

Utah Telecommunication
Open Infrastructure Agency



RFP # 2024ENG1

UTOPIA Fiber answers to respondent questions
March 27, 2024

Technical Specifications

What hardware is UTOPIA Fiber currently deploying in their network?

We use a variety of vendors including DZS, Adtran, Nokia, Alcatel-Lucent Enterprise, and Juniper. Some of our common device types include.

- Alcatel Lucent Enterprise 6450
- Juniper EX2300-C
- Adtran (formerly Adva) FSP3000R7
- Nokia 7750 SR, 7210 SAS, 7250 IXR

Will UTOPIA Fiber still consider submissions for products which have a lower port count than described in the RFP?

Yes, per section 3.2.1.1 the port counts are general suggestions based on current switch needs. If you have a device that is over or under the port listings, but you think would be appropriate, then please include it in your submission.

If IGMP v2 snooping on routers/aggregation is not available, will PIM (dense/sparse/sparse-dense) routing be acceptable? Does this requirement only apply to CPE?

We mainly provide layer 2 transit and use VPLS and VLANs for these services. All devices must support the use of IGMP Snooping on a layer 2 service/VLAN. We do not use a PIM router ourselves, but video providers on the network use them.

Can you elaborate on the use case for ISIS/OSPF Segment routing where 8 labels are requested?

Our other vendors already support a depth of 8 for MPLS labels on broadcom/merchant silicon. A higher label depth also provides more flexibility for TI-LFA failover and the use of link sids as much as possible in the path.

Is UTOPIA Fiber able to provide the reference POC test plans for use on router and aggregation switches (if using a layer 3 MPLS)?

Detailed plans are not available currently, but the general overview is the following.

- Connect the device to our existing Nokia routers and turn up OSPF/RSVP/T-LDP sessions to the device under test.
- Configure a VPLS service that connects the Nokia routers to the device under test via MPLS with a local port to connect a test set to pass traffic.
- Test IGMP multicast video using an existing video VLAN with a set top box and verify that video traffic passes.
- Verify SNMP and integration with internal UTOPIA systems (NMS, CRM, etc.)
- Verify throughput and Ookla speed test results utilizing the device under test.
- Go through all other features listed in the scoring sheet and verify their functionality.

Does UTOPIA Fiber have a preference or suggested compatible 3rd party transceiver models?

Most of our optics are coded for Alcatel-Lucent/Nokia. Though, as stated in the RFP, optic vendors should have a vendor supported coding tool that can be provided to use to allow for field recoding.

Please elaborate on the requirement for “Dynamically Learned Protected MAC Addresses”. What does UTOPIA Fiber expect to achieve with the MAC Addresses?

The ability to designate ports as a priority port (uplink) and that any mac address learned on that port should not be relearned from a lower priority port (i.e. a customer). Nokia 7750 SR supports this function.

Please elaborate on the use of a PIM router with IGMP Snooping requirements.

A PIM router (or an IGMP source) sends out a request for membership and sends any needed multicast group traffic out towards those clients. IGMP snooping prevents unnecessary flooding by listening to the reports back from clients based on a PIM router request.

Please elaborate on what is meant by support for policing bandwidth.

Traffic must be able to be rate-limited on a port or interface of the device. Typically, ingress traffic will utilize a shaping method (try to ensure a steady stream of traffic using buffer) while egress traffic will police (packets above configured threshold are discarded).

Are respondents responsible for providing test reports for throughput testing or will this be tested by UTOPIA Fiber?

Respondents can provide throughput reports, but UTOPIA will verify performance as a part of integration testing should we choose to integrate/deploy the device.

Referring to troubleshooting commands, what is meant by the “show inventory information” command and what is the expected output?

An equivalent command will show part number, serial, and other physical inventory attributes of the device to the user on request.

Please elaborate on what is meant by ASCII Authentication when referring to TACACS+ Support.

Any device should support ASCII usernames/password and the RFC 1492 standard for TACACS+.

If both AC and DC power configurations are available on products respondents are including, which one should be considered the default?

In production use cases, we default to 48v DC power configurations. AC power options may be ordered upon request.

Referring to MSA support and vendor specific coding, can UTOPIA Fiber provide a list of transceivers that are required to be MSA coded?

Most of our equipment vendors are not vendor locked and can use MSA optics. If a specific vendor hits issues with that coding or does use locked optics, we can request a specific coding for a batch of optics from you.

