

RESOURCE AND PATIENT MANAGEMENT SYSTEM

iCare Population Management GUI

(BQI)

Installation Guide and Release Notes

Version 2.9 Patch 6
May 2024

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Table of Contents

1.0	Release Notes	1
2.0	Installation Notes.....	2
2.1	Contents of Distribution	2
2.2	Required Resources	2
2.3	RPMS	2
2.3.1	GUI Client	3
2.4	Before You Begin: Installation Issues	4
3.0	Installation Instructions	5
3.1	Special Considerations for Multi-Divisional Sites	5
3.2	Before Installation	5
3.3	Pre-installation Instructions.....	5
3.4	RPMS Server Install Instructions	6
3.5	Client Installation	7
4.0	Sample Installations.....	9
4.1	Sample Cache Install.....	9
4.1.1	Installation	10
4.2	Sample GUI Client Installation.....	12
5.0	Installation Configuration	20
5.1	Disk Space	20
5.2	Journaling	20
5.3	Post-Installation	20
5.3.1	Post-Installation Tasks	20
Appendix A	GUI Deployment Options	21
A.1	Basic Single-Workstation Installation.....	21
A.2	Terminal Services/Citrix Server Installation	21
A.3	Windows SMS	21
A.4	Active Directory Application Deployment.....	21
A.5	Command Line Argument Options.....	22
A.6	/configpath:{File path}	22
A.7	/lockedit	22
A.8	/rpms:.....	23
A.9	Setting Up a Central Shared Server Configuration List.....	23
	Acronym List	26
	Contact Information	28

Preface

The site should have already installed up to the latest version, which is v2.9 p5. v2.9 p6 includes functionality to implement change requests from iCare users and updates to the current iCare GUI.

The intended audiences for the *Installation Guide and Release Notes* are Indian Health Service (IHS) site managers and other technical staff. Technical documentation accompanies this installation document in this release. Please refer to the *Technical Manual* for additional information.

The iCare system is an integrated case management system intended to provide any IHS direct, tribal, or urban (I/T/U) healthcare providers with decision support and patient management for single or multiple disease states and care conditions for a single patient or for user-defined groups of patients. iCare provides a graphical interface to existing Resource and Patient Management System (RPMS) data, presenting different views to include individual patient provider-defined groups, and population and community-centric views of patient data.

The iCare application allows providers to proactively track conditions and health statuses of their patients, any individual patient, or populations of patients, based on specific or multiple user-defined clinical concerns. A more complex and integrated level of logic for certain chronic conditions is defined in underlying RPMS components and is accessible through iCare to assist non-specialist providers in improving clinical decision-making and compliance with clinical guidelines. This type of integrated system provides a mechanism to inform healthcare providers about and follow up on clinical interventions and information about single or multiple disease states and conditions.

The iCare package is intended for use by both general and specialist healthcare providers, as well as disease-specific case managers at any I/T/U using RPMS. The experience and skill level of all hands-on users of RPMS will range from non-expert to expert. The providers' knowledge of clinical guidelines and disease-specific treatment will range from general to specialists.

The iCare system consists of two components—the RPMS M programming language and the graphical user interface (GUI)—both of which must be installed and functioning in order for this application to work.

1.0 Release Notes

iCare v2.9 p6 contains the following Change Requests:

Table 1-1: Change Requests

CR ID	CR Description
ADO 73630	CR_5824-BQI-Panel Def-Implement New Panel Patient Filter by Tribe and Alternate Tribe Demographic Fields
ADO 75409	CR_9005-BQI - Panel Def-Add Filter by CRS Measure Value
ADO 75478	CR_9142-BQI-Add Referrals as a Panel Def Filter
ADO 76290	CR_12396-BQI-Panel Def-Search by Location of Active HRN
ADO 73044	CR_4984-BQI-Add New Care Mgmt Group-Pain Management (HOPE)
ADO 74773	CR_10093-BQI-User Prefs-Implement New Care Mgmt Group Preferences
ADO 75471	CR_9131-BQI-iCare-Add What's New Option in iCare Help
ADO 78030	BQI-Care Mgmt Glossary-Hep C
ADO 98348	BQI-Patient View, PCC, Measurement-RESPIRATIONS and TEMPERATURE error if VALUE field is empty
ADO 91072	BQI-Modify Depression Screen measure for Diabetes Care Mgmt Group
ADO 101613	BQI-Change Monkeypox to Mpox
ADO 86023	BQI-Remove/Hide Employee Health from iCare
ADO 107898	BQI-Panel Def-Orders-Add Nature of Order to Filter
ADO 107811	BQI-Reminders-[INC0414047] Ft Yuma Showing NDA for Reminders

2.0 Installation Notes

Prefix: BQI

Current Version: 2.9 Patch 6

2.1 Contents of Distribution

File	Description
bqi_0290.06k	v2.9 p 6 KIDS installation file
bqi_0290.06i.pdf	Installation Guide and Release Notes
bqi_0290.06gui.zip	v2.9 p6 GUI installation files in Compressed Folder (zipped) format
bqi_0290.06u_panel_view.pdf	v2.9 p6 Panel View User Manual
bqi_0290.06u_panel_def.pdf	v2.9 p6 Panel Definition User Manual
bqi_0290.06u_user_pref.pdf	v2.9 p6 User Preferences User Manual

2.2 Required Resources

2.3 RPMS

The RPMS server portion of the iCare application does not require a specific version, cache, or operating system (OS). However, the RPMS server must be able to fully support BMXNet (BMX) 4.0 or higher and is therefore subject to any requirements need to run that application. Please refer to the *BMX Version 4.0 Technical Manual* for details.

Note: The following are required builds to install the KIDS:
BQI*2.9*5

Table 2-1 shows required RPMS server software.

