

SKYPE FOR BUSINESS QoS USING BSC

OVERVIEW

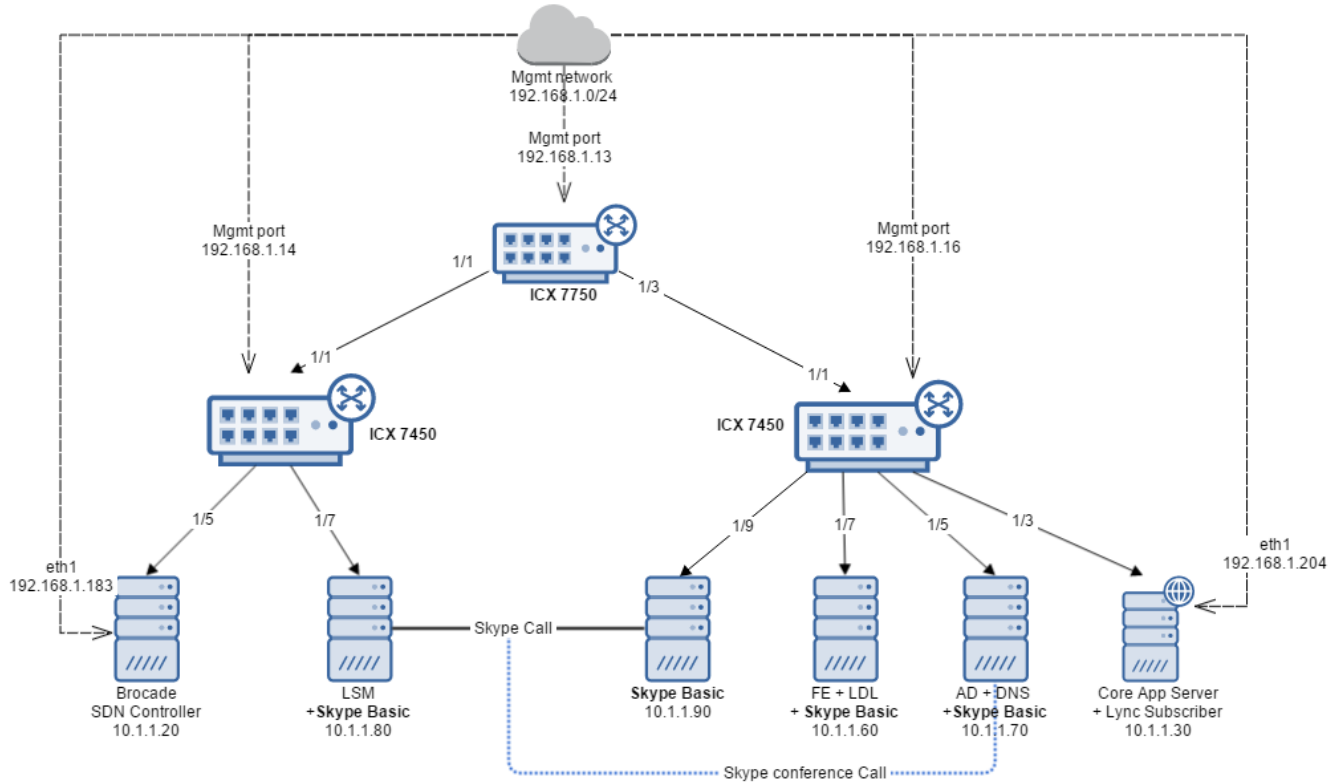
Orchestrating the QoS of Skype for Business Conversations using Brocade SDN Controller and Network Optimizer application. This document outlines the components required for setting up a POC environment.

COMPONENTS

The setup requires the following three major software components for setting up a demo

Software Components	Description
Skype for Business	Skype for Business 2015 is a Communication Software which has features like instant messaging, VoIP and Video Conferencing. The earlier version of the software is called Lync 2013.
BSC	Brocade SDN Controller (BSC) is a Brocade distribution of Open Daylight SDN Controller.
Network Optimizer	Network Optimizer is the application which orchestrates the QoS of Skype for business conversations by changing the network priorities of the conversations in BSC using Skype For business SDN data through a Policy Framework.

SYSTEM ARCHITECTURE



HOSTS

10.1.1.20 - bsc.stack.ce
 10.1.1.30 - devserver.stack.ce
 10.1.1.60 - feserver.stack.ce
 10.1.1.70 - addc.stack.ce
 10.1.1.80 - lsm.stack.ce
 10.1.1.90 - alpha-client.stack.ce

