

# Routing Area Open Meeting Honolulu, November 2014

Area Directors

Alia Atlas <akatlas@gmail.com>

Adrian Farrel <adrian@olddog.co.uk>

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- Please state your name clearly before speaking at the microphone
- Audio streams and jabber
  - <http://tools.ietf.org/agenda/91/>
  - This meeting at [rtgarea@jabber.ietf.org](mailto:rtgarea@jabber.ietf.org)
- Routing Area mailing list
  - [routing-discussion@ietf.org](mailto:routing-discussion@ietf.org)
- Routing Area wiki
  - <http://trac.tools.ietf.org/area/rtg/trac/wiki/WikiStart>
  - What else would you like to see on it
- Routing Directorate
  - It's on the wiki now
- Blue Sheets
  - Are now scanned and published
- Minutes
  - Chairs please send your notes to Deborah

# Today's Agenda

- Administrivia
- Re-org status
- YANG models for routing
- Working Group and BoF Reports
- Open Discussion / Any other business

# Re-org Status

- RTGWWG and NVO3 re-chartered
- BESS and PALS formed
- L2VPN, L3VPN, and PWE3 closed
  - Thanks to outgoing chairs
    - Giles, Nabil, Matthew
- Next steps
  - Create TEAS
  - Re-charter MPLS, CCAMP, and PCE
  - Charters are posted and there is meeting time in CCAMP on Thursday

# YANG Models for Routing

- draft-ietf-netmod-routing-cfg
  - The core model for routers
  - On the agenda of RTGWG on Wednesday
- A hundred and one new models for routing
  - This is good to see, but...
  - Really need coordination
    - rtg-yang-coord mailing list
      - Use it to announce your new drafts / work
    - Routing YANG Coordinators
      - Qin Wu and Dave Sinicrope
      - Job description still to be written!
    - Page on the Routing Wiki
  - Please do the work in the WG that owns the protocol you are modelling
    - Stray routing YANG models go to RTGWG

# Working Group and BoF Reports

- ACTN (BoF) \*
- BESS
- BFD
- BIER (BoF)
- CCAMP \*
- FORCES \*
- I2RS
- IDR \*
- IS-IS \*
- MANET \*
- MPLS
- NVO3 \*
- OSPF \*
- PALS \*
- PCE \*
- PIM
- ROLL \*
- RTGWG \*
- SFC \*
- SIDR \*
- SPRING \*

# ACTN BOF

- Scheduled today (11/11) 15:20-17:20 @ Coral 3.
- It is a WG forming BOF (had a non-WG forming BOF in Toronto around operator's use-cases).
- AD: Adrian Farrel; Chairs: Daniele Ceccarelli & Young Lee; Secretary: Dan King
- Agenda will include:
  - problem statement
  - architecture options discussion
  - protocol work
  - charter review

# CCAMP

- 1 session scheduled – Thursday
  - 1640-1910 Afternoon Session III, Room: Coral 5
- Highlights:
  - 1 new RFC on GMPLS Extensions for Ethernet OAM Configuration, several drafts in IESG queue
  - Topics on agenda:
    - WG reorg/rechartering of MPLS, CCAMP, PCE, creating TEAS
    - SRLG, resource sharing, path diversity, WSON-related, YANG...

# ForCES

- No meeting held since we are wrapping up
- On track to complete charter for March
  - RFC 7391 on protocol extensions published
  - Model extension at RFC editor status
  - Parallelization at RFC editor status
  - Inter-FE and Subsidiary management
    - Undergoing implementation review
    - Move to WG adoption by year end
    - Publication process started by January

# IDR 1 of 4

## Last Call for BGPSEC review

- BGPSEC is in final review and needs BGP experts to review it.
  - Unless experts oppose it, it will be approved as is.
  - Please review
- SIDR/IDR had an interim to provide an overview.
- Friday's joint idr/sidr meeting is a place to discuss this.

# IDR 2 of 4

## 2 Key Documents to IESG

Documenting current practice to aid future work

- draft-idr-error-handling – updates BGP error handling to current process. New IDR documents must abide by error handling specified in draft.

- Draft-as-migration – specifies defacto BGP features for AS migration to support SIDR

IDR/SIDR will now finalize addition work that required these drafts

# IDR 3 of 4

## IDR Meeting: 11/13/14 at 13:00

Topics for meeting

- BGP Yang (config and I2rs0)
- BGP flowspec (RFC5575)
- Future revisions to bgp-ls-distribution
- Inter-domain passing of segment routes
- Hierarchical RTC
- Use of RFC3107 to engineer inter-AS links

# IDR 4 of 4

## Work heading toward IESG

- draft-idr-ls-distribution (WG approved)
- [draft-ietf-idr-flowspec-redirect-rt-bis-02](#)  
(WG approved)
- Draft-idr-add-paths (WG LC call in process)

