

IETF update

SANOG VII
2006-01-23



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2006-01-23

Areas

- Applications Area
 - General Area
 - Internet Area
 - Operations and Management
 - Routing Area
 - Security Area
 - Transport Area
 - Real-time Applications and Infrastructure Area
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Applications Area

- Two ADs (Ted Hardie and Scott Hollenbeck)
- Handles the application layer, such as LDAP, CRISP, WEBDAV, SIEVE etc)
- Current work involves
 - Calendar/Scheduling
 - Lemonade - “Mobile mail”, how do mobile clients interact with the mail-server(s).

General Area

- AD is the IETF chair (Brian Carpenter)
- Handles mostly administrative issues
- Currently only two WGs
 - IPR
 - newtrk (Discussion on developing a new/
update the standardsprocess)

Internet Area

- Two ADs (Mark Townsley and Margaret Wasserman)
- Handles internet area issues such as encapsulations (IP over...), VPN, tunneling and DNS...
- Some details on some working groups...

Internet Area

- ntp WG
 - Tasked with actually documenting the NTP protocol as used today
 - Also to update the protocol with new features such as improved traceability and security
 - Also deals with some clocking issues that comes from other WGs such as PWEE3

Internet Area

- shim6
 - Follow up to multi6
 - Handles the “scalability problem of site multihoming in IPv6”
 - We all know that the current more specific prefix announcements won't scale
 - We have given up on waiting on the big “graph theory break-through”...

Internet Area

- ipv6
 - Specifies / Specified the IPv6 base protocol
 - Should be closed down fairly soon
 - Have done some updates and clean ups
- trill
 - Was originally called RBridges
 - A node that needs to move in a campus will most likely switch subnets and therefore have to be re-numbered
 - Causes significant problems in campus
 - Partly an artifact of scaling concerns with spanning-three and bridged networks

Internet Area

- trill cont.
 - Goals of trill
 - Let the node keep it's IP-address
 - Have the network (routers and switches) autoconfigure
 - Provide the advantages of bridging for mobility...
 - Each RBridge runs ISIS
 - Populates the routeing table with a new TLV MAC-address encoding
 - “Router ports” on the ingress RBridges takes the packet, looks up the dst MAC address and sends the packet encapsulated (tunnelled) to the egress RBrdige
 - Egress RBridge de-encapsulates the packet and sends it on the wire.

Operations and Management

- Two ADs (David Kessens and Bert Wijnen)
- Handles general operational practices
- “Normally” do not specify protocols

Operations and Management

- grow
 - Handles issues around global operations
 - Anycast BCP
 - Collection communities
- opsec
 - Specifies some best operational security practices
 - Non-normative

Operations and Management

- v6ops
 - Operational (BCP) guidelines and protocols for IPv6
- Netconf
 - Configuration and config retrieval protocol
 - SNMP didn't really cut it...

Routing Area

- ADs are Alex Zinin and Bill Fenner
- Handles development of routing protocol specifications

Routing Area

- idr
 - BGP specification and additions
 - ospf
 - Develop OSPF, such as fast convergence and hitless fall-over. IPv6 spec.
 - isis
 - IS-IS is not an IETF protocol, it's an ITU protocol
 - Specifies TLVs and publishes the ISIS spec as Informational
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2006-01-23



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Routing Area

- rpsec
 - Routing protocol security
 - Work based on attack-three analysis of routing protocols
- sidr
 - Not yet a WG
 - Secure Intra-domain routing
 - Builds on the outcome from rpsec as well as previous proposals, soBGP and S-BGP

Security Area

- Two ADs (Russ Housley and Sam Hartman)
- Security protocol and algorithms

Transport Area

- Two ADs (Allison Mankin and Jon Peterson)
- General transport protocols such TCP, UDP, SCTP, RMT
- Protocols that affect the transport protocols such as behave, midcom
- ippm, IP Performance metrics
 - Work on metric standards for various aspects of IP performance
 - Does not specify “good or bad”

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Transport Area

- behave
 - NATs create problems for applications
 - Especially as their behaviour is undefined and unpredictable
 - Tries to specify a standard behaviour so applications can handle it
- midcom
 - Third party policy decisions for applications
 - STUN

Real-time Applications and Infrastructure Area

- Brand new area
 - Formed by moving WGs from Applications and Transport
- ADs TBD
- WGs related to VoIP

Real-time Applications and Infrastructure Area

- ENUM
 - Telephone number mapping
- IPTEL
 - IP Telephony naming and routing (URIs)
- SIP
 - Session initiation protocol.
 - Textbased, similar to HTTP and SMTP

Real-time Applications and Infrastructure Area

- GEOPRIV
 - Some applications needs to be location aware, for example for emergency services
 - But this comes with privacy concerns
 - Does not specify a new location format
 - Merely authorisation, privacy and integrity extensions

speermint (voipeer)

- But let's focus on something that is actually not a WG at all....
 - yet
- At IETF62 in Paris a BOF was held on VoIP peering, and again at IETF63 in Vancouver
 - To give some background let's start with NGN....

speermint (voipeer)

- voipeer
 - NGN, Next Generation Network
 - The bad news
 - ITU driven walled-garden
“cementation” of current carrier
business models
 - The good news
 - Hey, they have adopted IP and
packets!

speermint (voipeer)

- voipeer cont.
 - As VoIP is catching on the carriers feel they need to adopt their “peering” arrangements to VoIP
 - Very split view on what this means, driven by terminology confusion
 - Many doesn't see the problem

speermint (voipeer)

- voipeer cont.
 - “Carriers” want to implement the NGN service model, and think there is signalling needed to implement voice exchange
 - Hard to see that this will lead to real development
 - More a discussion forum - that *IS* needed
 - And that can produce documents to clarify issues



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2005-05-05