

Virtual Network Transport Protocol (VNTP)

<http://datatracker.ietf.org/doc/draft-gu-nvo3-vntp/>

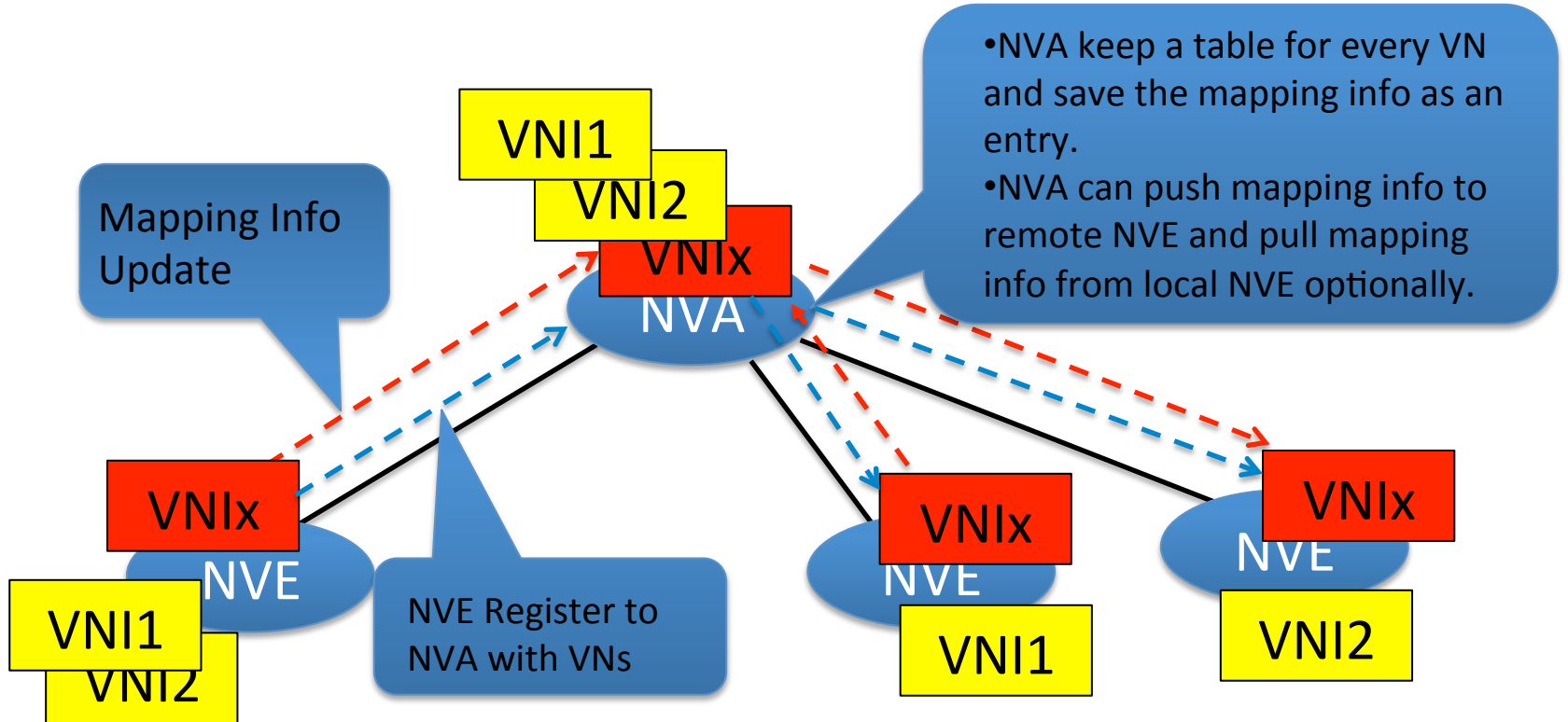
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IETF 94 Mtg. (1-6 Nov. 2015)
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VNTP commands

