

## Attachment 2

# Centralized Examination Station (CES) Data Processing and Telecommunications Requirements

## INTRODUCTION

This attachment provides information on the data processing and voice communication systems used to facilitate cargo processing and enforce U.S. Customs and Border Protection (CBP) requirements at Centralized Examination Stations (CES). Due to the dynamic nature of data and voice communications technology, the requirements in this attachment may be subject to change. CBP will make every effort to immediately inform Centralized Examination Station Operators (CESO) when such changes are contemplated. CBP understands CESO budgetary constraints; however, Federal information systems must be designed to sufficiently ensure system confidentiality, integrity, and availability in accordance with any and all applicable regulatory requirements.

It is important to note that ALL electronic systems, as defined in this agreement, while funded by the CESO must be ordered, procured, received, installed, possessed and maintained by CBP. Site modifications may be required to meet DHS and CBP standards. The requirements described address typical installations. As each facility is unique and variances occur from site to site, **the CBP Office of Administration (OA) Project Manager (PM) will provide official requirements and specifications, as needed, including all specific CBP LAN/Telco room layout and equipment specifications for each facility.**

## RESPONSIBILITIES

The CESO is responsible for funding all voice, data and network communications equipment and service costs (i.e. routers, switches, circuits, etc.). The CESO is responsible for all initial and recurring costs of computers, monitors, printers, scanners, phones, conference phones, etc. and any software refreshes or upgrades as deemed necessary by CBP. The CESO shall provide and install all systems infrastructure for both the data processing and voice communication systems. **CBP presence is required during all cable pulls.** This includes, but is not limited to, servers, computers, printers, scanners, duct banks between buildings, entrance raceways, backboards, punch down blocks, wire way, cabling, dedicated conduit, data and voice jacks throughout the facility, power panels, and receptacles.

## COMPUTER SYSTEMS

CBP requires the installation of local area networks (LANs) to support commercial processing and administrative functions. Each network generally includes gateways, switches, file servers, personal computers, printers, computer peripherals, and data communications hardware and software. It is the responsibility of the CESO to provide all necessary infrastructures to support the chosen topology, including the following: electrical power; an uninterruptible power supply (UPS); all required cabling, dedicated

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conduit and dedicated data circuits; and proper HVAC to assure optimum equipment performance.

CBP mainframe systems operate secured software and network versions to retrieve and manage sensitive law enforcement information. Although costs for the equipment to configure CBP required law enforcement systems are CESO funding obligations, CBP shall control the procurement, receipt, management, and installations of all personal computers, peripherals, and LAN equipment. The tentatively selected CESO must sign an agreement to reimburse CBP any costs advanced to procure and install that equipment or transport any existing law enforcement equipment required by CBP, as necessary. All costs shall be the responsibility of the CESO.

Access is through a network of computer peripherals located in various operational areas of the processing facility. System hardware is located in the secure CBP LAN/Telco Room. For each facility, CBP will furnish specific room layouts and hardware requirements. Dedicated and secure data lines connect this room to the Wide Area Network (WAN). The equipment and configurations for the location will be determined by CBP workload requirements. It is essential that the CESO installs adequate cabling and conduit. The CESO shall also fund a dedicated data circuit, which includes installation, initial, and monthly/annual recurring costs to assure the proper operation of this system.

CBP may elect to conduct a site survey depending upon the complexity of the automated data processing (ADP) equipment at the location. CBP will review its findings with the CESO, such as the requirements for the ADP infrastructure, dedicated electrical requirements, layout of the equipment, and the installation schedule. CBP requires at least a 120-day lead-time to provide the equipment and dedicated data circuit at the facility after funds are received from the CESO. CBP will solely control the installation, maintenance, usage and trouble shooting of all ADP equipment related matters.

