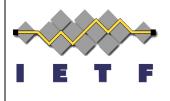


#### Gunter Van de Velde Victor Kuarsingh

IETF 101, 19 March 2018 London

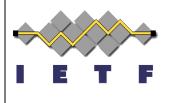




## Administrivia

- Chairs:
  - Gunter Van de Velde
  - Victor Kuarsingh
- Jabber Scribe:
  - lsvr@ietf.jabber.org
- Minutes:
  - http://tools.ietf.org/wg/lsvr/minutes
- Note Well.
- Blue Sheets.
- Agenda Bashing.

### **Note Well**



Any submission to the IETF intended by the Contributor for publication as all or part of an IETF Internet-Draft or RFC and any statement made within the context of an IETF activity is considered an "IETF Contribution". Such statements include oral statements in IETF sessions, as well as written and electronic communications made at any time or place, which are addressed to:

•The IETF plenary session

- •The IESG, or any member thereof on behalf of the IESG
- •Any IETF mailing list, including the IETF list itself, any working group or design team list, or any other list functioning under IETF auspices
- •Any IETF working group or portion thereof
- •The IAB or any member thereof on behalf of the IAB
- •The RFC Editor or the Internet-Drafts function

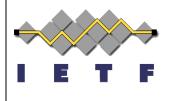
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Statements made outside of an IETF session, mailing list or other function, that are clearly not intended to be input to an IETF activity, group or function, are not IETF Contributions in the context of this notice.

Please consult <u>RFC 5378</u> and <u>RFC 3979</u> for details.

A participant in any IETF activity is deemed to accept all IETF rules of process, as documented in Best Current Practices RFCs and IESG Statements.

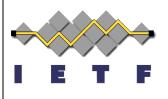
A participant in any IETF activity acknowledges that written, audio and video records of meetings may be made and may be available to the public.



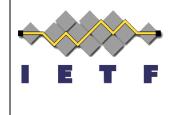
#### **Blue Sheets**

- Please fill these in
- The secretariat makes grumpy-face if we don't.

## Agenda

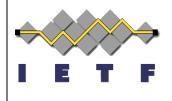


- Administrivia and agenda bashing (5 min)
  - Chairs
- Welcome to LSVR
  - Intro to LSVR & Charter (Chairs) (20 min)
- Shortest Path Routing Extensions for BGP Protocol
  - (<u>draft-keyupate-lsvr-bgp-spf-00</u>) (Keyur) (40 min)
- Usage and Applicability of Link State Vector Routing in Data Centers
  - (<u>draft-keyupate-lsvr-applicability-00</u>) (Acee) (20 min)
- Link State Over Ethernet
  - (draft-ymbk-lsvr-lsoe-00) (Randy Bush) (20 min)
- Closing and next steps (Chairs) (15 min)



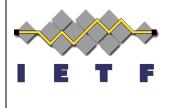
## **LSVR Charter review**

- LSVR is chartered to develop a hybrid routing protocol for Data Centers
- Hybrid means that both path vector and link-state technology is used
  - LSVs describe a data-structure utilized to make routing decisions (e.g. used for SPF to calculate a routing table)
  - LSVs are distributed using path vector mechanisms (i.e. BGP based distribution)
  - Initial focus is to re-use BGP based IPv4/6 transport, packet formats and error handling consistent with BGP-LS NLRI encoding mechanisms (RFC7752)



## **LSVR Charter review**

- The LSVR protocol WG focus
  - Standardization of protocol functionality
  - Defining Link-State Vectors (LSV)
  - Defining standard path-vector route selection using
    - Dijkstra SPF based algo, BGP-4 protocol mechanics and BGP-LS encoding
- The LSVR WG will closely collaborate with IDR WG
  - Any modifications or extension to BGP that will not be specifically constrained to be used by LSVR must be carried out in the IDR WG
  - Modifications may be done in LSVR after agreement with all the relevant chairs and the responsible Area Directors



## **LSVR Charter review**

- LSVR is chartered to deliver following documents
  - Specification document describing LSV with standard Dijkstra SPF route/path selection (calculation) utilizing existing BGP protocol baseline functionality and BGP-LS packet encoding formats
  - Specification documenting protocol extensions required to efficiently reuse BGP to distribute LSVs within an IPv4/IPv6 DC with scope to include privacy and security considerations
    - The impact of these extensions to the security properties of BGP will be studied and documented
    - New attack vectors will be explored and documented
    - Mitigations to any new attack vectors identified will be discussed and documented

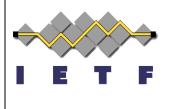
Applicability Statement for the use of LSVR in the Datacenter
YANG model specification for LSVR management

## **LSVR Milestones**



- March 2019
  - Applicability statement for LSVR in DCs
  - LSV distribution using BGP transport
  - LSVR with standard Dijkstra path selection
- July 2019
  - YANG specification for LSVR

## **Next Steps**

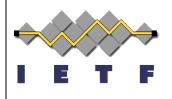


- IETF101 first stab at the LSVR deliverables
- Interim #1
- IETF102 (July2018)
- Interim #2
- IETF103 (November 2018)
- Interim #3
- IETF104 (March 2019) Milestone date

## Agenda



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# **THANK YOU!**