

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF GENERAL SERVICES



Attachment B
OJS VTC - Scope of Work

Current Scope of Cabling/Wiring Requirements

As part of an effort to insure the District of Columbia government's physical infrastructure for voice and data telecommunications meets or exceeds industry-wide standards and specifications, the Office of the Chief Technology Officer (OCTO) has determined the minimum technical requirements for voice and data cabling used by all District Government agencies. As authorized by District of Columbia Municipal Regulations (DCMR) (1-1402), the OCTO provides telecommunications oversight for all agencies within the District government and acts as an agent for various District agencies in securing a compliant, high-performance voice and data network structured cabling systems. The OCTO works with individual agencies to determine their requirements; assists in the preparation an agency specific Statements of Work (SOW); reviews quotations, inspects the work of various contractors and recommends the acceptance or rejection of the effort. As the authorizing agent, DGS is not responsible for any changes to the initial scope of the task or project once a contractor quotation has been accepted. The OCTO shall not be held responsible for any activity increasing the scope of effort unless specifically requested in writing from the OCTO. Deviations from the requirements of this Statement of Work must be issued on agency letterhead and countersigned by a responsible OCTO representative.

PURPOSE: This document details the minimum services and practices the Contractor shall provide the District Government as part of their proposal for the installation of voice and/or data cabling infrastructure. The requirements in this Blanket Statement of Work shall be incorporated in any proposal, contract, Blanket Purchase Agreement or task order to perform voice or data infrastructure cabling for the Government of the District of Columbia.

UNDERSTANDING OF THE TECHNICAL REQUIREMENTS: The Chief Technology Officer (CTO) in conjunction with the Department of General Services (DGS) desires to maximize the utilization of any existing cabling system that is compliant with current ANSI/TIA/EIA specifications and recommendations for voice or LAN cabling. The Contractor shall dedicate the time and resources necessary to develop a thorough understanding of the technical requirements for this request and the business goals of the agency, the CTO and the District government. The Contractor shall meet or exceed these requirements, as specified. The Contractor must understand that a standardized, intelligent distribution network allowing efficient and effective centralized management must be in place as the foundation for our strategic plan. The technical design and cable components used in our communications infrastructure are straightforward in design. The infrastructure is based on proven state-of-the-art industry-standard techniques and technologies.

DEFINITIONS: For the purposes of this Statement of Work, the following additional definitions shall apply.

ACP – Association of Cabling Professionals. A telecommunications body serving the cabling and building industries that develops standardized installation practices.

ANSI – American National Standards Institute. The administrator and coordinator for the United States private sector voluntary standardization system.

BICSI – Building Industry Consulting Services International. An international telecommunications body serving the building industry that develops standardized installation practices. The

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Telecommunications Distribution Design Manual (TDMM) published by BICSI is used as the reference for the installation practices for telephone and data cabling. All references to the BICSI TDMM refer to the current edition.

CENELEC – European Committee for Electro technical Standardization. The administrator and coordinator for the European private sector voluntary standardization system.

CSA – Canadian Standards Association. A Canadian testing and certification agency comparable in function to the Underwriter’s Laboratories.

CTO – Chief Technology Officer. The CTO has oversight and approval of all technology projects conducted within the District of Columbia as prescribed by District law.

DGS- Department of General Services. The DGS provides strategic management and financial planning for the District’s portfolio of more than 18 million square feet of owned space and 3.5 million square feet of leased space.

ECMA – European Computer Manufacturer’s Association – An international industry association that promulgates and publishes industry-wide standards insuring compatibility between devices and systems.

EIA/TIA – Electronic Industries Association, Telephone Industries Association. Electronic and telephone Industry associations that promulgate and publish industry-wide standards insuring compatibility between devices and systems.

ETL – Electrical Testing Laboratories. An independent testing laboratory that provides product testing and certification.

IDC – Insulation Displacement Contact

IEEE – Institute of Electrical and Electronics Engineers, Inc. An international organization that is responsible for promulgating and publishing minimum standards insuring compatibility between devices and systems.