Table 2-1: Required RPMS software

Module	Minimum Version
IHS ICD/CPT Lookup & Groupier (AICD)	v4.0 p1
Taxonomy (ATX)	v5.1 p48
VA FileMan (DI)	v22.0 p1018
VA Kernel (XU)	v8.0 p1018
Toolkit (XT)	V7.3 p1019
BMXNet (BMX)	v4.0 p5
IHS/VA Utilities (XB)	v3.0 through p11

Module	Minimum Version
Patient Information Management System (PIMS)	v5.3 through p1021
IHS Clinical Reporting (BGP)	V23.0
PCC Data Entry (APCD)	v2.0 through p10
PCC Health Summary (APCH)	v2.0 through p17
Q-Man (AMQQ)	v2.0 through p21
HIV Management System (BKM)	v2.1 p2
IHS Asthma Register (BAT)	v1.0
IHS PCC Suite (BJPC)	v2.0 p28
IHS MU Performance Reports (APCM)	v2.0
Referred Care Info System (BMC)	v4.0 p14
Patient Registration (AG)	v7.1 p16 and v7.2 p8
Immunization (BI)	v8.5 p25 and v8.5 p1013
iCare (BQI)	v2.9 p5
IHS User Security Audit (BUSA)	v1.0 p4
Diabetes Management System (BDM)	v2.0 p16
Designated Provider Mgt System (BDP)	v1.0 p1
Electronic Health Record (EHR)	v1.1 p34
Clinical Reminders (PXRМ)	v2.0 p2009
Text Integration Utilities (TIU)	v1.0 p1027
CPT FILES (ACPT)	v2.23 p2
ICD UPDATE (AUM)	v23.0 p3
Lab Service (LR)	v5.2 p1052
IHS DICTIONARIES (PATIENT) (AUPN)	v99.1 p29
IHS DICTIONARIES (POINTERS) (AUT)	v8.1 p32
IHS VA SUPPORT FILES (AVA)	v93.2 p27
CCDA (BCCD)	v2.0 p2
IHS COMMUNICATION SUPPORT (BCOM)	v1.0

2.3.1 GUI Client

Table 2-2 shows client workstation specification details.

Table 2-2: GUI client

Client PC	Minimum Versions
Microsoft Windows	Windows 10 or newer, Windows 2016 Server or newer

Client PC	Minimum Versions
Microsoft .NET Framework (The iCare installation package will check for the .NET framework prerequisite and will assist the user with download and installation if needed)	V4.6.2
Suggested client PC hardware	Processor: Minimum: Pentium III 800MHz Suggested: Pentium 4 2GHz+ Memory (RAM): Minimum: 2048MB Suggested: 4096MB+
Approximate disk space requirements	iCare application footprint ≈ 60MB

2.4 Before You Begin: Installation Issues

1. Make a copy of this distribution for offline storage.
2. Print all notes and readme files.
3. Capture the terminal output during the installation using an auxport printer attached to the terminal where the software installation is performed to ensure a printed audit trail if any problems should arise.
4. iCare users should be off-line.

3.0 Installation Instructions

The iCare package contains components that run on both the RPMS server and the client personal computer (PC). Installation of the RPMS server components is conventional and consists of a Kernel Installation and Distribution System (KIDS) build.

The client PC component is currently deployed via a standard Windows installation package application as an “msi” file. New versions of the client software can be installed on the client PC as updates are available so that the client software version matches the version of iCare installed on the server. Previous versions of the client software will be automatically removed from the client workstation when the new version is installed.

If desired, the iCare client may be uninstalled via the Windows control panel, in the **Add or remove programs**, or the **Apps & features** option for Windows. Select the entry in the list for the iCare version to uninstall and click the **Uninstall** option.

In addition, the iCare client PC installation program will check for Microsoft .NET 4.6.2 Framework on the client PC, and if it has not been previously installed, installation will be halted.

3.1 Special Considerations for Multi-Divisional Sites

Different facilities that use the same RPMS database are considered to be multi-divisional sites. Once installed the KIDS on the RPMS server, all facilities will be affected.

3.2 Before Installation

Determine the method of installing the new iCare GUI client for all iCare users. Refer to Appendix A for GUI Deployment Options for descriptions of some of the available deployment options, including options for automated installation.

Coordinate with all iCare users when the KIDS will be installed with the GUI, so the GUI is ready to go when the KIDS is installed.

The following sections provide instructions on how to install iCare.

3.3 Pre-installation Instructions

1. If possible, initially load the software into a test account, then into the production account. There are no routines or globals to remove after the installation is complete.

2. Refer to the RPMS Server Installation Instructions (Section 3.4) and the Sample RPMS Client Installation (Section 3.5) for the applicable prompts and user responses. User responses appear in bold type.
3. Ensure that the BMX system is installed and that a BMX monitor process is running. The BMX Integrated Security feature allows connection to RPMS without having to re-specify access and verify codes every time. For this feature to work, the integrated security field of the BMX monitor port must be set to Yes. See the BMX user and installation manuals for details on BMX.
4. Starting with iCare 2.9 Patch 3, because the Community Alerts Export is being moved from using 'sendto' to using the IHS Communication Support package (BCOM), be sure that an archive folder exists on your server. To check for this folder, go to the RPMS SITE file and check what the FILE EXPORT PATH is.

```

select OPTION: INQUIRE TO FILE ENTRIES

OUTPUT FROM WHAT FILE: ICARE SITE PARAMETERS// RPMS SITE
                        (1 entry)
select RPMS SITE LOCATION NAME: 2016 DEMO HOSPITAL
ANOTHER ONE:
STANDARD CAPTIONED OUTPUT? Yes// (Yes)
Include COMPUTED fields: (N/Y/R/B): NO// - No record number (IEN), no Computed
Fields

NUMBER: 1                LOCATION NAME: 2016 DEMO HOSPITAL
PATIENT CARE COMPONENT PRESENT: YES    UNIVERSAL LOOKUP FOR VISITS: ALLOWED
THIRD-PARTY BILLING PRESENT: YES       MFI RUNNING: NOT USED
QMAN RUNNING: Y                       OPERATING SYSTEM: DOS
PCC FILE 200 CONVERSION: YES
DATE PCC VISIT RELINKER RUN: APR 17, 2020
FILE IMPORT PATH: H:\Temp\F1Q1D        FILE EXPORT PATH: H:\Temp\F1Q1D
LEAD DIGITS FOR RECORD IDS: 505430

select RPMS SITE LOCATION NAME: █

```

Figure 3-1: RPMS SITE data

The archive folder should be in the folder before the FILE EXPORT PATH. For example, the archive folder (from above) should be in H:\Temp (H:\Temp\archive). If the FILE EXPORT PATH is G:\Pub\Export, the archive folder should be in G:\Pub (aka G:\Pub\archive).

