Multicast in the Data Center Overview

Mike McBride
Helen Lui

IETF 84 – Vancouver
July, 2012

mboned charter

“Receive regular reports on the current state of the deployment of multicast technology. Create "practice and experience" documents that capture the experience of those who have deployed and are deploying various multicast technologies.”

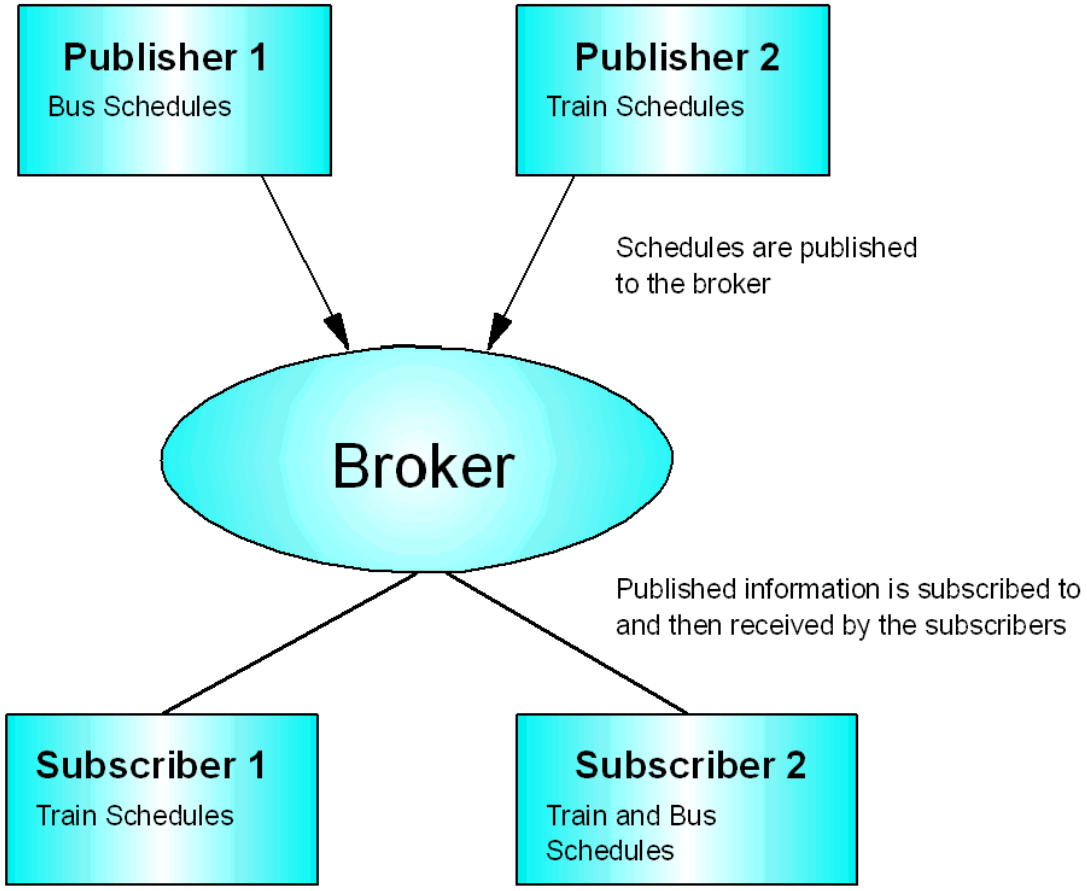
draft motivation

- Discussion about multicast in ARMD
  - Multicast not enabled in the DC, doesn't work.
    - HW has significant problems with mcast
    - Doesn't scale
  - Multicast is vital in the DC
- If vital, how is multicast being used?
- Useful to have a taxonomy of the different DC applications that are using multicast

Multicast Apps in the DC

- Windows Media Servers
- Publish and Subscribe
- Market Data
- IPTV
- VRRP
- Overlays (VxLAN, NvGRE)
- Compute system monitoring (Ganglia)
- Windows Server cluster node exchange
- Others?

Simple Publish/Subscribe Example



Multicast Challenges in the DC

- Broadcasts when igmp/mld not config'd
- VRRP chatty heartbeats
- Overlay scaling
- VM scaling
- Others?

Authors request of mboned

- Help identify apps that are being deployed in the DC.
  - This will hopefully benefit the larger DC community.

- Accept this draft as a WG document.