

Chapter 5

Information Systems Standards

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5-1 Standardization Programs

Overview

1. Standards provide for the uniformity of information, software, and hardware and thus facilitate the interoperability and transportability of Information Systems resources. In addition they provide a common frame of reference for the interchange of information, ideas, and resources by Agency personnel. To take advantage of these benefits, FEMA will implement and maintain standardization in its information systems resources.
2. As required by OMB Circular A-130, FEMA will adhere to Federal Information Processing Standards (FIPS) except where it can be demonstrated that the costs of using a standard exceed the benefits of the standard or will impede the Agency in accomplishing its mission.
1. The remainder of Chapter 5 presents specific [FEMA Information Systems and Information Technology standards](#). Software standards are identified in three categories: office automation software standards are described in Chapter 5-2, software application standards are described in Chapter 5-3, and Geographical Information Systems (GIS) standards are described in Chapter 5-6. Hardware standards for office automation are identified in two categories: office automation hardware standards (which are presented in three configurations: Desktop Computers [new], Laptop Computers [new], and 486 Upgrades) are described in Chapter 5-4, and hardware standards for servers and central processors are described in Chapter 5-5.
2. Each following Chapter contains a discussion of the identified software or hardware standard and an appendix containing the current FEMA baseline configuration standard. As baseline configurations standards are changed, the appropriate appendix will be replaced to reflect the change.

Responsibility

1. Associate Directors, Administrators, Regional Directors, and Office Directors are responsible for ensuring compliance with FEMA standards.
2. The IRB is responsible for approving standards based upon recommendation of the IRB-sponsored Information Systems Policy Advisory Group (ISPAG).
3. The Preparedness, Training and Exercises (PT&E) Directorate is responsible for user training courses based upon FEMA standards.
4. The Chief Information Officer is responsible for:
 - Waiving the standards in those instances where compliance with the standards would have an adverse impact on the accomplishment of the Agency's missions;

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- Defining, documenting, and disseminating all agencywide information systems standards; and,
 - Maintaining enterprise licenses and support services for the FEMA standards agencywide.
5. The ISPAG, in concert with the ITS Software Control and Integration Center, will conduct periodic reviews of updated release versions of the office automation software standards to determine the appropriateness of the updated versions to FEMA's requirements.
 6. Federal Coordinating Officers and Emergency Support Team Directors have the authority to assign and authorize temporary use of FEMA information technology assets to support the disaster and emergency effort, to ensure compliance with FEMA's hardware and software standards.

5-2 Office Automation Software Standards

Overview

1. FEMA's Information Resources Board (IRB), which is responsible for overseeing consistency and integration of information systems on an agencywide corporate basis, has established the software standards listed below in accordance with FEMA's standardization program and the Federal Acquisition Regulations. These standards are integral to the automated systems modernization plan, which was identified in the FEMA 1995 Information Technology Operations Plan.
2. The office automation software standards are effective for purchases of information systems that require product features as described for those standards. Procurements in response to disasters are **not** exempt.

Procedures

Standards

Specific Office Automation Software Baseline Configuration Standards are given in Appendices at the end of this manual. These specific baseline configuration standards do not preclude the use of other existing software. However, this standard requires that subsequent information systems purchases support the current baseline configuration standards. A request for exemption from the baseline configuration standards must be approved by the IRB.

Implementation

1. Requisitions for office automation software and/or information systems (via FEMA Form 40-1 and FEMA Form 60-1, or by credit card and blanket purchase order purchases) must be submitted to ITS. IT requisitions must be submitted to ITS for procurements in excess of \$5,000. Requisitions under the threshold are to be submitted to ITS for informational purposes. This will facilitate the planning and funding for enterprise licenses, the associated maintenance and support, and agencywide training. Requests for waivers also are to be submitted through ITS to the IRB.
2. The Acquisition Operations Division will, in the interest of the government, use the office automation hardware standards to negotiate the most appropriate contract vehicle for the procurement. It is anticipated that information needed for such procurements will be posted on the FEMA electronic mail bulletin board.
3. Reviews of the acquisition of information systems will be conducted by ITS to ensure compliance with FEMA's office automation software standards. Refer to Chapter 3-6 Purchasing via the Standardization Program.