#### **COMMERCIAL PROCESSING/ADMINISTRATIVE SUPPORT COMPUTER SYSTEM**

The Commercial Processing/Administrative Support Computer System is normally confined to the CBP office areas. The hardware is housed in the CBP LAN/Telco room. The installation of proper cabling is important in all offices. The installation of proper cabling and dedicated conduit is significant in open office configurations that need floor conduits for the preservation of CBP personnel safety. When desks and officer workstations are not located adjacent to a convenient wall surface the floor jacks/TED boxes must be located to avoid CBP personnel's need to walk-on top of the boxes. The CBP wiring standard for each desk or workstation location is one (1) voice drops, two (2) data drop, and two (2) 120 VAC, 6-8 AMP quadraplex electrical outlet. In addition, the CESO must provide one (1) data drop and one (1) 120 VAC duplex electrical outlet for each LAN/host addressable printer, and one (1) Voice drops and two (2) 120 VAC duplex electrical outlet for each FAX machine. Private offices should have a minimum

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of two (2) data drops and one (1) voice drop and to permit alternate furniture placement. The CBP OA PM will assist the CESO in planning to support both the commercial processing and administrative computer systems so that sufficient cabling and adequate power is provided to the LAN Topology.

## **LOCAL AREA NETWORK TOPOLOGY**

Ethernet LANs are supported at CBP locations. The current CBP LAN standard is Gigabit Ethernet (1000BASE-T). The CBP LAN/Voice cabling standard is (UTP) Category-6A cabling. The final decision regarding cabling topology will be provided to the CESO by CBP OA PM during facility planning. These configurations, as previously noted, facilitate cargo processing and support office automation. The users on the LAN will have access to the CBP mainframe applications, multiple databases, development tools, word processing, automated spreadsheets, and other applications. The data and phone lines needed by personnel using these networks will be obtained by the CESO who will provide the appropriate wiring and necessary conduit to support the current and future requirements of this application.

## **VOICE COMMUNICATIONS SYSTEMS**

The CESO shall be responsible for the procurement, installation, and maintenance of a voice communication system which will include a voicemail system. The CESO shall coordinate with the CBP OA PM to determine the required feature/functions and quantity of telephone sets in support of the CBP operation. The CESO shall order the necessary voice services (T1 (voice), POTs, etc.). The CESO shall be responsible for the monthly recurring carrier services costs of such services. Telephone services shall be configured based on CBP requirements (fax lines, modem lines, direct dial numbers, etc.) in support of the overall CBP operation. The CESO shall coordinate with the CBP OA PM to determine the proper quantity of telephone services to be ordered. All designs, specifications and planning are to be approved by CBP prior to any orders. CBP shall provide final decisions regarding CBP facility needs as they relate to these specifications.

## **CABLING REQUIREMENTS**

Typical LAN/Telco rooms layouts are based on the equipment housed in the room and can vary from facility to facility. CBP prefers to use AMP ACO products for its data and voice terminations, but will accept AT&T premise distribution products or equal as a suitable alternative. CBP will make all final decisions regarding cabling specifications and system design. Conduit between buildings is the responsibility of the CESO.

## **INSTALLATION REQUIREMENTS**

The following are the installation requirements:

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- Cabling for wireless access points should be balanced twisted-pair, category 6A or higher, as specified in ANSI/TIA-568-C.2, or two-fiber single-mode optical fiber cable, OM3 or higher, as specified in ANSI/TIA-568-C.3
- UTP Category-6A cable shall be terminated with appropriate Category-6A data/voice jacks and patch panels. The present wiring standard is AT&T 568B with female RJ45 interfaces on both ends. All wire terminations, in the proper computer rooms, shall be on AMP's rack mountable ACO patch panels (P/N 556701-2) using ACO kits (P/N 555600-1).
- Data inserts for the kits shall be female RJ45 Category-6A rated (AMP P/N 557258-1). The equivalent AT&T parts numbers are 1100CAT6-24, 48, 64, or 96 for patch panels and M100CH-112, 8-pos., 8-conductor, EIA/TIA T568B inserts for workstations. All terminations shall meet the TSB-40 specifications.
- Terminate cable with appropriate Category 6A, 568B parts. All wiring terminations in the LAN/Telco room(s) shall be on rack mountable patch panels. Kit data inserts shall be female RJ45 Category 6A, 568B rated. All terminations must meet the TSB-40 specification.
- All cabling shall be correctly labeled at both ends and certified tested to conform to industry accepted four-way testing of cable runs.
- All cables shall be home-run from a central, convenient termination point, normally the secure CBP LAN/Telco rooms located in the administrative office complex. This room has special construction standards to prevent unauthorized access or accidental tampering with the cabling or LAN/Telco equipment. OIT will furnish specific LAN/Telco room construction specifications for each facility.
- The length of UTP or IBM cable from the central termination point to the workstation cannot exceed 300 linear feet, including patch cables. In cases where this limitation has been exceeded, fiber optic cable (specifications to be determined by distance from MDF) shall be run to extend the limitation. The CESO must provide the space used to house remote equipment and furnish and install the fiber optic cable. When used, fiber optic cable shall be terminated with LC style connectors and should be rated and tested to transmit at 10 gigabits/second.
- CBP shall approve all cabling specifications and parts during facility planning. Dimensions of computer rooms will be based on the number of users at site and equipment housed within the room.
- It is the CESO's responsibility to assure that there is sufficient cabling and secure conduit provided to support the phone and data DEMARK room to the LAN/Telco room(s), and between the LAN/Telco room(s) and the associated closets. OIT will make final decisions regarding facility needs as they relate to these specifications.
- All CBP conduits shall be dedicated for CBP and shall be sized to accommodate a projected 25% growth.

