



DoD SPACE PLANNING CRITERIA

CHAPTER 240: INFORMATION MANAGEMENT JULY 1, 2017

Originating Component: Defense Health Agency Facilities Division

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Purpose: This issuance: To provide space planning criteria guidance in support of planning, programming and budgeting for DoD Military Health System (MHS) facilities.

SUMMARY of CHANGE

This revision, dated July 1, 2017 includes the following:

- On page 6, section 3.1. INPUT DATA STATEMENTS, changed second IDS to read “How many Server Racks are projected for the MTF? (W)”
- On page 14, changed section title to read “FUNCTIONAL DIAGRAM (Intradepartmental)”.

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SECTION 1: PURPOSE AND SCOPE

1.1.

This document provides space planning criteria for the Office of Information Management (IM) as it applies to Hospitals, Outpatient Clinics, Community-based Outpatient Clinics, and Medical Facilities for the Department of Defense (DoD).

IM is responsible for providing strategic and technical direction, guidance, and policies to ensure that information technology (IT) resources are best acquired and managed for DoD, and responsible for ensuring the efficient and effective operation of DoD's IT Management System. IM is also responsible for the management and operation of the IT program to support the staff and services at each DoD-MHS facility. This responsibility encompasses all aspects of designing, implementing, operating, and maintaining the IT systems, and includes management consulting, user support and training, technical management, around-the-clock operation. It also includes maintenance of hardware, software, and telecommunications systems.

This document also provides space planning criteria for the IT requirements of Facilities Management (FM). Some of the functional areas and rooms are jointly used by both IM and FM.

The space planning criteria in this chapter apply to all Military Treatment Facilities (MTFs) and are based on current DoD policies and directives, established and/or anticipated best practices, industry guidelines and standards, and input from DoD Subject Matter Experts (SME) and Defense Health Agency (DHA) Service contacts. As directed by the DHA, these space criteria are primarily workload driven; additional drivers are staffing and mission. Room Codes (RCs) in this document are based on the latest version of DoD's UFC 4-510-01, Appendix B.

The IM services for a MTF may be served by a Regional Data Center. IM space planning must be coordinated with this operational decision.

SECTION 2: OPERATING RATIONALE AND BASIS OF CRITERIA

2.1.

A. Workload projections and planned services / modalities for a specific MHS facility project shall be sought by the planner in order to develop a project based on these Criteria. Healthcare and clinical planners working on military hospitals, medical centers and clinics shall utilize and apply the workload based criteria set forth herein for identified services and modalities to determine space requirements for the project.

B. Space planning criteria have been developed on the basis of an understanding of the activities involved in the functional areas required for Information Management and its relationship with other services of a medical facility.

C. The functional areas that are most critical in support of the IM's mission include the Computer Area (which houses the Server Room for IT equipment) and Server Support Area. The current trend is for medical systems (IM-supported) and Facilities Management systems (non-IM-supported) to require more active IT equipment for their operation. Remaining functional areas are Customer Service Reception Area, Staff and Administrative Area, and Staff Lounge, Lockers, and Toilets. These areas provide space for staff and administrative offices, computer training classroom, and office support functions.

D. Quantities and sizes of spaces required for functions in the Computer Area, and the Computer Support Area are determined primarily from the total net area of the facility. These space standards are based on the quantity of floor-mounted cabinets and racks needed to house the anticipated systems and level of redundancy.

E. Space requirements are computed separately for IM IT active and passive equipment, Telephone (VoIP) active and passive equipment, Facilities Management (FM) systems active and passive equipment, and conduit entry areas, which are then totaled to establish the size of the Server Room. Adjacent space for supporting mechanical, electrical, and clean agent fire suppression equipment is proportioned to the size of the Server Room.

F. Space may also be required to support IM equipment necessary to backup systems at the local, regional, or national levels. If required, these systems may be located onsite in the Server Room, or in a remote backup server room. This determination will be made by DoD on a case-by-case basis.

G. The basis for calculating the space requirements for the main rooms in this chapter is the projected number of computer users, computer racks, and FTE positions authorized.

