BY ORDER OF THE COMMANDER
HQ AIR UNIVERSITY (AETC)

AIR UNIVERSITY INSTRUCTION 33-102
17 MAY 2001

Communications and Information

INFORMATION TECHNOLOGY READINESS RATING TOOL

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Pages: 16
Distribution: F

This instruction establishes Air University (AU) policy regarding use of the Information Technology (IT) Rating Tool to perform an IT readiness assessment. This tool was developed to determine if technology investment is supporting and ultimately enhancing mission performance. This instruction applies to all organizational activities in AU.

1. Integrity. Organizations must comply with an uncompromising adherence to a code of honesty when reporting IT readiness.

2. Policy. The IT rating tool prescribes the level at which AU technology can effectively execute core education tasks (IT 1-5). IT ratings link to the budget process for use in evaluating the impact of IT budget allocations, management, technology readiness, curriculum development or enhancements. IT ratings reflect technology's ability to execute the organization's mission essential tasks as prescribed in their performance plan.

3. IT Defined. IT at AU is defined as the weapons system (personnel, capabilities and equipment) through which AU/CC delivers a continuum of educational services that shape the career of all Air Force personnel.

4. Responsibilities.

4.1. Director, AU Communications and Information Director (HQ AU/SC). HQ AU/SC has overall responsibility for establishing and managing AU-wide IT planning, policy, budget, architecture, authority and the achievement of the goals and objectives of the AU/SC Strategic Plan as recommended by the Information Technology Working Group (ITWG), Information Technology Board (ITB) and approved by the Information Technology Panel (ITP).

4.2. Organizational Commanders, Commandants or Directors. Using the IT readiness tool at attachment 1, each organizational commandant, commander or director is required to complete a quarterly information technology readiness review as part of the AETC mandated quarterly reporting of the overall IT health of the command. In addition, these assessments are used to substantiate priority rankings of unfunded requirements when included as part of the AU/FM budget cycle.

5. Process Flow. The following steps are involved in the IT readiness reviews:

5.1. Organizations follow the instructions in the AU developed Information Technology Readiness Rating Tool (attachment 1) to rate their organization's IT readiness.

5.2. It is recommended that the person tasked to perform the IT readiness review be knowledgeable of the organizational IT infrastructure and requirements.

5.3. The organization commandant, commander or director verifies the results of the review by completing attachment 2 and forwarding to AU/SC.

5.4. HQ AU/SC compiles the results of the AU organization's IT readiness reviews and presents them to the ITWG. The ITWG reviews the organization's rating and develops a recommended approval/prioritization funding list to be presented to the ITB.

5.5. HQ AU/SC presents the ITWG's recommended approval/prioritization list to the ITB for final recommendation to be presented to the ITP.

5.6. The ITP approves and prioritizes each organization's IT readiness rating

5.7. HQ AU/SC forwards the ITP approved/prioritized funding list to AU/FM for inclusion or use in the budget cycle.

5.8. AU-wide IT rating tool assessments are reported to AETC quarterly.

6. Submitting the IT Readiness Rating for Specific IT Unfunded Requirements.

6.1. Using the AU/FM Budget Execution Report (BER) format document (attachment 3), each organization identifying unfunded IT requirements assigns a corresponding IT readiness rating.

6.2. Notional Example. SOC's overall IT readiness rating is IT-3; however, in the subcategory of visual display, their classroom monitors are IT-4. When replacement monitors are requested as part of the unfunded submissions, specific ratings are noted in the IT block of the BER document and forwarded to AU/FM for inclusion in the budgetary process.

