Statement of Work

Embassy Chief of Mission Official Residence (CMR) IT Wiring Infrastructure Project

The U.S. Embassy in Brussels is looking to establish a contract to refresh the telephone and data wiring infrastructure throughout a key official residence. The selected contractor will establish a dedicated wiring closet in a historic, multistory U.S. Government owned residence, replace existing wiring with new cabling routed to this closet, and add additional cabling and wireless access points as specified in this statement of work.

This wiring project has 6 distinct components:

- Relocation of the wiring closet
- Internal Telephone Wiring
- Wiring to the Embassy Private Branch Exchange (PBX)
- Multistrand Fiber Optic Cable Installation
- Wired Data (Ethernet) Connections
- Wi-Fi Access Point Connection

Relocation of the wiring closet

Existing cabling within the building flows from wall jacks throughout the building to two adjacent locations in the basement of the facility. The selected contractor will establish a single, large wiring closet in the basement at location B16 of the attached floorplan. This closet will be outfitted with:

- Qty 12 of 25-pair BIX blocks,
- Qty 1 of 50 micron multimode fiber and fiber patch panels
- Qty 2 of 1000Base-T Ethernet RJ-45 patch panels for internal wired network and Wi-Fi, and
- Qty 2 of 22U (half height) standard 19" wide lockable equipment rack with keys.

The only materials furnished by the U.S. Government are the multi-strand 50 micron multimode fiber optic cable, fiber patch panels, and BIX blocks. All other equipment, materials, and labor, including Wall Jacks, RJ-45 ethernet patch panels, and equipment rack, will be provided by the selected vendor.

Internal Telephone/Data Wiring

The residence has 48 existing wall jacks throughout all floors of the building. The selected contractor shall remove and dispose of existing category 5/6 cabling and run new category 6A cables from each of the 48 existing locations back to the newly established wiring closet, and install three additional identical wall jacks in a new locations on the attached floorplans, and one jack with 3 phones jacks and one network jack. These are hereafter referred to as 48+6.

All new cabling shall be ANSI/TIA-568.2-D Cat6A 23AWG UTP Solid 100% pure copper plenum rated.

Each of the 48+6 wall jacks shall be replaced with a wall jack containing at least 2 RJ-45 connections (1 RJ45 for phone, and 1 RJ-45 for Data).

Telephone cables shall be terminated in the wiring closet A on the back of 6 of 6 25-pair BIX blocks with the installation point in the rooms throughout the residence with TIA/EIA-568a RJ-45.

Data cables, jacks, and patch panels shall support 1000Base-T Ethernet and shall be terminated in the wiring closet onto RJ-45 Ethernet patch panels and on the wall jacks in each room with

TIA/EIA-568b RJ-45. All data connections shall be labeled and numbered using this format: Nxx where xx is an increasing unique 2 digit number starting with 01, 02, 03, etc.

All cables, wall jacks, patch panels and BIX blocks shall be clearly numbered and labeled at each end for ongoing maintenance and ease of use.

All cables for phone lines shall be blue in color.

The contractor shall conceal all cabling in Panduit or conduit. Use of Panduit or conduit in all areas must be minimized to preserve aesthetics. When Panduit or conduit must be used, it must match the design of surrounding walls, ceiling, floor, color, etc. All applications of Panduit must be approved prior to installation with the Government's Facility Manager.

The contractor shall take special care to avoid any damage to the wiring of the speaker system throughout the residence. CAT-6A cables may be run in the same Panduit or conduit as other low voltage cable but must maintain CAT-6A performance standards even when other cable is in use (i.e. sound system).

The contractor shall remove and dispose of all Panduit or conduit that is no longer used, for instance after the removal of previous generation cabling. The contractor shall take special care when opening or closing existing Panduit or conduit for removal of previous generation cables to avoid damage to wall, ceiling, floor, or paint. The contractor shall consult with the Government Facility Manager prior to any work that could potentially result in any such damage.

The contractor will provide and install new cable management support system/components (i.e. J-hook, cable trough, etc.) as needed throughout the building

Some walls and areas of the residence are "defined off-limits" to cabling and shall not have any surface mounted jacks or cabling installed. The selected vendor will have to find suitable routing for jacks and cabling to respect "defined off-limits" walls and other areas. Such defined off-limits walls and other areas shall be clearly marked on floor plans provided by the Government.

Each jack shall be tested by the selected vendor to prove CAT-6A standards with CAT-6A certified test equipment. A report listing the jack numbers and test results shall be provided to the Government. Any jacks failing to meet CAT-6A standards shall be corrected by the selected vendor at their expense.

Wiring to the Embassy PBX

The selected vendor will be expected to pull six 25-pair copper house cables for telephone use. The vendor will pull these cables from the Embassy PBX room to the newly established wiring closet in the residence. The vendor will be expected to label both ends of each 25-pair cable and to test and certify all of the 25-pair cables once the work is completed. U.S. Government staff will be responsible for terminating both ends of the cables onto BIX blocks.

