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-rescerts)
  - "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:
- 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?