IETF における標準化ディプロイメント状況

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WIDE Project

2010年 IETF 標準化動向

- Routing 関連動向
- 運用技術関連動向
- IPv6 移行技術関連動向
- DNS 関連動向

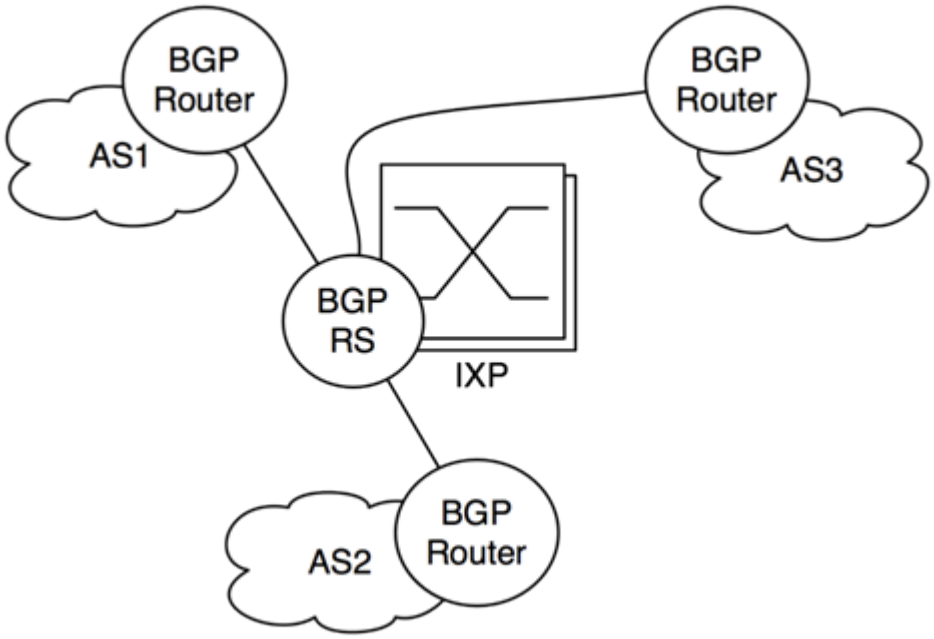
ROUTING 関連動向

GROW WG (1)

- Graceful BGP Shutdown
  - bgp-graceful-shutdown-requirements
  - bgp-gshut
  - iBGP loop due to path hiding problem with Ext Best
- BGP Monitoring Protocol
- MRT routing information export format
- Virtual Aggregation
  - simple-va
  - Auto-Configuration in va

GROW WG (2)

- IX BGP route server
  - Multilateral interconnection with intermediate broker system
  - Reduces max the number of BGP sessions
  - Scaling
  - Protection against NLRI leaks
  - Redundancy



SIDR WG(1)

- Internet Drafts
  - sidr-arch-11
    - Specifications of Secure Inter-Domain Routing
  - sidr-cp-15
    - Certificate Policy of PKI (IP address and AS)
  - sidr-res-certs-20
    - Profile for X.509 certificates
  - sidr-rescerts-provisioning-09
    - Certificate management interactions between Issuer and Recipient
  - sidr-roa-format-09
    - Profile for Route Origin Authorizations (ROAs)
  - sidr-roa-validation-10
    - Validation of ROAs
  - sidr-rpki-manifests-09
    - Define manifests of RPKI
  - sidr-rpki-rtr-04
    - Protocol to deliver validated prefix origin data to routers over ssh

SIDR(2)

- Experiments in RIRs
  - RIPE
    - http://labs.ripe.net/Members/agowland/ripe-ncc-validator-for-resource-certification
  - ARIN
    - https://www.arin.net/resources/rpki.html
  - APNIC
    - http://www.apnic.net/services/services-apnic-provides/resource-certification/RPKI
    - MyAPNIC
- RPKI Software
    - http://www.rpki.net/

IDR WG

- Internet Drafts
  - add-paths-04
    - BGP extension for advertisement of multiple paths
  - as4octet-extcomm-generic-subtype-03
    - Include a 4-octet AS specific extended community as a new sub-type.
  - best-external-02
    - Advertisement of “best external route” to internal BGP peers can reduce convergence time
  - bgp-identifier-12
    - Relaxes the definition of the BGP Identifier
  - dynamic-cap-12
    - Add dynamic capability exchanges
- 個人 draft 多数

