

# 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
- This presentation is not a detailed review of documents mentioned

# Routing & Addressing

- Routing and Addressing Directorate (RADIR)
  - Problem statement (no change since October)
  - draft-narten-radir-problem-statement-01.txt
- Solution efforts pursued in Routing Research Group (RRG)
  - Charter and pointers:
    - <http://www.irtf.org/charter?gtype=rg&group=rrg>
  - 10 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:**
  - "IPv6 Node Requirements RFC 4294-bis" (6man-node-req-bis)
- **Active documents:**
  - "Solution approaches for address-selection problems" (6man-addr-select-sol)
  - "Reserved IPv6 Interface Identifiers" (6man-reserved-iids)
- **Appears dead again (for now at least):**
  - "Centrally Assigned Unique Local IPv6 Unicast Addresses" (ipv6-ula-central)
- **Recent RFCs:**
  - "Deprecation of Type 0 Routing Headers in IPv6" (RFC 5095)
  - "Negotiation for IPv6 Datagram Compression using IPv6 Control Protocol" (RFC 5172)
  - "IPv6 Router Advertisement Flags Option" (RFC 5175)

# V6 Operations (V6OPS)

- Much discussion around translation requirements and next steps (e.g., NAT-PT), but no WG documents yet
- IESG processing:
  - "IPv6 Deployment Scenarios in 802.16 Networks" (v6ops-802-16-deployment-scenarios)
  - "IPv6 Unicast Address Assignment Considerations" (v6ops-addcon)
  - "Requirements for address selection mechanisms" (v6ops-addr-select-req)
  - "Problem Statement of Default Address Selection in Multi-prefix" Environment: Operational Issues of RFC3484 Default Rules" (v6ops-addr-select-ps)

# V6OPS (cont.)

- 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)
- RFCs published:
  - "Special-Use IPv6 Addresses" (RFC 5156)
  - "IPv6 Implications for Network Scanning" (RFC 5157)

# SHIM6 WG

- Approved by IESG (in RFC Editor queue)
  - “Hash Based Addresses (HBA)” (shim6-hba)
- 2 core docs with IESG
  - “Level 3 Multihoming Shim Protocol” (shim6-proto)
  - “Failure Detection and Locator Pair Exploration Protocol For IPv6 Multihoming” (shim6-failure-detection)
- 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)

# Softwire

- Active Docs:
  - "Softwire Mesh Framework" (software-mesh-framework)
  - "Softwires Hub & Spoke Deployment Framework with L2TPv2" (software-hs-framework-l2tpv2)
  - "Softwire Security Analysis and Requirements" (software-security-requirements)
  - "Traffic Engineering Attribute" (software-bgp-te-attribute)
  - "BGP IPsec Tunnel Encapsulation Attribute" (software-encaps-ipsec)
  - "BGP Encapsulation SAFI and BGP Tunnel Encapsulation Attribute" (software-encaps-safi)
  - "Advertising an IPv4 NLRI with an IPv6 Next Hop" (software-v4nlri-v6nh)



# DNS Operations (DNSOP)

- 1 New WG Document:
  - "DNSSEC Trust Anchor Configuration and Maintenance" (dnsop-dnssec-trust-anchor)
- 6 Other Active Documents:
  - "AS112 Nameserver Operations" (dnsop-as112-ops)
  - "I'm Being Attacked by PRISONER.IANA.ORG!" (dnsop-as112-ops-under-attack)
  - "Locally Served Zones" (dnsop-default-local-zones)
  - "DNS Referral Response Size Issues" (dnsop-respsize)
  - "Considerations for the use of DNS Reverse Mapping" (dnsop-reverse-mapping-considerations)
- IESG Processing:
  - "Preventing Use of Recursive Nameservers in Reflector Attacks" (dnsop-reflectors-are-evil)

# DNS Extensions (DNSEXT)

- **New WG Documents:**
  - "The Modern DNS Implementation Guide" (dnsext-dns-protocol-profile)
  - "Revised extension mechanisms for DNS (EDNS0)" (dnsext-rfc2671bis-edns0)
- **Active Documents:**
  - "Clarifications and Implementation Notes for DNSSECbis" (dnssec-bis-updates)
  - "Update to DNAME Redirection in the DNS" (dnsext-rfc2672bis-dname)
  - "Measures for Making DNS More Resilient Against Forged Answers" (dnsext-forgery-resilience)
  - "Use of SHA-2 algorithms with RSA in DNSKEY and RRSIG Resource Records for DNSSEC" (dnsext-dnssec-rsasha256)
  - "DNS Zone Transfer Protocol (AXFR)" (dnsext-axfr-clarify)
- **Recent RFCs:**
  - "DNS Security (DNSSEC) Hashed Authenticated Denial of Existence" (RFC 5155)

# Operational Security Capabilities for IP Networks (OPSEC)

- Active Documents

- “Security Best Practices Efforts and Documents” (draft-ietf-opsec-efforts)

- Expired (status unclear)

- “Filtering and Rate Limiting Capabilities For IP Network Infrastructure” (opsec-filter-caps)
- “Routing Control Plane Security Capabilities” (opsec-routing-capabilities)
- “Logging Capabilities for IP Network Infrastructure”(opsec-logging-caps)
- “Service Provider Infrastructure Security” (opsec-infrastructure-security)
- “Framework for Operational Security Capabilities for IP Network Infrastructure” (opsec-framework)

# Secure Inter-Domain Routing (sidr)

- New WG documents:
  - "Manifests for the Resource Public Key Infrastructure" (sidr-rpki-manifests)
- Active documents:
  - "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)
  - "A Profile for X.509 PKIX Resource Certificates" (sidr-res-certs)
  - "A Profile for Route Origin Authorizations (ROAs)" (sidr-roa-format)
  - "A Protocol for Provisioning Resource Certificates" (sidr-rescerts-provisioning)

# Global Routing Operations (GROW)

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

# New WG Activity

- Newly Created

- Timing over IP Connection and Transfer of Clock (tictoc)
  - Highly accurate time and frequency distribution (beyond NTP)
- Routing Over Low power and Lossy networks (roll)
  - Deals with environments not addressed by OSPF, IS-IS, etc.
- Cga & Send maintenance (csi)
  - Extensions to IPv6's SEND technology

- Proposed WG

- Internationalized Domain Names in Applications (IDNAbis)
  - create WG to finish ongoing IDNA work

# Dublin IETF

- Next IETF: July 27 – August 1, Dublin Ireland
- 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/72>
  - Performance Metrics for Other Layers BOF

# References

- **General WG info:**
  - <http://tools.ietf.org/wg>
  - <http://tools.ietf.org/wg/foo> (for WG “foo”)?
- **Internet Drafts:**
  - <http://tools.ietf.org/html>
- **Upcoming meeting agenda:**
  - <http://tools.ietf.org/agenda>
- **Upcoming BOFs Wiki:**
  - <http://tools.ietf.org/bof/trac/wiki>



Questions?