



IPv6 CE Router

UNH InterOperability Laboratory

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Presentation Overview

- ❖ IPv6 CE Router Event
- ❖ Address Acquisition
- ❖ Delegating Addresses
- ❖ Web Services
- ❖ Next Steps

IPv6 CE Router Event

- ❖ Interested groups
 - ❖ Operators
 - ❖ CE Router implementations
 - ❖ Test Laboratories
- ❖ Test Specification
 - ❖ Based on IETF CPE draft
 - ❖ Soon to be RFC.

Address Acquisition

- ❖ WAN Address configuration
 - ❖ DHCP
 - ❖ SLAAC
- ❖ Duplicate Address Detection
- ❖ Router Discovery
- ❖ ICMPv6

Delegating Addresses

- ❖ DHCPv6 Prefix Delegation
 - ❖ Prefix length of /64
 - ❖ Other prefix length not functional
- ❖ Forwarding loops occurred
- ❖ Not Renewing Delegated Prefixes
- ❖ No support for DHCPv6 Reconfigure

Web Services

- ❖ DNS proxy or DNS recursion
 - ❖ Not properly implemented in all devices
- ❖ DNS problems caused devices to fail to connect to websites over IPv6
- ❖ HTTP worked when these issues were resolved

Event Wrap-up

- ❖ Whitepaper released by UNH-IOL
 - ❖ <http://www.iol.unh.edu/services/testing/ipv6/>
- ❖ Seven participating companies
 - ❖ Nine implementations

Next Steps

- ❖ Second CE Router event scheduled for May 9, 2011.
- ❖ IPv6 Ready Logo for CE Router
 - ❖ Aimed for launch in November
 - ❖ Interoperability Test Specification
 - ❖ <https://www.ipv6ready.org/?page=public-review-cpe>

IPv6 Ready Logo Test Program



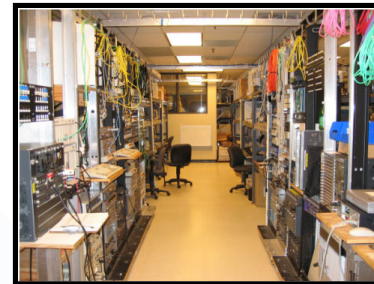
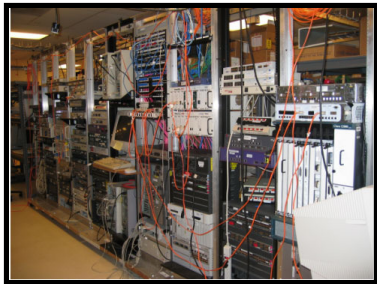
- ❖ IPv6 Forum launched program ~2002
- ❖ Objectives of the IPv6 Ready Logo Program
 - ❖ Verify protocol implementation and validate interoperability of IPv6 products.
 - ❖ Provide access to free self-testing tools.
 - ❖ Provide IPv6 Ready Logo testing laboratories across the globe dedicated to provide testing assistance or services.



- ❖ IPv6 Core Protocols
 - ❖ IPsec, IKEv2
 - ❖ DHCPv6
 - ❖ MLDv2
 - ❖ SIP
 - ❖ MIPv6
 - ❖ SNMP
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- ❖ UNH-IOL is the North American Regional Officer

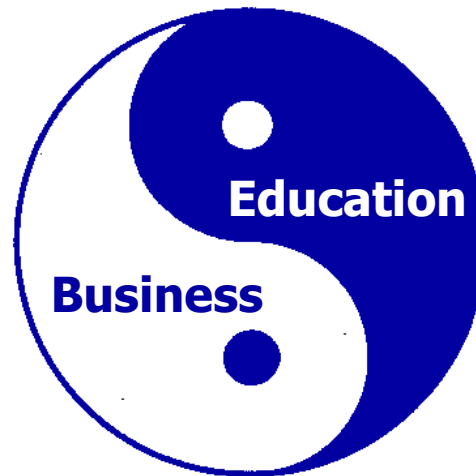
The UNH-IOL Laboratory

- ❖ Industry leading 3rd-party neutral test facility for data communications & consumer electronics
- ❖ 100% funded by commercial industry
 - ❖ 150+ companies provide market motivation
- ❖ 32,000 sq ft lab facility – Boston Area
- ❖ 7,200 sq-ft pre-wired space dedicated to Plugfests



The Mission

- **Improve data networking:**
Develop test suites and software tools, and provide testing services that facilitate interoperability efforts in a given industry in a cooperative manner



- **Educate students:**
Provide *hands-on technical and business experience* for outstanding students

Any Questions?

