

CT910 LANforge-ICE 45Mbps WAN Emulator

Support Options

3-months support \$995.00 USD

Add to Cart

The CT910 is an excellent choice for a portable network emulator supporting speeds up to 45Mbps (bi-directional). It can insert latency, packet loss, bandwidth constraints, packet reordering, duplication and corruption, and other impairments in a controllable manner. The CT910 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. It should be managed by the LANforge-GUI running on a separate machine (laptop, etc). The CT910 can also be managed over a serial console in text mode. For more powerful systems, consider the CT913 or CT963.





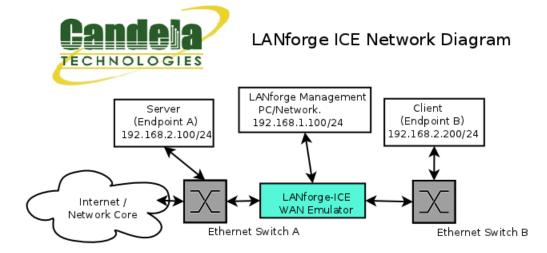


NOTE: This product may have a different hardware configuration than the system pictured above.

Refer to your official quote for details.

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Example Network Diagram



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.

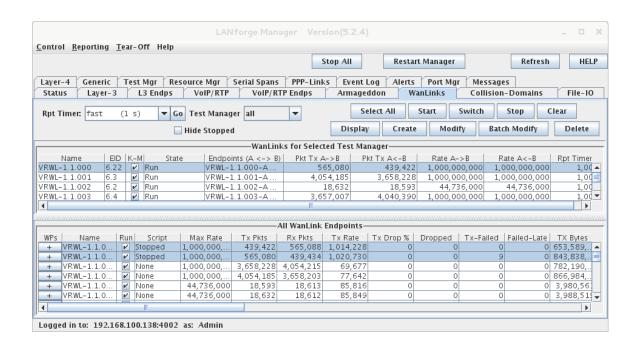
Quick Start Guide

- 1. Connect Management Ethernet port to Management network or management PC.
- 2. Connect Client to eth1 and Server to eth2. The eth1 <-> eth2 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, or visit the LANforge appliance IP address with your web browser, and install it.
- 5. The CT910 should now boot. If DHCP is enabled on the Management network, the CT910 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 CT910 appliance and add the IP address to the drop-down box in the Connect widget. Press 'Connect' and you will be connected to the CT910.
- 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

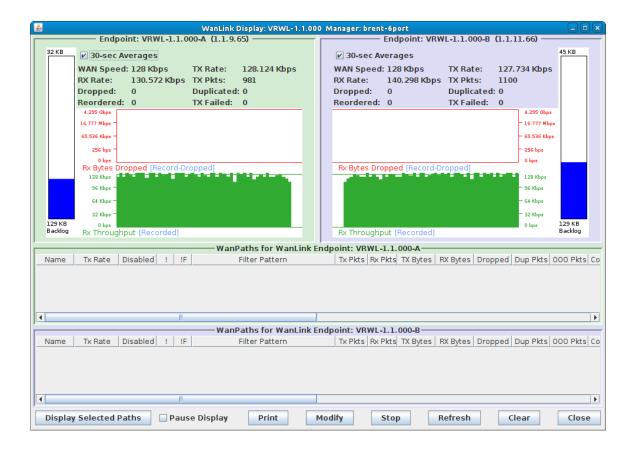
WanLinks Tab



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WanLink Display

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Create/Modify WanLink Window

VRWL-1.1.009 - Create/Modify WanLink						×
+ - All			А	pply OK Display	WanLink & WanPaths Cance	el
Name: Presets:	WanLink Information VRWL-1.1.009 CUSTOM	▼	2	WanLink Information ☐ Pass-Through ☐ Coupled-Mode	☐ HW Pass-Through ☐ Kernel-Mode	
			Resource:	1 (lec2010-ath9k-1)		
Port:	Endpoint A 25 (rddVR14b)	Endpoint B 27 (rddVR15b)	Rpt Timer:	fast (1 s)	▼	П
Transfer Rate:		F1 (1.544 Mbps) ▼	-			
Delay:	(212.1. 112.7	zero (0 us)	1	zero (0%)	Endpoint B ▼ zero (0%)	
Drop-Freq:		zero (0%)			▼ zero (0%) ▼	Ш
Jitter:		zero (0 us)	Drop Burst:	min 1 max 1	min 1 max 1	Ш
Jitter-Freg:		zero (0%) ▼	Reorder Amt:	min 1 max 20	min 1 max 20	
			1	Script	Script	П
8	Endpoint A WAN Paths Endpoint B WAN Paths					
Create-WP Modify-WP Delete-WP Create-WP Modify-WP Delete-WP Name Tx Rate Disabled Filter Pattern Delay Name Tx Rate Disabled Filter Pattern Delay Delete-WP						
wp1 1.544 M Src: 0.0.0.0/0 Dest: 0.0.0.0/0 50 A						
WanLink Information				WanLink Information		i
CPU-ID:	0		Test Manager:	default_tm 🔻		Ш
	Endpoint A ICEcap Replay	Endpoint B ICEcap Replay		Endpoint A Dump Packets	Endpoint B Dump Packets	
Replay File:		<u> </u>	Dump File:	Fanna Bardunt Can	□ Farras Bardest Con	Ш
	Dir Loop Replay	Dir ✓ Loop Replay		Force Packet Gap Drop-Xth	Force Packet Gap Drop-Xth Reorder-Xth	Ш
	Replay Latency Replay Loss	✓ Replay Latency ✓ Replay Loss	QDisc	Reorder-Xth	FIFO	H
	✓ Replay Dup	✓ Replay Dup	Max Lateness:	AUT0 ▼	AUT0 🔻	
	✓ Replay Bandwidth	Replay Bandwidth	Backlog Buffer:	AUT0 🔻	AUT0 🔻	
Corruption: 1	Endpoint A	Endpoint B	Corruption: 4	Endpoint A	Endpoint B	
Rate:	0	0	Rate:	0	0	
Corruption:	Random Write	Random Write	Corruption:	Random Write	Random Write	
Byte-to-Write:	0	0	Byte-to-Write:	0	0	
Range Offset	min 0 max 0	min 0 max 0 Chain-to-Next	Range Offset	min 0 max 0	min 0 max 0 Chain-to-Next	
	Checksum	Checksum		Checksum	Checksum	

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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. Affordable Appliance with no fans.
- 2. Operating System: Fedora Linux with customized 64-bit Linux kernel.
- 3. Three 1Gbps Ethernet ports, room for two wifi NICs
- 4. AMD GX-412TC quad-core 1GHz processor.
- 5. DB9 Serial console (115200 8 N 1) for console management & initial configuration.
- 6. 4 GB RAM.
- 7. 30+ GB Solid State mSata storage Drive.
- 8. Larger storage drives available.
- 9. 12v 2AMP external power supply (brick).
- 10. Weight: 2 lbs
- 11. Dimensions: 7 x 7 x 1 inches Metric: 170 x 170 x 30 mm.
- 12. Operating Temperature: -20 ~ 45°C.
- 13. Certification: CE Emission, FCC Class A, RoHS

List Price: \$995 List Price with 1 Year support (17%): \$1,164

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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