OSPF WG

- RFCs
  - Advertising a Router's Local Addresses in OSPF TE Extensions (RFC5786)
    - TE LSA extensions in OSPF
  - Extensions to OSPF to support Mobile Ad Hoc Networking (RFC5820)
    - OSPF-OR (OSPF-Overlapping Relay)
  - Support of Address Families in OSPFv3 (RFC5838)
    - Multiple address families in OSPFv3 using multiple instances
- Internet Drafts
  - multi-instance-03
    - Support multi instances in OSPFv2 as OSPFv3
  - transport-instance-05
    - Dissemination of non-routing information using OSPF
- 個人ドラフト多数
  - bhatia-manral-auth-trailer-ospfv3-01

ISIS WG

- Internet Drafts
  - bfd-tlv-02
    - BFD TLV for IS-IS
  - genapp-04
    - Generic application information in IS-IS LSPs
  - ipv6-te-08
    - IPv6 TE information TLV in IS-IS
  - layer2-07
    - TLV extension for Link State Routing directly over Layer-2
  - mi-03
    - Multiple Instances
  - trill-03
    - IS-IS extensions to support TRILL

RTGWG

- RFCs
  - IP Fast Reroute Framework (RFC5714)
    - Framework for development of IP fast reroute mechanisms
    - Terminology and Overview
  - A Framework for Loop-Free Convergence (RFC5715)
    - Avoiding “Micro-Loop”
- Internet Drafts
  - ipfrr-notvia-addresses-06
    - Fast reroute in an IP network through encapsulation using not-via (neighbor) address
  - ordered-fib-04
    - Sequencing the FIB updates on the router

運用技術関連動向

SAVI WG

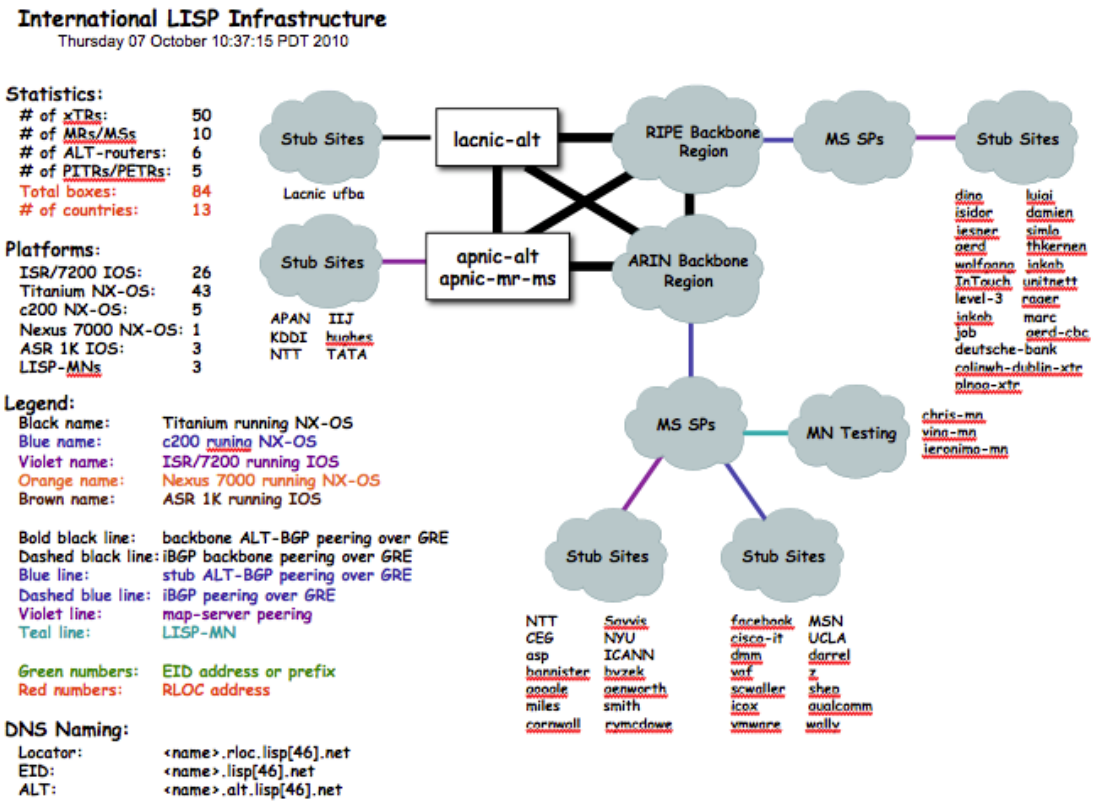
- Internet Drafts
  - framework-01
    - Motivation and design of SAVI
  - dhcp-06
    - Interaction between DHCP server and SAVI switch
  - send-04
    - Apply Secure Neighbor Discovery for SAVI
- Deployment
  - Experiments in CERNET2