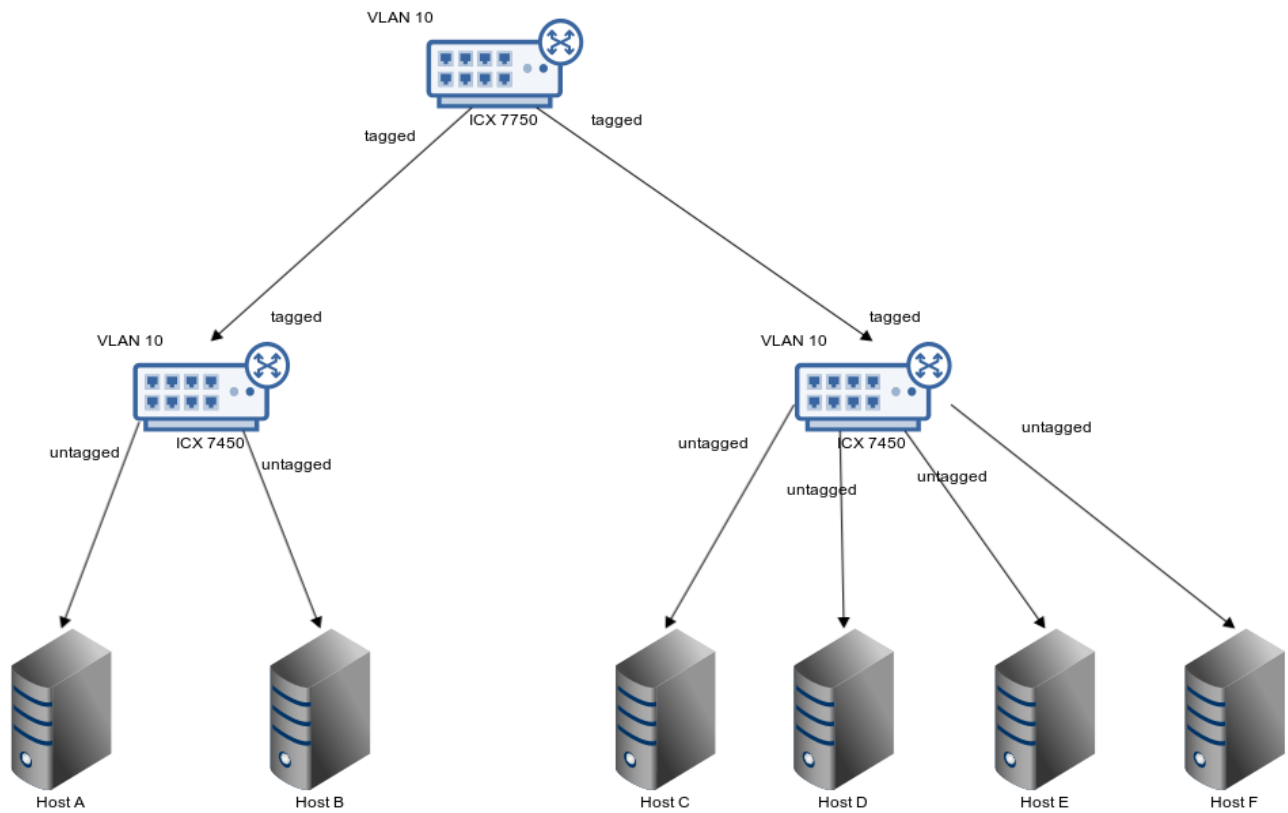
BSC Configurations

Disabled Flood Mode
 Enabled Hybrid Mode
 Default Flows - 2 (ARP, Topology)

ICX Configurations

L2-Switching
 All Ports Enabled with Openflow Hybrid Mode
 VLAN

NETWORK ARCHITECTURE



- ✓ VLAN L2 switching configuration with tagged ports as uplinks and untagged ports as host facing ports
- ✓ All the VLAN ports are openflow enabled with hybrid-mode # openflow enable layer23 hybrid-mode
- ✓ After enabling the openflow, confirm whether the default LLDP and ARP flows are created successfully
- ✓ IP address must be configured in the host manually
- ✓ In BSC, disable the flood mode and enable the hybrid mode

NETWORK COMPONENTS

Switches	OS	RAM	CPU	NIC	Software Installed
ICX 7450	Version 08040	-	-	-	-
ICX 7450	Version 08040	-	-	-	-
ICX 7750	Version 08040	-	-	-	-

SKYPE FOR BUSINESS

Servers and Components	Operating System	RAM	CPU	NIC	Software Installed
LSM Server and Skype Basic-client	Windows Server 2012 Standard (180 days evaluation period)	8GB	4CPU	1 x 1Gbps	Skype for Business 2015 (180 days evaluation Period) SkypeForBusiness_SDNI nterface_2.2.chm lyncentry_4351-1001_x64_en-us.exe
Skype Basic - Client	Windows Server 2012 Standard (180 days evaluation period)	4GB	2CPU	1 x 1Gbps	Skype for Business 2015 (180 days evaluation Period) lyncentry_4351-1001_x64_en-us.exe
Front End Server (180 days evaluation period)	Windows Server 2012 Standard (180 days evaluation period)	8GB	4CPU	1 x 1Gbps	Skype for business server 2015 (180 days evaluation Period) SkypeForBusinessDialog Listener.msi
Active Directory	Windows Server 2012 Standard (180 days evaluation period)	8GB	4CPU	1 x 1Gbps	Domain Controller, Active Directory

BROCADE SDN CONTROLLER AND APPLICATION

Servers and Components	Operating System	RAM	CPU	NIC	Software Installed
Brocade SDN Controller 2.2.0	Ubuntu 14.04 LTS	8GB	4CPU	2 x 1Gbps	Brocade SDN controller 2.2.0 with Topology manager and Flow manager
Network Optimizer Application	Ubuntu 14.04 LTS	8GB	4CPU	2 x 1Gbps	Core App Listener Application Server