# IS-IS 1 of 3

- **RFC 7356**
  - IS-IS Flooding Scope Link State PDUs (LSPs)
- **RFC 7370**
  - Updates to the IS-IS TLV Codepoints Registry

# IS-IS 2 of 3

## WG Docs

- **New**

- draft-ietf-isis-route-preference-00
- draft-ietf-isis-sbfd-discriminator-01
- draft-ietf-isis-yang-isis-cfg-01

- **Active**

- draft-ietf-isis-segment-routing-extensions-03
- draft-ietf-isis-udl-02

- **WG Last Call**

- draft-ietf-isis-extended-sequence-no-tlv-03
- draft-ietf-isis-te-metric-extensions-04

# IS-IS 3 of 3

## Agenda

Friday, November 14th, 11:50am - 13:20pm

- \*\* 3m - Intro, Adminastriva, Document Status
- \*\* 10m (13m) - YANG Data Model for ISIS protocol
- \*\* 7m (20m) - IS-IS Extensions for Segment Routing
- \*\* 3m (23m) - draft-ietf-isis-sbfd-discriminator
- \*\* 5m (28m) - IS-IS Route Preference for Extended IP and IPv6
- \*\* 9m (37m) - IS-IS Prefix Attributes for Extended IP and IPv6
- \*\* 9m (46m) - Carrying Routable IP Addresses in IS-IS Router
- \*\* 10m (56m) - Advertising Per-node Admin Tags in IS-IS
- \*\* 10m (66m) - IS-IS Reachability with critical Sub-TLVs
- \*\* 13m (79m) - IS-IS Path Computation and Reservation (IEEE 802.1Qca)
- \*\* 11m (90m) - BIER support via ISIS

# MANET

Document	Age Days	Type	Hold-up	WG/IETF Call End	Awaiting action	Next Step/ Comments
IBS	67	WG	AD	11/25/14	Point Raised - Discussion	GEN-ART review (Martin Thomson) to be resolved
NHDP-Optimization	66	WG	IESG Eval	11/25/14	Telechat	
OLSRv2-DAT	94	WG	Authors			
OLSRv2-Mgmt-Snapshot	56	WG	Shepherd	8/12/14	Shepherd Write-Up	Shepherd: Chris Dearlove Straw man write-up provided by authors
OLSRv2-MP	14	WG	WG Chairs		WGLC Being Issued	Solicited 3 weeks WGLC @IETF91
OLSRv2-MT	112	WG	References		AD: publication requested needs review	AD raised IANA TLV name concerns awaiting advancement of TLV-Names Doc
RFC6779bis	0	WG	Shepherd	8/21/14	Shepherd Write-Up	Shepherd: Chris Dearlove Strawman write-up provided by authors
SMF-SEC-THREATS	57	WG	WG Chairs		WGLC Being Issued	Solicited 3 weeks WGLC @IETF91
DLEP	1448	WG	Authors			
AODVv2	343 (3556)	WG	Authors			
OLSRv2-SEC-THREATS	90	IND	WG Chairs		Adoption Call being issued	Solicited 3 weeks adoption call @IETF91
TLV-Naming	0	IND	WG Chairs		Adoption Call being issued	
ODMRP	78	IND	Authors			Needing PIM review; WG Adoption?

# NVO3

- Re-chartered in October
- 2 new RFCs published in October
  - RFC7364 (Problem Statement)
  - RFC7365 (Framework)
- 3x Virtual Interim Meetings since IETF-90
- Met yesterday/Monday at IETF-91
  - Useful discussion of Data Plane Requirements
- Planning to continue Virtual Interim pattern

# OSPF

- Long term direction for OSPF Extension
  - OSPFv2 – Opaque LSAs containing attributes for prefix/link extension.
  - OSPFv3 – New Extended LSA types with backward compatibility mechanisms.
- Multiple WG documents build on mechanisms to extend OSPF
  - Segment Routing is prime example
  - MRT, BIER, and others
- OSPF YANG Model under development with multi-vendor/operator participation
- Finishing work on OSPF authentication hardening with OSPFv2 Security update under IESG review – satisfies KARP requirements.
- Multiple proposals for flooding optimizations including topology virtualization (TTZ) and hub/spoke optimizations

# Pseudowire And LDP-enabled Services (PALS) WG

- Combination of PWE3 and LDP-related work from L2VPN
  - Chaired by Andy Malis and Stewart Bryant
  - Many thanks to former chairs Nabil Bitar, Matthew Bocci, and Giles Heron
- Three new RFCs from the former WGs
- Five drafts near completion and IESG submission
- First meeting since chartering, Wednesday at 13:00
  - Agenda includes PW OAM, protection for dual-homing, multi-chassis, and S-PE failure, specifying LDP processing behaviors for various FEC types
- Post-IETF, the milestones need updating to better reflect reality, esp. for former L2VPN work