Multistrand Fiber Optic Cable Installation

The selected vendor shall pull one 24 strand 50 micron multimode fiber optic cable from the Embassy PBX room to the newly established wiring closet in the residence. The vendor shall

terminate all strands OM3 SC terminations on both ends of the cable to fiber optic patch panels with all cables and patch panels tested as well as clearly numbered and labeled for ongoing maintenance and ease of use.

Additional Wired Data Connections

In addition to the 48+6 telephone/data jack locations detailed in the Telephone/Data wiring section, the selected provider shall install thirty-eight (38) additional wired data connections with a wall jack containing at least 2 RJ-45 connections (both RJ-45 for Data).

Network cables shall be terminated in the wiring closet B on the back of 6 of the 48-port patch panel with the installation point in the rooms throughout the residence with TIA/EIA-568b RJ-45.

Data cables, jacks, and patch panels shall support 1000Base-T Ethernet and shall be terminated in the wiring closet onto RJ-45 Ethernet patch panels and on the wall jacks in each room with TIA/EIA-568b RJ-45. All data connections shall be labeled and numbered using this format: Nxx where xx is an increasing unique 2 digit number starting with 01, 02, 03, etc.

All cables for wired network connections shall be green in color.

WiFi Access Point Connections

In addition to the 48+6 telephone/data jacks, and in addition to the 38 additional wired data connections, the selected provider shall install twenty (20) new category 6A cables from the new telecommunications rack in basement room B16 to the locations marked on the floor plan and described in Appendix D.

Wi-Fi access point (AP) cables shall be terminated in the wiring closet B on the back of 6 of the 48-port patch panel with the installation point in the rooms throughout the residence with TIA/EIA-568b RJ-45.

Wi-Fi access point (AP) connections shall be terminated at the mounting point only for testing purposes without a jack permanently affixed to the wall. The contractor may terminate to either a temporary jack or temporary RJ-45 connector, in either case using TIA/EIA-568b RJ-45. Wi-Fi AP connections shall be labeled and numbered using this format: APxx where xx is an increasing unique 2 digit number starting with 01, 02, 03, etc.

All cables for Wi-Fi access point connections shall be violet or purple in color.

Wi-Fi AP connections shall be installed horizontally mounted on ceilings, or vertically mounted on walls as high as possible, or with the specific instructions provided for each AP location in Appendix C.

Logistics

The selected provider shall complete all requirements no later than 30 calendar days from the notice to proceed from the Government.

The selected provider shall provide proof of previous experience in professional structured wiring installations.

The selected provider shall provide warranty of all work and equipment for 5 years.

SITE VISIT

A site visit will be held on Friday, March 12, 2021 at 09:00 hrs. Prospective offerors/quoters should send an email to BrusselsBids@state.gov before March 10, 2021 by 12.00AM to confirm their attendance and to request access to the compound.

Electronic Submission of Proposals

Proposals/Quotes may be submitted in electronic format. The electronic quote shall be submitted via email to BrusselsBids@state.gov in Adobe Acrobat PDF format. Proposals/Quotes must be compiled as a single document with pages numbered 1 of x, 2 of x, etc.

If the size of the full document is greater than 8MB, break in into multiple documents smaller than 8MB and name each document as follows: "your company name – Quote – "PR9721996 – Re-wiring Project AV/IT/Tel"

Alternatively, your proposal can be submitted in a sealed envelope marked "Proposal Enclosed – "PR9721996 – Re-wiring Project AV/IT/Tel" to the U.S. Embassy, attn. Contracting Officer, Regentlaan 27, 1000 Brussels. Please inform us via email to BrusselsBids@state.gov that a hard copy of your proposal should be expected.
In both cases, please submit your offer on or before 1600 Hrs. on March 19, 2021.

No proposal will be accepted after this time.

Appendix A – TIA/EIA specifications

TIA/EIA-568a for Phone

T568A Color Code RJ45 Pin---Pair Color

1----------White/Green

2----------Green

3----------White/Orange

4----------Blue

5----------White/Blue

6----------Orange

7----------White/Brown

8----------Brown

TIA/EIA-568b for Ethernet

T568B Color Code RJ45 Pin---Pair Color

1----------White/Orange

2----------Orange

3----------White/Green

4----------Blue

5----------White/Blue

6----------Green

7----------White/Brown

8----------Brown

Appendix B – Floor Diagrams / Wall Jack locations

(Floor diagrams will be distributed at the site visit)

