical Writer	20.00%	3	91 Hours
Totals: 4 Staff				502 Hours

Justification:

Task Description:

- 1) RPMS Lab Package
 - a) identification of typical sites within the I/T/U setting who are not currently utilizing the lab package (already verbally identified);
 - b) development of an evaluation tool that will focus on timeliness, impact on care, cost savings, education from the lab package;
 - c) pre and post evaluation of three sites that undergo lab package deployment (one hospital and two ambulatory care sites);
 - d) education of providers, as well as consumers, during this process;
 - e) evaluation will also include consumer evaluation;
 - f) if enough resources, may also evaluate comparable sites that have had the package implemented for over 24 months.

2. Evaluate Prevention Prompts in Health Summary
 - a) evaluate compliance with prevention reminders as they currently exist at three sites that are routinely using health summaries (one hospital/ two ambulatory clinics) by chart reviews—both electronically and by hand
 - b) change the health summary component to have the reminders occur at the beginning of the summary
 - c) repeat step a
 - d) educate providers and patients about the need for prevention compliance (through presentations and through written material, hopefully presented to providers electronically)

3. Evaluate Use of Health Summary

- a) evaluate the current health summary by PARTITION (e.g. meds, allergies, etc) through structured interviews of the users of the health summary
- b) perform this evaluation at three sites (at a minimum)
- c) provide education to providers and patients on the role of the health summary, as well as where particular information is found
- d) repeat the evaluation (part a) after this education is completed.
- e) use this information to help direct proposed changes to the health summary;

Background:

Division of Information Resources (DIR) has been actively engaged in developing and refining a computerized patient record system through the last few decades. The current system, RPMS, has been widely distributed and used throughout most of the I/T/U clinical settings. Like other CPR systems, however, there has been little evaluation of effectiveness and outcome of new software applications within the RPMS system. This current proposal will evaluate three areas of our current health care IT system.

1. RPMS Lab package – the current lab package is a hybrid of the current VA lab package, and the needs of the I/T/U consumers. It is currently installed in over 100 sites throughout I/T/U settings. However, there are still many sites that are not currently using the lab package. In addition, there has never been a systemic evaluation of the clinical impact of this software application (there have been financial evaluations).

We envision working with Indiana University and the Reigenstreif Institute. Reigenstreif is the current leader in evaluation of IT as it relates to laboratory; our current contacts with them are through the GCPR project, and our use of LOINC as a standard terminology for lab tests.

2. Health Summary - the health summary is a critical component of our RMPS system; the health summary is used clinically to provide necessary and critical information to providers. In addition, however, there is a health care reminder section of the health summary. This section currently appears at the end of the health summary. Prevention guidelines are contained within this section of the CPR. However, the diabetes audit repeatedly reveals compliance issues with these recommendations. This project will assess the impact of changing where the prevention prompts occur within the health summary.

3. Use of Health Summary – as noted above, the health summary is a critical component of our CPR. However, DIR has never fully evaluated the use of the health summary.

Comments/Status:

Funding has been approved. Project plan is being developed.

ITSC FY01 Project Plans
GPRA Data Quality Initiatives

Lead Department: ITSC
O-026

Project Category: Other :

This project effort will gather information to enable IHS to best design required GPRA measures. This evaluation will look at the following five pilot measures: Blood pressure control in patients with diabetes, PAPs, Access to dental services, Up-to-date immunizations in 2 year olds, and Obesity prevalence in 3-5 year olds. The goal will be to verify the accuracy of the measures using the findings in the chart as a gold standard, and to delineate and quantify the reasons for discordances. It is hoped that the conclusions from this program evaluation will provide IHS with information to allow the Agency to make better program decisions concerning how it will implement the GPRA requirements.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 10 Comparability of Public Health Data **Drivers?** GPRA

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	12	456 Hours
1	Sr Management	25.00%	12	456 Hours
Totals: 2 Staff				912 Hours

Justification:

GPRA Item #17 specifically directs IHS to develop a method by which to provide GPRA measures from existing data.

Task Description:

The Project Lead will recruit people for the project, determine work methods, provide technical background information and overall project oversight. The Sr. Management Analyst will assist in these efforts, but in addition will analyze the data and determine recommendations based of those analyses.

Background:

Comments/Status:

ITSC FY01 Project Plans
IHS Information Technology Conference

Lead Department: ITSC
O-019

Project Category: Other :

This project will examine the possibility of contracting out arrangements and preparation of the annual IHS technology conference. The experience of internal IHS staff members planning and preparing this conference over the last several years equips them to evaluate such services on an outsourced basis.

Project Status: Not Started **Type:** New **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 08 Training **Drivers?**

Staffing Requirements: **Est. Duration:** 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Administrative	25.00%	3	228 Hours
Totals:	2 Staff			228 Hours

Justification:

This conference has grown over the years since its inception and preparation for it consumes a great deal of time of many IHS staff members. ITSC believes the time has come to evaluate the cost-benefit ratio of outsourcing this activity and examine the expertise of the organizations that provide this service.