H. Calculation of the number and -in some cases- the area (NSF) of rooms is performed in one of the following methods:

1. Directly workload-driven

2. Indirectly workload-driven
3. Mission or Staffing-driven

The directly workload-driven rooms are based on workload projections entered in response to the Workload Input Data Statements (IDSs) included in Section 4. The directly workload driven rooms in this chapter are Computer Training Classroom, Server Room, IT Equipment Storage, and Receiving / Breakdown Room.

The indirectly workload-driven rooms are derived from the preceding group. They are typically in the Customer Service Area and the Support Functional Areas.

The mission / staffing-driven rooms are created based on Boolean 'yes/no' or numeric responses to the Mission and Staffing Input Data Statements (IDSs).

I. The Net Square Feet (NSF) and Room Code (RC) for each room in Section 5: Space Planning Criteria of this chapter was provided by or approved by the Defense Health Agency (DHA) Template Board.

J. Section 4: Input Data Statements and Section 5: Space Planning Criteria have been implemented and tested in the Space and Equipment Planning System (SEPS). To gain access to SEPS planner should contact a Defense Health Agency (DHA) representative; access to SEPS is provided via a 16-hour hands-on training session.

K. Calculation of each of the directly workload-driven room types is implemented in SEPS based on the following workload parameters:

- a. Number of projected Computer Users
- b. Number of projected computer racks

These parameters are directly included in the Room Criteria Statements of those rooms they generate.

SECTION 3: PROGRAM DATA REQUIRED

3.1. INPUT DATA STATEMENTS. Input Data Statements are based on questions about Workload (W), Mission (M), Staffing (S) and Miscellaneous (Misc) information.

1. How many Computer Users are authorized for the MTF? (W)
2. How many Server Racks are projected for the MTF? (W)
3. Is onsite configuration and repair of IT equipment authorized at the MTF? (M)
4. How many Service Technician FTE positions are authorized? (S)
5. Is a Telecommunications Support Area authorized in the MTF? (M)
 - a. Is a Communications Radio Equipment Room authorized in the MTF? (Misc)

6. Is an Audiovisual and Illustration Area authorized for the MTF? (M)
 - a. How many Graphic Design FTE positions are authorized? (S)
7. How many Information Management (IM) FTE positions are authorized to have a private office? (S)
8. How many Information Management (IM) FTE positions are authorized to have a shared office? (S)
9. How many Information Management (IM) FTE positions are authorized to have an administrative cubicle? (S)
10. Is Secure Storage authorized? (Misc)
11. Is a dedicated IM Conference Room authorized? (Misc)
12. Is a Copy / Office Supply room authorized? (Misc)
13. How many Information Management (IM) FTE positions on peak shift? (Misc).

SECTION 4: SPACE PLANNING CRITERIA

4.1. FA1: CUSTOMER SERVICE.

1. **Waiting (WRC03) 60 NSF**
Minimum NSF if the total number of Computer Users is between 100 and 600; provide an additional 60 NSF for every increment of 500 Computer Users greater than 600, maximum 240 NSF.
2. **Reception (RECP3) 60 NSF**
Minimum NSF if the total number of Computer Users is between 100 and 600; provide an additional 60 NSF if the total number of Computer Users is greater than 600.
3. **Workstation, Helpdesk (OFA03) 60 NSF**
Minimum one if the total number of Computer Users is between 300 and 800; provide an additional one for every increment of 500 Computer Users greater than 800.

Place to pick-up/drop-off portable IT equipment (i.e. laptops, cell phones, tablets and other portable devices) and to interact with Technical Support. Locate adjacent to Helpdesk Storage.
4. **Classroom, Computer Training (CLR03) 240 NSF**
Minimum NSF if the total number of Computer Users is between 300 and 600; provide an additional 240 NSF if the total number of Computer Users is greater than 600.

Allocated minimum space provides for eight workstations (including 4 accessible workstations) and instructor workstation or lectern.

5. **Storage, Computer Training (SRS01)** **60 NSF**
Minimum NSF; provide an additional 60 NSF if the Computer Training Classroom is 480 NSF.

4.2. FA 2: COMPUTER AREA. The Computer Area includes spaces for IT equipment and immediately necessary support equipment. Planning of spaces shall conform to UFC 4-510-01, Design: Military Medical Facilities, and TIA 569, Commercial Building Standard for Telecommunications Pathways and Spaces. Spaces in the Computer Area shall be provided with dedicated HVAC systems when separation from spaces in Server Support Area is provided. Minimal space for storage of essential records or materials is included in the Computer Area. Backup and general storage shall be provided in the Server Support Area.