JAMES D. KELLEY, Col, USAF
Director, Communications & Information

Attachment 1

IT RATING TOOL CONCEPT OF OPERATIONS

Below is the macro IT rating of the organization. If the mission is being accomplished, the organization is at least IT-3; however, this does not mean automatic IT-3 in all areas. The overall rating needs to be logically justified by evaluating all applicable categories and subcategories. No hard connections have been drawn between categories and the overall rating because, like most complex systems, the interrelations and synergies within a system are best evaluated by someone familiar with the specific capabilities and goals of that system. However, when evaluating each category, do not lose sight of the interrelations of each area. For example, if the organization needs to add video teleconferencing capability to its auditorium, this obviously drives changes in the Audio Visual display category and the Auditorium Display subcategory. It may also drive a requirement in the Local Interconnectivity category and Internal Bandwidth subcategory. For an accurate evaluation, the analysis team must remain aware of the interdependencies. ***NOTE:*** Finally, when the impact of technology on the mission is briefed to the commander, commandant or director, it is their responsibility for assigning the overall rating for the unit.

OVERALL INFORMATION TECHNOLOGY RATING	
IT-1	Able to meet the current mission requirements as well as mission requirements projected 2 years out in unit performance plan.
IT-2	Able to meet the current mission requirements as well as mission requirements projected 1 year out in unit performance plan.
IT-3	Capable of meeting today's mission efficiently with no expandability.
IT-4	Capable of meeting today's mission in a degraded state.
IT-5	Not capable of meeting today's mission.

CATEGORY 1

This category is concerned with the physical connections within the organization that provide the necessary interconnectivity to perform the mission. This evaluation should be performed and a rating given to each of the unit facilities from the door to the user. The thresholds were determined by extrapolating current bandwidth and storage trends. If your unit has a known requirement that invalidates these numbers, use your projected needs to justify your rating keeping in mind that IT-1 should support operations for 2 years.

LOCAL INTERCONNECTIVITY INFORMATION TECHNOLOGY RATING	
IT-1	Equal to the lowest of any of the sub-category ratings
IT-2	Equal to the lowest of any of the sub-category ratings
IT-3	Equal to the lowest of any of the sub-category ratings
IT-4	Equal to the lowest of any of the sub-category ratings
IT-5	Equal to the lowest of any of the sub-category ratings

SUBCATEGORY 1a

This subcategory evaluates the ability of the internal network to carry the required information from the door to the user. When evaluating this subcategory, current technical limitations need to be considered. If your current internal network is based on the best technology available and your network does not meet your requirement, then an alternative solution needs to be explored. Items to consider may include, but are not limited to, cabling, routers, switches and hubs. When determining the effective bandwidth, LAN limitations need to be understood. Currently most organizations are running an Ethernet based LAN. This technology has an effective bandwidth of 30% of capacity. The additional 70% is used by the system to manage data flow. If your system is running an alternative technology such as token ring architecture, your first step is to determine your effective bandwidth. The base communications network services provider has the capability to monitor bandwidth utilization; for example, Multi Router Traffic Grapher. Units should contact their communications network services provider to schedule internal bandwidth utilization metrics.

INTERNAL BANDWIDTH INFORMATION TECHNOLOGY RATING	
IT-1	Current peak bandwidth requirements do not exceed 60% of effective bandwidth.
IT-2	Current peak bandwidth requirements do not exceed 70% of effective bandwidth.
IT-3	Current peak bandwidth requirements do not exceed 100% of effective bandwidth.
IT-4	Able to meet 90% of the current peak bandwidth requirements.
IT-5	Unable to meet current bandwidth requirements.

SUBCATEGORY 1b

This subcategory evaluates the ability of the network storage devices to provide the processing and storage capability required by the organization from the door to the user. When evaluating this subcategory, current technical limitations need to be considered. If your current server is based on the best technology available and your server does not meet your requirement, then an alternative solution needs to be explored. Items to consider may include, but are not limited to, individual hard-drive size, server processing speed, server drive capacity, availability and connectivity between the desktop and storage devices.

