# Utah Telecommunication Open Infrastructure Agency



## RFP # 2024ENG1

UTOPIA Fiber answers to respondent questions

**March 24, 2024**

# Technical Specifications

*In the scorecard, specific commands are listed as requirements. Is UTOPIA Fiber requiring the exact command and result, or is it possible to meet these requirements with a different existing command?*

Any command which will produce the same result as listed in the scorecard is acceptable.

*What is meant by the "show inventory information" command and what is the expected output?*

To display any hardware inventory information about the device (chassis, power supply or any other vendor module) to the user. Including part number and any serical number of the parts on the device.

*Can you elaborate on the test standard for 10G/100G to 100G untagged/tagged/QinQ? What sort of equipment will be used?*

The device will be configured for the role intended on the network. Then a Veex traffic generator will be used to send 10G of traffic through the device to verify that it works properly using different VLAN tag configurations.

*Can you elaborate on the requirement that trusted ports will forward DHCP Offers received to untrusted ports?*

Switch ports are categorized as either trusted or untrusted based on their role in DHCP transactions. Trusted ports are those connected to legitimate DHCP servers, ensuring that DHCP responses are accepted without scrutiny. Untrusted ports are used for end devices and should not allow any DHCP server traffic between those ports.

*For platforms requiring support for DHCP Option 82 information, is it acceptable to provide DHCP Option 82 Relay Upstream?*

No, we would expect the platform to add Option 82 information.

*Can you elaborate on the requirement for platforms to detect customer loop and discard traffic (dynamically learned protected MAC Addresses)?*

We would expect the platform to detect a learned mac address that was learned on one port and then appears on another port. Our preferred behavior is to silently drop the frame with a logging/alert option.

*Can you elaborate on how UTOPIA Fiber will use TACACS+ and RADIUS authentication? Is it for authentication of the device itself or LAN port connected devices?*

It will be used to authenticate users who connect to the management interface of the switch. It will not be used to authenticate connected devices.

*Does UTOPIA Fiber have a target date range for first deliveries for each product category?*

While we don't have specific target dates for any category, generally we expect the earliest

deliveries to begin by the end of Q3 2024.

*Regarding MDU Service delivery using coax, does UTOPIA Fiber require the capability to deliver multicast IPTV from more than one IPTV provider on the UTOPIA network?*
Yes, the device should support IGMP snooping on multiple provider VLANs that would deliver IPTV to customers on different providers.

*What types of devices/roles would UTOPIA Fiber be most interested in seeing with a larger port density?*
We are interested in seeing larger port density for both aggregation and TOR devices.

*For TOR switches, is having both 8xSFP28 and 2xQSFP28 ports concurrently on the same switch required?*
This is not required but is recommended. Our current vendor offers us this ability, so we would like something similar.

*Can you elaborate on devices being used in "extended temperature ranges"? Do you have a specific range in mind?*
-40C to 70C

*Regarding the requirement to set aging timers for layer 2 services and clear out specific entries, are there other use cases you are considering beyond aging timers for MAC and ARP entries?*
Our current use case is just ARP/MAC timers.

*Will devices which support 100G SWFP28 ZR4 be acceptable, or do you strictly require 100G QSFP28 ZR?*
ZR4 is fine.

*Would an "IP locking" feature suffice for meeting your requirements for DHCP Filtering/Snooping?*
We don't currently support DHCP leasequery in our existing implementation. The device still must have DHCP snooping to support option 82 information insertion.

*What is the UTOPIA Fiber use case for an IP/MPLS label depth of 8 or more?*
Segment routing uses a label per node or link sid in the calculated path. Our current vendor supports label depths of 8 and 12 and we would be looking for the same capabilities.

*Regarding access control lists, is it acceptable to use a Port Security feature to limit the number of MAC learning? Can you elaborate on the logging action and what information should be logged?*
If the feature successfully drops traffic from the port for mac addresses exceeding the mac limit,

then it can be used. Traffic that was dropped should ideally be logged to include the offending mac address, interface, and time that it occurred to a system log.

*Please elaborate on the requirements for UPS connectors. Is a 6-pin interface required or is a 2-pin acceptable? What are the UPS models you use?*
A typo is present in the scoring sheet, the UPS cable we have used is typically 8-pin. In the past we have used the CyberPower CSN75A12V3 UPS for our residential CPE. If you have a device that is only 2-pin, please include it as an option.

*Regarding the 100G QSFP28 FR for TOR devices, can you provide the power consumption or the brand and module name which you will test?*
We do not have any mention of 100G QSFP28 FR optics, however we do mention 100G QSFP28 ER and ZR optics. For 100G ZR, we would be looking for a 30db power budget, and ER would be 15db.

## Optics

*Will all listed optics be tested and turned around in 14 days similar to the network equipment, or will only a subset of optics be tested?*
Optical vendors are welcome to submit a proposal for a subset of optics listed. UTOPIA may request vendors submit all optics included in their proposal or may request a subset of optics from proposals. UTOPIA expects to test optics on the same timeframe as network equipment.

*Can you clarify the CDWDM reach requirements for 1G and 10G optics, including 20Km and 100Km? Are there any specific channels required?*
Generally, these distances have the following power budget. These spans that the optics would be used on are unamplified.
20km – 13dB
100km – 26dB

## General Questions

*Can you provide the deadline for receiving test samples from vendors once you have requested testing?*
We expect vendors to be able to have stock to ship most devices for testing within 3 business days of receiving a request from UTOPIA. Ground shipping is acceptable, and devices do not need to be overnighted. If there is a specific device we have requested which will not be available for testing, we will work with the vendor individually to find a solution.