COMPUTER CENTER PHYSICAL SECURITY AND DISASTER RECOVERY

IDENTIFICATION OF THE PROCESSING ENVIRONMENT

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1. GENERAL

1.01 This guideline has been developed by a multicompany GUARDSMAN project team under the direction of AT&T Information Systems Technical Support and Standards. This guideline is issued by the AT&T Director—Information Systems Planning and Support to assist the Bell System Companies in implementing a Physical Security and Disaster Recovery Program.

1.02 Whenever this section is reissued, the reason(s) for reissue will be listed in this paragraph.

1.03 The purpose of this section is to identify the elements of the processing environment which must be considered when developing a physical security and disaster recovery program. These elements will be identified and defined in this section, and referenced in the remaining sections of this series. Identification of the elements of the processing environment has been done to limit the scope to the electronic data processing environment, and not include telephone switching systems. However, computers which are used to support the switching systems (ie, Operational Support Systems) are included.

2. COMPUTER BUILDING

2.01 The computer building is defined as the structure that houses the remaining elements of the processing environment as defined in this section. The computer building is considered one of the elements of the processing environment, because of the special considerations that must be incorporated in the design in order to accommodate computer systems. Examples are special air conditioning and humidity control, power, raised flooring, and access controls which are important in the physical security of the processing environment.

3. COMPUTER FACILITY

3.01 The computer facility is defined as the computer system and the rooms that house it. For Operational Support Systems, this is commonly referred to as the Mini-Computer Operations Center (MOC); and for large data processing machines, this is commonly referred to as the machine room or Data Processing Center (DPC).

3.02 The elements of the computer facility consist of:

- Computer system
- Raised flooring
- Lighting

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- Electrical
- Air conditioning
- Humidity control
- Chilled water conditioning
- Communication facilities
- Access controls
- Storage cabinets
- Furniture
- Fire suppression and detection systems.

Depending on the type of computer system installed in the computer facility, not all of the elements listed above will be required.

4. COMPUTER SYSTEM

4.01 The term computer system, as used in this section, is meant to include minicomputers and large general-purpose data processing systems as the terms are generally used in the data processing industry today. Also communication devices, such as, front end processors and terminals are included in this definition.

4.02 The elements of the computer system consist of:

- CPU
- Memory
- Channels
- Controllers
- Peripheral devices
- Consoles
- Terminals
- Communication devices (front ends)
- Data Sets (Modems).

Depending on the application performed by the computer system, not all of the elements listed above will be required.

5. COMPUTER SOFTWARE

5.01 The computer software is defined as the complete set of programs that are processed on the computer system which enable it to perform the assigned applications.

5.02 The elements of the computer software consist of:

- Operating systems
- Data base management systems
- Program products
- Application programs
- Operational aids
- All modifications that have been made to the above.

6. DATA STORAGE AREAS

6.01 The magnetic data storage areas are defined as those locations in which magnetic media is stored when it is not required by the computer system. There are typically three locations to be considered when discussing magnetic data storage areas. They are the library, the vault, and the off-site storage area. The types of data stored on the media determines in which location the media will be stored. Generally, the following conventions are used:

- Library—contains data that is required for the next cycle of processing as well as the media that contains no data or data that is easy to recreate.
- Vault—contains the data that is backup for the data in the library or data that requires a high level of security (see Sections 007-301-201 through 007-301-206, Data Security Administration for Computer Systems).
- Off-site storage—contains the data that would allow the applications in the computer facility to resume processing in the event

that the data in the library and the vault were not available (see Section 007-590-304, Contingency Planning and Disaster Recovery).

6.02 Storage areas for nonmagnetic media are also included in the definition of the data storage areas. These areas will contain data stored on tab cards, paper tapes, microfilm, etc.

6.03 The elements of a data storage area include:

- Racks
- Cabinets
- Air conditioning
- Access control
- Stored media
- Fire protection
- Listing of contents.

7. PHYSICAL STORAGE AREA

7.01 The physical storage area is defined as the the location where the supplies necessary to support the operation of the computer system are stored prior to being required in the computer facility. The types of supplies considered here are paper forms, card stock, printer ribbons, etc.

7.02 The elements of the physical storage area are:

- Shelving
- Supplies
- Access control.