Task Description:

1. Determine a list of organizations that provide conference preparation and implementation services.
2. Prepare a statement of work based on ITSC experience in sponsoring this conference over the past few years.
3. Obtain quotes, review samples of work, and interview clients of submitting organizations.
4. Prepare a comparison of a selection of organizations to the estimated cost to IHS of presenting this conference itself.
5. Present this cost and benefit comparison to ITSC management with recommendations.

Background:

Comments/Status:

IHS IT Outsourcing Review and Recommendation

Project Category:

Other :

This project will be an examination of the alternative to outsource IT services. Project staff will review IT service organizations and contracting alternatives. They will determine current costs to IHS for inhouse IT services and compare them to those provided by external service organizations. These comparisons will include all IT services itemized by desktop environment, infrastructure and device management, LAN and WAN networking, and server technical support. They will also include hardware and software purchase and licensure agreements, swaps and upgrades, and service level agreements.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA?

RPMS Growth Plan?

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Management	25.00%	4	152 Hours
1	Sr Network Specialist	10.00%	4	61 Hours
1	Sr PC Specialist	10.00%	4	61 Hours
Totals: 3 Staff				274 Hours

Justification:

The availability of IT service organizations and the variety of 'seat management' types of contractual arrangements available on the market now make outsourcing of IT services a viable alternative and one that offers attractive advantages to inhouse services. Not the least of these advantages is the potential ability to better understand, manage, and predict IT costs.

Task Description:

1. Determine current IT costs with inhouse services and develop a grid of services required by IHS to maintain its technological environment.
2. Identify outsource service providers and obtain information about the levels of support and types of contractual arrangements they provide, based on the grid of services required by IHS.
3. Analyze results of the information gathering in task #2 and compare those results to the services and costs determined in task #1.
4. Define recommendations and present them with findings of the project to ITSC management.

Background:

Comments/Status:

ITSC FY01 Project Plans
ITSC Training Program

Lead Department: ITSC
A-056

Project Category: Applications : General

This project will facilitate an expanded training effort in support of IHS IT staff and the RPMS packages. This is essentially a 2-fold program. The first component involves NETg online course offerings and periodic classroom instruction in existing technologies relevant to the IHS environment. The other component focuses on providing classroom instruction on the RPMS packages through the enlisted services of experienced "superusers." These volunteer trainers provide instruction on the RPMS packages at National Programs in Albuquerque and at Area Office training facilities. ITSC is currently scheduling training for the Fiscal Year 2001 targeting the most highly used and widely distributed packages with known superusers. Project staff will continue to identify additional package superusers to expand the coverage and will continue to support training efforts by established ITSC user support specialists such as those now working with the Third Party Billing, Accounts Receivable, Laboratory, and Primary Care Component packages.

Other RPMS program aspects that require attention include strengthening the training abilities of the instructors, using course evaluations to improve the training experience, providing more training at the Area level, and enhancing training materials and the way in which they are developed and presented.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?**
 08 Training

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	15.00%	12	274 Hours
1	Sr Training Specialist	100.00%	12	1,824 Hours
1	Jr Training Specialist	100.00%	12	1,824 Hours
1	Jr Management	25.00%	12	456 Hours
Totals: 4 Staff				4,378 Hours

Justification:

IHS customers have requested more training and ITSC has been attempting to meet that need. Great progress has been made over the past year, but the effort must be continued in order to expand the training opportunities on more packages, in more Area Offices, for more users. The entire program needs to stabilize in terms of its scheduling, preparation, evaluation, technical support, and reward processes.

Task Description:

1. Superusers: Identify and enlist more RPMS package superusers. Identify ways to reward them and those who make it possible for their periodic absences. Identify ways to enhance their training skills.
2. Scheduling: Schedule courses further ahead to enable more lead time for trainer arrangements, preparation, and notification to users.

3. Evaluations: Obtain course evaluations from all training events, summarize, and report to trainers and pertinent management.
4. Materials: Develop templates for trainers and developers to use in preparing instructional materials.
5. FasTrac Online IT Staff Training: Continue monitoring arrangements for this browser-based training via IHS/HHS team. Remove existing courses from IHS Web server at end of existing contract (October end) unless rolled into new contractual arrangements. Continue user support as necessary. Participate in implementation of new contract as requested by the IHS/HHS team. Publicize the expanded course offering when available via established ITSC communication tools (e.g., Webpage, newsletter, technical update).

Background:

Comments/Status:

The existing NETg contract expires at about the time of this writing and will be replaced by IHS involvement in the HHS contract with FasTrac for both NETg and SkillSoft online courses. This program is under development.

ITSC FY01 Project Plans
Medicare Measures Project

Lead Department: ITSC
O-024

Project Category: Other :

HCFA and IHS are attempting jointly to determine a Medicare reimbursement rate for IHS. As part of this arrangement, HCFA requires some evaluation measures to be implemented from the NPIRS data. This project will clarify what those measures will be and implement them by programming the data generation and reporting process specifically for HCFA.

