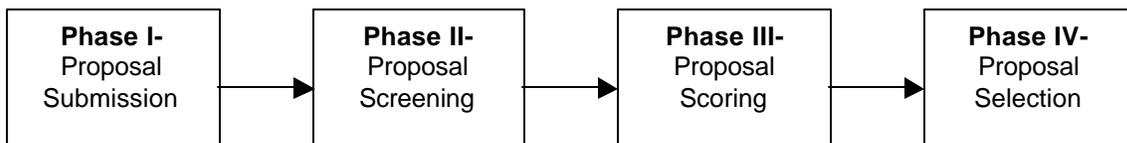


# Overview of the Draft Information Technology Investment Review Board (ITIRB) Process for the Indian Health Service (IHS)

## Overall IHS ITIRB Process Objectives:

- 1) This structured process provides a systematic method for IHS to review proposed Information Technology (IT) projects in order to make sound business investment decisions. In addition, this process will enable IHS to satisfy HHS departmental capital planning requirements.
- 2) To ensure that financial, risk, and mission analyses provide sufficient support for undertaking proposed changes to existing IHS IT projects and systems.

In general, proposals will pass through four phases during the IHS ITIRB process:



### **Phase I:** Submit IT Project Proposal.

**Objective:** Complete a proposal to determine if it meets the initial threshold criteria for entry into the ITIRB process. This information should also enable the determination of whether it is a Major or a Minor Proposal in Phase II.

**Roles and Responsibilities:** The Project Sponsor will complete the proposal form. The Division of Information Resources (DIR) will provide technical assistance to Project Sponsors in completing the proposal form.

**Proposal Information:** See draft form in Figure 1.

### **Phase II:** Apply Screening Criteria

**Objective:** Determine which projects require IHS ITIRB review, i.e., is the project proposal a Major Proposal or a Minor Proposal.

**Roles and Responsibilities:** DIR applies the screening criteria to the information contained in the proposal to determine if a proposal is a Major or a Minor Proposal. Minor Proposals do not require ITIRB review, but are entered into the IHS IT inventory for record keeping purposes. Major Proposals receive ITIRB review and proceed to Phase III. All actions on proposals are reported to the ITIRB by DIR in a Summary of Activities.

**Criteria:** See Figure 2.

Based on the answers to criteria 7, 8, and 9 on the draft form in figure 2, the proposed IT project is 1) determined to be a Major Proposal and continues in the review process, 2) determined to be a Minor Proposal and is entered into the IHS IT Inventory, or 3) sent back to the Project Sponsor for additions or modifications to the Project Proposal.

### **Phase III: Score IT Funding Proposals**

**Objective:** To prioritize competing projects to aid in creating a successful portfolio to meet capital planning requirements.

**Roles and Responsibilities:** DIR scores the proposals according to agreed-upon criteria to aid the ISAC in prioritizing proposed IT projects.

#### **Descriptions of the Criteria (See figure 3 for draft form):**

##### **1) Risk-Related Criteria.**

- a) Investment Size.** The greater the dollar investment, the greater the financial risk. This is also related to the complexity of the project. Smaller projects (in invested \$\$) are typically easier to manage, less complex technically and conceptually, and if unsuccessful, result in relatively small dollar losses. Projects requiring greater investment are perceived as offering greater risk.
- b) Modularity.** Modularity is similar in concept to investment size. Specifically, modularity reflects breaking up larger projects into a number of smaller, lower risk, and more manageable pieces. Multiple phases, narrow scope, and brief duration are characteristics of modular projects. Each "piece" should address a specific part of an overall problem so that each piece delivers a measurable benefit. That is, even if the remainder of a project is canceled after the initial module, the agency will still reap some benefit from that module which was completed.
- c) Technical Risk.** This factor is influenced by the maturity of the technology being applied, the complexity of the project, the frequency with which the technology is used, the amount of customization required, and other technical factors. Systems relying heavily on commercial off-the-shelf (COTS) components instead of custom designed components usually reduce the technical risk potential. Risk is further reduced by taking advantage of fully tested prototypes, pilot demonstrations, or simulations.
- d) Architectural Fit.** Adherence to corporate architecture and standards helps to reduce technical risk. However, since corporate architectures integrate work processes and information flows, and enable information exchange and resource sharing, this criterion is considered separately. As architectures and standards become more explicit and more widely accepted within IHS and HHS overall, the relative weight of this criterion will increase.
- e) Risk Sharing.** Some acquisition strategies impose less risk to the Government than others. A cost-plus-fixed-fee contract, for example, allows a contractor to avoid risks associated with varying costs, by placing this responsibility on government management practices. Fixed-price