1. **Server Room (CMP01)** **120 NSF**
Minimum NSF; provide an additional 30 NSF per each computer rack projected greater than three.

Allocated NSF accommodates three computer racks and circulation, these rack may include the PACS, pharmacy, laboratory, logistics servers. The Server Room provides space for active and passive IT and telephone equipment, including medical information systems and PACS, and any support equipment which must be immediately adjacent.

2. **Server Room Support Equipment (COM05)** **60 NSF**
Minimum NSF; provide an additional 15 NSF per each computer rack projected greater than three.

This space is allocated to mechanical, fire suppression, and electrical equipment dedicated to serving the Server Room, such as Computer Room Air Conditioning units (CRACs), clean agent fire suppression tanks, electrical distribution equipment, and power distribution units, etc., are to be located in this space. This space may be combined with the Server Room, or located adjacent to it.

3. **Network Operations Room (OFA03)** **60 NSF**
Minimum one; provide an additional one if the Server Room is greater than 1,900 NSF.

This room provides workspace for computer operators / technicians immediately adjacent to the Server Room.

4.3. FA 3: COMPUTER SUPPORT. The following spaces are to be located outside the Computer Area when separation is required. These spaces will not be served from the Computer Area air conditioning system.

1. **Storage, IT Equipment (SRSE1)** **120 NSF**
Provide one if onsite configuration and repair of IT equipment is authorized and if the total number of Computer Users is between 100 and 500; provide an additional 120 NSF for every increment of 500 Computer Users greater than 500.

Allocated space is for secure, bulk storage of new or surplus IT equipment, desktop computers, and other large items. Locate adjacent to Receiving / Breakdown Room.
2. **Receiving / Breakdown Room (SRSE1)** **120 NSF**
Minimum one if the total number of Computer Users is between 100 and 500; provide an additional 120 NSF for every increment of 500 Computer Users greater than 500.

This space provides for secure unpacking or staging of new equipment before issue or use, holding packing materials for disposal, and for staging equipment to be removed.
3. **Workroom, Equipment Configuration / Repair (BMWS1)** **150 NSF**
Provide one if onsite configuration and repair of IT equipment is authorized; provide an additional 75 NSF per each Service Technician FTE position authorized greater than one; maximum 600 NSF

4.4. FA 4: TELECOMMUNICATIONS SUPPORT.

1. **Service Entrance Facility (COMC2)** **150 NSF**
Provide one if a Telecommunications Support Area is authorized.

This room is provided for the termination of services brought to the facility by outside providers, such as telephone providers, data providers, MATV / CATV providers, etc.
2. **Communications Radio Equipment Room (COM04)** **150 NSF**
Provide one if a Communications Radio Equipment Room is authorized.

This room accommodates all head end cabinets for antenna-based systems (i.e. satellite TV, two-way radio, Emergency Flightline radio, Emergency Responder radio, Security/Police radio, Airflight radio, etc.). The room is sized for a minimum of four separate systems and four future systems.

4.5. FA 5: AUDIOVISUAL AND ILLUSTRATION.

1. **Cubicle, Graphics (OFA03)** **60 NSF**
Provide one per each Graphic Designer FTE position authorized.

These cubicles may be collocated in a shared space or dispersed as required.
2. **Production / Copy Room (RPR02)** **120 NSF**
Provide one if an Audiovisual and Illustration Area is authorized.

3. **Workroom (WRCH1)** **120 NSF**
Provide one if an Audiovisual and Illustration Area is authorized.
4. **Storage Room (SRS01)** **120 NSF**
Provide one if an Audiovisual and Illustration Area is authorized.

4.6. FA 6: STAFF AND ADMINISTRATION.

1. **Office, Private (OFA04)** **120 NSF**
Provide one per each Information Management (IM) FTE position authorized to have a private office.

This space is provided for the Information Management (IM), the Information Technology (IT), the Information Systems (IS), and/or the Clinical Information Management (CIM) Director(s), Clinical Information Systems Chief; Business Information Systems Chief, etc.