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## POWER REQUIREMENTS

The CESO shall provide a back-up generator and Uninterruptible Power Supply (UPS) to provide transitional power coverage to support the initial power load of all LAN equipment and telecommunications systems in the CBP computer/ communications rooms. The CES facility must provide emergency back-up power for 150% of the present design load.

## LAN/TELCO ROOMS

CBP data processing and telecommunications equipment shall be co-located in the LAN/Telco room. The LAN/Telco room shall have dedicated power panel feed from the facility UPS/Generator. Dedicated 120 volt AC and 208 volt AC power shall be run from the LAN/Telco room power panel as per specifics from OIT. The number of outlets required and circuit ratings will depend on the equipment that will be installed in the room. CBP will furnish their respective requirements for the LAN/Telco rooms during project planning. If the worksite has a second floor, then a second LAN closet or Intermediate Distribution Frame (IDF) is required on the second floor. Additional IDF(s) may be required at larger facilities. Each IDF shall be located in close proximity of the end user. The cabling distance between IDF and end user shall be no longer than 300 ft.

## FACILITY REQUIREMENTS

The CESO is responsible for either the funding or the purchase of the following listed equipment, cabling, monthly recurring costs (MRC), and out year costs (OYC), as discussed in this attachment, at no cost to the Government. For equipment, installation and MRC costs identified below, which requires CBP to procure, receive, install, and maintain; but is funded by the CESO, the CES operator will be required to sign a memorandum of agreement to reimburse CBP for the procured items necessary for the operation of the CES.

### **Cabling:**

- CAT 6 Data and Voice Cabling
- CAT 6 Data and Voice Jacks
- Data and Voice Racks
- Data and Voice Patch Panels
- Fiber and copper patch cords

### **IT Data Equipment:**

- UPS(s)
- Network Switches
- Server
- Wireless Access Point(s) (WAP)

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- Wireless Controllers
- Special wiring provisions
- KVM Switch
- Printers, both network/shared and local/personal
- Scanners
- Tablets
- Two (2) Riverbed appliances
- Computers' amount of memory (RAM) will be at least 32 gigabytes.
- Provide replacement parts for and/or replacements for faulty equipment.
- Provide upgrades to equipment every two years or as CBP deems necessary

#### **IT Data Circuits:**

- Two (2) 100 Megabit vendor-diverse Ethernet circuits, running simultaneously to serve as backup to the other in case of failure of one circuit. These two (2) circuits will include two (2) network routers.
- Associated with these two (2) 100 megabit Ethernet circuits and two (2) routers are non-recurring costs (NRC) and monthly recurring costs (MRC).
- Provide upgrades to network circuits as CBP deems necessary

#### **IT Voice Communications:**

- Digital Voice Trunk/Circuit with associated NRC and MRC
- Digital Phones
- Phone System with Internal Group Voice Mail capability and accessibility