FCC – Federal Communications Commission. The US Government agency having the power to regulate all electrical communications systems originating in the United States including radio, television facsimile, telegraph, telephone and cable systems.

ISO – International Organization for Standardization. An international organization with the responsibility for developing, promulgating and publishing international standards that relate to health, safety and practices.

NEMA – National Electrical Manufacturers Association. An industry association with the responsibility for developing, promulgating and publishing standards that relate to health, safety and practices.

NFPA 70 NEC – National Fire Protection Association, National Electrical Code. A nationally recognized code containing provisions that detail the practical safeguarding of persons and property from hazards relating to the use of electricity. All references to the NEC refer to the current edition.

OCTO – Office of the Chief Technology Officer. See CTO.

Outside Plant (OSP) – Cable and equipment designed for exposure to the elements or burial without enclosing in conduit or other protective sheathing.

TIA/EIA – See EIA/TIA.

UL – Underwriter’s Laboratories. A non-profit corporation established to maintain and operate laboratories for the examination and testing of devices, systems and materials to determine their relation to hazards to life and property.

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WAO – Work Area Outlet. The outlet at which horizontal cabling is terminated at the user’s workstation location. A WAO may be located in a floor, wall or systems furniture space.

II.

GENERAL SCOPE OF WORK ITEMS

1. Provide support for the general objectives of this scope of work:
 - (a) The Contractor shall provide an industry-standard and compliant, high-performance structured cabling system design that meets or exceeds all current standards and accommodates multi-media applications. The Contractor shall install, test and certify the structured cabling infrastructure to support the agency and CTO requirements on a firm fixed-price (FFP) basis.
 - (b) The Contractor shall perform a physical site survey for each specified site and provide the requesting agency and the CTO with a detailed infrastructure design and installation plan that incorporates and maximizes the use of any existing compliant cable infrastructure. The plan shall indicate the number and types of cables proposed, recommended outlet locations and contain a project Gantt chart with applicable tasks, work breakdown structure, milestones showing completion dates and other logic leading to a successful project prior to beginning the cabling effort.
 - (c) The Contractor shall remove any existing telecommunications cabling in any space that is either abandoned or displaced as a result of the installation of new telecommunications infrastructure under this Statement of Work.
 - (d) Material and work specified herein shall comply with the applicable requirements of:
 - a. ANSI/ICEA S-80-576
 - b. ANSI/ICEA S-83-596-1994
 - c. ANSI/ICEA S-87-640-2000
 - d. ANSI/TIA/EIA – 26-7-1998
 - e. ANSI/TIA/EIA – 455-A-1991
 - f. ANSI/TIA/EIA – 455-1.07
 - g. ANSI/TIA/EIA – 455-50B
 - h. ANSI/TIA/EIA – 525-14-A
 - i. ANSI/TIA/EIA – 526-7-1998
 - j. ANSI/TIA/EIA – 526-14-A-1998
 - k. ANSI/TIA/EIA – 568
 - l. ANSI/TIA/EIA – 569
 - m. ANIS/TIA/EIA – 570
 - n. ANSI/TIA/EIA – 598-A-1955
 - o. ANSI/TIA/EIA – 604-3-1997
 - p. ANSI/TIA/EIA – 606
 - q. ANSI/TIA/EIA – 607
 - r. BICSI Telecommunications Distribution Methods Manual (BICSI TDMM)
 - s. CENELEC – EN 50173
 - t. CTO Standards and Practices
 - u. District Regulation

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- v. FCC 47 CFR 68
- w. IEEE 802.3ab
- x. ICEA S-90-661
- y. ISO - 11801
- z. NEMA WC-63.1-2000
- aa. NEMA - 250

DETAILED SCOPE OF WORK ITEMS Statement of Work

Department of General Services suite 1107 441 4th Street, One Judiciary Square

The Conference Room system will include three (3) 1080p projectors and one (1) 161" electronic screen. The room will be furnished with table and ceiling-mounted speakers and microphones. These Projectors will be wired to the equipment in the IDF/LAN closet, which will include DVI matrix switches, audio processors, one Cisco C40 HD video conferencing codec and three (3) 1080p video cameras. The new Crestron control system with two 5.4" wireless touch-panels will be provided to operate the conference. Upon completion, the system will provide HD video conferencing, PC presentation. The display will function independently and be controlled via the 5.4" wireless touchpanel. As part of this solution, Vendor will provide a turn-key system. The installation services, with assistance from building facilities personnel, include any necessary refacing of the conference room display wall and related drywall and painting repairs.