TRILL WG

- trill : Transparent Interconnection of lots of links
  - RFC5556: Problem and Applicability Statement
  - draft-ietf-trill-rbridge-protocol-16
  - Ethertypes:
    - TRILL: 0x22F3
    - L2-IS-IS: 0x22F4
- Multicast to Unicast Optimization
- RBridges RA/ND Optimization

LISP WG (1)

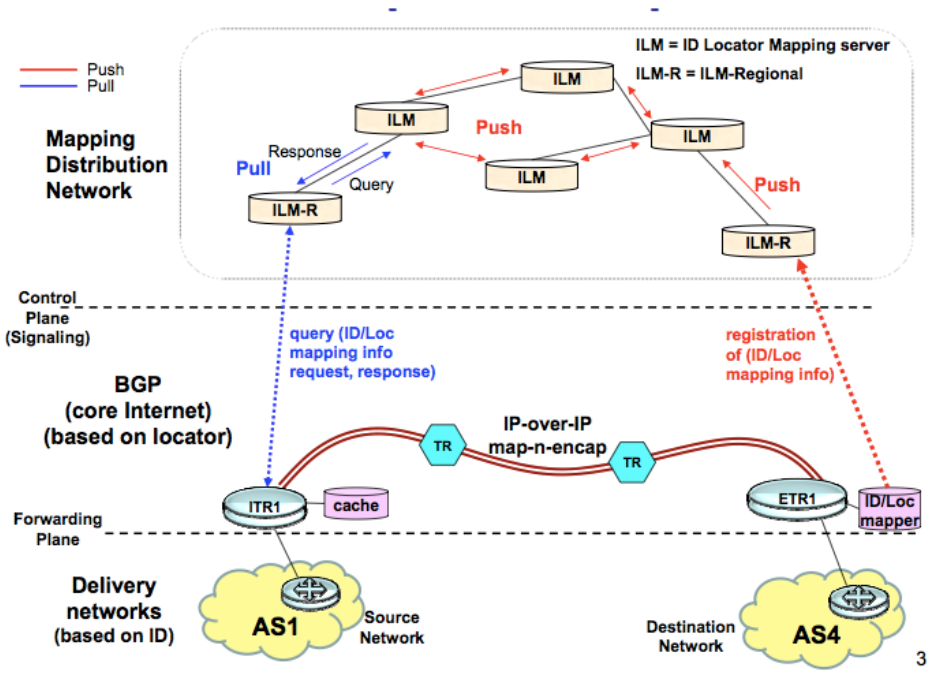
- Internet Drafts
  - lisp-09
  - lisp-alt-05
  - lisp-ms-06
- Testbed
  - www.lisp4.net



http://www.lisp4.net/

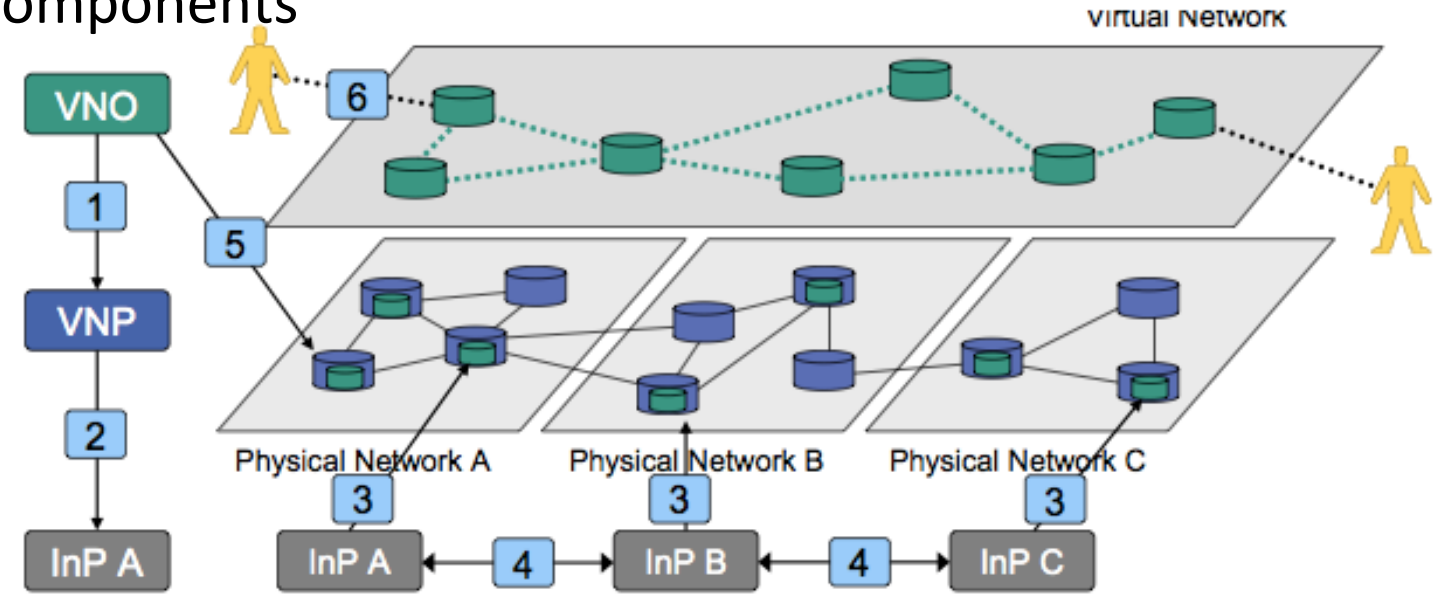
LISP WG (2)

