Framework for Abstraction and Control of Transport Networks

draft-ceccarelli-teas-actn-framework-00

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Draft-status

• Respin of draft-ceccarelli-actn-framework-07
  - v00 published on Jan 2014
• Requirements moved
  - To: draft-ietf-teas-actn-requirements-01
• Use cases moved
  - To: draft-ietf-teas-actn-requirements-01
What should ACTN be about?

- **Infrastructure:**
  - LSPs, Tunnels and Virtual Networks
  - Includes TE constraints
What should ACTN be about?

- Infrastructure:
  - LSPs, Tunnels and Virtual Networks
  - Includes TE constraints
  - Includes policies
    - Policies encoded as identifiers

If A happens on VN1, do B on your own and report result. E.g. modify FEC mapping if buffer goes more than 95% for 5 minutes.
What should ACTN be about?

- Connectivity Services:
  - How traffic is mapped to VNs. E.g. VPNs, FEC mapping, how to map client traffic to VN/LSP.
  - End-point awareness
What should ACTN be about?

- **End point mobility**
  1. I need connectivity between site A and a function that can be deployed in X, Y, Z. Please tell me which to use accordingly to my constraints, polices and network status.
  2. The best is A-Y (setup and notification to CNC)
What should ACTN be about?

- **End point mobility preplanned**
  1. I need connectivity between site A and X (primary) and A and Y (backup). If the network realizes that X fails (heartbeta), move connectivity to A-X to A-Y. Functionality moved from X to Y (out of scope).
  2. Notification to CNC when failure occurs
What should ACTN be about?

- **End point mobility on the fly**

  I need connectivity between site A and a function that can be deployed in X, Y, Z. Please tell me which to use accordingly to my constraints, polices and network status.

  The best is A-Y (setup and notification to CNC)

  A-Y failed, I move connectivity to A-Z, please consider moving "your stuff" to Z
Other open issues

• Need for communication between peers?
  – Inter-administrative domain MDSC-MDSC (East-West) ? Maybe
  – PNC-PNC ? Mostly NO

• MDSC to PNC relationship
  – 1:N (Default)
  – M:1
  – M:N (Work Load Partitioning)

• …
Next Steps

• Still a lot of work to be done
• Starting point for WG discussion
• Need to move on to info model
• Decide what to address among previous topics
  – No need for charter update
  – All of them are Traffic engineering (+ policies)