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5-3 Application Software Standards

Overview

1. FEMA establishes software application standards in order to ensure that application development is consistent across the agency so that data can be shared among applications. FEMA will be developing a data warehouse architecture in the future. Standardization in data formatting and data dictionaries are critical to this effort.
2. Compliance to software application standards is required for all systems. Procurements and developments in response to disasters are **not** exempt.

Procedures

Standards

Specific application standards are given in Appendices at the end of this manual. These standards will be expanded as defined and approved by the Information Resources Board. Current application standards include:

Year 2000 Compliant Date Fields

When developing information systems which will be required to perform date/time processing involving dates subsequent to December 31, 1999, FEMA will ensure that solicitations, contracts and internal developments:

- Require that the system be Year 2000 compliant; or
- Require that non-compliant information technology be upgraded to be Year 2000 compliant prior to the earlier of (1) the earliest date on which the system may be required to perform date/time processing involving dates later than December 31, 1999, or (2) December 31, 1999.

Stand-alone legacy systems may meet Year 2000 compliance by a variety of measures. It is critical that data exchange formats for dates be standardized. All FEMA applications must comply with the National Institute of Standards Technology for date fields for data exchange.

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5-4 Office Automation Hardware Standards

Overview

1. FEMA's Information Resources Board (IRB), which is responsible for overseeing consistency and integration of information systems on an agencywide, corporate basis, has established the hardware standards listed below in accordance with FEMA's standardization program and the Federal Acquisition Regulations. These standards are integral to the information technology modernization plan, which is identified in the FEMA Information Technology Operations Plan.
2. The office automation hardware standards for desktop and laptop computers are effective for purchases of information technology that require product components as described for those standards. Procurements made in response to disasters are **not** exempt.
3. FEMA's office automation hardware standards are categorized in two (2) configurations: purchases of new desktop computers, and purchases of new laptop computers. FEMA's policy for disposition of obsolete computers, including sharing and reuse, is outlined in Chapter 3-10 of the FIRMPD.

Procedures

Standards

1. Specific Office Automation Hardware Baseline Configuration Standards are given in the Appendix at the end of this manual. These specific baseline configuration standards do not preclude the use of other existing hardware. However, these standards require that future purchases of computer components and of desktop and laptop computers be in compliance with the baseline configuration standards, both hardware and software. Software pre-loaded on newly purchased computers, including operating systems, must comply with FEMA's software baseline configuration standards. For example, computers purchased new must be preloaded with the standard operating systems. Requests for exemption from the standards must be approved by the IRB chair or the IRB's designee.
2. The hardware baseline standards are to be understood as the minimum acceptable configuration and can be exceeded with program office justifications. The standards do not preclude the use of other existing hardware as long as the existing hardware can support the standard software. However, the established hardware baseline standards do require that future purchases of computer components and of desktop and laptop computers be in compliance with the standards, both hardware and software. Software pre-loaded on newly purchased computers, including operating systems, must comply with FEMA's baseline software standards. Requests for exemption from the standards must be approved by the IRB chair or the IRB's designee.

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Implementation

Requisitions for information systems and components (via FEMA Form 40-1 and FEMA Form 60-1, or by credit card and blanket purchase order purchases) must be submitted to ITS.

Guidance requires that all requisitions for IT purchases be submitted to ITS. This will facilitate the planning and funding for FEMA's information technology modernization plan, and the associated maintenance and support. Requests for waivers also are to be submitted to the CIO.

When preparing requisitions for microcomputer hardware, requesters will specify whether the requirement is for desktop or laptop units, and the quantity and cost of the units. Submission of hardware configuration specifications will no longer be required. The Acquisition Office will, in the interest of the government, use the office automation hardware standards to negotiate the most appropriate contract vehicle for the procurement. It is anticipated that information needed for such procurements will be posted on the FEMA electronic mail bulletin board.

5-5 Hardware Standards for Servers and Central Processors

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5-6 Geographical Information Systems Standards

Overview

FEMA's Information Resources Board (IRB), which is responsible for overseeing consistency and integration of information systems on an agencywide corporate basis, has established MapInfo Professional as the Agency standard for Desktop GIS in accordance with FEMA's standardization program and the Federal Acquisition Regulations. FEMA will continue to support multiple vendor GIS software in server and modeling applications. Server and model software must interface with the desktop standard. These standards are integral to the National Emergency Management Information System and other agencywide systems.

Procedures

The GIS Desktop software standard is effective for purchases of information systems that require product features as described for those standards. Procurements in response to disasters are **not** exempt.

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