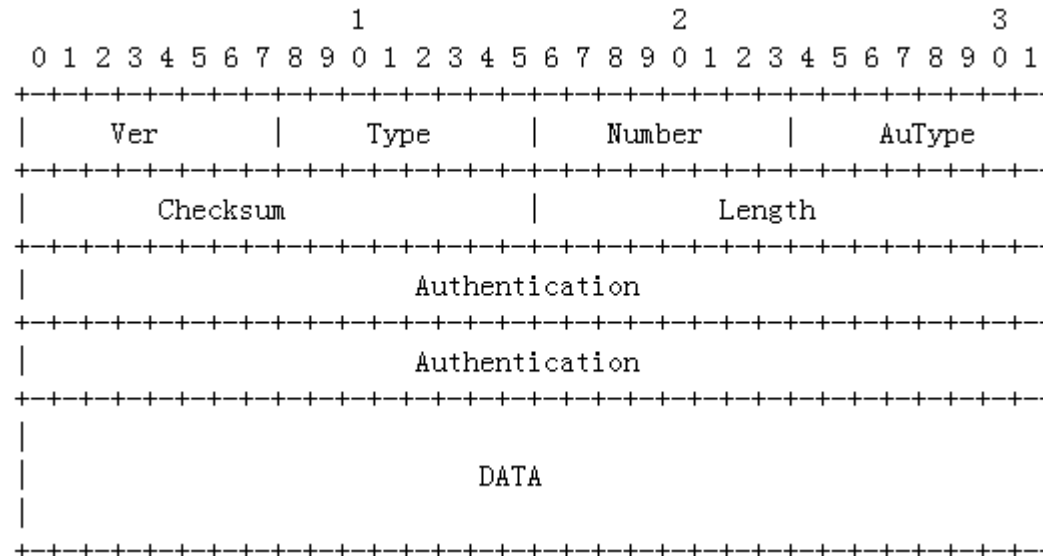
- Requirements of Control protocol between NVA and NVE has been specified in <https://tools.ietf.org/html/draft-ietf-nvo3-nve-nva-cp-req-04>
- Commands in VNTP
 - From NVE to NVA:
 - NVE register/de-register
 - Local NVE update(add, delete, migrate, normal)
 - From NVA to NVE:
 - Request for mapping info (Pull mode)
 - Remote NVE Update (Push mode)
 - Nullify NVE

VNTP Overview

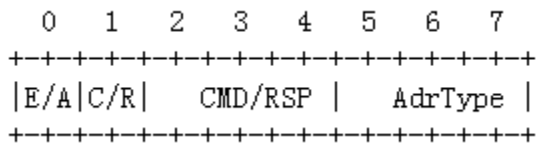


VNTP message format(1)

- IP as VNTP transport protocol, TCP or UDP optional



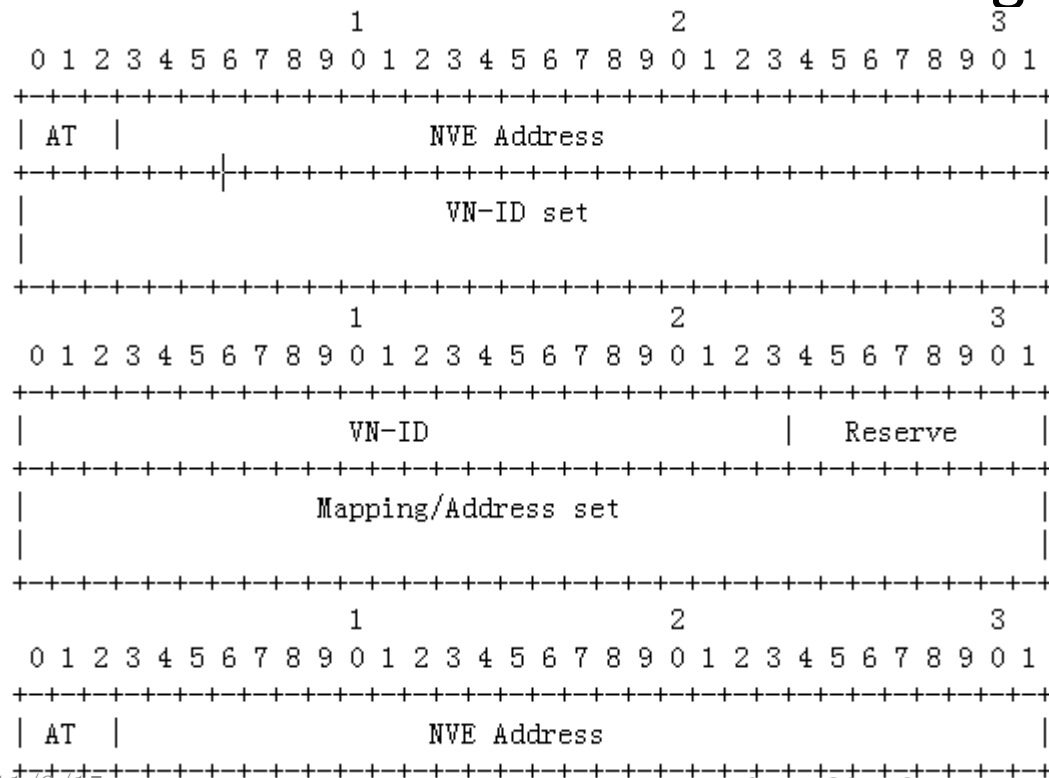
VNTP message format(2)



