

IETF Activities Update

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Note

- **This presentation is not an official IETF report**
 - There is no official IETF Liaison to ARIN or any RIR
- **It is, however, believed to be accurate**
- **Errors are the sole responsibility of the authors**

Routing & Addressing

- **Overall: little change since ARIN XXI meeting, but work on individual efforts continues**
- **Problem statement (last updated in April)**
 - draft-narten-radir-problem-statement-02.txt
- **Solution efforts pursued in Routing Research Group (RRG)**
- **Charter and pointers:**
 - <http://www.irtf.org/charter?gtype=rg&group=rrg>
- **9 proposals at present; each progressing at own pace**
- **Multiple sessions at IETF meetings continue**
- **RFCs published:**
 - “Report from the IAB Workshop on Routing and Addressing” (RFC 4984)

IPv6 Maintenance WG (6man)

- **New WG documents:**

- "Handling of overlapping IPv6 fragments" (6man-overlap-fragment)

- **Active documents:**

- "IPv6 Subnet Model: the Relationship between Links and Subnet Prefixes" (6man-ipv6-subnet-model)
- "Solution approaches for address-selection problems" (6man-addr-select-sol)
- "Reserved IPv6 Interface Identifiers" (6man-reserved-iids)
- "IPv6 Node Requirements RFC 4294-bis" (6man-node-req-bis)

IPv6/IPv4 Translation/NAT Approaches

- **Interim meeting held in Montreal October 1-2**
- **Joint between multiple WGs (SOFTWARE, V6OPS, BEHAVE, INTAREA)**
- **Focus:**
 - IPv4/IPv6 translation scenarios and NAT-related translation approaches
 - See "IPv4 Run-Out and IPv4-IPv6 Co-Existence Scenarios" (arkko-townsley-coexistence, but wait for -01 version)
- **Meetings on specific topics expected in Minneapolis**
 - May be BOFs on individual topics (for individual scenario/approaches)
 - Or discussed further in existing WGs
 - Charters to take on work in specific WGs expected soon (e.g., BEHAVE)

IPv6 Operations WG (v6ops)

- **New WG Documents:**

- "IPv4/IPv6 Coexistence and Transition: Requirements for solutions" (v6ops-nat64-pb-statement-req)
- "Security Concerns With Tunneling" (v6ops-tunnel-security-concerns)
- "IPv6 RA-Guard" (ietf-v6ops-ra-guard)
- "IPv6 Address Assignment to End Site" (narten-ipv6-3177bis-48boundary)

- **Active documents:**

- "Recommended Simple Security Capabilities in Customer Premises Equipment for Providing Residential IPv6 Internet Service" (v6ops-cpe-simple-security)
- "Teredo Security Concerns" (v6ops-teredo-security-concerns)

V6ops (cont.)

- **In RFC Editor Queue:**
 - "IPv6 Unicast Address Assignment Considerations" (v6ops-addcon)
- **Recent RFCs published:**
 - "IPv6 Deployment Scenarios in 802.16 Networks" (RFC 5181)
 - "Problem Statement for Default Address Selection in Multi-Prefix Environments: Operational Issues of RFC 3484 Default Rules" (RFC 5220)
 - "Requirements for address selection mechanisms" (RFC 5221)

Site Multihoming by IPv6 Intermediation WG (shim6)

- **Note: little change since ARIN XXI**
- **Active documents**
 - "Applicability Statement for the Level 3 Multihoming Shim Protocol" (shim6-applicability)
 - "Default Locator-pair selection algorithm for the SHIM6 protocol" (locator-pair-selection)
 - "Socket Application Program Interface (API) for Multihoming Shim" (multihome-shim-api)
- **IESG processing:**
 - "Level 3 Multihoming Shim Protocol" (shim6-proto)
 - "Failure Detection and Locator Pair Exploration Protocol For IPv6 Multihoming" (shim6-failure-detection)
- **In RFC Editor queue:**
 - "Hash Based Addresses (HBA)" (shim6-hba)

Softwires WG (softwire)

- **"Dual-stack lite broadband deployments post IPv4 exhaustion" (durand-softwire-dual-stack-lite) now in charter**
- **Active documents:**
 - "Traffic Engineering Attribute" (softwire-bgp-te-attribute)
 - "BGP IPsec Tunnel Encapsulation Attribute" (softwire-encaps-ipsec)
 - "BGP Encapsulation SAFI and BGP Tunnel Encapsulation Attribute" (softwire-encaps-safi)
 - "Softwires Hub & Spoke Deployment Framework with L2TPv2" (softwire-hs-framework-l2tpv2)
 - "Softwire Mesh Framework" (softwire-mesh-framework)
 - "Softwire Security Analysis and Requirements" (softwire-security-requirements)
 - "Advertising an IPv4 NLRI with an IPv6 Next Hop" (softwire-v4nlri-v6nh)