3.4 RPMS Server Install Instructions

1. On the RPMS server, load and install bqi_0290.06k file using the KIDS menu options. From the **KIDS** menu, select the **Installation** menu.
2. From the **Installation** menu, select **Option 1: Load a Distribution**.
3. Type **bqi_0290.06k** at the "Enter a Host File" prompt (the file name might need to be preceded with the appropriate host path to retrieve from the appropriate software directory).
4. The KIDS file bqi_0290.06k contains the following: ICARE MANAGEMENT SYSTEM 2.9 Patch 6 (BQI*2.9*6).

5. Type **Yes** (or press Enter to accept the default) at the “Want to Continue with Load? YES//” prompt.
6. From the **Installation** menu, select **Option 2: Verify Checksums in Transport Global**, which provides a mechanism for ensuring the integrity of routines by verifying checksums for the components of the Transport global, and reports any errors uncovered.
7. Type **BQI*2.9*6** as the install name.

Optional: At this time, an optional election to exercise one of the following installation options is available. Use **BQI*2.9*6** as the install name.

- a. **Back Up a Transport Global:** Creates a MailMan message that will back up all current routines on the system that would be replaced by this release (because this is a new release no files will be replaced).
 - b. **Compare Transport Global:** Previews all changes that will result from the installation of this patch and compares them with the values currently loaded on the system (routines, data dictionaries, templates, etc.).
8. From the **Installation** menu, select the **Install Packages(s)** option.
 9. At the “Select Install Name” prompt, type **BQI*2.9*6**.
 10. Respond to the following prompts as indicated:
 - a. At the “Want KIDS to Rebuild Menu Trees Upon Completion of Install? YES//” prompt, type **NO**.
 - b. At the “Want KIDS to INHIBIT LOGONs during the install?//YES” prompt, type **NO**.
 - c. At the “Want to DISABLE Scheduled Options, Menu Options and Protocols?// YES” prompt, type **NO**.
 11. Type the device that will print the install messages. Exit the **Installation** menu.

Proceed to Section 5.0 for further information and setup instructions.

<p>Note: Please read the Post-Installation notes (Section 5.3) for more information.</p>

3.5 Client Installation

Determine the method of installing the GUI for all iCare users. Note that the `bqi-iCareInstall-v2_9_6.msi` file is a Microsoft installation file intended to be suitable for use with automated workstation install “push” technologies, such as Microsoft Active Directory Group Policy deployment. Refer to Appendix A: for descriptions of some of the available deployment options, including options for automated installation.

The installation of the iCare client must be coordinated with the installation of the KIDS on the RPMS server so that the GUI is ready to be installed after the KIDS is installed.

To install the iCare Windows GUI client portion of the iCare application for a basic single-workstation, perform the following tasks:

1. Copy the bqi_0290.06gui.zip file into a local directory or centrally accessible network share directory, and extract its contents:
 - a. **bqi-iCareInstall-v2_9_6.msi**
2. Log into the client PC with administrator privileges.
3. Copy bqi-iCareInstall-v2_9_6.msi to the client PC from the network share directory.
4. Install the iCare software by executing bqi-iCareInstall-v2_9_6.msi on the client PC.
5. When prompted with the **Destination Folder** dialog, click **Next** to confirm and complete the installation.
6. To run the iCare package, click **Start**.
 - a. Choose **All Programs**.
 - b. Select **IHS iCare**.
 - c. Click **iCare Version 2.9.6**.

4.0 Sample Installations

4.1 Sample Cache Install

Note: User responses appear in bold type.

As shown in Figure 4-1, an installation option must be selected to begin the installation process.

```
Select OPTION NAME: XPD MAIN   Kernel Installation & Distribution System

    Edits and Distribution ...
    Utilities ...
    Installation ...

Select Kernel Installation & Distribution System Option: Installation

1   Load a Distribution
2   Verify Checksums in Transport Global
3   Print Transport Global
4   Compare Transport Global to Current System
5   Backup a Transport Global
6   Install Package(s)
    Restart Install of Package(s)
    Unload a Distribution

Select Installation Option: 1   Load a Distribution
```

Figure 4-1: Selecting installation option

```
Enter a Host File: d:\pub\bqi_0290.06k <Enter> (Note: Type the appropriate
path for your system.)

KIDS Distribution saved on Apr 10, 2024@15:34:12
Comment: iCare v2.9 Patch 6

This Distribution contains Transport Globals for the following Package(s):
  BQI*2.9*6

Distribution OK!

Want to Continue with Load? YES//
Loading Distribution...

  BQI*2.9*6

Use INSTALL NAME: BQI*2.9*6 to install this Distribution.

Select Installation Option: Verify Checksums in Transport Global <Enter>
```

Figure 4-2: Installation prompts

```

Select Installation <TEST ACCOUNT> Option: 2  Verify Checksums in Transport
Global
Select INSTALL NAME: BQI*2.9*6          Loaded from Distribution
4/12/24@13:22:24
    => iCare v2.9 Patch 6  ;Created on Apr 10, 2024@15:34:12

This Distribution was loaded on Apr 12, 2024@13:22:24 with header of
iCare v2.9 Patch 6  ;Created on Apr 10, 2024@15:34:12
It consisted of the following Install(s):
    BQI*2.9*6

Want each Routine Listed with Checksums: Yes// NO
DEVICE: HOME//    VIRTUAL

PACKAGE: BQI*2.9*6      Apr 12, 2024 1:22 pm                PAGE 1
-----

52 Routines checked, 0 failed.

```

Figure 4-3: Installing iCARE

As shown in Figure 4-4, other prompts are shown on subsequent installation pages.

```

Select Installation Option:
1   Load a Distribution
2   Verify Checksums in Transport Global
3   Print Transport Global
4   Compare Transport Global to Current System
5   Backup a Transport Global
6   Install Package(s)
    Restart Install of Package(s)
    Unload a Distribution
Select Installation Option: Install Package(s)

```

Figure 4-4: Installation options

4.1.1 Installation

```

Select Installation <TEST ACCOUNT> Option: 6  Install Package(s)

Select INSTALL NAME: BQI*2.9*6          Loaded from Distribution
4/12/24@13:22:24
    => iCare v2.9 Patch 6  ;Created on Apr 10, 2024@15:34:12

This Distribution was loaded on Apr 12, 2024@13:22:24 with header of
iCare v2.9 Patch 6  ;Created on Apr 10, 2024@15:34:12
It consisted of the following Install(s):
    BQI*2.9*6
Checking Install for Package BQI*2.9*6

Install Questions for BQI*2.9*6