Project Status: Not Started **Type:** Continuation **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 01 Billing

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	5.00%	12	91 Hours
1	Sr Programmer	5.00%	12	91 Hours
Totals: 2 Staff				182 Hours

Justification:

Providing measures derived from the NPIRS data supports the HCFA reimbursement rate agreement with IHS.

Task Description:

The Project Lead will provide consultation services to the discussions between HCFA and IHS about the reimbursement rate and the required measures. The Sr. Programmer will actually generate the measures from the NPIRS data.

Background:

Comments/Status:

Discussions between HCFA and IHS are taking place.

ITSC FY01 Project Plans

Lead Department: ITSC

ORYX Maintenance

O-029

Project Category:

Other :

JCAHO-related. Includes Web (staff listed under Web O&M)

Project Status: Ongoing (O&M)

Type: Continuation

ITSC Priority: 1 - Required

Influences: ITA?

RPMS Growth Plan?

ISAC Goals:

Drivers? JCAHO

Staffing Requirements:

Est Duration: Months

Justification:

Task Description:

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: ITSC

Software Implementation Response (SIRT) Team

I-056

Project Category: Infrastructure : Security

This project creates a software emergency response team for IHS. It will involve the development of policies and procedures that deal with software recovery in the event of a catastrophe that compromises use of IHS desktop and server software. This team will work in concert with the Computer Emergency Response Team (see Project #I-013 to implement the Disaster Recovery Plan (Project #I-046) when events require it.

Project Status: Not Started

Type: New

ITSC Priority: 3 - Medium

Influences: ITA? RPMS Growth Plan?

ISAC Goals:

Drivers? PDD-63

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	15.00%	12	274 Hours
1	Sr Programmer	15.00%	12	274 Hours
1	Jr Systems Analyst	15.00%	12	274 Hours
1	Sr Database	15.00%	12	274 Hours
1	Sr Technical Writer	15.00%	12	274 Hours
1	Sr Network Specialist	15.00%	12	274 Hours
2	Jr Programmer	15.00%	12	547 Hours
Totals: 8 Staff				2,189 Hours

Justification:

Identification and preparation of this team completes the capability of the IHS to respond appropriately and effectively to a catastrophe that might otherwise compromise Agency ability to conduct normal operations.

Task Description:

1. Identify necessary team positions and assign known staff to them.
2. Define team functions in response to an actual or suspected catastrophe.
3. Define individual team member responsibilities in the event of a catastrophe.
4. Document the plan, make it available for comment, revise it as necessary, and ensure its availability to team leads for ready access when needed.
5. Exercise the plan through a mock catastrophe.

Background:

Comments/Status:

Lead Department:
TMT
Telecommunications Management
Team

ITSC FY01 Project Plans

Lead Department: TMT

Anti-virus Procurement for IHS Enterprise

I-049

Project Category: Infrastructure : Security

This project is the volume license purchase of an enterprise-wide anti-virus solution for the Agency. This process will follow the standard Agency purchasing practice.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?** Comp Sec Act

Staffing Requirements: **Est. Duration:** Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	3	46 Hours
2	Sr Network Specialist	5.00%	1	15 Hours
Totals: 3 Staff				61 Hours

Justification:

This procurement will provide consistency in virus protection within the Agency and make support easier, more effective, and more efficient.

Task Description:

1. Evaluate virus options and volume pricing.
2. Procure product licenses.
3. Distribute to all Areas/facilities.
4. Implement nationwide.
5. Continue upgrades and maintenance at all Areas/facilities.

Background:

Comments/Status:

The project lead is currently conducting an investigation with help from a network specialist at ITSC.

Banyan Elimination Plan and Implementation

I-045

Project Category: Infrastructure : General

This project eliminates the Banyan Vines mail system from within the IHS infrastructure. It also eliminates the MailSync Gateway. These changes support the IHS move to the Exchange e-mail platform.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	12	182 Hours
1	Sr Network Specialist	5.00%	12	91 Hours
Totals: 2 Staff				274 Hours

Justification:

Task Description:

1. Eliminate Banyan vines systems throughout agency (OK, Nashville, Portland OEHE).
2. Continue national support until all Banyan servers eliminated.
3. Remove Mail Sync Gateway when all Banyan servers eliminated.

Background:

Comments/Status:

Ongoing support is being provided on a daily basis. Areas are currently migrating to Exchange. Nashville has one banyan server left. OKC is migrating rapidly. Portland has OEHE left with no definite conversion underway.

ITSC FY01 Project Plans
Cache Flow Server Implementation

Lead Department: TMT
I-044

Project Category: Infrastructure : General

This project addresses the installation and implementation of a Cache Flow Server. This server caches downloads of the recent locations accessed by internal web users and periodically updates those cached downloads by polling the web. Then, when the users return to those sites, they are internally available on the network cache server and their access does not require hitting the internet and using bandwidth. The installation includes a librarian, links to downloads, and development of web pages (see #O-006).

