ESD and DSHS Ethernet WAN Circuit Sharing Proposal
4/22/2010

For DIS CDR 9548222

5 DIS drops ESD VLAN into ESD VRF and DSHS VLAN into DSHS VRF

4 Qwest removes Qwest VLAN tag passing ESD & DSHS VLANs to DIS

3 Qwest adds VLAN tag to ESD & DSHS VLANs

1 Access Port assigned to ESD VLAN

N Seattle Community College Building with Telco POP

50u MM Laser Optimized Fiber 2 strands provided by college

1 Access Port assigned to DSHS VLAN

ESD/DHS Switch co-located with Qwest

Ethernet Trunk

Qwest Vendor Premise Equipment

Qwest Ethernet Network

1000Mb Ethernet Circuit

DIS OB2 Data Center

ESD MPLS VRF

DSHS MPLS VRF

DHS Site

DSHS Switches

DSHS Switches

DSHS Switches

Qwest Ethernet Network

100Mb Ethernet Circuit DIS CDR 9548222

ESD 50M WAN VLAN

DSHS 50M WAN VLAN

1 Access Port assigned to ESD VLAN

N Seattle Community College New Building

50u MM Laser Optimized Fiber 2 strands provided by college

2 Ethernet Trunk Passing ESD & DSHS VLANs to Qwest

ESD/DHS Switch

Qwest Vendor Premise Equipment

ESD/DSHS Switch

Qwest Ethernet Network

100Mb Ethernet Circuit DIS CDR 9548222

ESD 50M WAN VLAN

DSHS 50M WAN VLAN

2 Access Port assigned to DSHS VLAN

100Mb Ethernet

100Mb Ethernet

Qwest Ethernet Network

Michael Partlow
Employment Security Dept.
mpartlow@esd.wa.gov
360-902-9555
Notes.

ESD devices are supported by ESD router and ESD switches.

College provides Cu cabling between ESD devices on floor and ESD switches in communication closets.

DSHS devices are supported by DSHS router and DSHS switches.

College provides Cu cabling between DSHS devices on floor and DSHS switches in communication closets.

College provides 50u MM laser optimized dark fiber between College building with Telco POP and new College building. Fiber terminates on an ESD/DSHS switch adjacent to Telco VPE and ESD and DSHS routers in new bldg.

DIS and Qwest will support VLAN stacking. Stacking works by assigning two VLAN IDs to each packet. One, assigned by Qwest, is a “backbone” VLAN ID used by Qwest. The other VLAN ID is either an ESD VLAN ID or a DSHS VLAN ID. DIS will use the ESD VLAN ID and the DSHS VLAN ID to assign packets to the appropriate MPLS Virtual Routing and Forwarding (VRF) instance.

DIS will manage (read/write access) the ESD/DSHS switch directly connected to the Qwest VPE. ESD and DSHS will have read access to the switch.

ESD and DSHS will share costs on the Ethernet circuit. Financial details will be worked out before implementation. DIS will bill ESD and DSHS their agreed upon share.

ESD will provide the shared switch.

College will support VoIP phones on college ethernet switches.