```

```

Incoming Files:

    90505      ICARE USER
Note:  You already have the 'ICARE USER' File.

    90506      ICARE DEFINITIONS (including data)
Note:  You already have the 'ICARE DEFINITIONS' File.
I will OVERWRITE your data with mine.

    90506.9    ICARE TIMEFRAMES (including data)
Note:  You already have the 'ICARE TIMEFRAMES' File.
I will OVERWRITE your data with mine.

    90508      ICARE SITE PARAMETERS
Note:  You already have the 'ICARE SITE PARAMETERS' File.

    90509.9    ICARE TEMPORARY DATA (including data)
Note:  You already have the 'ICARE TEMPORARY DATA' File.
I will OVERWRITE your data with mine.

Want KIDS to Rebuild Menu Trees Upon Completion of Install? NO//

Want KIDS to INHIBIT LOGONs during the install? NO//
Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//

Enter the Device you want to print the Install messages.
You can queue the install by enter a 'Q' at the device prompt.
Enter a '^' to abort the install.

DEVICE: HOME//

Install Started for BQI*2.9*6 :
      Apr 12, 2024@13:29:31

Build Distribution Date: Apr 10, 2024

  Installing
Routines:.....
      Apr 12, 2024@13:29:31

Running Pre-Install Routine: PRE^BQI29P6.

Installing Data Dictionaries: .....
      Apr 12, 2024@13:29:31

Installing Data:
      Apr 12, 2024@13:29:31

Installing PACKAGE COMPONENTS:

Installing REMOTE PROCEDURE

Installing OPTION
      Apr 12, 2024@13:29:31

Running Post-Install Routine: POS^BQI29P6.....

```

```

Updating Routine file...
Updating KIDS files...
BQI*2.9*6 Installed.
          Apr 12, 2024@13:29:31

Not a VA primary domain

NO Install Message sent

```

Figure 4-4-5: Installation Completed

4.2 Sample GUI Client Installation

The following section outlines the installation procedure for loading the iCare GUI client application onto a single workstation. Options are available to install the iCare client on multiple workstations through automated deployment methods. Please refer to Appendix A GUI Deployment Options for descriptions of these options.

As shown in Figure 4-6, navigate to the folder on the client machine that contains the iCare installation program and launch the `bqi-iCareInstall-v2_9_6.msi` program:


Name	Date modified	Type	Size
 bqi-iCareInstall-v2_9_6.msi	2/22/2024 8:50 AM	Windows Installer Package	40,300 KB

Figure 4-6: Install program

As shown in Figure 4-7, click **Next** on the Welcome screen to continue:

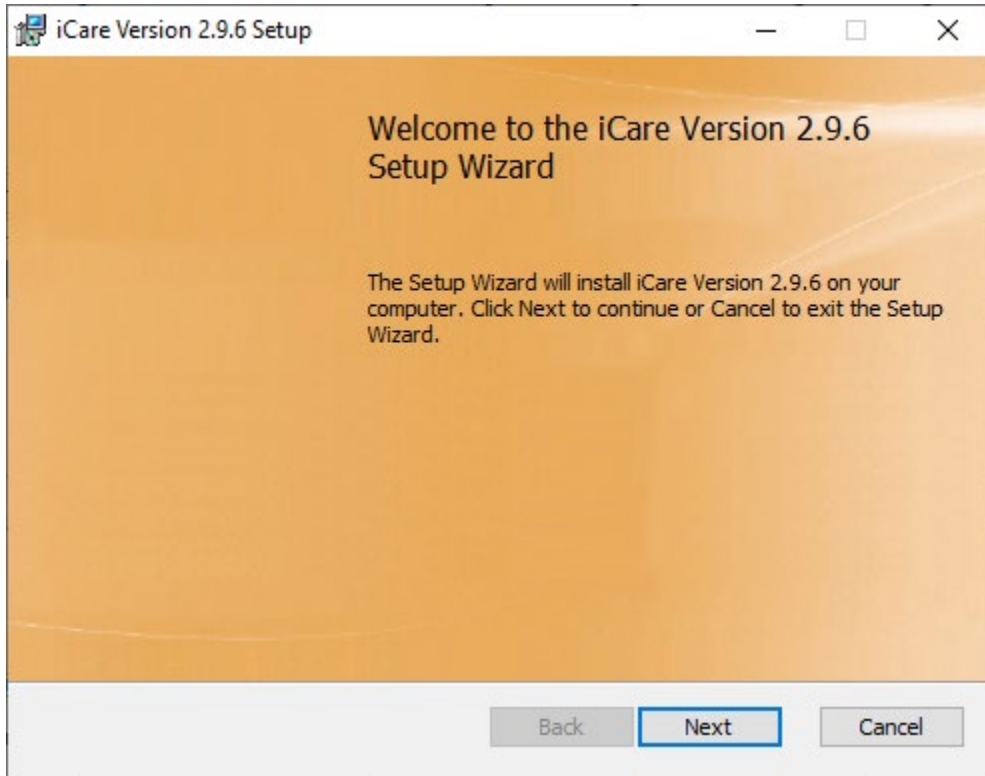


Figure 4-7: Welcome screen

As shown in Figure 4-8, click **Next** on the **Destination Folder** screen to continue:

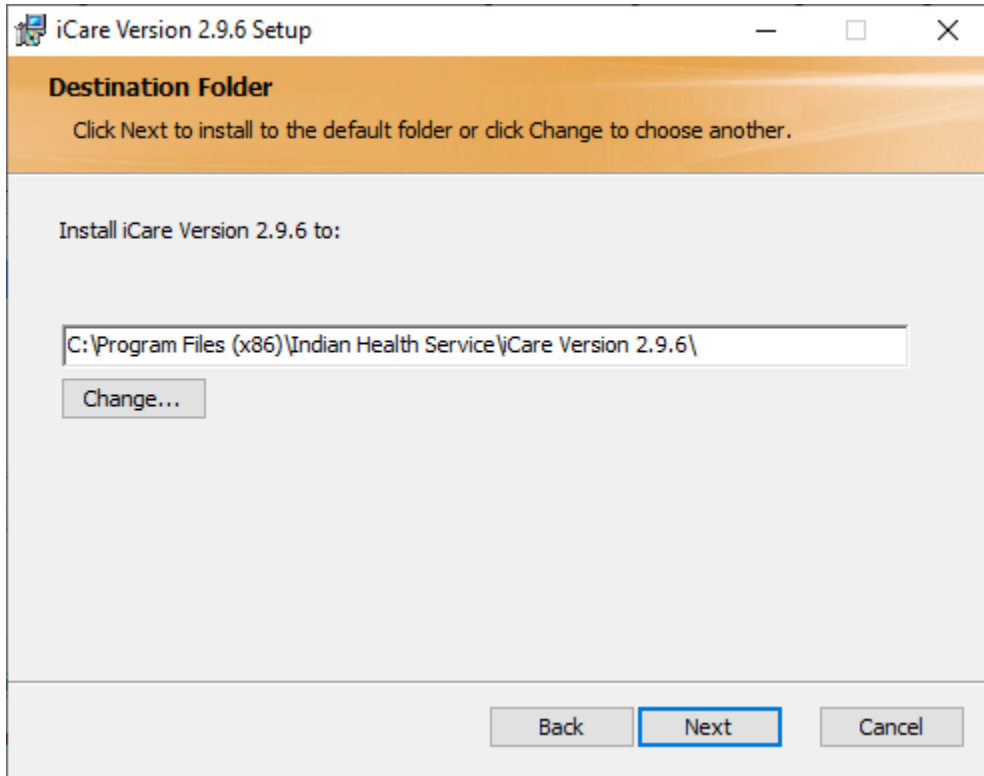


Figure 4-8: Destination Folder screen

As shown in Figure 4-9, click **Install** to confirm installation:

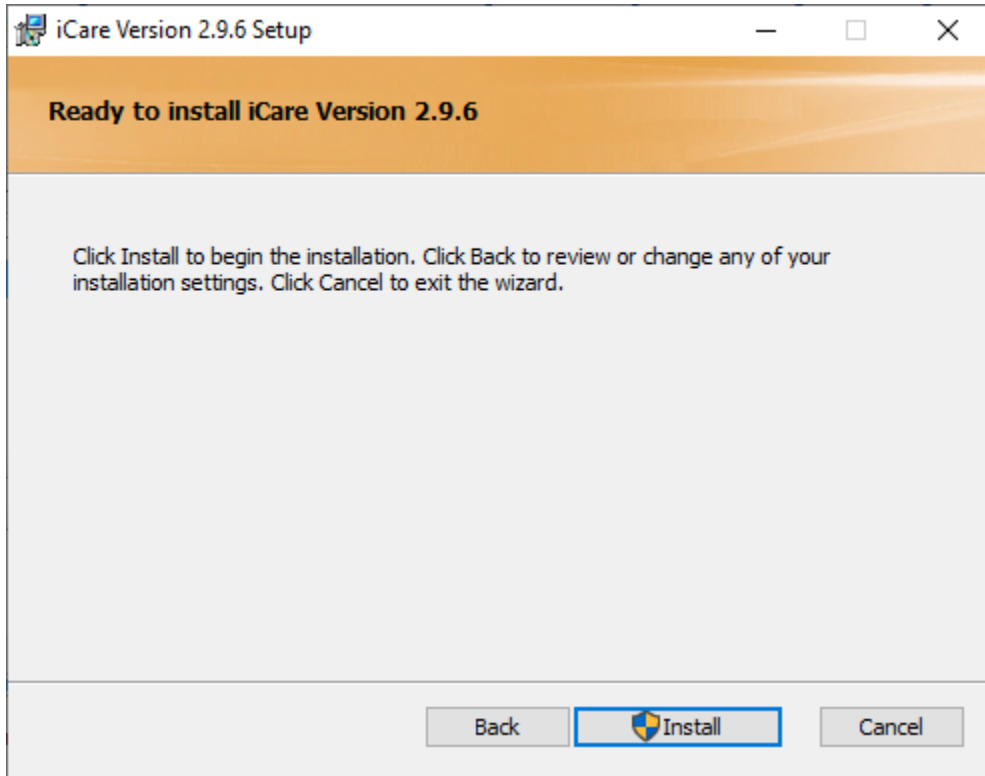


Figure 4-9: Confirm Installation screen

As shown in Figure 4-10, wait for the installation to be complete:

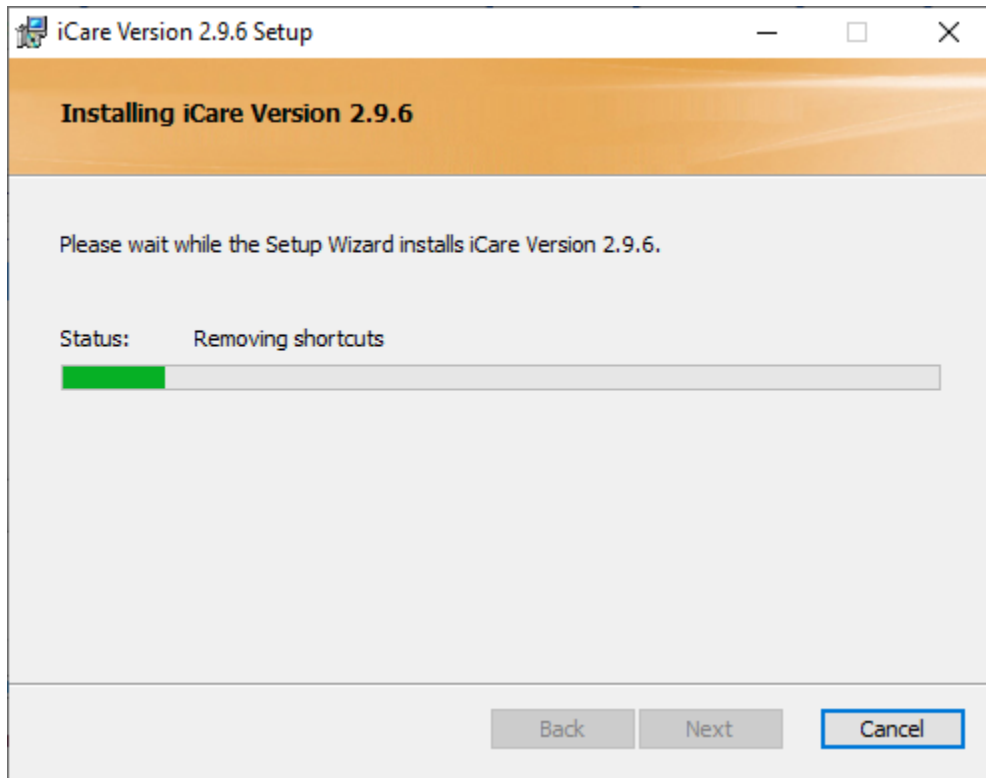


Figure 4-10: Installing screen

As shown in Figure 4-11, click Finish to complete the installation:

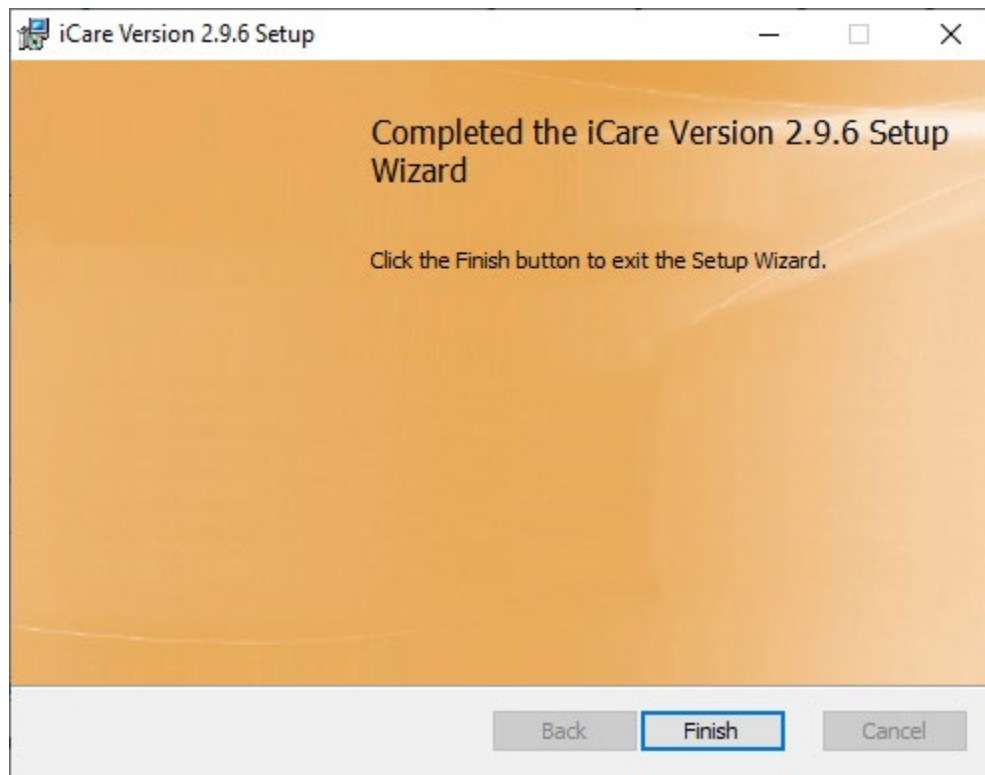


Figure 4-11: Installation Complete screen

It's possible the .NET Framework 4.6.2 or higher check will fail and will display the following error message.

As shown in Figure 4-12, Click **OK** to close the error message:

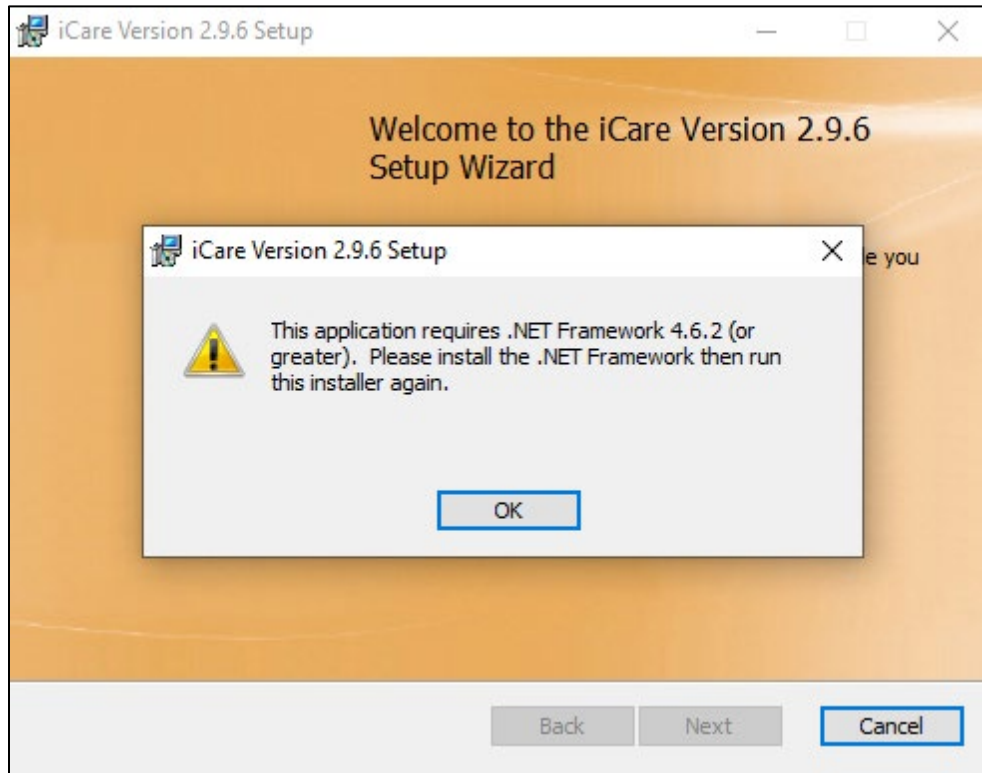


Figure 4-12: .Net Framework 4.6.2 or higher requirement check failed error message.

As shown in Figure 4-13, Click **Finish** on the iCare Version 2.9.6 Setup Wizard ended prematurely screen.