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers?

Staffing Requirements:

Est. Duration: 1 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr Network Specialist	10.00%	1	15 Hours
Totals: 1 Staff				15 Hours

Justification:

Completion of this project will reduce the number of hits to the internet for similar information and will thus free bandwidth.

Task Description:

1. Install Cache Flow server - completed.
2. Install the WCCP protocol on the Router- completed.
3. Implement server to cache web pages and evaluate the effect on the network and bandwidth usage.

Background:

Comments/Status:

The Cache flow server has been installed and testing has been conducted. This project is on hold pending the new network design to implement firewalls. Re-evaluation and testing of server location will be conducted upon completion of the new design.

ITSC FY01 Project Plans
Disaster Recovery Plan for Servers

Lead Department: TMT
I-046

Project Category: Infrastructure : Security

This project will produce policies to recover servers in the event of a failure of any servers housed at ITSC. Staff will document a disaster recovery plan for LAN servers including but not limited to National Exchange servers, Web servers, and the Session wall.

Project Status: Not Started **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support

Drivers? PDD-63

Staffing Requirements:

Est. Duration: 6 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	6	91 Hours
3	Sr Network Specialist	10.00%	3	137 Hours
1	Jr Technical Writer	10.00%	3	46 Hours
Totals: 5 Staff				274 Hours

Justification:

Development of this documentation provides IHS with the capability to respond appropriately and effectively to a catastrophe that might otherwise compromise Agency ability to conduct normal operations.

Task Description:

1. Establish backup documentation for individual servers.
2. Develop and document disaster recovery plan for each type of server.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: TMT

E-Mail Management and Etiquette

O-016

Project Category: Other :

This project is an effort to educate e-mail users about the do's and don'ts of e-mail usage -- how and when to use group distribution, knowing who should be included in the distribution, how to manage the tone and impact of e-mail messages, etc.

Project Status: Not Started **Type:** New **ITSC Priority:** 4 - Low

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: **Drivers?**

Staffing Requirements: **Est. Duration:** 1 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Sr LAN Specialist	10.00%	1	15 Hours
Totals: 1 Staff				15 Hours

Justification:

Task Description:

1. Develop a detailed policy about the appropriate use of e-mail and e-mail group distribution.
2. Distribute the policy to personnel.
3. Address and discuss policy in ITSC general and team staff meetings.

Background:

Comments/Status:

Fax Server Implementation at ITSC-ABQ

I-042

Project Category: Infrastructure : General

The purpose of this project is to install and make operational a fax server for the DIR, ITSC staff located in the HQW building in Albuquerque, New Mexico. This will allow ITSC staff to send and receive faxes from their work areas.

Project Status: Deferred **Type:** Continuation **ITSC Priority:** 3 - Medium

Influences: **ITA?** **RPMS Growth Plan?**

ISAC Goals: 05 Connectivity **Drivers?**
13 Administrative Environment

Staffing Requirements: **Est. Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	1.00%	2	3 Hours
Totals: 1 Staff				3 Hours

Justification:

The number of fax machines and fax lines in ITSC will be reduced eventually as all users are converted to desktop faxing.

Task Description:

1. Order fax and modem server, modem card, and the necessary software operate.
2. Assure power and network connections are available.
3. Install fax board on server
4. Install software and configure parameters.
5. Order and install phone lines.
6. Test server(s) in an off-line environment.
7. Test FaxMaker Client Software and receipt/sending of faxes in limited live environment.
8. Test send/receipt of fax on all lines.
9. Make client software available on the network for ITSC users installations.
10. Convert to live environment for ITSC.
11. Install client software on all ITSC employee desktops.
12. Develop users documentation and distribute to all DIR, HQW users.
13. Notify all ITSC users of new fax numbers.

Background:

Comments/Status:

The Fax server was installed for Y2K and, although Fax services are now available, they need refining. The Fax server is being maintained and upgraded. It would function better with DID lines but the expense is prohibitive. Further action on this project has been curtailed pending possible solution via MCI.

ITSC FY01 Project Plans

Lead Department: TMT

FTS Conversion from 2000 to 2001

I-041

Project Category: Infrastructure : General

This project involves converting the voice, data, and video circuits from AT&T to MCI as a cost savings measure.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 05 Connectivity **Drivers?**

Staffing Requirements: **Est. Duration:** 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
4	Sr Network Specialist	25.00%	4	608 Hours
1	Project Lead	15.00%	4	91 Hours
Totals: 5 Staff				699 Hours

Justification:

Task Description:

1. Order FTS 2001 voice, data, video services.
2. Install those services.
3. Discontinue AT&T 2000 services.

Background:

Comments/Status:

Services have been ordered and we are awaiting installation.