Appendix C – List of Additional Wired Data Connections

1. Basement Room B03 (Cook Office Storage)
    - Near existing desk.
2. Basement Hall
    - End of the hall closest to door to B01 (Furnace Room)
3. Basement Room B05 (Staff DR)
    - Near existing desk/table.
4. Ground Floor Room G07 (Ball Room)
    - Closet.
5. Ground Floor Room G07 (Ball Room)
    - Rear corner opposite exit door.
6. Ground Floor Room G07 (Ball Room)
    - Front corner close to Storage Room.
7. Ground Floor Room G09 (Storage Room)
    - Near sound system connections.
8. Ground Floor Room G08 (Winter Garden)
    - NOTE: 8 network jacks in one location.
    - On the column, as compact as possible.
9. Ground Floor Room G06 (RM Office)
    - Same as existing.
10. Ground Floor Room G05 (Vestaire)
    - NOTE: 3 telephone and 1 network
    - In the closet, 4 ports as compact as possible.
11. Ground Floor Room G16 (Office)
    - Back corner Winter Garden side.
12. Ground Floor Room G12 (Rue Ducale Room)
    - Back corner Rue Ducale side.
13. Ground Floor Room G12 (Rue Ducale Room)
    - Corner behind door to hallway.
14. Ground Floor Room G01 (Rue Zinner Room)
    - Front corner Rue Ducale side.
15. Ground Floor Room G01 (Rue Zinner Room)
    - Back corner closest to Dining Room.
16. First Floor Room 100 (California Room)
    - Between windows on Rue Ducale side.
17. First Floor Room 105 (Office)
    - Near the cabinet on wall next to Room 100 California Room.
18. First Floor Roof
    - Centered on the wall with the awning farthest from entry/exit door.
19. Second Floor Room 207 (Master Bedroom)
    - Back corner closest to Bathroom.
20. Second Floor Room 207 (Master Bedroom)
    - Wall closest to Dressing Room.
21. Second Floor Room 200 (Office)
    - Wall facing Rue Ducale.

22. Second Floor Room 200 (Office)
    - Wall facing Rue Zinner.
23. Second Floor Room 200 (Office)
    - Wall adjacent to Dressing Room.
24. Third Floor Room 302 (Guest Room)
    - Wall adjacent to bathroom.
25. Third Floor Room 301 (Guest Bedroom)
    - Corner closest to Guest Room 302.
26. Third Floor Room 307 (Staff Bedroom)
    - Wall adjacent to hallway.
27. Third Floor Room 306 (Staff Bedroom)
    - Wall adjacent to hallway.
28. Third Floor Room 305 (Staff Bedroom)
    - Wall adjacent to hallway.
29. Third Floor Room (Staff Sitting Room)
    - Corner farthest from door.

Appendix D – List of Wi-Fi Access Point Locations

1. Basement Room B05 (Staff DR)
    - Ceiling.
2. Basement Room B02 (Kitchen)
    - Ceiling corner near door to B03 (Storage Room).
3. Ground Floor Room G07 (Ballroom)
    - Ceiling wood moulding, between cut-outs, centered above entry.
4. Ground Floor Room G06 (RM Office)
    - Ceiling corner.
5. Ground Floor Room G08 (Winter Garden)
    - Ceiling molding corner next to existing speaker.
6. Ground Floor Room G11 (Main Hall)
    - Vertically on wall between Kitchen and Dining Room, close to ceiling.
7. Ground Floor Room G02 (Dining Room)
    - Between windows, behind the façade for the curtains, hidden.
8. Ground Floor Room G01 (Rue Zinner Room)
    - Vertically in the frame of the right-most window, close to the top, hidden.
9. Ground Floor Room G12 (Rue Ducale Room)
    - Vertically in the frame of the right-most window, close to the top, hidden.
10. First Floor Room 102 (Kitchen)
    - Ceiling corner closest to Dining Room (new drop ceiling planned).
11. First Floor Room 100 (California Room)
    - Vertically in the frame of the window next to Dining Room, close to the top, hidden.
12. First Floor Room 106 (VIP Guest Room)
    - Inside the wooden cabinet corner on Rue Ducal side, close to the top, hidden.
13. First Floor Room 108 (Stairwell)
    - Ceiling or vertically on wall near ceiling.
14. Second Floor Room 205 (Hallway)
    - Ceiling near windows, outside Room 211.
15. Second Floor Room 200 (Office)
    - Ceiling corner above door from hallway.
16. Second Floor Room 207 (Master BR)
    - Ceiling corner closest to bathroom.
17. Third Floor Room 304 (Hallway)
    - Ceiling outside Room 311.
18. Third Floor Room 308 (Hallway)
    - Ceiling outside room 307.
19. Third Floor Room Staff Sitting Room
    - Ceiling immediately inside door.
20. Third Floor Room 314 (Stairwell)
    - Ceiling or vertically on wall near ceiling.

Attachment: Annotated Building Floor Plan Basement to Third Floor