Requirements

- ✓ Program and configure the Crestron system and touchpanel to accommodate all sources and user commands. Sources include GFE DVD, HD TV tuner and C40 codec.
- ✓ Program and configure the control system to wake the C40 codec and power on the displays upon PC connection at table and/ or activity on Crestron touchpanel.
- ✓ Program and configure the control system to power off the display when codec enters sleep mode.
- ✓ Program and configure the control system to power system on if incoming call is detected. Feature to be enable or disabled by codec's auto-answer setting.
- ✓ Program and configure the control system for remote administration monitoring, alerting and control
- ✓ Crestron control will reside on DGS LAN.
- ✓ LAN/ data connections will be responsibility of others.
- ✓ Supply and install twelve (12) Crestron Digital Media interconnects from conference room to adjacent A/V closet
 - Four (4) at the table, two (2) at the projector (161"), two (2) projectors 2 and 3, (1) at the lectern wall plate and three (3) camera locations.

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- ✓ Supply and install two (2) CAT (6) cables from cables from (2) cameras to VTC codec such that HDMI CAT 6 extenders can be used to transmit HDMI video and control to Crestron DigitalMedia switch.
- ✓ Supply and install (20) microphone cables from the conference room to the A/V rack. (18) at table, (1) wireless Tx/Rx and (1) at lectern microphone wall plate.
- ✓ All in-wall and in-floor cabling will be plenum-rated.

Installation

- ✓ Remove current electronics in existing GFE A/V racks and recycle utility for new hardware and electronics.
- ✓ Install and configure (3) ceiling-mounted HD 1080p projectors and (1) 161" electric screen (side wall). The other two GFE screens on front and back wall will be used.
- ✓ Supply and install (1) Crestron 8x8 Digital Media Switch.
- ✓ Supply and install (1) Crestron TPS-6X wireless panel with RF access point in ceiling.
- ✓ Supply and install (18) Shure MX395B tabletop microphones in conference table.
- ✓ Supply, install and configure ClearOne digital audio mixer with mics, content inputs and speakers.
- ✓ Supply and install (4) Crestron DM-TX-201-C DigitalMedia transmitters at conference table.
- ✓ Supply and install (4) Crestron DM-RMC-SCALER-C DigitalMedia receivers at projector locations.
- ✓ Supply and install (3) Cisco 12x PrecisionHD cameras and (3) ceiling-mount brackets.
- ✓ Supply, install and configure (1) Cisco C40 VTC codec in A/V rack.
- ✓ Configure existing GFE in-ceiling speakers to operate with supplied Crown amplifier .

User Training and Instruction

- ✓ Provide on-site user training and instruction.
- ✓ Design user reference guide

Additional Requirements:

- ✓ Power at the screen, projectors, A/V rack and table will be provided by the DGS as needed

User Control and Operation

- Program and configure the Crestron system and touchpanel to accommodate all sources and user commands. Sources include GFE DVD, HD TV tuner and C40 codec.

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-
- Program and configure the control system to wake the C40 codec and power on the displays upon PC connection at table and/ or activity on Crestron touchpanel.
 - Program and configure the control system to power off the display when codec enters sleep mode.
 - Program and configure the control system to power system on if incoming call is detected. Feature to be enable or disabled by codec's auto-answer setting.
 - Program and configure the control system for remote administration monitoring, alerting and control.
 - Crestron control will reside on DGS LAN.

✓

Wireless LAN Requirements for the Structured Cable Vendor:

N/A

Fiber Run to the MPoP for the Structured Cable Vendor:

N/A

Cable Television Requirements for the Structured Cable Vendor:

The DGS cabling contractor will install the CO-Axe cabling for the TV's/LCD's.