ITSC FY01 Project Plans
IHS Firewall Installation

Lead Department: TMT
I-037

Project Category: Infrastructure : Security

This project involves installation of a main firewall at ITSC to cover the Internet Service Provider (ISP), Internet, and Albuquerque Area. It also includes implementation to all Areas.

The service needs to filter IP addresses, block DOS attacks, provide reporting capability, page/email staff when certain conditions are met, and allow remote monitoring. ITSC will attempt to obtain all products from same vendor to make maintenance and support easier. This project includes the cost to develop IHS documentation on proper configuration,

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers? Comp Sec Act
GPEA

Staffing Requirements:

Est. Duration: 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
8	Sr Network Specialist	100.00%	2	2,432 Hours
1	Project Lead	100.00%	2	304 Hours
Totals: 9 Staff				2,736 Hours

Justification:

This IHS Firewall installation will increase network security and bring IHS into compliance with government regulations and standards.

Task Description:

1. Purchase hardware/software.
2. Train WAN/LAN personnel.
3. Test on limited basis.
4. Install at selected ITSC and Area offices.
5. Install nationwide.

Background:

Comments/Status:

The evaluation phase is complete and the order is in process.

ITSC FY01 Project Plans

Lead Department: TMT

IHS WAN Support of ATM Voice and Video

I-039

Project Category: Infrastructure : General

This project involves the design and implementation of a new technology that will support voice and video over currently installed data circuits.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 05 Connectivity

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
5	Sr Network Specialist	25.00%	12	2,280 Hours
1	Project Lead	35.00%	12	638 Hours
Totals: 6 Staff				2,918 Hours

Justification:

This effort will improve connectivity and provide a savings in telecommunications costs.

Task Description:

1. Obtain user requirements.
2. Incorporate those requirements into the new network design.
3. Plan the implementation.
4. Implement the new design.
5. Continue maintenance and support of the new hardware/software.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: TMT

Implement Multi-Media Streaming Server

I-029

Project Category: Infrastructure : Web-Related

This project establishes streaming media services for the IHS and customers. It uses streaming media technologies to deliver training, briefings, and other relevant materials via real time, including full motion video and/or audio. In order to fully deploy streaming media, a dedicated server will be purchased to handle multiple requests and to allow for future expansion. Most multimedia-rich websites (CNN, MSNBC, WWF, etc.) have dedicated servers to handle media requests.

Project Status: Deferred

Type: New

ITSC Priority: 4 - Low

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 05 Connectivity

Drivers?

Staffing Requirements:

Est. Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Jr Systems Analyst	20.00%	3	182 Hours
2	Sr Network Specialist	50.00%	1	152 Hours
1	Project Lead	100.00%	3	456 Hours
1	Jr Programmer	100.00%	1	152 Hours
1	Sr Technical Writer	25.00%	1	38 Hours
1	Verifier	25.00%	1	38 Hours
Totals: 8 Staff				1,018 Hours

Justification:

A dedicated server will prevent current production web servers from being bogged down by streaming media requests and will balance overall loading accordingly.

Task Description:

1. Build multimedia development computer.
2. Purchase software for development and conversion.
3. Train staff to use streaming media development tools.
4. Insure ADA compliance by transcribing speech into text or text into spoken words.

Background:

Comments/Status:

The server has been received, but this project has been placed on hold since it is a low priority. Media development workstation and software is on order. Server requirements and requests are pending approval of this project. Staff training is in progress.

ITSC FY01 Project Plans
Network Intrusion Detection

Lead Department: TMT
I-050

Project Category: Infrastructure : Security

This effort will establish a plan for intrusion detection, including the installation of hardware and software to accomplish the objectives outlined in the plan. The plan will include maintenance and training as well as a password checker (such as Crack5.0 - for NT systems and AntiCrack - for Unix systems). Project staff will consider having an external contractor conduct remote scans with our toolkit on a regular basis and provide reports of their findings.

Project Status: In Progress **Type:** New **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: **Drivers?** Comp Sec Act
PDD-63

Staffing Requirements: **Est. Duration:** 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	2	304 Hours
2	Sr Network Specialist	100.00%	2	608 Hours
Totals: 3 Staff				912 Hours

Justification:

This project will enable IHS to meet PDD-63, Computer Security Act, and to increase security of IHS networks.

Task Description:

1. Evaluate available options.
2. Purchase software/hardware.
3. Train administrators/security person.
4. Test/implement.
5. Maintain and monitor.

Background:

Comments/Status:

This project has been partially accomplished via installation of the Session wall.

ITSC FY01 Project Plans
Network Intrusion Monitoring

Lead Department: TMT
I-066

Project Category: Infrastructure : Security

This project involves monitoring and maintaining the intrusion detection devices and practices put into place (see Project #I-050). Depending on the plan developed, this may involve having an external contractor conduct remote scans with our toolkit on a regular basis and provide reports of their findings. Staff responsible for monitoring for intrusions will be trained on the use of the tools implemented and the types of intrusions that may be detected.