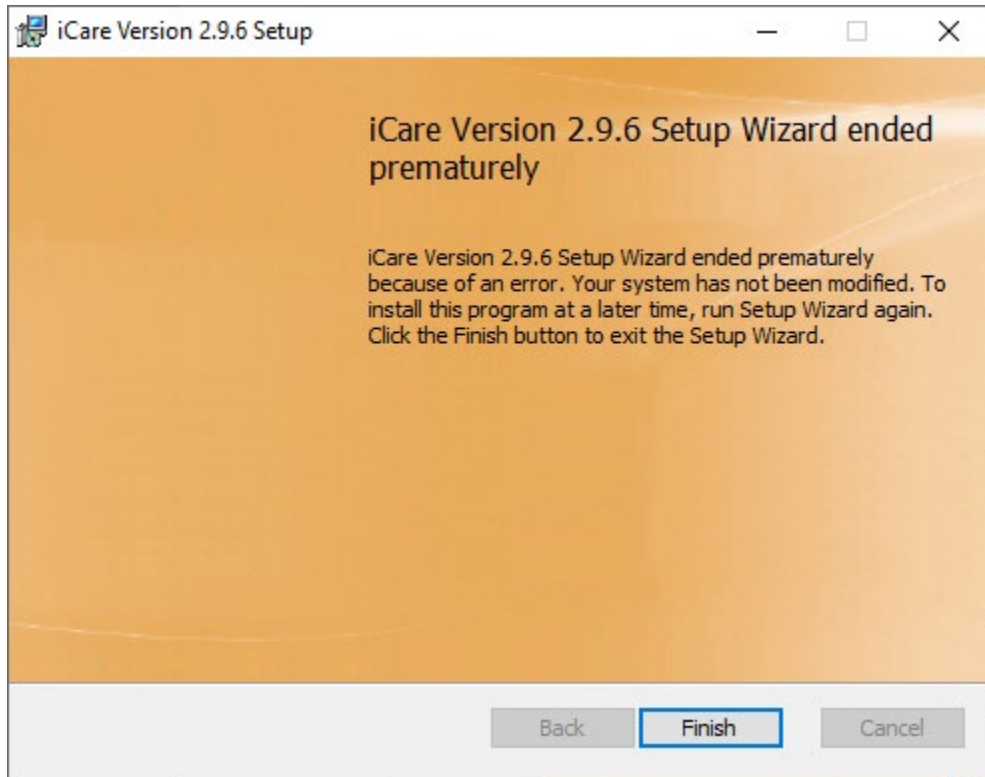


Figure 4-13: iCare Version 2.9.6 Setup Wizard ended prematurely screen.

5.0 Installation Configuration

5.1 Disk Space

Auditing was implemented for Certification and for each iCare release after v2.3 p4; be aware of disk space. See *IHS User Security Audit 1.0* manual for more information.

5.2 Journaling

The main iCare patient data global ^BQIPAT does not need to be journaled, as it can be refreshed if needed. For Care Management Event Tracking (CMET), data global ^BTPWPQ does not need to be journaled as it also can be refreshed, if needed.

If the site is being upgraded to Ensemble or other higher version of cache, the ^BQIPAT and ^BTPWPQ globals should be placed in the same special non-journaled database as globals: ^TMP and ^XTMP.

5.3 Post-Installation

5.3.1 Post-Installation Tasks

During the post-installation process, several background job will be tasked off to TaskMan. Do not delete or terminate these tasks.

```

55193: TMPL^BQI29P6, Fix Default Template Names. No device. F1Q2T,DEHR.
      From Today at 14:13, By you. Scheduled for Today at 14:16
-----
55196: HRN^BQI29P6, Set Panel Parameters. No device. F1Q2T,DEHR.
      From Today at 14:13, By you. Scheduled for Today at 14:16
-----
55194: TRIB^BQINIGH5, Set Tribe Cross-reference. No device. F1Q2T,DEHR.
      From Today at 14:13, By you. Scheduled for Today at 14:18
-----
55195: REF^BQINIGH3, Set Referral Cross-references. No device.
F1Q2T,DEHR.
      From Today at 14:13, By you. Scheduled for Today at 14:20

```

Figure 5-1: Post-Installation Tasks

Appendix A GUI Deployment Options

A.1 Basic Single-Workstation Installation

The basic single-workstation procedure is outlined in Section 3.5. Step-by-step instructions are provided for executing the iCare GUI client install package to install directly on a user's workstation.

A.2 Terminal Services/Citrix Server Installation

For sites that use thin client/terminal services such as Citrix or Microsoft Terminal Services to manage application delivery, the update process for multiple users is simplified, as the iCare client version will only need to be updated on the terminal server machines via standard application install procedures for publishing applications.

A.3 Windows SMS

Some IHS sites may utilize Microsoft Systems Management Server (SMS) to assist with management of software on desktop machines. The iCare GUI client installation files were created with automated deployment in mind and should be compatible with SMS deployment. The iCare GUI client install is provided as an "msi" Microsoft installer package, along with a setup.exe file that provides .Net bootstrapping to check for installed .Net framework environment, if required.

Based on site administrator feedback from previous versions, the default behavior for the .msi installation includes the automatic removal of previous iCare GUI versions to simplify the deployment process.

The details of deploying/publishing applications via SMS are beyond the scope of this document. Please refer to the Microsoft SMS documentation to identify the procedure to deploy the application with appropriate installation options such as silent install, etc.

A.4 Active Directory Application Deployment

Microsoft Active Directory is another option for deploying the iCare GUI Client to desktops through an automated process. To use this method, the installation files are placed in a shared network folder that allows at least reader access for all users that will be installing the application. Once this has been created, an Active Directory administrator can go into the Group Policy Editor and assign the application to the appropriate group(s) of users, or machines that are registered in the Active Directory.

Additional details and a walk-through of this process are available:

- [Group Policy to remotely install software](#)

A.5 Command Line Argument Options

Command-line arguments are available to provide additional options for managing the server connection list that is provided to the user upon login.

If no command-line arguments are provided, the application will present a blank server connection list and allow the user to enter new connection entries that will be stored in the user's Windows roaming local application folder. The roaming local application folder was chosen based feedback from sites using Citrix thin-client deployments.

The available arguments are defined below. The options may be used together to achieve desired server connection management results.

A.6 /configpath:{File path}

```
Example:  
"C:\Program Files (x86)\Indian Health Service\iCare Version 2.9.6 bqi-  
iCare.exe" /configpath:\\appserver1\shared\iCareConfig\
```

Figure A-1: Configuration path

When the “/configpath” argument is specified as shown in Figure 5-1, the application will check in the defined file path location for the server connection configuration file named `bm_x_config.xml`. If a configuration file is found, then it will load the connection items for the user to select from in the login screen. If no configuration file is found and the folder path specified is a valid then a new blank `bm_x_config.xml` configuration file will be created in that location and changes will be stored and managed at that location.

