Candela TECHNOLOGIES Network Testing and Emulation Solutions

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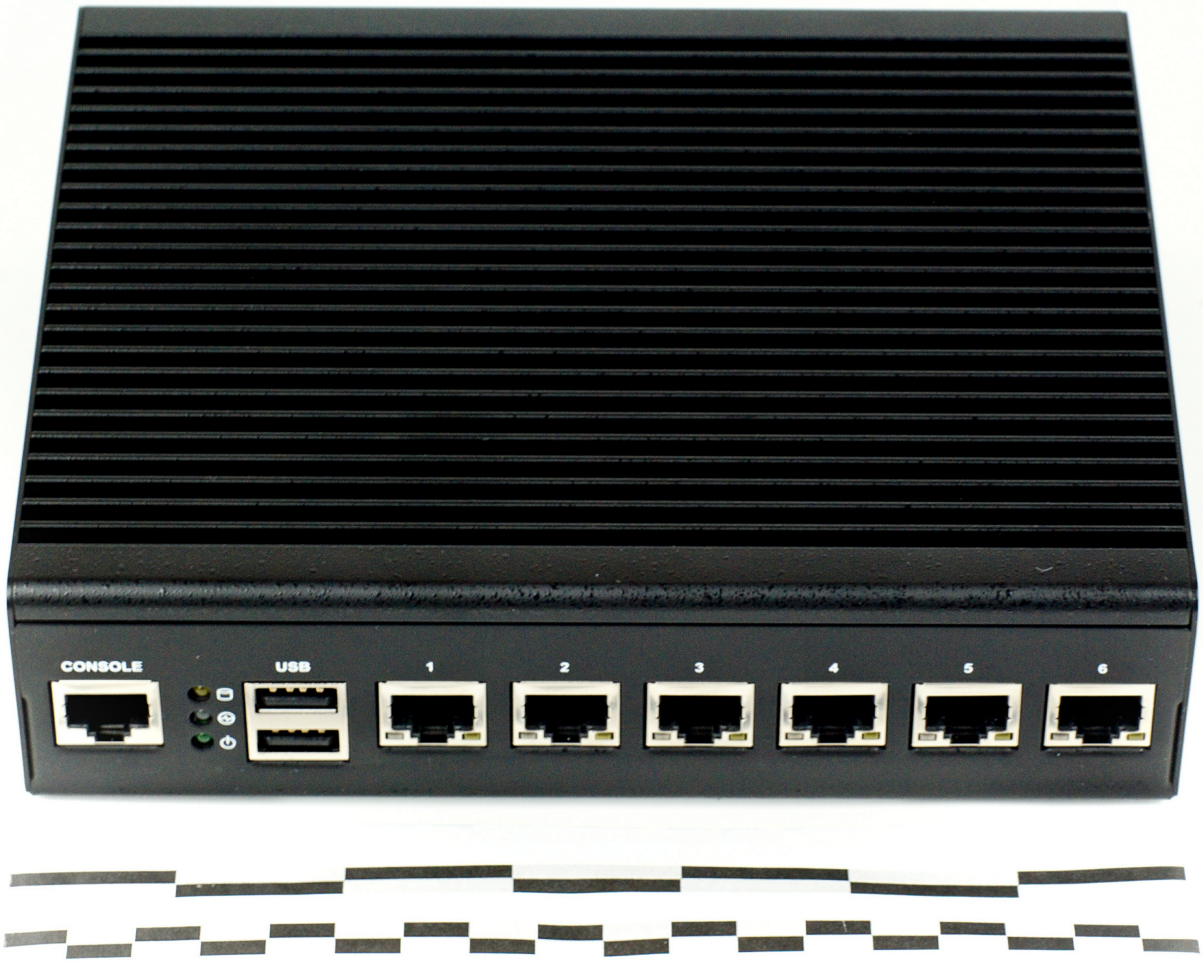
CT920 LANforge-ICE 45Mbps WAN Emulator

Support Options 3-months support $2,995.00 USD Add to Cart

The CT920 is an excellent choice for a portable network emulator supporting speeds up to 45Mbps (bi-directional). The CT920 has no moving parts and will fit into a small travel bag or briefcase for easy portability. It is also completely silent, so you can include it in your customer demos and presentations. Additional software licenses can enable additional WanLinks or higher-speed emulations for future upgrades. No additional hardware or software is required, but it is suggested that you manage the system using the LANforge-GUI on a separate machine. The CT920 can also be managed over a serial console in text mode.