2. **Office, Shared (OFA05)** **120 NSF**
Provide one for every increment of two Information Management (IM) FTE positions authorized to have a shared office.

3. **Cubicle, Administrative (OFA03)** **60 NSF**
Provide one per each Information Management (IM) FTE position authorized to have an administrative cubicle.

These cubicles may be collocated in a shared space or dispersed as required.

4. **Storage, Secure (SSS01)** **120 NSF**
Provide one if secure storage is authorized.

5. **Conference Room (CRA01)** **240 NSF**
Provide one if a dedicated IM Conference Room is authorized.

Planner must determine adequacy and availability of existing Conference Room space and the ability to optimize resources by sharing Conference Room space with other departments.

6. **Copy / Office Supply (RPR01)** **120 NSF**
Provide one if a Copy / Office Supply is authorized.

7. **Lounge, Staff (SL001)** **120 NSF**
Minimum NSF; provide an additional 60 NSF for every increment of five FTEs working on peak shift greater than ten; maximum 360 NSF.

8. **Toilet, Staff (TLTU1)** **60 NSF**
Minimum one; provide an additional one for every increment of fifteen FTEs working on peak shift greater than fifteen.

SECTION 5: PLANNING AND DESIGN CONSIDERATIONS

The following design considerations are intended to provide planners and designers with guidance on how to follow world-class and evidence-based design strategies for new and renovation of existing healthcare facilities. For a more comprehensive list, refer to the World Class Checklist (<https://facilities.health.mil/home/>).

5.1. NET-TO-DEPARTMENT GROSS FACTOR. The net-to-department gross factor (NTDG) for the Information Management Area is 1.35. This number, when multiplied by the programmed net square foot (NSF) area, determines the departmental gross square feet. This factor accounts for the space occupied by internal department circulation and interior partitions as well as other construction elements not defined by the net square foot area. Refer to UFC 4-510-01, Section 2-3.4.2.2 and DoD Space Planning Criteria Chapter 130: Net to Gross Conversion Factors.

5.2. GENERAL DESIGN CONSIDERATIONS. Security and continuity of service of IT systems is critical to the mission of DoD - MHS. The Computer Area provides the essential data center functions. Key planning considerations for these areas are:

- a. **Flexibility.** Changes in IT systems and equipment requirements are certain to occur over the useful life the building. Server Rooms and support spaces require specialized construction, HVAC systems, and other utilities.
- b. **Modularity.** Planning modules must accommodate standard sizes of IT equipment cabinets and racks, and must be compatible with the building structural grid and general planning module for the facility.
- c. **Scalability.** Use of standard modules facilitates “scaling” the computer and telecommunications rooms to match systems requirements from very small (clinic) to very large facilities (major medical center).
- d. **Expandability.** Space criteria for computer and telecommunications rooms were developed with the recognition that increasing the size of these spaces after initial construction and occupancy is difficult. Relocation of mechanical and electrical equipment and distribution systems is costly and can be disruptive to the ongoing operation of the medical facility. Whenever possible plan for “soft” space (offices, conference rooms, etc.) on at least one side of the Server Room. Consider installing access floor in the “soft” space to facilitate expansion of Server Room.

- e. **Physical Security.** Design access control and surveillance systems for Information Management spaces as outlined in Chapters 12 and 14 of the DoD UFC 4-510-01 Unified Facilities Criteria for Medical Military Facilities.
- f. **Location.** Locate server and telecommunications rooms to avoid exterior walls (unless hardened), loading docks, mailrooms, sources of electromagnetic interference, fire and smoke hazards, wet locations or high humidity, and high traffic patient care areas. Wet pipe systems serving the computer or telecommunications room only shall be allowed in the room or on the floor directly above the space.
- g. **Partitions and Doors.** Provide fire resistance rated partitions and doors.
- h. **Fire Protection.** Wet pipe automatic fire sprinkler system shall be provided in all server and telecommunications rooms in accordance with DoD Guidelines. Clean Agent fire suppression systems shall be provided in the Server Room in addition to the wet pipe automatic fire sprinkler system.