acquisitions eliminate much of the cost risk to the Government by requiring specified work products for a firm, fixed price.

- 2) **Financial Criteria.** Federal requirements include financial criteria for mission-related and administrative IT projects (proposed, ongoing, existing).
  - a) **Net Life-Cycle Savings (NLCS).** NLCS is simply the present value of life-cycle savings [PV(S)], minus the present value of life-cycle costs [PV(C)]. NLCS is used in addition to return on investment (ROI) because ROI does not account for the magnitude of savings, just the relative savings ratio. Relying on ROI alone may bias investment selection toward smaller projects. The modularity or investment size risk criterion already rewards smaller projects.
  - b) **Return on Investment.** ROI indicates the relative financial return for a given investment. Considering financial criteria only, and given a large number of investment opportunities, the goal of capital planning is to construct an investment portfolio with the highest overall ROI. ROI is defined as NLCS divided by the present value of life-cycle costs, expressed as a percent:  $ROI = NLCS / PV(C)$ . The greater the ROI, the better the investment.
- 3) **Mission-related Criteria.** Federal guidance suggests that agencies should place greater emphasis on mission-related IT investments rather than infrastructure or administrative investments. Project Sponsors should make two explicit assessments:
  - a) **Explicit definition of mission function(s) the system supports;**
  - b) **The impact of the system on the performance metrics used to measure mission outcomes and goal achievement.**

The Project Sponsor then must answer the following question based on these assessments:

For each mission listed in a), and on a scale of 1 to 5, how much will this system help in accomplishing/improving that mission/function? (1=a dramatic improvement in service delivery/mission accomplishment, 5=no expected improvement in mission performance)

Based on an evaluation of each proposal against these criteria, the proposals are scored, weighted, and ranked. This prioritized list is submitted to the ISAC for Selection as a part of the ITIRB process.

#### **Phase IV: Select IT Project Proposals**

**Objective:** For ISAC members to review, revise, and validate the final prioritized list of projects as a part of the ITIRB process.

**Roles and Responsibilities:** ISAC performs this activity as a part of the ITIRB based on the Enterprise-wide Criteria and any other considerations that are appropriate.

#### **Example Enterprise-wide Criteria:**

- 1) Is this proposal legislatively mandated?

- 2) Is there Congressional or other stakeholder interest in the project?
- 3) Is there an acceptable mix of mission-critical, administrative, and infrastructure projects?
- 4) Is there an acceptable mix of projects that are:
  - a) Proposed;
  - b) Under development; or
  - c) Operational?
- 5) Should the prioritized list be re-ordered based on cost considerations? That is, should more low cost projects be included as top priorities rather than fewer high cost projects so that more projects can be performed with the same amount of money?

At the end of Phase IV, the prioritized list of proposed IT projects is submitted as the IHS IT Budget for use at the National Work Session.

Figure 1.