NOTE: This product may have a different hardware configuration than the system pictured above.

Refer to your official quote for details.

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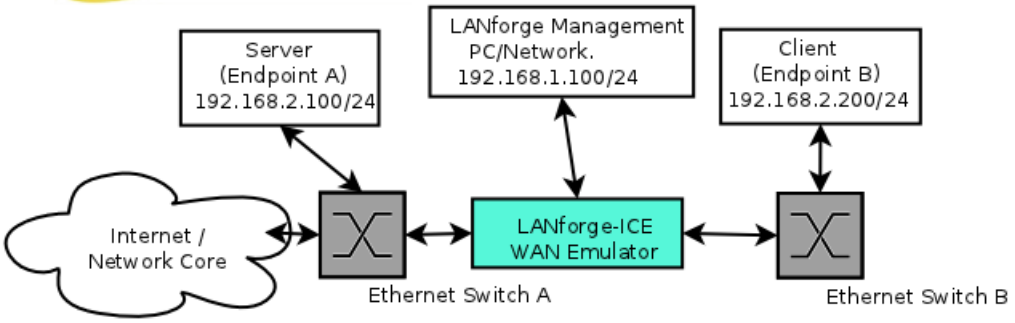
Example Network Diagram

LANforge ICE Network Diagram



This diagram shows how one might use LANforge ICE to emulate a Wide Area Network between a Server and Client. When the Client communicates with the Server, the traffic will flow through the Ethernet switches and then through LANforge ICE. LANforge ICE will enforce the rate limitation and other network emulation as configured. The Client and Server are on the same subnet. For a simpler configuration, the Client and Server can be directly connected to the LANforge ICE system.

Quick Start Guide

1. Connect Management Ethernet port to Management network or management PC.
2. Connect Client to eth0 and Server to eth1. The eth0 <-> eth1 interfaces will be bridged and this bridge will inject the network emulation.
3. Connect power brick to standard US or European AC power source.
4. Install the LANforge-GUI on a separate management PC or Laptop. Windows and Linux GUIs are supported: Select the correct one from the CDROM or Candela Technologies Download page and install it.
5. The CT920 should now boot. If DHCP is enabled on the Management network, the CT920 will automatically acquire an IP address. If DHCP is not available, the IP address will be set to 192.168.1.101 by the LANforge scripts.
6. Start the LANforge-GUI on the management PC and click the 'Discover' button. It should find the CT920 appliance and add the IP address to the drop-down box in the Connect widget. Press 'Connect' and you will be connected to the CT920.
7. Select the WanLinks tab in the GUI. One of the pre-configured tests should already be running. You may double-click the row in the top section to modify the configuration. You can also view a real-time report of the test with the 'Display' button. Any modifications take place immediately after you click 'Submit'.