5.3. OFFSITE SERVICES.

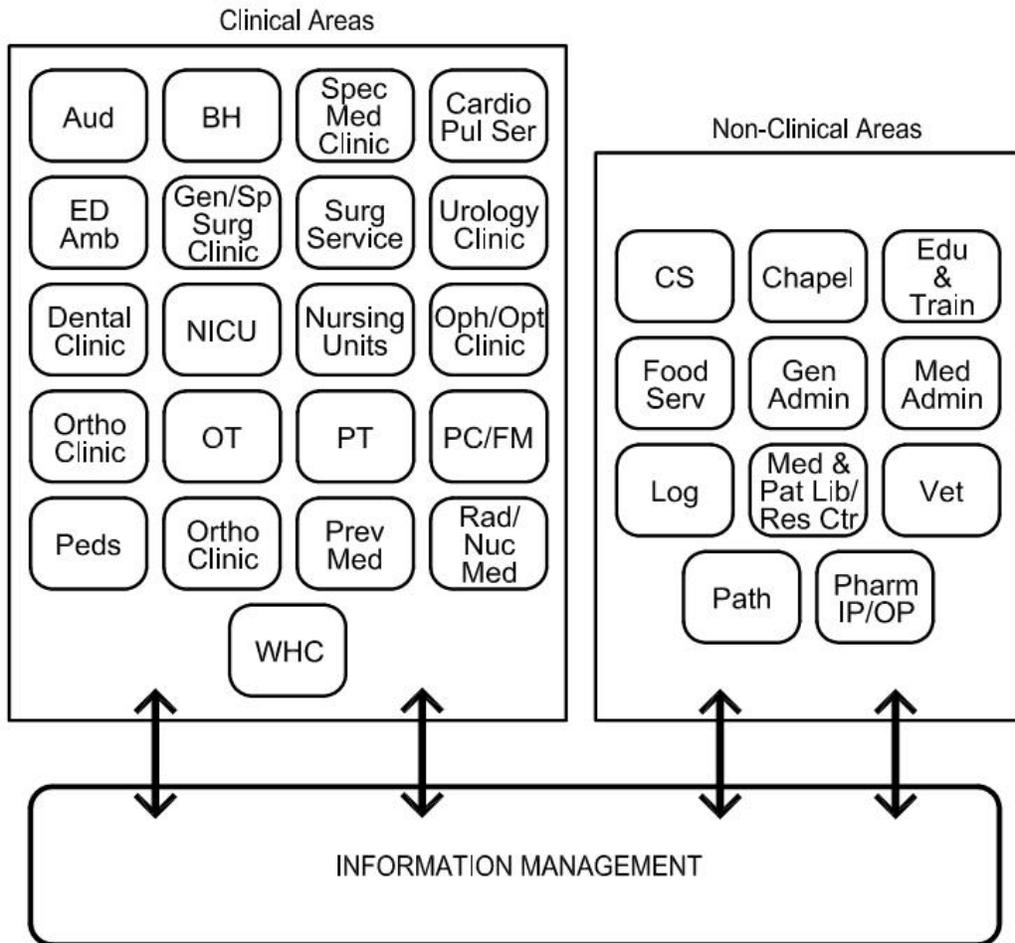
- a. There is no Information Management (IM) or Facilities Management (FM) data archive provided in the functional areas described in this Chapter, other than temporary storage intended for media / records used for system backup or restoration. There may be the need to identify an offsite or remote location for the storage of archived data, media, and electronic records. Minimum suggested space is 100 NSF for data storage; however, specific space requirements are to be determined by IM.

5.4. MISSION-CRITICAL SERVICES.

- a. IM will determine if a facility will provide backup, redundant, or continuity of operations information technology services for other DoD - MHS facilities or for other government agencies.

SECTION 6: FUNCTIONAL RELATIONSHIPS (INTERDEPARTMENTAL)

6.1. FUNCTIONAL RELATIONSHIPS (INTERDEPARTMENTAL). Information Management will rely on a number of other services in a Military Treatment Facility (MTF) for patient care and support functions. The diagram below represents desirable relationships based on efficiency and functional considerations.