Regarding remote recoding of optics, can UTOPIA Fiber provide transceiver brands, models, and software versions for compatibility verification?

Device vendors and models UTOPIA Fiber currently uses are answered above. We can't provide a full list of software versions at this time.

Regarding remote recoding of optics, are all transceivers required to be recodeable transceivers, or will UTOPIA Fiber allow submission of standard transceivers alongside recodeable transceivers?

All optics provided must be able to be recoded by a vendor provided tool.

Is there a specific form factor required for recodeable transceivers?

SFP, SFP+, SFP28, QSFP+, QSFP28, QSFP-DD

Does UTOPIA Fiber have specific requirements regarding optics to be coded for a specific brand, model, or software version?

We provide any vendor with the manufacturer and device type at time of order. Generally, we order optics that are coded for Alcatel-Lucent/Nokia products.

Automatic Provisioning

Can you elaborate on which devices (router, aggregation, CPE) require zero-touch initial provisioning?

CPE requires zero-touch provisioning. Routers/aggregation devices are preferred to have it but not required.

Does UTOPIA Fiber have an existing TR-069/369 ACS or provisioning server?

Yes, we use Axiros AXESS as our TR069 server.

Would UTOPIA Fiber accept zero-touch provisioning as a separate system from devices such as CPE?

We must be able to complete zero touch provisioning on the CPE without a statically set IP address or dependences of specific vendor hardware on the network. TR069 from an ACS server or via DHCP/FTP to download a base image/configuration file are the preferred methods. We have existing systems in place and do not wish to add to them if avoidable. We would rather have any new devices be able to integrate into existing systems.

Does UTOPIA Fiber have any specific requirements for feature items for automation?

Devices that have Netconf/GRPC support should have the ability to configure most/any items on the device over the protocol. State data on statistics should also be available. Data should be modeled in YANG.

Additional Data

Is UTOPIA Fiber able to provide monthly or annual historical purchase data to assist with estimating volume pricing?

We can provide generic volume data. Note that this is estimated and not a guaranteed amount any one vendor could expect.

- Residential CPE – 6,000 units per year
- Business CPE – 250 units per year
- 1G Bidi Optics – 6,000 units per year

All other categories are on an as-needed basis, and we can't provide trending data for them as they shift over time.

Regarding the volume discount of \$250,000 per role limit, does the limit include the MDU Service Delivery using Ethernet over Coax?

Yes, the MDU Service Delivery using Ethernet over Coax would be considered a single role and have the separate \$250,000 limit.

Does UTOPIA Fiber have specific requirements for supports SLAs, such as coverage time, response time, etc.?

We generally opt for business hours support options if we choose to purchase a vendor's support option. But we are open to seeing any price differences between support SLAs.

Process Questions

Given that proposal responses may be a considerably large file or combination of files, can respondents utilize an FTP site or similar email with link to download the file?

Yes, respondents can utilize FTP or similar email with a link to download a larger file. Please coordinate with Jeff Meyer for specifics on the FTP site.

Is the Business CPE device referred to in section 3.2.1.1 of the RFP document the same as the Edge Access Switch in the spreadsheet scoring matrix?

No, the Business CPE device in section 3.2.1.1 is correlated to the 10G and 1G Business Aggregation Switch in the spreadsheet scoring matrix.

Conversely, the Edge Access Device is used by UTOPIA Fiber similarly to an aggregation switch.

While vendors are welcome to suggest which role or category a product applies to, UTOPIA will

make the final determination of what role or category a product will be graded on.

When does UTOPIA Fiber plan to start testing the products included in the proposal?

UTOPIA Fiber will begin testing as soon as products are received.

What type of power supply should be used when providing products for evaluation?

UTOPIA Fiber would prefer to standardize using AC power for evaluating products.

If there are discrepancies between descriptions in the RFP document versus the scoring matrix, which should prevail?

The scoring matrix should be considered the primary document in any accidental deviations between the two documents.

Is the scoring matrix for reference only, or is UTOPIA Fiber requiring vendors to fill out their own version to be included with their submission?

The scoring matrix is intended as a reference and vendors are not required to fill out the scoring matrix with their own data. UTOPIA Fiber does encourage vendors to fill out the scoring matrix with their own data to ensure that all requirements are addressed. UTOPIA Fiber will still independently verify and test vendor submissions regardless if a pre-filled scoring matrix is provided.