Project Status: Not Started **Type:** New **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers? PDD 63

Staffing Requirements:

Est. Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
2	Project Lead	50.00%	3	456 Hours
Totals: 2 Staff				456 Hours

Justification:

Monitoring network for intrusion detection as required by good network practices, security practices, government procedures, and by Presidential mandate (PDD-63).

Task Description:

1. Implement the intrusion detection plan and train staff members in the use of its tools and in the kinds of intrusions that may occur.
2. Monitor network and adjust configurations.
3. Report intrusions or suspicious activity.
4. Continue evaluation of available tools to protect network from intrusions.

Background:

Comments/Status:

ITSC FY01 Project Plans
Norton Anti Virus Gateway

Lead Department: TMT
I-048

Project Category: Infrastructure : Security

This project involves installation of an Agency antivirus SMTP (email & mail) gateway for filtering all email into and out of the Agency.

Project Status: In Progress **Type:** Continuation **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals:

Drivers? Comp Sec Act

Staffing Requirements:

Est. Duration: 4 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	4	608 Hours
3	Sr Network Specialist	90.00%	2	821 Hours
Totals: 4 Staff				1,429 Hours

Justification:

Deployment of the Norton Antivirus Mail Gateway on the IHS Network will provide greater virus protection and enable IHS to route all Agency mail through one gateway for virus scanning before it leaves or comes into the Agency.

Task Description:

1. Purchase the appropriate software/hardware.
2. Test it a controlled environment.
3. Train administrators on the new product.
4. Build the gateway server and install the gateway software.
5. Implement the new product.

Background:

Comments/Status:

The Hardware is on site.

Task Description:

1. IHS will review the recommended PKI strategy including:
 - Estimation of the number of certificates required;
 - Decision on the registration approach;
 - Decision on outsourcing versus running an internal CA; and
 - General requirements.
2. Mitretek will write a Certificate Policy.
3. IHS will review the Certificate Policy.
4. Mitretek will write a Certification Practices Statement.
5. IHS will review the Certification Practices Statement.
6. Mitretek will develop a preliminary implementation plan based on the decisions in step 1. The plan will include:
 - Cost estimates (including contacting CA service providers) for cost estimates and comments on the approach
 - Continued exploration of joint IHS/VA CA options
 - Issues related to standard technical architecture and tokens
7. Mitretek will identify and select prototype applications (e.g. S/MIME, secure Web, telnet over SSL). The goal is to use representative technologies in a typical configuration and environment.
8. Mitretek will implement/evaluate the prototype with a sufficient number of typical users and an internal CA). Teams will travel to sites for the purpose of training both RA and subscriber personnel.
 - The purposes of implementing the prototype are:
 - To evaluate the ease of use for the end-user
 - To determine the operational issues involved in maintaining the various interfaces and databases
 - To determine the operational burden of registering users, revoking certificates, renewing certificates, and performing key recovery
 - To implement the prototype in such a way that all the steps described in this paper including registration, renewal, revocation, and PK-enabling of an application are exercised
9. Mitretek will make an implementation recommendation. The lessons learned from the prototype implementation can be applied to a full-scale PKI implementation and will permit modification of plans to be made based on experience.
10. IHS will make an implementation decision.
11. Mitretek will prepare a statement of work including requirements.
12. Mitretek will evaluate proposals, provide technical assistance, and test/evaluate the implementation. (TBD pending basic approval and statement of work)

Background:

Federal agencies, State Medicaid agencies, private health plans, health care providers, and health care clearinghouses must assure their customers (such as patients, insured, providers, and health care plans) that the confidentiality and privacy of health care information they electronically collect, maintain, use, or transmit is maintained. Security of health information is especially important when health information can be directly linked to an individual. Confidentiality is threatened not only by the risk of improper access to electronically stored information, but also by the risk of interception during electronic transmission of the information.

To be of use, healthcare information must be available when and where it is needed. The practitioner must also be assured that the information is correct, that it has not been altered in unauthorized ways, and that it represents the data for the patient under treatment. The Indian Health Service's (IHS) most sensitive data is patient medical records. Protecting the confidentiality of this data and other data is essential to maintaining the confidence and trust of the community IHS serves. At the same time, the quality of care provided to its customers depends on having accurate data available when and where it is needed.

Encryption and signature are the two basic functions provided by PK technology. But these two basic functions support four security services: authentication, confidentiality, integrity, and non-repudiation. Encryption supports confidentiality, while digital signature provides the basis for the remaining three services. Assuming the private key owner controls the private key and ensures its secrecy, verification of a signed message using the public key contained in the certificate authenticates that the message was sent by the private key owner.

A Certificate Authority (CA) is an entity that is responsible for authorizing and causing the issuance of a certificate, which are used PK encryption technology. This technology can be used to encrypt information, digitally sign information to ensure its integrity and source, and to identify and authenticate users. A certificate is a digitally signed data structure that binds a individual's name with a public key. The individual has control of the private key associated with the public key. Agencies will issue electronic certificate authorities (CAs) to their users, containing the user's private confidentiality key and their private digital signature key.