NETWORK STORAGE DEVICES INFORMATION TECHNOLOGY RATING	
IT-1	Storage devices requirements do not exceed 80% of current effective storage and processing capabilities.
IT-2	Storage devices requirements do not exceed 90% of current effective storage and processing capabilities.
IT-3	Storage devices requirements do not exceed 95% of current effective storage and processing capabilities.
IT-4	Storage devices meet only 95% of current required storage and processing capabilities.
IT-5	Storage devices meet only 90% of current required storage and processing capabilities.

CATEGORY 2

The software is possibly the most critical piece of this evaluation. It is the interface between the user and the hardware. It carries out the tasks that make technology important, and it dictates the processing power we need to achieve our goals.

SOFTWARE INFORMATION TECHNOLOGY RATING	
IT-1	Equal to the lowest of any of the sub-category ratings
IT-2	Equal to the lowest of any of the sub-category ratings
IT-3	Equal to the lowest of any of the sub-category ratings
IT-4	Equal to the lowest of any of the sub-category ratings
IT-5	Equal to the lowest of any of the sub-category ratings

SUBCATEGORY 2a

To be useful, the operating system must be able to run the applications we need and be supportable.

OPERATING SYSTEM INFORMATION TECHNOLOGY RATING	
IT-1	Supportable and maintainable, and able to run required applications projected in 2 years.
IT-2	Supportable and maintainable, and able to run required applications projected in 1 year.
IT-3	Supportable and maintainable, and able to run current applications. No expandability.
IT-4	Limited supportability or maintainability, or limits choice of applications.
IT-5	Not supportable or maintainable, or unable to run necessary applications.

SUBCATEGORY 2b

This is the software necessary to carry out the mission. This should be evaluated based on the critical mission tasks. For a classroom, this might include presentation software or simulation software. Recommend each application be evaluated and assigned a level.

MISSION ESSENTIAL SOFTWARE APPLICATIONS (DESKTOPS) INFORMATION TECHNOLOGY RATING	
IT-1	Supportable and maintainable. Meets current mission requirements and capable of meeting mission requirements projected in 2 years.
IT-2	Supportable and maintainable. Meets current mission requirements and capable of meeting mission requirements projected in 1 year.
IT-3	Supportable and maintainable. Meets current mission requirements. No expandability.
IT-4	Limited supportability or maintainability. Partially meets current mission requirements.
IT-5	Not supportable or maintainable. Unable to meet current mission requirements.

SUBCATEGORY 2c

These programs make it easier to carry out the administrative tasks associated with the mission. These should be viewed as a force multiplier because they free up time that can then be used for mission accomplishment. Evaluate per application or mission support area (for example, student administration, curriculum management, resource management) and assign each a rating.

MISSION SUPPORT SOFTWARE APPLICATIONS INFORMATION TECHNOLOGY RATING	
IT-1	Supportable and maintainable. Meets current mission requirements and provides a significant efficiency gain. Expandable to meet requirements in 2 years.
IT-2	Supportable and maintainable. Meets current mission requirements and provides a moderate efficiency gain. Expandable to meet requirements in 1 year.
IT-3	Supportable and maintainable. Meets current mission requirements. No expandability.
IT-4	Limited supportability or maintainability. Software not suited to task, but being made to work.
IT-5	Not supportable or maintainable. Necessary software not available or unable to accomplish task.

CATEGORY 3

This category encompasses the ability of the computer and associated peripheral equipment to accept a user input and provide the necessary output in a timely and reliable manner.

PROCESSING CAPABILITY INFORMATION TECHNOLOGY RATING	
IT-1	Equal to the lowest of any of the sub-category ratings
IT-2	Equal to the lowest of any of the sub-category ratings
IT-3	Equal to the lowest of any of the sub-category ratings
IT-4	Equal to the lowest of any of the sub-category ratings
IT-5	Equal to the lowest of any of the sub-category ratings

SUBCATEGORY 3a

These are the systems used to develop, test and prove new applications for future mission requirements. Systems to consider may include, but are not limited to, research and development, curriculum development and other requirements development.