DNS Operations WG (dnsop)

- **New WG documents:**

- "Requirements for Management of Name Servers for the DNS" (dnsop-name-server-management-reqs)
- "Initializing a DNS Resolver with Priming Queries" (dnsop-resolver-priming)

- **Active documents:**

- "Locally Served Zones" (dnsop-default-local-zones)
- "DNSSEC Trust Anchor Configuration and Maintenance" (dnsop-dnssec-trust-anchor)
- "AS112 Nameserver Operations" (dnsop-as112-ops)
- "DNS Referral Response Size Issues" (dnsop-respsize)
- "Considerations for the use of DNS Reverse Mapping" (dnsop-reverse-mapping-considerations)

- **In RFC Editor Queue:**

- "Preventing Use of Recursive Nameservers in Reflector Attacks" (dnsop-reflectors-are-evil)

DNS Extensions WG (dnsext)

- **New WG Documents:**

- "Deprecation of HMAC-MD5 in DNS TSIG and TKEY Resource Records" (dnsext-tsig-md5-deprecated)

- **Active Documents:**

- "DNS Zone Transfer Protocol (AXFR)" (dnsext-axfr-clarify)
- "Clarifications and Implementation Notes for DNSSECbis" (dnssec-bis-updates)
- "Use of SHA-2 algorithms with RSA in DNSKEY and RRSIG Resource Records for DNSSEC" (dnsext-dnssec-rsasha256)
- "Evaluating DNSSEC Transition Mechanisms" (dnsext-dnssec-trans)
- "Update to DNAME Redirection in the DNS" (dnsext-rfc2672bis-dname)

DNS Extensions WG (cont)

- **Active Documents:**

- "The Modern DNS Implementation Guide" (dnsext-dns-protocol-profile)
- "Revised extension mechanisms for DNS (EDNS0)" (dnsext-rfc2671bis-edns0)

- **IESG Processing:**

- "Measures for Making DNS More Resilient Against Forged Answers" (dnsext-forgery-resilience)

- **In RFC Editor Queue:**

- "Domain Name System (DNS) IANA Considerations" (dnsext-2929bis)

Operational Security Capabilities for IP Networks (OPSEC)

- **New WG documents:**
 - "Recommendations for filtering ICMP messages" (opsec-icmp-filtering)
- **Active documents:**
 - "Security Best Practices Efforts and Documents" (draft-ietf-opsec-efforts)

Secure Inter-Domain Routing (sidr)

- **New WG documents:**

- "A Profile for Resource Certificate Repository Structure" (sidr-repos-struct)
- "Validation of Route Origination in BGP using the Resource Certificate" (sidr-roa-validation)

- **Active documents:**

- "Manifests for the Resource Public Key Infrastructure" (sidr-rpki-manifests)
- "A Profile for Bogon Origin Attestations (BOAs)" (sidr-bogons)
- "A Profile for X.509 PKIX Resource Certificates" (sidr-res-certs)
- "A Protocol for Provisioning Resource Certificates" (sidr-rescerts-provisioning)

SIDR (cont.)

- **Active documents (cont.)**

- "A Profile for Route Origin Authorizations (ROAs)" (sidr-roa-format)
- "An Infrastructure to Support Secure Internet Routing" (sidr-arch)
- "Certificate Policy (CP) for the Internet IP Address and AS Number (PKI)" (ietf-sidr-cp)
- "Template for an Internet Registry's Certification Practice Statement (CPS) for the Internet IP Address and AS Number (PKI)" (sidr-cps-irs)
- "Template for an Internet Service Provider's Certification Practice Statement (CPS) for the Internet IP address and AS Number PKI" (sidr-cps-isp)

Global Routing Operations WG (grow)

- **Active documents:**
 - "MRT routing information export format" (grow-mrt)

New WG Activity

- **Newly Created WGs**

- NETCONF Data Modeling Language (netmod)
 - modeling language for use with netconf protocol
- Internationalized Domain Names in Applications (IDNAbis)
 - WG to finish revising IDNA work
- Source Address Validation Improvements (savi)
 - Verify source addresses of packets (on originating link)

Minneapolis IETF

- **Next IETF: Nov. 16-21, Minneapolis, MN**
- **IETF BOF WIKI summarizes recent and upcoming BOF activities:**
 - <http://tools.ietf.org/bof/trac/wiki>
- **Includes (early) topics that might (or might not) eventually result in official BOFs**
- **Officially approved BOFs (once known):**
 - <http://tools.ietf.org/agenda/73>
 - So far: Multicast Mobility BOF (multimob)

Questions?