8. INPUT/OUTPUT DISTRIBUTION AREA

8.01 The input/output (I/O) distribution area is defined as the area and machines required to assemble the input for the computer facility and to disburse the output to the end users of the applications being processed in the computer facility. It should be noted that in today's environment of on-line systems, many of these functions are now being done by the computer system but must still be considered for security and recovery purposes.

8.02 The elements of the I/O distribution area are:

- Key entry machines
- Terminals
- Decollators
- Bursters
- Inserters
- Mailing machines
- Furniture.

9. MECHANICAL SUPPORT FACILITIES

9.01 The mechanical support facilities are defined as the equipment necessary to maintain the proper environment for the successful operation of the computer facility.

9.02 The elements of the mechanical support facilities include:

- Water chillers
- Air conditioners
- Power equipment
- Water cooling towers.

10. PERSONNEL

10.01 Personnel as used in this section is meant to include only the people directly involved with the operation of the computer facility.

10.02 The types of personnel involved in this operation are:

- Managers
- Technical support
- Computer operation
- Input/output operation
- Vendors

- Administrative.

11. GLOSSARY

11.01 The following terms have been used in Sections 007-590-300 through 007-590-304. A knowledge of their meaning will help in physical security and disaster recovery planning.

(a) ***Application Disaster Recovery Plan***—The plan developed to process an application after it has been disrupted for some period of time.

(b) ***Contingency Planning***—The process of creating a disaster recovery plan and a contingency program.

(c) ***Contingency Program***—The day-to-day work activities and procedures, such as backing up critical data files, that fulfill the requirements of recoverability.

(d) ***Critical Processing***—Those applications that have been defined as being so important to the operation of the company that little or no loss of availability is acceptable.

(e) ***Discretionary Processing***—Those applications that may be interrupted for some period of time. A loss of the ability to process these applications for some period of time will not seriously affect the well being of the company.

(f) ***Disaster Recovery Manual***—The documentation of the disaster recovery plan, including a discussion of activities to be performed, with supporting documents and checklists.

(g) ***Disaster Recovery Operation***—The operation of recovering from the effects of a computer facility disruption and restoring, in a preplanned manner, the capabilities of the facility.

(h) ***Disaster Recovery Plan***—The preplanned sequence of events that allow for the recovery of a computer facility and/or the applications processed there.

(i) ***Impact Analysis***—The measure of the amount of loss from a harmful event.

(j) ***User***—The function or organization that receives and uses the output of a computer application. User functions are outside the boundary of the computer facility, but the user may directly interface with the system via a terminal.

(k) ***User Alternative Plan***—The set of plans for use by the user of an application when the processing of that application has been disrupted. This may consist of do nothing, manual methods, or a standby processor.

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SECTION	TITLE
007-301-201	Data Security Administration for Computer Systems
007-301-202	Data Security Administration for Computer Systems
007-301-203	Data Security Administration for Computer Systems
007-301-204	Data Security Administration for Computer Systems

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007-301-205	Data Security Administration for Computer Systems
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760-150-155	Building Planning for Operations Support Systems
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760-250-150	Building Planning for Electronic Data Processing Systems
760-300-150	Building Classification by Type of Construction
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760-610-100	Considerations Relative to Site Selection
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760-630-100	Protection Against Exposure Fires
760-630-200	Fire Resistive Ratings of Structural Elements
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760-640-100	Considerations for Heating, Ventilating, and Air Conditioning Systems
760-640-110	Consideration for Smoke Control Systems
760-640-200	Distribution of Portable Fire Extinguishers
760-640-300	General Considerations for Suppression Systems
760-640-310	Stand Pipe and Hose System
760-650-100	Fire Detection Systems
800-610-164	New Equipment Building Systems (NEBS)
802-015-158	Emergency Lighting Equipment
GL 70-07-236	Air Conditioning for Electronic Data Processing Centers
GL 73-07-044	Bell System Signage Manual
GL 75-01-184	Reissue of Building Identification Manual
GL 76-11-067	Computer Room Environment
GL 77-04-087	Guidelines for Protected AC Power for OSS Systems
GL 77-08-178	Guidelines for Protected AC Power for Data Processing Centers
GL 78-02-019	Radio Frequency Sources in the Computer Center
GL 78-05-173	OSS Requiring Engine—Alternator Backup for Operation During Long Term Commercial Power Failures