DEVELOPMENT FUNCTION INFORMATION TECHNOLOGY RATING	
IT-1	Processing capability necessary to develop requirements forecast 3 years out in unit performance plan and availability of spare equipment to maintain this level.
IT-2	Processing capability necessary to develop requirements forecast 2 years out in unit performance plan and availability of spare equipment to maintain this level.
IT-3	Processing capability necessary to develop current requirements forecast 1 year out in unit performance plan and availability of spare equipment to maintain this level.
IT-4	Processing capability necessary to develop current requirements.
IT-5	Processing capability does not meet current requirements.

SUBCATEGORY 3b

These systems are necessary to provide the product to the customer. Systems to consider may include, but are not limited to, lesson presentation, wargame operations or student use.

DELIVERY FUNCTION (OPERATIONS) INFORMATION TECHNOLOGY RATING	
IT-1	Processing capability necessary to deliver requirements forecast 2 years out in unit performance plan and availability of spare equipment to maintain this level.
IT-2	Processing capability necessary to deliver requirements forecast 1 year out in unit performance plan and availability of spare equipment to maintain this level.
IT-3	Processing capability necessary to deliver current requirement efficiently and availability of spare equipment to maintain this level.
IT-4	Processing capability necessary to deliver current requirement degraded.
IT-5	Processing capability does not meet current requirements.

SUBCATEGORY 3c

These computers provide the mission support functions. Systems to consider may include, but are not limited to, student administration, curriculum management and resource management.
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ADMINISTRATION FUNCTION INFORMATION TECHNOLOGY RATING	
IT-1	Processing capability necessary to process information required by unit performance plan 2 years out and availability of spare equipment to maintain this level.
IT-2	Processing capability necessary to process information required by unit performance plan 1 year out and availability of spare equipment to maintain this level.
IT-3	Processing capability necessary to process current information efficiently and availability of spare equipment to maintain this level.
IT-4	Processing capability necessary to process information currently required by mission degraded.
IT-5	Processing capability does not meet current information processing requirements.

CATEGORY 4

This system segment takes the processed information and presents it in a useful manner.

AUDIO VISUAL PRESENTATION INFORMATION TECHNOLOGY RATING	
IT-1	Equal to the lowest of any of the sub-category ratings
IT-2	Equal to the lowest of any of the sub-category ratings
IT-3	Equal to the lowest of any of the sub-category ratings
IT-4	Equal to the lowest of any of the sub-category ratings
IT-5	Equal to the lowest of any of the sub-category ratings

SUBCATEGORY 4a

This subcategory evaluates the ability of the unit desktop display devices to support the mission functions. Items to consider may include, but are not limited to, monitor and video card.

DESKTOP DISPLAY (ADMINISTRATIVE) INFORMATION TECHNOLOGY RATING	
IT-1	Display capability necessary to present units most demanding desktop display requirements for the next 2 years and availability of spare equipment to maintain this level.
IT-2	Display capability necessary to present units most demanding desktop display requirements for the next year and availability of spare equipment to maintain this level.
IT-3	Display capability necessary to efficiently present information required by administration and availability of spare equipment to maintain this level.
IT-4	Display capability necessary to present limited administrative products.
IT-5	Display not capable of presenting information required by administration.

SUBCATEGORY 4b

These are the systems used to develop, test and prove new applications for future mission requirements. Systems to consider may include, but are not limited to, research and development, curriculum development and other requirements development.

DESKTOP DISPLAY (DEVELOPMENT) INFORMATION TECHNOLOGY RATING	
IT-1	Display capability necessary to present units most demanding desktop display requirements for the next 2 years and availability of spare equipment to maintain this level.
IT-2	Display capability necessary to present units most demanding desktop display requirements for the next year and availability of spare equipment to maintain this level.
IT-3	Display capability necessary to efficiently present information required by development and availability of spare equipment to maintain this level.
IT-4	Display capability necessary to present limited development products.
IT-5	Display not capable of presenting information required.

