

CTI Network Management Practices

Name of filer:
Computer Techniques, Inc.

Filer's FCC Registration Number (FRN):
0017141102

Trade name or DBA:
CTI Fiber

Type of service:
wired

Services covered by this disclosure:
FTTP fiber internet

Effective date of disclosure:
4/18/2022

Is this submission a new or first-time disclosure or an amendment to a prior submission?
AMENDMENT

Certificate of Accuracy

Name of individual certifying accuracy:
Aaron K. Bialas

Title of individual certifying accuracy:
Chief Information Officer

Signature:



Date:
4/18/2022

- *Blocking.* Any practice (other than reasonable network management elsewhere disclosed) that blocks or otherwise prevents end user access to lawful content, applications, service, or non-harmful devices, including a description of what is blocked.

CTI Policy – NOT APPLICABLE

- *Throttling.* Any practice (other than reasonable network management elsewhere disclosed) that degrades or impairs access to lawful Internet traffic on the basis of content, application, service, user, or use of a non-harmful device, including a description of what is throttled.

CTI Policy – NOT APPLICABLE

- *Affiliated Prioritization.* Any practice that directly or indirectly favors some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, or resource reservation, to benefit an affiliate, including identification of the affiliate.

CTI Policy – NOT APPLICABLE

- *Paid Prioritization.* Any practice that directly or indirectly favors some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, or resource reservation, in exchange for consideration, monetary or otherwise.

CTI Policy – NOT APPLICABLE

- *Congestion Management.* Descriptions of congestion management practices, if any. These descriptions should include the types of traffic subject to the practices; the purposes served by the practices; the practices' effects on end users' experience; criteria used in practices, such as indicators of congestion that trigger a practice, including any usage limits triggering the practice, and the typical frequency of congestion; usage limits and the consequences of exceeding them; and references to engineering standards, where appropriate.

CTI Policy – NOT APPLICABLE

- *Application-Specific Behavior.* Whether and why the ISP blocks or rate-controls specific protocols or protocol ports, modifies protocol fields in ways not prescribed by the protocol standard, or otherwise inhibits or favors certain applications or classes of applications.

CTI Policy – NOT APPLICABLE

- *Device Attachment Rules.* Any restrictions on the types of devices and any approval procedures for devices to connect to the network.

CTI Policy – NOT APPLICABLE

- *Security.* Any practices used to ensure end-user security or security of the network, including types of triggering conditions that cause a mechanism to be invoked (but excluding information that could reasonably be used to circumvent network security).

CTI Policy – CTI DOES police traffic for DDoS activity. CTI will automatically blackhole all traffic to/from a given IP address for 30 minutes when the traffic crosses the 2048 mbps AND/OR 200000 PPS threshold. Certain critical sectors, such as 911 centers, are exempted from this policy.

- Performance Characteristics

- *Service Description.* A general description of the service, including the service technology, expected and actual access speed and latency, and the suitability of the service for real-time applications.

CTI Response – CTI offers a variety of internet packages.

- *1gbps/1gbps package (“GIG”)*
 - *This package is rate limited to 1gbps/1gbps and is traditionally delivered on a 1gbps copper port. Consumers may expect actual speeds of no more than 1gbps/1gbps with a latency of between 1-20MS to the next hop outside of CTI’s network. NOTE: Typical “maximum speed” for this package is limited by the 1gbps copper port, rather than the 1gbps/1gbps rate limit CTI has configured. Users can generally expect to see no more than 980mbps/980mbps, which accounts for TCP/IP packet overhead.*
- *100mbps/100mbps package (“100mbps”)*
 - *This package is rate limited to 103mbps/103mbps and is traditionally delivered on a 1gbps copper port. Consumers may expect actual speeds of no more than 103mbps/103mbps with a latency of between 1-20MS to the next hop outside of CTI’s network.*
- *200mbps/200mbps package (“200 mbps”)*
 - *This package is rate limited to 220mbps/220mbps and is traditionally delivered on a 1gbps copper port. Consumers may expect actual speeds of no more than 220mbps/220mbps with a latency of between 1-20MS to the next hop outside of CTI’s network.*
- *250mbps/250mbps package (“250 mbps”)*
 - *This package is rate limited to 260mbps/260mbps and is traditionally delivered on a 1gbps copper port. Consumers may expect actual speeds of no more than 260mbps/260mbps with a latency of between 1-20MS to the next hop outside of CTI’s network.*
- *300mbps/300mbps package (“300 mbps”)*
 - *This package is rate limited to 360mbps/360mbps and is traditionally delivered on a 1gbps copper port. Consumers may expect actual speeds of no more than 360mbps/360mbps with a latency of between 1-20MS to the next hop outside of CTI’s network.*
 -

- *Impact of Non-Broadband Internet Access Service Data Services.* If applicable, what non-broadband Internet access service data services, if any, are offered to end users, and whether and how any non-broadband Internet access service data services may affect the last-mile capacity available for, and the performance of, broadband Internet access service.

CTI Response – CTI does offer multicast IPTV, and POTS telephone service delivered to the premises by SIP (VoIP).

- *CTI offers a traditional POTS telephone service. This service is delivered to the customers premises via voice over IP. CTI does provision approximately 5mbps/5mbps of dedicated bandwidth for this traffic. As substantially all CTI customers are serviced by GPON technology, with a per-PON data rate of 2.5gbps download, and 1.25gbps upload, this service has a negligible effect on broadband internet access services.*
 - *CTI offers a multicast IPTV product to all consumers. CTI's multicast IPTV product uses approximately 1.1gbps of traffic when a port is flooded with all channels. All CTI set top boxes are configured to "tune in" to the multicast stream that they are watching, and not request additional channels. The effect of this is that a PON (which traditionally serves between 1-32 customers in CTI's network,) only has as much multicast IPTV traffic as subscribers on that PON are watching distinctly different channels. With a higher density of customers per PON than CTI targets, and with a TV-heavy PON, this could potentially have an impact on broadband internet service. CTI carefully monitors per-PON data transmission statistics and has not observed this to be a problem across a sample size of hundreds of PON(s).*
- Commercial Terms
 - *Price.* For example, monthly prices, usage-based fees, and fees for early termination or additional network services.

CTI Response – Pricing is available at <https://www.ctitech.com/pricing/>, with some tariffed services available at <https://www.ctitech.com/regulations/>.

- *Privacy Policies.* A complete and accurate disclosure about the ISP's privacy practices, if any. For example, whether any network management practices entail inspection of network traffic, and whether traffic is stored, provided to third parties, or used by the ISP for non-network management purposes.

CTI Response – CTI does not inspect any customer traffic for any reason other than network management purposes. We do use typical netflow/sflow analyzers to periodically sample traffic and gauge total bandwidth consumption across all circuits, determine good peering candidates, and watch for and automatically respond to DDOS attacks. These traffic samples are not provided to any third parties in any form.

- *Redress Options.* Practices for resolving complaints and questions from consumers, entrepreneurs, and other small businesses.

CTI Response – CTI conducts dispute resolution directly with consumers of its products. A member of our customer satisfaction team, management, or executive staff will work directly with the consumer to resolve all complaints and questions.