An evaluation of PKI technology and approaches has been prepared for IHS. The recommendations are as follows:

- IHS should buy PKI services. Analysis of whether to use the VA to supply CA services should be continued.
- IHS should establish a registration infrastructure oriented to Service Units and following the model currently used for IHS ID cards and facility badges
- IHS should use separate keys for signature and encryption
- The e-mail attribute should not be used unless required to support existing or planned e-mail clients
- IHS should obtain services to provide identity certificates and server certificates with the capability to expand to include e-mail, IPSEC, and code signing certificates, as IHS requires them
- Initially, IHS should plan to use floppy disks as tokens until an investigation can be completed as to the maturity and interoperability of hardware tokens
- The IHS PKI should comply with the Federal PKI (FPKI) Class 3 criteria to ensure interoperability with other PKIs serving other Government agencies

Comments/Status:

Mitretek has provided an evaluation and recommendation for IHS PKI implementation. ITSC Security WG needs to be formed to review the document and assign tasks, as noted in the Task Description.

ITSC FY01 Project Plans
Session Wall 3 Implementation

Lead Department: TMT
I-043

Project Category: Infrastructure : General

This project involves deployment of the Session Wall-3 Enterprise Edition software to provide network-wide high availability and reliable distributed real-time network protection. The software will be implemented at ITSC, HQE, Tucson. Installation includes the Session Wall Agent, Central, LogView Server/Client and Data Server Agent on HQE and Tucson.

Project Status: Not Started **Type:** Continuation **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: **Drivers?**

Staffing Requirements: **Est. Duration:** 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	50.00%	3	228 Hours
1	Sr LAN Specialist	15.00%	3	68 Hours
Totals: 2 Staff				296 Hours

Justification:

This deployment will provide continued monitoring/reporting services; network monitoring, security, and usage statistics; improved bandwidth usage; and the ability to block non-productive Internet sites.

Task Description:

The actual Installation of two servers and software will take approximately two workdays. The pre-install research and preparation will require 5 workdays. Testing phase allow 5 workdays. Conversion to live monitoring phase allow 1 workday. Management determination of inappropriate web sites, type and amount of monitoring desired from the software, responsible administrator, etc., allow 5

Background:

Session Wall-3 provides a surveillance screen around the network, provides extensive management and detailed reporting mechanisms. It provides a broad level of network surveillance, attack detection, inappropriate usage detection and control at multiple locations from a central console. HQW will serve as the central monitoring point. An agent will also be installed at HQE once the servers at HQW are fully functional and running for a specified period of time without major problems.

Comments/Status:

The session wall is up and running. Efforts now involve providing ongoing maintenance and some additional component installations.

ITSC FY01 Project Plans
VA Connectivity Liaison

Lead Department: TMT
I-054

Project Category: Infrastructure : General

This project maintains an important liaison function for various types of connectivity to VA services to keep IHS abreast of software, hardware, and security issues occurring in the Veterans Affairs with whom IHS is closely aligned.

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**
ISAC Goals: 04 Technical Support **Drivers?**
15 Partnerships

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	25.00%	12	456 Hours
Totals: 1 Staff				456 Hours

Justification:

This liaison activity is a necessary link between IHS and the VHA, of particular importance to projects that involve upgrading RPMS packages to the VA version and patch level.

Task Description:

1. Continued contact with VA personnel to obtain connectivity to various systems.
2. Continued contact with VA personnel to troubleshoot connectivity problems between IHS and VA.
3. Provide IHS users with appropriate access procedures and connectivity.

Background:

Comments/Status:

This is an ongoing effort to provide and maintain access for IHS staff to the VA, the VA Forum, and the VA internet/intranet via TCP/IP Dialin and SecureNet. This project focuses on troubleshooting that connectivity and user account maintenance.

As required, staff liaison sets up IHS users with access to VHA software via VHA SecurNet (being tested) and their TCP-IP remote dial-in process.

ITSC FY01 Project Plans
Virtual Private Network Installation

Lead Department: TMT
I-038

Project Category: Infrastructure : Security

This project involves the installation of Virtual Private Network (VPN) hardware/software and setup of clients across the IHS sites.

The VPN must be a scalable solution(s) that supports business to business connections with BCBS, Tribal, other government agencies, and business to SOHO with small tribal and urban sites. The solution must support access to the network for telecommuters and laptops. For larger solutions, it is preferable to use known vendors - perhaps Cisco or Cabletron. Laptops require easy distribution of clients (similar to the Intel Cheva solution).

ITSC initially expects most Alaska sites to hit by VPN. Vendors (BCBS, ENVOY, etc) are expected to connect within one year and 5-10 urban clinics are expected to connect in the first year.