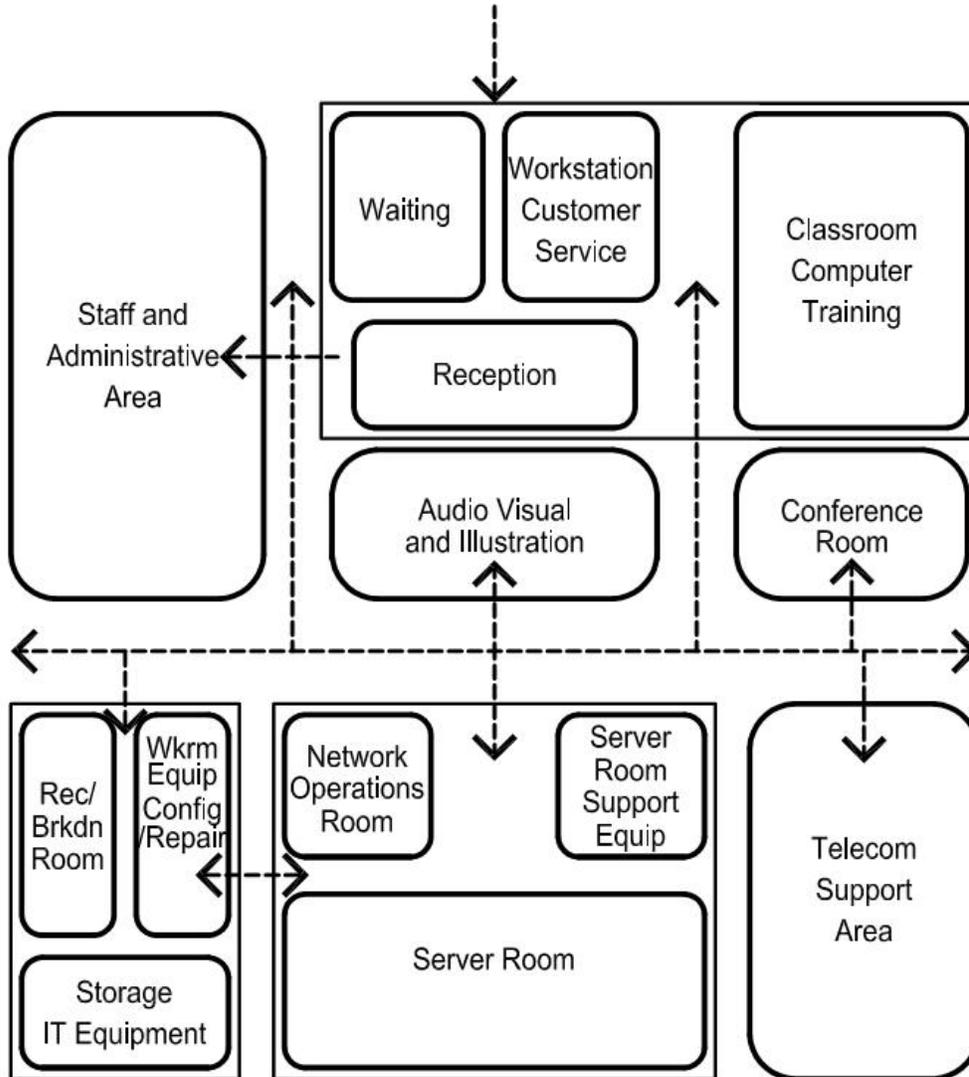


LEGEND

- Most Critical Adjacency
- Less Critical Adjacency

SECTION 7: FUNCTIONAL DIAGRAM (INTRADEPARTMENTAL)

7.1. FUNCTIONAL DIAGRAM. The diagram below illustrates intradepartmental relationships among key areas / spaces within Information Management. The diagram is necessarily generic. The planner shall use this as a basis for design only and shall consider project-specific requirements for each Military Treatment Facility.



LEGEND

- Patient Circulation
- - - - -** Staff Circulation

NOTE: Size and shapes of spaces do not reflect actual configuration or square foot area of departments.

GLOSSARY

G.1.

Access Floor: A flooring system consisting of removable, modular panels supported on pedestals or stringers. The under-floor plenum space is used for distribution of power circuits and ducted air.

Active Equipment: Energized equipment used for receiving or transmitting analog or digital signals, such as servers, hubs, routers, switches, rack-mounted UPSs, servers, firewalls, etc.

Active (Data) Storage: Secure area for temporary storage of removable media containing active data.

Archive (Data) Storage: A secure, offsite area for storage of inactive or backup data, media, and electronic records.