SUBCATEGORY 4c

These systems are necessary to provide the product to the customer. Systems to consider may include, but are not limited to, lesson presentation, wargame operations and student use.

DESKTOP DISPLAY (OPERATION) INFORMATION TECHNOLOGY RATING	
IT-1	Display capability necessary to present units most demanding desktop display requirements for the next 2 years and availability of spare equipment to maintain this level.
IT-2	Display capability necessary to present units most demanding desktop display requirements for the next year and availability of spare equipment to maintain this level.
IT-3	Display capability necessary to efficiently present information required by operations and availability of spare equipment to maintain this level.
IT-4	Display capability necessary to present limited operations products.
IT-5	Display not capable of presenting information required by operations.

SUBCATEGORY 4d

If your unit requires the ability to present information to a large audience, this chart should address those requirements. Items to consider may include, but are not limited to, display system, sound panels, microphones and camera control units. Units that require the use of a large auditorium on a regular basis should have a plan in place for an alternate location or address the availability of spare equipment to maintain the require level.

AUDITORIUM DISPLAY INFORMATION TECHNOLOGY RATING	
IT-1	Capable of presenting required curriculum products forecast 2 years out in unit performance plan.
IT-2	Capable of presenting required curriculum products forecast 1 year out in unit performance plan.
IT-3	Capable of presenting current required curriculum products efficiently.
IT-4	Capable of presenting current required curriculum products degraded.
IT-5	Not capable of presenting current required curriculum products.

SUBCATEGORY 4e

This subcategory addresses the ability to present information to a small group in a classroom or meeting room. Items to consider may include, but are not limited to, presentation display, video source and video teleconferencing.

CLASSROOM DISPLAY INFORMATION TECHNOLOGY RATING	
IT-1	Capable of presenting required curriculum products forecast 2 years out in unit performance plan and availability of spare equipment to maintain this level.
IT-2	Capable of presenting required curriculum products forecast 1 year out in unit performance plan and availability of spare equipment to maintain this level.
IT-3	Capable of presenting required curriculum products efficiently and availability of spare equipment to maintain this level.
IT-4	Capable of presenting required curriculum products degraded.
IT-5	Not capable of presenting required curriculum products.

CATEGORY 5

Technology training is an often overlooked, but critical part of an effective technology infrastructure. A unit, which effectively trains its members on the use of technology, gains the greatest benefits and therefore savings from their technology investment.

TRAINING INFORMATION TECHNOLOGY RATING	
IT-1	Equal to the lowest of any of the sub-category ratings
IT-2	Equal to the lowest of any of the sub-category ratings
IT-3	Equal to the lowest of any of the sub-category ratings
IT-4	Equal to the lowest of any of the sub-category ratings
IT-5	Equal to the lowest of any of the sub-category ratings

SUBCATEGORY 5a

Users only adopt technology they see a benefit from using. Understanding the power of new technology enables the user to extract the greatest efficiency.

USER TRAINING INFORMATION TECHNOLOGY RATING	
IT-1	User fully trained in SATE, software licensing, OS, common office suite, e-mail and any job specific software. Training plan in place to insure continued operation at this level. 30% of technology budget dedicated to training users on new technology unless training covered by base assets.[1]
IT-2	User fully trained in SATE, software licensing, OS, common office suite, e-mail and any job specific software. Training plan in place to insure continued operation at this level.
IT-3	User fully trained in SATE and software licensing. Familiar with OS, common office suite, e-mail, and any job specific software.
IT-4	User fully trained in SATE and software licensing. Not familiar with software, user capable of performing job, but doesn't use software functionality to full potential.
IT-5	User not capable of performing duties.

