

DOT-ITB-20-7019-EG

MANAGED FIELD ETHERNET SWITCHES

TECHNICAL QUESTIONS AND ANSWERS

- 1) Question: I just wanted to reach out with a couple of technical questions. I noticed in Exhibit A that these switches must come with layer 2+ licensing. I also noticed that better switches are acceptable. Would layer 3 switches satisfy the networking needs, or is there something specific to layer 2+ that's required. Also, what type of switches and routers are currently deployed in the environment. Being able to replace the old equipment with that of the same manufacturer would make things a lot easier for engineers. Any answers you may be able to provide would be greatly appreciated.

Answer: Please refer to Addendum No.1

- 2) Question: Regarding section 11 and checking 2020 FDOT APL products, it seems than more than one brand can fit in this requirement. Are you requiring a specific brand?

Answer: Please refer to Addendum No.1

- 3) Question: Do you have the specs for the managed field internet switches and optic transceivers? The bid does not specify any specifications, ie, power requirements (poe or non-poe), number of ports, type of ports, type and model of optics, etc.

Answer: Please refer to Addendum No.1

- 4) Question: In MFES specifications section, could you please confirm if we could use the external hardened power supply to converter 120VAC to 24-48VDC to MFES? According to the FDOT APL's latest standard specifications, it accepts either internal or external power supply to provide the proper power to MFES.

Answer: Please refer to Addendum No.1

- 5) Question: In MFES specifications section, it requires "Operating temperature limits of -40 to 85 degree Celsius". According to NEMA TS2 requirement and FDOT APL's latest standard specifications, the requirement for the operating temperature is -34C to 74C. Plus, the other component in ITS cabinet such as the traffic signal controller has followed this exact same requirement. Could you please confirm if the minimum operating temperature (-34C to 74C) of MFES would be accepted?

Answer: Please refer to Addendum No.1

- 6) Question: In MFES specifications, it requires the “minimum of eight 10/100 Base-T/TX full duplex copper local ports”. For the future proof and more high-bandwidth demand on the ITS equipment such as IP camera, will DOT need 10/100/**1000** Based-T/TX port instead? Also will it need 12 or 16 copper as the total local ports instead?

Answer: Please refer to Addendum No.1

- 7) Question: We would like to consider a bid on DOT-ITB-20-7019-EG but have a question. Our Antaira switches are on the FL DOT APL list but can only be powered with DC voltage, typically 48Vdc. The bid package has a requirement for 120Vac power. Would you consider/allow using DC powered switches?

Answer: Please refer to Addendum No.1

- 8) Question: In section II. A., these specifications are listed: "MFES should include all agent and management software and documentation." and "MFES should provide ability to the ITS network administrator to manage each MFES and as a group for switch configuration, performance monitoring, and troubleshooting." While Cisco Industrial Ethernet switches are fully manageable via SNMP and via CLI options, Cisco also offers the ability to manage these devices through their "DNA (Digital Network Architecture) Center" product. So my questions are:

- a. Is it the intention of FDOT to manage these devices through DNA Center?
- b. If so, does FDOT already own/manage an instance of DNA Center or would this need to be quoted, too?
- c. If you do want to use DNA Center, a DNA Essentials license is required for each Cisco Industrial Ethernet switch. These licenses are offered in 3 and 5 year subscriptions. Which term would you prefer?

Answer: Please refer to Addendum No.1

- 9) Question: The spec calls out for “MFES should have internal power supply on a nominal voltage of 120 Volt (V) alternating current. The internal power supply will be connected to the 120V alternating current and internal power supply will provide the required voltage reduction from 120V to 24-48V”

Is it acceptable to have an external hardened din rail power supply that converts 120V AC to 24 to 48VDC to power the switch?

The spec calls out for “MFES should be furnish with either SC (standard connector) or LC (lucent connector) connectors. Ensure that all fiber optic link ports operate at 1310 or 1550 nanometers in single mode.”

Will you please confirm that the Department wants two fiber LC SFP min 10Km Singlemode?

Answer: Please refer to Addendum No.1

10)Question: Do you have a manufacture you would like to work with or suggest? it is because in your design probably you are looking for unify your platform?

Answer: We currently use Siemens (previously Ruggedcom), specifically the majority of units are the Siemens 6GK6090-0GS23-0BA0-ZA01 (previously Ruggedcom RS900G-HI-D-2SFP-XX) RS900G, with AC Cord, with either Original Equipment Manufacturer (OEM) 10km Optics or OEM compatible 10km Optics.

11)Questions: Do you have a budget for this project?

Answer: To be determined.

12)Questions: We found an incongruence on Pag. 15. Bullet number 2 specify: "All MFES should be 1 Gbps Layer 2." and bullet number 4 specify "MFES should provide minimum of eight 10/100 Base-T/TX full duplex copper local ports." For our understanding you are looking for a L2 MFES with 8 10/100 ports and 2 SFPP/GBIC ports.

Answer: That is correct. Bullet #2 indicates Layer 2 MFES, bullet #3 specifies (2) 1 Gbps SFPP/GBIC ports, and bullet #4 specifies (8) 10/100 copper ports.

13)Question: Does FDOT want the whole switch to be 1Gbps or just the fiber ports to be 1G and the copper ports be 10/100?

Answer: Please refer to Addendum No.1

14)Question: Are external 120V power supplies are acceptable? Or if it has to be 1 unit; for the "rubber dust cap", are there any requirements around specific IP rating (IP54, etc.)?

Answer: Please refer to Addendum No.1