# PCE 1 of 2

## Documents beyond Last Call

- One new RFC since Vancouver
  - RFC 7399: Unanswered Questions in PCE Architecture
- RFC Editor's queue
  - draft-ietf-pce-pcep-mib
- IESG review
  - draft-ietf-pce-rfc7150bis (publication requested)
  - draft-ietf-pce-wson-routing-wavelength (IESG evaluation)
- Passed Last Call
  - draft-ietf-pce-gmpls-pcep-extensions (updated in October)
  - draft-ietf-pce-stateful-pce-app (updated in October)
  - draft-ietf-pce-stateful-pce (updated in October)

# PCE 2 of 2

## WG Documents at Major Steps

- Recently adopted as a PCE WG I-Ds
  - draft-ietf-pce-segment-routing (SPRING-related)
- To be last called after IETF 91
  - draft-ietf-pce-pce-initiated-lsp
  - draft-ietf-pce-stateful-sync-optimizations
- PCE WG LC Queue
  - draft-ietf-pce-hierarchy-extensions
  - draft-ietf-pce-wson-rwa-ext
- Authors believe ready for WG LC
  - draft-ietf-pce-pcep-service-aware (IGP-related)

# ROLL

- IETF 91
  - No ROLL Meeting
- draft-ietf-roll-security-threats → RFC Editor Queue
- draft-ietf-roll-trickle-mcast → addressing comments during last call
- Milestone: WG to joint-LC using flow-label for RPL with 6man draft-thubert-6man-flowlabel-for-rpl → new approach: draft-bormann-6lo-rpl-mesh-01 => conversation with ADs.
- draft-ietf-roll-admin-local-policy → Currently in Last Call
- draft-ietf-roll-applicability-ami → Fixing some bugs from open tickets [#135, #136 and #137]
- draft-ietf-roll-applicability-home-building → addressing comments during Last Call from Document Shepherd (Yvonne-Anne)
- draft-ietf-roll-mpl-parameter-configuration → working on improving the draft, open tickets [#157, #158 and #159]

# RTG WG

- Charter Updated
  - [old] IP FRR and Loop Free Convergence
  - [new] Routing-related YANG models that are not appropriate for other RTG working groups.
  - [clarified] “...provide a venue to discuss, evaluate, support and develop proposals for new work in RTG”
- Work Progress
  - [publication] Remote LFA FRR
  - [WGLC Complete] Advanced Multipath Use Cases + Multicast only Fast Re-Route
  - [In WGLC] Operational management of Loop Free Alternates
- Meeting Agenda (7 items):
  - 2 FRR-related + 1 YANG + 3 New Work + 1 from AD

# SFC

- Service Function Chaining (SFC) WG; chairs: Guichard/Narten
- Key Documents:
  - draft-ietf-sfc-problem-statement (Waiting for AD to start IETF LC)
  - draft-ietf-sfc-architecture (converged document currently in WG LC)
- Use case documents (intended to feed requirements/architecture)
  - WG has adopted 3 already
  - Chairs pushing back on adoption of possible 4<sup>th</sup> document
- Still only initial discussion of OAM, discussion will pick up post IETF91
- NSH header format proposals
  - 2 documents, appear close to getting one merged document
- Yang model (draft-penno-sfc-yang)

# SIDR

SIDR met Monday morning.

Since the last meeting, publication was requested for one draft; one was published, and one is in the RFC Editor queue.

SIDR had an interim tutorial about BGPSEC for idr people.

SIDR and IDR will have a joint meeting on Friday for discussion of the BGP aspects and impact of BGPSEC.

We had relatively few slots on the agenda, which gave time for some very involved and constructive discussion.

BGPSEC has dealt with all known issues and may soon be wglc'd.

New topics included:

A new transport protocol was one energetic discussion that may result in a new work item for the working group.

A mechanism to deal with misbehavior of a CA by requiring consent of the impacted party was presented. Another energetic discussion. Not yet a draft, and not sure if it or another similar draft will be accepted as a working group work item.

# SPRING

- Use Cases
  - draft-ietf-spring-problem-statement: completed WGLC, waiting for final IPR statements and some Shepherd comments
- Architecture
  - Adoption Call complete, waiting for IPR statements
  - draft-filsfils-spring-segment-routing / draft-filsfils-spring-segment-routing-  
mpls
- Meeting Agenda: (Th 0900 / Coral 3)
  - IPv6 Segment Routing Update
  - SPRING OpenFlow Interworking Requirements
  - BGP-Prefix Segment in large-scale data centers
  - Bidirectional Forwarding Detection (BFD) Directed Return Path
  - Entropy labels for source routed stacked tunnels
- Remote Hub Experiment

# AOB

- NomCom
  - Taking feedback now
  - Picking a new Routing AD so you need to give them input
- Open Mic...