Authorized: This document uses the term “authorized” to indicate that during a project’s space plan development a planner shall seek approval from the appropriate official in the chain of command to activate certain spaces or certain groups of spaces. Typical components that may require authorization are certain programs or services that activate Functional Areas (e.g., GME); office spaces (e.g., FTE position); specialized rooms (e.g., Hybrid OR) or other spaces (e.g., On-Call Room). Typically, Mission, Staffing and Miscellaneous Input Data Statements require authorization, while directly and indirectly workload driven rooms / spaces do not.

Automated Information Storage System (AISS): An enclosed storage and retrieval system that moves recorded media between storage and IT equipment.

Cabinet: A protected enclosure containing a standardized frame for mounting multiple active IT or electronic equipment modules. Cabinets are designed to accommodate equipment modules of standard widths and heights. Standard widths are nominal 19-inch (the most common) or 23-inch. The heights of standard modules are multiples of 1.75-inches (this dimension is known as one “Rack Unit” or "U"). A cabinet houses *Active Equipment*. For unenclosed frames, see *Rack*.

Computer Equipment: See *Information Technology Equipment*.

Computer User: In this document a Computer User is as workload metric used to calculate certain spaces.

Cubicle: A cubicle is a partially enclosed workspace, separated from neighboring workspaces by partitions. Managers and other staff with no supervisory responsibilities as well as part-time, seasonal, and job-sharing staff may qualify for a cubicle.

Facilities Management (FM) Communications Systems and Equipment: Microprocessor- or server-based systems and/or equipment that are outside the purview of IM, such as, but not

limited to: Nurse Call and/or Code Blue (Blue); PACS; Television (Master Antenna [MATV], Community Antenna [CATV], Closed Circuit [CCTV] [for education] & Satellite TV [SATV]); Radio (Paging [Code Blue, Emergency & Routine]), Microwave, Satellite Radio / Telephone & Radio Entertainment; Public Address (Overhead Paging, Mass Notification, and Intercommunications [Intercom]); Physical Security Management (Access Control, Motion Intrusion Detection, Duress and/or Panic Alarm & Security Surveillance Television [SSTV]); Patient, Staff and Asset Monitoring (Medical Telemetry, Patient / Staff Location, and Cardiac); Energy Management; Emergency (Fire Alarm / Mass Notification, Police, and Disaster). These systems and equipment shall be located in the Facilities Management (FM) area of the Telecommunications Rooms and the Communications Radio Equipment Room. Headend, host servers, or active equipment associated with archiving, packetized storage, or transport of confidential information generated by a Facilities Management (FM) system shall be located within the Server Room.

Full-Time Equivalent (FTE): A staffing parameter equal to the amount of time assigned to one full time employee. It may be composed of several part-time employees whose total time commitment equals that of a full-time employee. One FTE equals a 40-hour a week workload.

Functional Area (FA): The grouping of rooms and spaces based on their function within a clinical service. Typical Functional Areas are Reception Area, Patient Area, Support Area, Staff and Administrative Area, and Education Area.

Information Management (IM): The functional department or group within each service branch that is responsible for Information Technology equipment and services. Each service branch uses a different name for this group.

Input Data Statement: A set of questions designed to elicit information about the healthcare project in order to create a Program for Design (PFD; see definition below) based on the criteria parameters set forth in this document. Input Data Statements could be Mission related, based in the project's Concept of Operations; and Workload or Staffing related, based on projections and data provided by HA or each Service about the estimated model of operation. This information is processed through mathematical and logical operations in SEPS (see definition below).

Information Technology (IT): The design, development, implementation, support and management of computer-based information systems, particularly software applications and computer hardware.

Information Technology (IT) Equipment: Any electronic digital or analog computer, with all peripheral, support, memory, programming, or other directly associated equipment, records, and activities.

Jack: Female telecommunications connector used to connect field equipment to horizontal cabling (See *Port*).

Net-to-Department Gross Factor (NTDG): A parameter used to calculate the Department Gross Square Foot (DGSF) area based on the programmed Net Square Foot (NSF) area. Refer to DoD Chapter 130 for the NTDG factors for all Space Planning Criteria chapters.

Office, Private: A single occupancy office provided for confidential communication.

Office, Shared: An office that accommodates two workstations.