- Type field
 - E/A: 0(NVE->NVA)
 1(NVA->NVE)
 - C/R: 0(Command)
 1(Response)
 AddrType: Address Type
- E/A=0 and C/R=1:
 - CMD/RSP: 000(NVE registration)
 001(NVE registration)
 010(NVE Update)
- E/A=1 and C/R=1:
 - CMD/RSP: 000(Request for mapping info)
 001(Nullify NVE)
 010(Update NVE)
- C/R=0:
 - CMD/RSP: 000(Successful)
 100(Failed)

VNTP message format(3)

- VNTP Data field varies according to different



NVE Register/Deregister

NVA Request

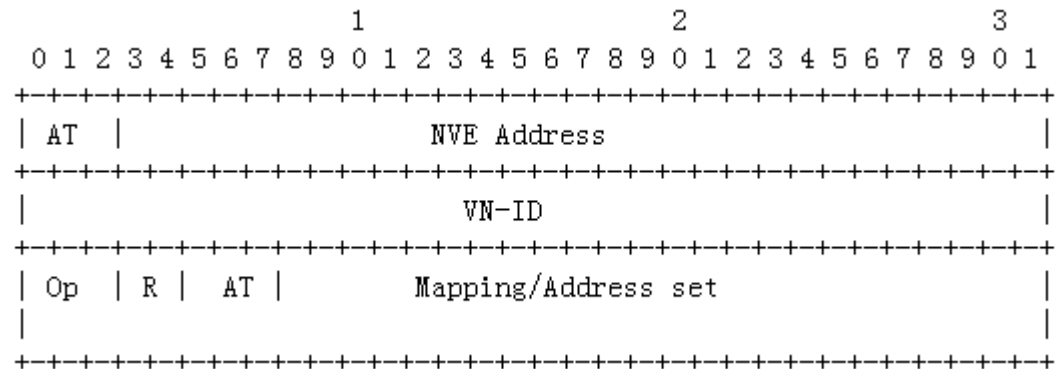
Nullify

VNTP message format(4)

- Update command

- Op: Operation code

- 000: Add
- 001: Delete
- 010: Migration
- 011: Normal



Compliance with draft-ietf-nvo3-nve-nva-cp-req-04

No	Characteristics/Requirements	VNTP compliance
1	Minimize the amount of state	OK
2	Fast acquisition of needed state	OK/N. A.
3	Fast detection/update of stale cached state information	OK/N. A.
4	Minimize processing overhead	OK
5	Highly scalable	OK
6	Minimize the complexity of the implementation	OK
7	Extensible	OK
8	Simple protocol configuration	OK
9	Do not rely on IP Multicast in the Underlying Network	OK. VNTP is flexible to support multicast using reserved resources, to be added
10	Flexible mapping sources	OK
11	Secure	OK. VNTP flexible to support mentioned security mechanisms
*	Reliable	OK
*	Resilience	OK

Next Steps and Proposal

- Soliciting further discussion and comments
- Requesting for WG adoption
 - Our milestone is to submit Control plane to IESG on Oct, 2015.
 - This draft meets the requirements of the Control protocol in overlay network

Any other Suggestions?

THANK YOU!