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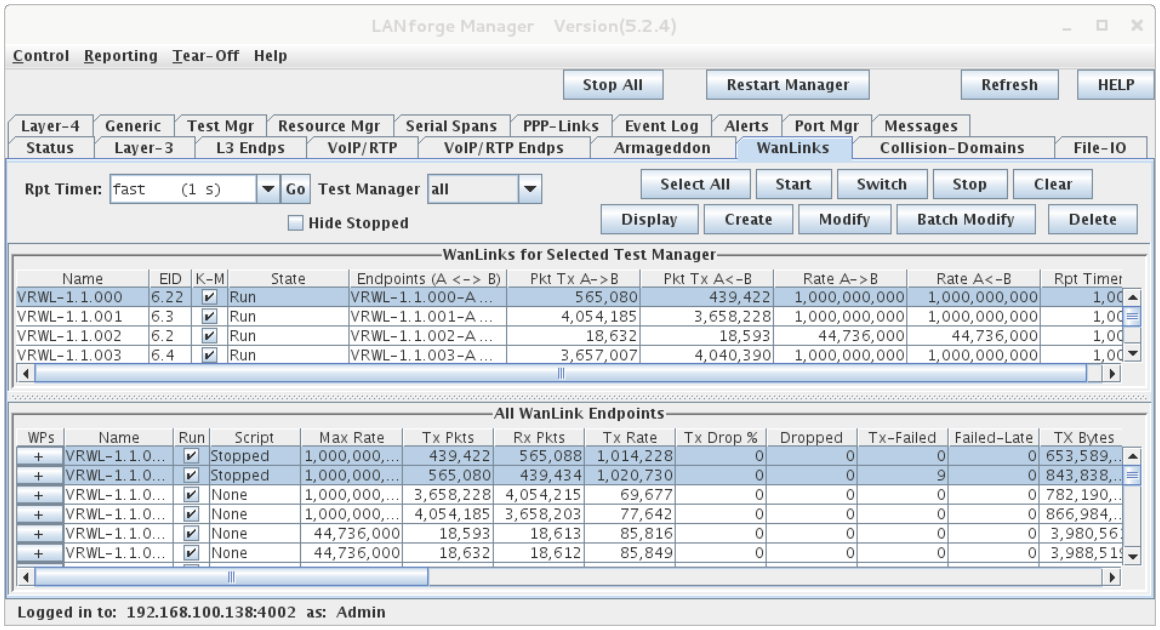
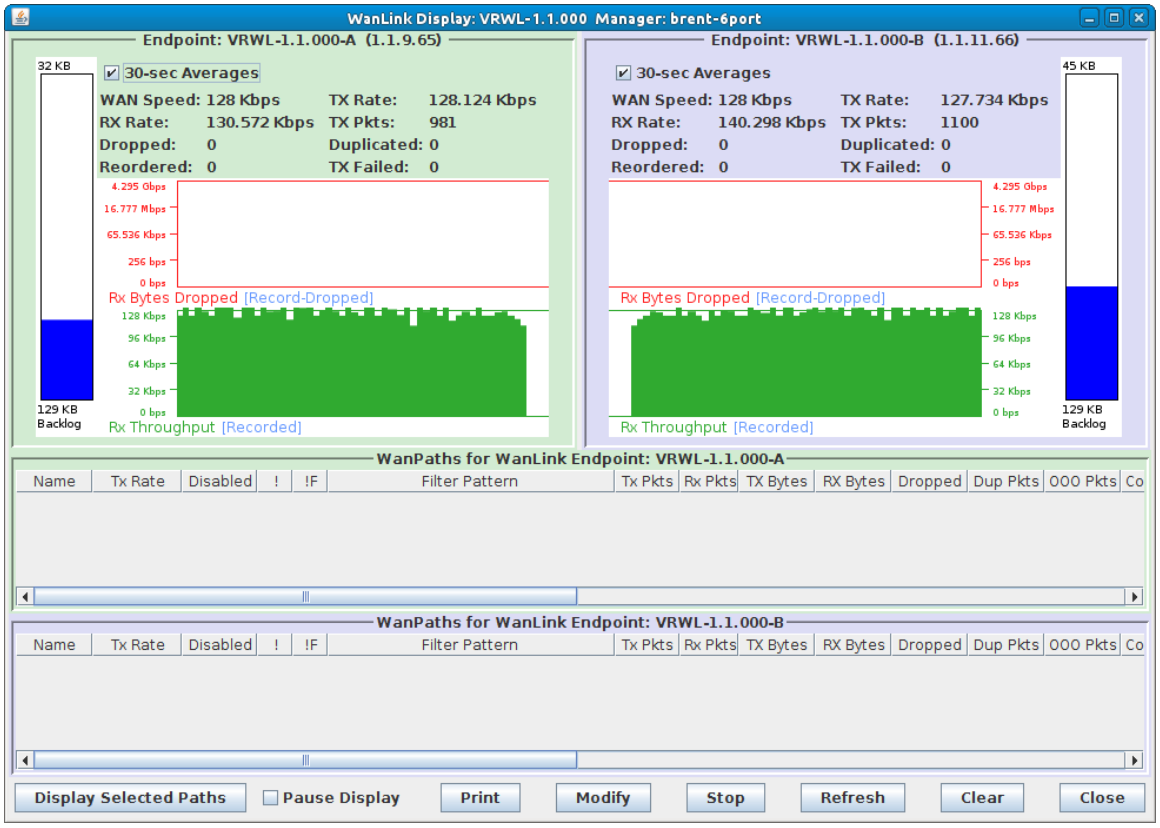
LANforge-ICE Related Screen Shots