The file location may be any valid storage location, including network shares and local system directories. The user must however have read/write access to the directory.

If an invalid directory is specified, the application will present a message indicating that the location is not valid, and it will ignore the parameter and use the default location.

A.7 /lockedit

```
Example:  
bqi-iCare.exe /lockedit
```

Figure A-2: Lockedit argument

When the “/lockedit” argument is included as shown in Figure 5-2, the application will disallow the user from editing the defined server connection information, and will be limited to the items that are defined in the list.

The /lockedit argument is useful in conjunction with the “/configpath” argument specified above to achieve a centrally-managed configuration in which users are not allowed to edit the shared configuration file. Refer to Section A.9 for more details.

A.8 /rpms:

```
Example:  
bqi-iCare.exe /rpms:"server1,10501,MyServer  
Connection,PRD1,Win,60000,40000"
```

Figure A-3: RPMS argument

The “/rpms” argument, as shown in Figure 5-3, allows the specification of a specific server connection entry to be passed into the application from the command-line. The entry that is specified will appear as an entry in the server connection list. This argument may be used in conjunction with the “/lockedit” option to force the user to connect to a single specific location.

The comma-delimited arguments are as follows:

- Server Address (Numeric IP or server name)
- Port Number for the BMXNet listener
- Display name of connection (This will be the title used in the list)
- Name space (optional)
- Windows Authentication (set to Win for Windows authentication)
- Receive Timeout (in milliseconds, recommended 60000)
- Send Timeout (in milliseconds, recommended 40000)

A.9 Setting Up a Central Shared Server Configuration List

Site managers may choose to implement a central bmx_config.xml configuration file to be shared by multiple users, new users will not need to enter the server configuration settings when first connecting the iCare GUI to the RPMS server(s). Also, if configuration changes are made to the RPMS server such as a change or network address or BMXNet port number, the changes can be centrally managed by editing the single configuration file.

To configure this approach, the following steps may be followed:

1. An administrator should create the bmx_user_config.xml file with the server connections that are desired.

- a. Install iCare GUI on one client machine and configure the BMX connection(s) via the BMX connection tool.
- b. Find the `bm_x_user_config.xml` file on the client machine after you have setup the valid connection(s) by searching within the Users folder for `bm_x*.xml`. A sample file location is shown as an example:

```
Example:
C:\Users\firstname.lastname\AppData\Roaming\IndianHealthService\iCare\bm_x_
ser_config.xml
```

Figure A-4: RPMS argument

```
Example:

<?xml version="1.0" ?>
- <ArrayOfRpmsConnectionSpec xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <RpmsConnectionSpec Name="DEV6" Server="DEMOSRVR01"
ReceiveTimeout="900000" SendTimeout="40000" Port="10561" Namespace="DEV6"
IsDefault="false" UseWindowsAuthentication="false"
UseDefaultNamespace="false" />
  <RpmsConnectionSpec Name="TEST6" Server="DEMOSRVR01"
ReceiveTimeout="900000" SendTimeout="40000" Port="10562" Namespace="TEST6"
IsDefault="false" UseWindowsAuthentication="false"
UseDefaultNamespace="false" />
</ArrayOfRpmsConnectionSpec>
```

Figure A-5: RPMS argument

2. The administrator should start the iCare application using the `/configpath` command line argument to specify the network location where the file is to be stored.
3. Then, the administrator can specify the connections that are desired to be available to the users sharing this configuration file.

Note: After signing in to the iCare GUI application, the file at the specified `/configpath` location will contain the connection entries that were entered.

4. Once the `bm_x_config.xml` file has been created in the desired shared location with the appropriate connection entries, each user's application shortcut/launch string should be edited to include the same `/configpath` location so that the connection settings are loaded when the user starts the application.

Note: It is recommended that the `/lockedit` argument also be used so that user's sharing the central configuration file are not allowed to edit that file, but instead can only select from the available choices.

5. If you are pushing the iCare application via msi or other Active Directory approach and can edit the shortcut, add the parameter from Section A.9 using the /configpath parameter from Section A.6 to identify the shared configuration file.
6. The /configpath parameter should be added to each user's iCare shortcut as shown below. The /configpath value should be the shared folder where the shared bmx_user_config.xml file is stored. The shortcut with parameter would have to be updated this way for each iCare user's GUI instance.

Alternatively, you could copy the standard bmx_user_config.xml file (based on the first user you set up to define the connections) to each user's AppData location rather than having to create the connection for each user.

`\AppData\Roaming\IndianHealthService\iCare\`

Acronym List

Acronym	Meaning
AG	Patient Registration Namespace
AICD	IHS ICD/CPT Lookup & Grouper
AMQQ	Q-Man Namespace
APCD	PCC Data Entry Namespace
APCH	PCC Health Summary Namespace
ATX	Taxonomy Namespace
BAT	IHS Asthma Register Namespace
BDM	Diabetes Management System Namespace
BGP	IHS Clinical Reporting Namespace
BI	Immunization Namespace
BJPC	IHS PCC Suite Namespace
BKM	HIV Management System Namespace
BMC	Referred Care Info System Namespace
BMX	BMXNet
BQI	iCare Namespace
BUSA	IHS User Security Audit Namespace
CMET	Care Management Event Tracking
DI	VA FileMan
DSPM	DESIGNATED PROVIDER MGT SYSTEM
DX	Diagnosis Tags
GUI	Graphical User Interface
HIV	Human Immunodeficiency Virus
HMS	HIV Management System
IHS	Indian Health Service
IPC	Improving Patient Care Collaborative
KIDS	Kernel Installation and Distribution System
OIT	Office of Information and Technology
OS	Operating System
PC	Personal Computer
PCC	RPMS Patient Care Component
PCMH	Patient Centered Medical Home
PIMS	Patient Information Management System
RPMS	Resource and Patient Management System

Acronym	Meaning
SMS	Microsoft Systems Management Server
XB	IHS/VA Utilities Namespace
XU	VA Kernel Namespace

Contact Information

If you have any questions or comments regarding this distribution, please contact the OIT Help Desk (IHS).

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