Project Status: Not Started **Type:** Operations & **ITSC Priority:** 1 - Required

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 05 Connectivity

Drivers? Comp Sec Act
GPEA

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
8	Sr Network Specialist	1.00%	12	146 Hours
1	Project Lead	1.00%	12	18 Hours
Totals: 9 Staff				164 Hours

Justification:

This installation increases Tribal connectivity and increases both network security and the IHS level of compliance with government regulations and standards.

Task Description:

1. Purchase hardware/software.
2. Train WAN/LAN personnel.
3. Test on limited basis.
4. Install at selected ITSC and Area offices.
5. Install nationwide.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: TMT

WAN/LAN/OA/Servers Maintenance and Troubleshooting

I-052

Project Category: Infrastructure : General

This project reflects the daily national and local support provided on a continuous basis by the TMT team. It includes troubleshooting and maintenance of IHS servers, networks, and hardware (including NT, Exchange, SMS, SQL, Web, Security servers, etc.), and software (including Wide Area and Local Area network routers, gateways, switches, firewalls, VPNs, etc.).

Project Status: Ongoing (O&M) **Type:** Operations & **ITSC Priority:** 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support **Drivers?**

Staffing Requirements: **Est. Duration:** 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	100.00%	12	1,824 Hours
1	Sr PC Specialist	95.00%	12	1,733 Hours
10	Sr Network Specialist	80.00%	12	14,592 Hours
Totals: 12 Staff				18,149 Hours

Justification:

This maintenance is in support of agency infrastructure and abides by agency regulations to maintain hardware/software/network platforms and perform required updates, patches, and regular maintenance.

Task Description:

- Ongoing maintenance performed on:
- WAN/LAN national network
 - National e-mail
 - Hardware/software installs, upgrades, patches, and maintenance
 - National Web server

Background:

Comments/Status:

This is an ongoing effort, requiring the partial attention of team members on a daily basis.

ITSC FY01 Project Plans

Lead Department: TMT

Wide-Area Network Backup System

I-036

Project Category: Infrastructure : General

This project will build in redundancy between Areas and the Albuquerque environment to provide rapid switchover of the network in case of failure.

Project Status: In Progress

Type: New

ITSC Priority: 3 - Medium

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support
05 Connectivity

Drivers?

Staffing Requirements:

Est. Duration: 2 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	10.00%	1	15 Hours
1	Sr Network Specialist	50.00%	2	152 Hours
Totals: 2 Staff				167 Hours

Justification:

This effort will provide failover recovery in the event of a system failure, thus ensuring greater network reliability and integrity.

Task Description:

1. Evaluate and procure the necessary hardware.
2. Install hardware.
3. Test hardware.
4. Implement.

Background:

Comments/Status:

The hardware has been purchased.

Wireless Point of Care Evaluation and Recommendation

R-023

Project Category: Research & Development :

This project effort will evaluate wireless communication products for use by providers where patient care is provided. The project effort will result in identified products, an assessment of the product and related service, and recommendations concerning their use. If implementation of wireless is recommended, the team will develop policies, procedures, and technical specifications for its use.

Project Status: Not Started

Type: New

ITSC Priority: 4 - Low

Influences: ITA? RPMS Growth Plan?

ISAC Goals: 05 Connectivity

Drivers?

Staffing Requirements:

Est. Duration: 12 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	5.00%	12	91 Hours
1	Sr Network Specialist	10.00%	12	182 Hours
Totals: 2 Staff				274 Hours

Justification:

Task Description:

1. Identify current wireless technologies.
2. Access documentation and sample products.
3. Evaluate their use, costs, incorporation into the provider/patient care environment, etc.
4. Determine recommendations and, if appropriate, policies and procedures for their use.

Background:

Comments/Status:

ITSC FY01 Project Plans

Lead Department: TMT

X.25 Elimination Plan

I-040

Project Category: Infrastructure : General

Several IHS sites are still on X.25. This project will first eliminate the X.25, then convert those sites to frame relay.

Project Status: Not Started

Type: New

ITSC Priority: 2 - High

Influences: ITA? **RPMS Growth Plan?**

ISAC Goals: 04 Technical Support

Drivers?

Staffing Requirements:

Est. Duration: 3 Months

<u>#</u>	<u>Labor Category</u>	<u>%</u>	<u>Months</u>	<u>Total Hours</u>
1	Project Lead	50.00%	12	912 Hours
1	Sr Network Specialist	50.00%	12	912 Hours
Totals: 2 Staff				1,824 Hours

Justification:

This project is being done to save cost and improve efficiency.

Task Description:

1. Order Frame Relay Circuits from FTS 2001.
2. Install Frame Relay Circuits.
3. Reprogram routers to support frame relay.
4. De-install AT&T X.25 circuits.

Background:

Comments/Status:

The circuits are being ordered.

The 2-month time period indicated above is the length of time required to remove X.25 from the sites. It can be removed from a site only when the site can allocate the necessary funds. Therefore, start and end times for any site cannot be estimated at this time.