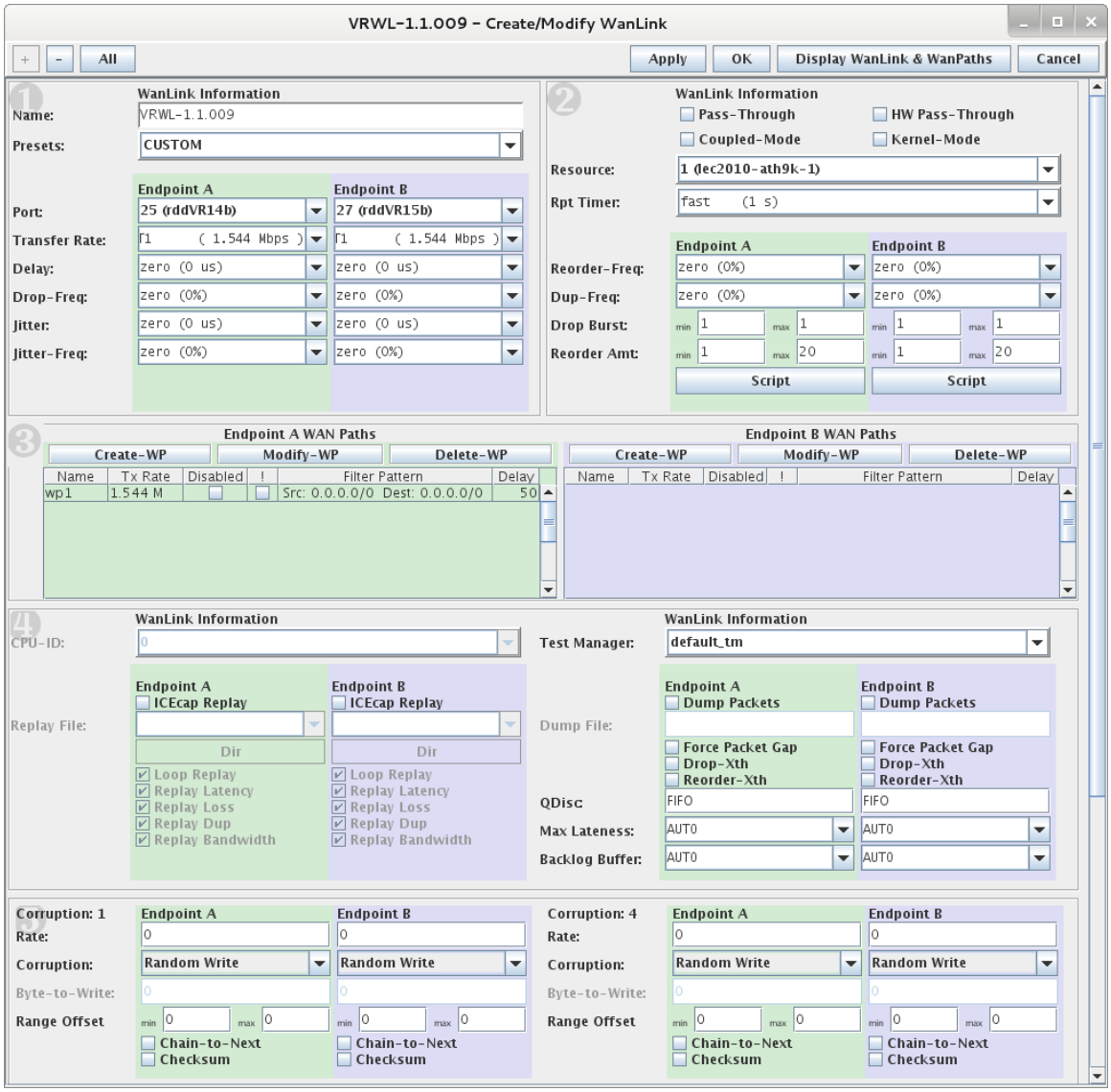
WanLinks Tab



WanLink Display



Create/Modify WanLink Window



Software Features

1. General purpose WAN and Network impairment emulator.
2. Able to simulate DS1, DS3, DSL, CableModem, Satellite links and other rate-limited networks, from 10bps up to 45Mbps (full duplex).
3. Can modify various network attributes including: network-speed, latency, jitter, packet-loss, packet-reordering, and packet-duplication.
4. Supports Packet corruptions, including bit-flips, bit-transposes and byte-overwrites.
5. Supports WanPath feature to allow configuration of specific behavior between different IP subnets, MAC addresses or other packet filters using a single pair of physical interfaces. WanPath support may

require purchase of additional WanPath licenses, please ask your sales contact for more information.

6. Supports routed and bridged mode for more flexibility in how you configure your network and LANforge-ICE.
7. Supports WAN emulation across virtual 802.1Q VLAN interfaces more efficient use of limited physical network interfaces.
8. Supports 'WAN-Playback' allowing one to capture the characteristics of a live WAN and later have LANforge-ICE emulate those captured characteristics. The playback file is in XML format, and can be easily created by hand or with scripts. The free LANforge-ICEcap tool can be used to probe networks and automatically create the XML playback file.
9. Allows packet sniffing and network protocol decoding with the integrated Wireshark protocol sniffer.
10. Includes comprehensive management information detailing all aspects of the LANforge system including processor statistics, test cases, and Ethernet port statistics.
11. GUI runs as Java application on Linux, MAC and Microsoft Operating Systems (among others).
12. GUI can run remotely, even over low-bandwidth links to accommodate the needs of the users.