IHS Form DIR-1.A	<b>Information Technology (IT) Project Proposal Form</b>	
<b>1. Proposed Project Name:</b>		
<b>2. Project Description:</b>		
<b>3. Points of Contact:</b>		
Primary Point of Contact:	Name:	Telephone:
Secondary Point of Contact:		
	Name:	Telephone:
<b>4. Expected Benefits/Beneficiaries:</b>		
<b>5. Expected Returns (\$):</b>		
<b>6. Expected Costs (\$):</b>		
<b>7. Expected Risks (\$):</b>		
<b>8. Concept of Operations:</b>		
<b>9. Core IHS Mission/ Business Area Affected (See IHS Strategic Plan):</b>		
<b>10. Business Process Reengineering (BPR) Requirements/Status of BPR (if underway):</b>		
<b>11. Suggested Performance Measures:</b>		
<b>12. High Level IT Architecture Description:</b>		
<b>13. Assessment of Alternative Systems:</b>		

Figure 2.

IHS Form DIR-2.A		<b>IT Project Proposal Screening Information</b>		
<b>1. Proposed Project Name:</b>				
<b>2. Primary Point of Contact:</b>		<b>Name:</b>		<b>Telephone:</b>
<b>3. Does the proposal support a mission/function that needs to be performed by IHS?</b>		Yes	No	Not Sure
<b>4. Please indicate the IHS mission(s) supported by this proposal (see list of valid missions from IHS Strategic Plan in the directions for this form).</b>		1.		
		2.		
		3.		
		4.		
		5.		
<b>5. Should this proposal be undertaken because no alternative private sector or governmental source can support the function?</b>		Yes	No	Not Sure
<b>6. Does the proposal support work processes that have been simplified or otherwise redesigned to reduce costs, or improve effectiveness?</b>		Yes	No	Not Sure
<b>7. Is this project of strategic value to all of IHS?</b>		Yes	No	Not Sure
<b>8. Does the project cut across two or more IHS offices/divisions? (i.e., does it affect service units as well as administrative offices?)</b>		Yes	No	Not Sure
<b>9. Is the proposal compatible with the current IHS Information Technology Architecture Plan?</b>		Yes	No	Not Sure
<b>10. What is the estimated life cycle cost over 5 years (\$)?</b>		\$		
<b>Reviewer's Recommendation and Discussion:</b> Based on the following reasons, this proposal is a major proposal/minor proposal/incomplete proposal (circle one).				

Figure 3.

IHS Form DIR-3.A		<b>IT Project Proposal Analysis Documentation</b>		
<b>Section 1. Risk-related Criteria</b>				<b>Scoring</b>
1.1 What is the system's total investment, i.e., total life-cycle costs over 5 years?				
Estimated Life Cycle Costs: \$				
Five year period:				
1.2 Please indicate how modular the proposed system is, from an implementation standpoint.				
a. very modular	b. modular	c. somewhat modular	d. not modular	
1.3 How complex is the system in terms of technology?				
a. industry standard	b. established technology	c. somewhat complex	d. very complex	e. experimental
1.4 How heavily does the system rely on commercial, off the shelf (COTS) or government, off the shelf (GOTS) software?				
a. Exclusively	b. mostly	c. partially	d. slightly	e. not at all
1.5 Is the proposal consistent with the IHS IT Architecture Plan?				
a. Completely	b. mostly compliant	c. somewhat	d. inconsistent	e. don't know
1.6 Please indicate the degree of risk-sharing by indicating the type of acquisition strategy used for this project:				
a. Fixed-cost	b. Time and Materials	c. Cost plus fixed fee		
<b>Section 2. Financial Criteria</b>				
2.1 Please indicate the estimated life cycle costs:				
2.2 Please indicate the Return on Investment (ROI):				
2.3 Please indicate the Net Life-Cycle Savings (NLCS):				
<b>Section 3. Mission-related Criteria</b>				
3.1 For each mission listed in question 4, Form DIR-2.A, please estimate how much this proposed system will help in accomplishing or improving that mission. Please use a scale from 1 to 5 where 1=a dramatic improvement in service delivery/mission accomplishment, 5=no expected improvement in mission performance				
	Mission	Rating (1-5)		
	1.			
	2.			
	3.			
	4.			
	5.			