1. Faulkner University Technology Conference, "Teaching the teacher technology" briefing.

SUBCATEGORY 5b

An effective in-house support function can most quickly respond to organizational needs and improve system reliability, therefore maintaining the current mission effectiveness. Maintainer training may not be required depending on the customer support agreement and service contacts in place.

UNIT WORK GROUP MANAGER TRAINING INFORMATION TECHNOLOGY RATING	
IT-1	Unit has at least one professionally certified and experienced WGM assigned. Less than 1% system downtime attributable to WGM proficiency.
IT-2	Unit WGM completed appropriate training and has at least two years of experience. Less than 5% system downtime attributable to WGM proficiency.
IT-3	Unit WGM completed appropriate training and has at least one year of experience. Less than 10% system downtime attributable to WGM proficiency.
IT-4	Unit WGM have printed guide. Only minor maintenance accomplished in house.
IT-5	No in-house maintenance capability. (If needed)

Use this information to evaluate changes. For example, fielding a new wargame may require more LAN bandwidth than currently available. This would be justification for funding a LAN upgrade or modifying the wargame to use less bandwidth. Another example, if the current operating system doesn't support the classroom presentation software planned for the new curriculum, but the newly released operating system does. This analysis provides the rationale to build and budget a migration plan to the new operating system. In addition, this analysis should be able to answer most questions leadership want to know about the technology in their organization. As shown in preceding examples, once a documented relationship between technology and mission prioritizing, planning and justifying changes is completed, the changes necessary become much easier to target and budget for.

Attachment 2

MEMORANDUM FOR HQ AU/SC

MEMORANDUM FOR HQ AU/SC

FROM:

SUBJECT: Information Technology Readiness Review

1. Following is the result of the ___(Unit)_____ IT Readiness review.

Overall IT Rating _____

Category 1
Local Interconnectivity IT Rating _____
Internal Bandwidth _____
Network Storage _____

Category 2
Software IT Rating _____
Operating System _____
Mission Essential S/W desktop _____
Mission Support S/W app _____

Category 3
Process Capability _____
Curriculum Develop Function _____
Delivery Function (Ops) _____
Administration Function _____

Category 4
Audio Visual Presentation _____
Desktop Display (Administrative) _____
Desktop Display (Development) _____
Desktop Display (Operation _____
Auditorium Display _____
Classroom Display _____

Category 5
Training _____
User Training _____
Maintainer Training _____

2. My POC for this action is _____.

CC'S SIGNATURE

Attachment 3

BUDGET EXCUTION REPORT (BER) FORMAT DOCUMENT

FY 01
UNFUNDED REQUIREMENT
INITIAL DISTRIBUTION SUBMISSION

ORGANIZATION: CADRE

ORG PRIORITY: 2

RESOURCE ADVISOR NAME /PHONE: YOUR NAME, 3-7179

TITLE OF UNFUNDED REQUIREMENT: Support to AWC/ACSC Combined Wargame

IT RATING: __4__ BA: 03 PE: 84771 EEICs: 592 AMT ($): 150,000

NARRATIVE JUSTIFICATION/DESCRIPTION: Give specifics, i.e. quantities, amounts, programs, etc. Give deadline for receipt of funds. Identify if you have already funded requirement and need payback. State whether requirement is recurring or one-time cost.

SAMPLE

IMPACT IF NOT FUNDED: What will not be accomplished/delayed if funding is not received. Please be specific do not generalize.

REQUIREMENT IS: (Check One)
MISSION CRITICAL: __X__ MISSION ESSENTIAL: _____ MISSION ENHANCEMENT: _____

DEFINITIONS: MISSION CRITICAL: - CANNOT START NEW PROGRAMS OR MUST STOP CURRENT OPERATIONS

MISSION ESSENTIAL: - NOT BROKEN, BUT NOT OPTIMAL DELIVERY

MISSION ENHANCEMENT: - IMPROVES QUALITY OF LIFE; NEED, BUT HAS LITTLE IMPACT ON MISSION ACCOMPLISHMENTS