- Base Specs
  - Added LCAF (Canonical Address Format) type registrations
  - ETR Over-claiming issue
- Mapping Server and ALT
  - No big changes
  - Security review is pending



VNRG

- Virtual Networks Research Group
- 1st RG meeting in IETF-77 (Anaheim)
- Definition and Perspective of Virtual Networks
  - Key Challenges
  - Purposes
  - Key Components



VNRG (2)

- L3 and L2 for Virtual Network
  - LISP at Layer 3
  - TRILL, MAC-in-MAC at Layer 2
- Subnet Virtualization
  - L3VPN
  - L2VPN
- Use Case
  - OpenFlow & FlowVisor

IPV6移行技術関連動向

V6OPS WG

- RFCs
  - IPv6 Deployment in Internet Exchange Points (RFC5963)
  - Emerging Service Provider Scenarios for IPv6 Deployment (RFC6036)
- Internet Drafts
  - cpe-simple-security-16
  - ipv6-cpe-router-07
    - Requirements for an IPv6 CPE
  - ra-guard-08
    - Filtering RA in Layer-2 device
  - rogue-ra-02
    - Problem statement of rogue RA
  - 3177bis
    - IPv6 assignment policy (no longer recommended as a single default)
- 個人ドラフト
  - 多数

6MAN WG

- RFCs
  - IANA Allocation Guidelines for the IPv6 Routing Header (RFC5871)
  - IPv6 Subnet Model (RFC5942)
  - A Recommendation for IPv6 Address Text Representation (RFC5952)
- Internet Drafts
  - dns-options-bis-08
  - addr-select-considerations-02
  - node-req-bis-06
  - rfc3484-revise-01

BEHAVE WG

- RFCs
  - Traversal Using Relays around NAT (RFC5766)
  - Test Vectors for Session Traversal Utilities for NAT (RFC5769)
  - NAT Behavior Discovery Using Session Traversal Utilities for NAT (RFC5780)
  - Traversal Using Relays around NAT Resolution Mechanism (RFC5928)
  - IPv6 Addressing of IPv4/IPv6 Translators (RFC6052)

BEHAVE WG(2)

- Internet Drafts
  - dns64-11
  - ftp64-06
  - sctpnat-03
  - turn-ipv6-11
  - turn-tcp-07
  - v4v6-bih-01
  - v6v4-framework-10
  - v6v4-xlate-23
  - v6v4-xlate-stateful-12

DNS関連動向

dnsext WG

- 主な Internet Draft
  - DNSSEC-bis
  - EDNS0-bis
  - DNAME-bis
- 2010年の RFC
  - Use of GOST Signature Algorithms in DNSKEY and RRSIG (RFC5933)
  - DNS Zone Transfer Protocol – AXFR (RFC5936)
  - DNS Transport over TCP (RFC5966)
- Zone Aliasing
  - BNAME vs. C+DNAME
  - Requirements from IDN

dnsop WG

- Deployment of DNSSEC
  - DNSSEC Operational Practices
    - draft-ietf-dnsop-rfc4641bis-03
  - Key Management
    - draft-ietf-dnsop-dnssec-trust-history
    - draft-ietf-dnsop-dnssec-key-timing
    - draft-ietf-dnsop-dnssec-dps-framework-01
- Server Management Framework
  - Requirements for Management of Name Servers for the DNS
- DNSSEC Deployment on Root Zone
  - 2010-07-16
  - http://www.root-dnssec.org/