Subscription to Multiple Stream Originators

draft-zhou-netconf-multi-stream-originators

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Use Case 1

• Large amount of data collection from devices with main board and line cards.
• Existing solution considers only one push server residing in the main board.
  – Result in performance bottleneck when data are forwarded to the main board and converged to one consolidated stream.
• Request for **distributed data collection mechanism** which can directly push data from line cards to a collector.
Use Case 2

- Collector cannot subscribe/access data directly from IoT nodes.
  - subscribe data from border router
  - border router distribute the subscription to Nodes.
  - IoT Nodes stream data to the collector through BR.
  - Collector assembles the subscription data.
Solution Overview

- **Collector**
  - Subscriber
  - Receiver

- **Publisher**
  - Two roles: master and agent
  - Subscription server
  - Component subscription server
Issues Being Worked

• Subscription Decomposition
  – Keep track of resources and the associated publisher
  – Make decision on decomposing the global subscription into multiple component subscriptions.

• Publication Composition
  – Compose the component notifications into one.

• Subscription Management
  – Error codes related to the Subscription Decomposition and Component Subscription

• Notifications on Subscription State Changes
  – Each component subscription maintains its own subscription state and is responsible for sending its own OAM notifications.

• Potential Issues
  – Synchronization
  – Service discovery
  – NAT
Thank you