13. Central management application can manage multiple units, tests, and testers simultaneously.
14. Includes easy built-in scripting to automatically iterate through bandwidth, latency and other settings. Advanced programmatic scripting over a TCP socket also supported and example perl libraries and scripts are included.
15. Automatic discovery of LANforge resources simplifies maintenance and configuration of LANforge test equipment.

Hardware Specification

1. Midrange Appliance with no moving parts.
2. Operating System: 64-bit Fedora Linux with customized Linux kernel.
3. 6 1Gbps Ethernet ports.
4. 1.74 GHz Quad Core Intel Atom C2518 processor.
5. RJ45 Serial console (115200 8 N 1) for console management & initial configuration.
6. 4 GB RAM.
7. 30+ GB Solid State Hard Drive.
8. Larger storage drive available.
9. +12v 5AMP external power supply (brick).
10. Weight: 3.3 lbs or 1.5 kg.
11. Dimensions: 7 x 6 x 1.75 inches Metric: 180 x 145 x 45 mm.
12. Operating Temperature: 0 ~ 40°C.
13. Operating Humidity: 5 ~ 95%.
14. Certification: CE Emission, FCC Class A, RoHS Compliant.

Additional Feature Upgrades

Unless otherwise noted in the product description, these features usually cost extra:

- WanPaths (LANforge-ICE feature set)
- Virtual Interfaces: MAC-VLANs, 802.1Q VLANs, WiFi stations, etc
- LANforge FIRE traffic generation.
- VOIP: Each concurrent call over the included package requires a license.
- VoIP-Mobile Audio Quality Testing using POLQA/PESQ.

- Mobile-Mobile Audio Quality Testing using POLQA/PESQ.
- Armageddon: Each pair of ports requires a license if not already included.
- RF Chambers for WiFi testing.
- External battery pack: 12+ hours for CT520, CT523, CT92X and other platforms.

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Last modified: Mon Feb 3 05:56:21 PM PST 2025