Passive Distribution Equipment: Equipment that does not require electrical power and does not modify the transmitted signal through amplification, retiming or regeneration. Passive distribution equipment is used for the termination of backbone fiber optic cabling. For termination of passive voice copper cabling, see Voice Passive Distribution Area.

Port: An identifier of an application process within the TCP/IP suite. An active port may be for VoIP, or data service, and is the assignment connectivity between a server and a network-connected device (such as workstation, printer, or wireless access point). While a port cannot be physically associated with a jack, it requires physical space for the active server equipment associated with it (see also *Jack*).

Professional Staff: Professional Staff includes Chief, Assistant Chief, Section Heads, Supervisors, and Programmers.

Program for Design (PFD): A listing of all of the rooms / spaces generated based on answers to the Input Data Statements (see Section 3) and the space planning criteria outlined in this document (Section 4) in SEPS. The list is organized by Functional Area and includes the Room Quantity, Room Code, Room Name and generated Net Square Feet (NSF), Construction Phase and Construction Type.

Project Room Contents (PRC): A listing of the assigned contents (medical equipment, FF&E, etc.) for each room in a PFD generated by SEPS.

Rack: An open (non-enclosed) standardized frame for mounting multiple passive IT or electronic equipment modules. Racks are designed to accommodate equipment modules of standard widths and heights. Standard widths are nominal 19-inch (the most common) or 23-inch. The heights of standard modules are multiples of 1.75-inches (this dimension is known as one "Rack Unit" or "RU"). A rack houses passive (non-powered) equipment, such as patch panels and Fiber Distribution Units (FDU). For enclosed frames, see *Cabinet*.

Space and Equipment Planning System (SEPS): A digital tool developed by the Department of Defense (DoD) and the Department of Veterans Affairs to generate a Program for Design (PFD) and a Project Room Contents list (PRC) for a DoD healthcare project based on approved Space Planning Criteria, the chapter and specific project-related Mission, Workload and Staffing information entered in response to the Program Data Required - Input Data Statements (IDSs).

Service Entrance Facility: Also known as the ANSI/TIA/EIA569 Demarcation Room, and formerly known as the Main Distribution Frame (MDF). It is the space where services brought

to the facility by outside providers or AF Communications Group, such as telephone, data, and cable television providers, are initially terminated. The service provider network cabling ends and the Department of Defense premises cabling begins in this room.

Service Provider: Outside providers of services to the facility, such as telephone, data, and cable television providers.

Server Room: A room containing both primary information technology systems active equipment and passive backbone cabling distribution terminations. The Server Room is one of the spaces located within the Computer Area functional area. The IM IT and Facilities Management (FM) IT systems housed in the Server Room may include, but are not limited to: Voice over IP (VoIP), Data LAN, Wireless LAN, PACS, Digital Imaging, Asset Tracking/Management, Patient Monitoring Systems, Video Surveillance, Security Access, Nurse Call, MATV/CATV, Public Address, Fire Alarm, Mass Notification, and Overhead Paging.

Telecommunications Room (TR): A room used for both IM active and passive IT distribution equipment and Facilities Management (FM) active and passive distribution equipment. The term “Telecommunications Room” replaces the legacy terms “Signal Closet” and “Telecommunications Closet”, which are no longer used.

Telecommunications Support Area: Within the space program for IM, the Telecommunications Support Area is the functional area that contains spaces primarily used for the IM and Facilities Management (FM) backbone distribution systems, including the Service Entrance Facility and the Telecommunications Rooms.

Uninterruptible Power Supply (UPS): A system of electrical power conditioning and battery storage used to provide continuous power to IT equipment.

Voice over Internet Protocol (VoIP) System and Equipment: Digital voice equipment in which analog voice signals are converted to digital packets and transmitted over a Local Area Network (LAN) using Transmission Control / Internet Protocol. This system may be powered from the Essential Branch of the Emergency AC Power System (Reference NFPA 70, Articles 517 & 800).

Voice Passive Distribution Area: Area for wall-mounted terminations of copper voice backbone cables.

Workload: Space Planning Criteria per DHA Policy shall be workload driven. Workload projections divided by the throughput determined in this document for each workload driven room determines the quantity of rooms needed to satisfy the projected workload demand.