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 failures 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/](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

- 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?