

Calix Virtual Innovation Lab (CVIL) User Guide

CVIL Lab Support Numbers

SMART HANDS Lab Floor Technician (385-337-7541) Sunday 6PM MST - Friday 8PM MST

After Hours P1 Duty Phone (385-337-7540) AVAILABLE ALL HOURS

P1 - IP Network Connectivity / Rahi Support Engineer (Brad Spotts) (385-337-7542)

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Vision Statement

- Enable innovation by providing a world class secure Engineering environment
- Simplify, Automate and standardize processes and workflows for the enterprise and enabling teams to deliver quality products.

Salient Features

- Provide devices from a set of connection pool
- Perform on demand setup and tear-down
- 24x7 support
- Automated connection of end points
- Test beds are reserved and built via GUI

Not In CVIL

Some testbeds are not supported in CVIL. Please refer [NOT In CAAL](#) for more information.

CVIL Training Links

- [Training https://learn.calix.com/learn/course/internal/view/elearning/214/cvil](https://learn.calix.com/learn/course/internal/view/elearning/214/cvil) Must be logged into OKTA

Lab Intake Process

Process to be followed when requesting new equipment in the lab.

Calix Global Labs: Lab Intake Process (VS Workflow)

Rafael Machado

Presentation

Lab Intake Schedule

Lab Request	Lab Request / Final Submission (Release - 3d Wk)	Lab / ST Alignment (Release - 1d Wk)	Handoff to Dev (PCAPs - 1 Wk) (Release - 1d Wk)	Release Date	Reconnection / Upgrade (Release - 1d Wk)
24.1	05-Jun-23	27-Jun-23	20-Jul-23	13-Feb-24	20-Feb-24
24.2	05-Sep-23	26-Sep-23	20-Feb-24	14-May-24	21-May-24
24.3	05-Dec-23	26-Dec-23	20-May-24	13-Aug-24	20-Aug-24
24.4	05-Mar-24	26-Mar-24	20-Aug-24	13-Nov-24	20-Nov-24

Presentation

User Group Slides

Introduction to Calix All Access Lab (CAAL)

Pierre Frigon

Presentation

CAAL User Group September 27, 2018

Pierre Frigon

Presentation

CAAL User Group September 27, 2018

Pierre Frigon

Presentation

Calix Virtual Innovation Lab User Group

March 28, 2019

Presentation

Jira LHD Changes

Severity:

- This field is used to describe the significance of the problem being filed.
- Controlled by the reporter.
- Mandatory

Priority:

- This field is set by the lab team to determine the priority of the resolution of the ticket.

Note:

- A high severity ticket is not necessarily going to be a high priority ticket.
- High priority tickets have sufficient details for the lab team.

multimedia

Calix Virtual Innovation Lab User Group

User Group

Presentation

CAAL User Group 5/24/2018

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Calix Virtual Innovation Lab User Group

User Group

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Calix Virtual Innovation Lab User Group

User Group

Presentation

CAAL User Group June 28, 2018

Pierre Frigon

Presentation

Calix Virtual Innovation Lab User Group

User Group

Presentation

CAAL User Group August 30, 2018

Pierre Frigon

Presentation

Calix Virtual Innovation Lab User Group

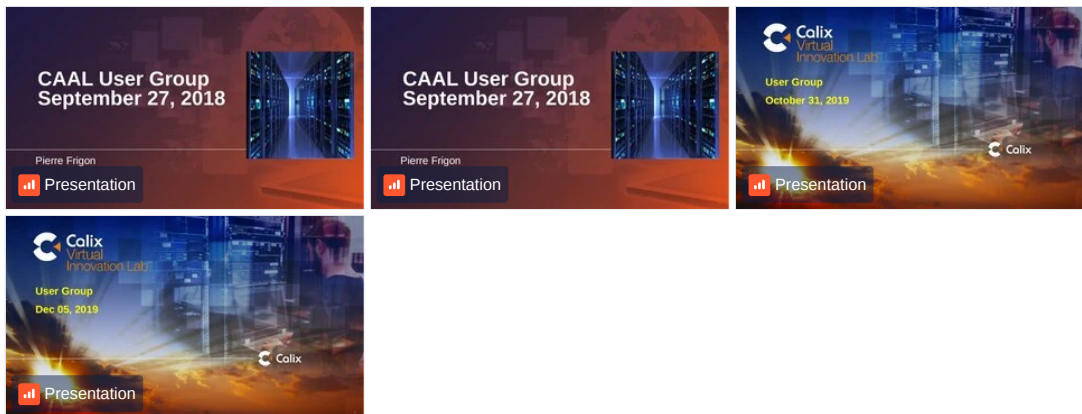
User Group

Presentation

Uplink Setup

Diagram showing network topology for Uplink Setup.

multimedia



LHD Guideline

- **Severity:**
 - This field is used to describe the significance of the problem being filed.
 - Controlled by the user.
 - Mandatory
- **Priority:**
 - This field is set by the lab team to determine the priority of the resolution of the ticket.
- **Note:**
 - A high severity ticket is not necessarily going to be a high priority ticket.
 - Please make sure tickets have sufficient details for the lab team.
- **Component**
 - Please use below component while filing LHD

Component	Usage
Data Entry	Data entry error (typically in Velocity).
Info Request	Reporter requesting information.
Installation/Removal	Installation/Removal of any equipment, cable, or component.
Network Connectivity	Reachability/connectivity issues
ONT Discovery	ONTs not ranging / not discovered
Purchase Requests	Lab purchase requests
Recovery	Systems/cards that need to be recovered
Topology	Tickets related to topologies in Velocity
Traffic Gen/Test Equipment	Tickets related to test equipment
Velocity	Tickets related to reservations
Other	Anything else

How to:

- Get access to Velocity
 - All users must pass a test before getting live access to CAAL
 - Assessment test link - Please refer the attached document [CAAL Test Instructions.docx](#)
 - **Sandbox Velocity Instance:** <https://vel-app-d01.calix.local/velocity/login>
 - **Live Velocity Link:** <https://slcx-vel-app-p01.caal.dev/velocity/>
 - **Before taking the Online Velocity Training course**, send email to Melissa.Ortiz@calix.com, notifying her of when you will be taking the online course. Login in to the Sandbox Velocity Instance and she will be able to configure your profile for the training.
(needs to be replaced with Velocity Live instance URL - Use Calix Windows Credentials)
- Get Access to LHD project in JIRA
 - Send out an email to helpdesk@calix.com to get access to [LHD project](#) in JIRA
 - **Project:** LHD [Lab Help Desk]
- Contact Lab support team
 - Its **mandatory** to have a LHD JIRA Ticket # for any issue/request to be addressed in CVIL
 - CVIL Support contact number: See Top of Page
 - When To call
 - Complete lab outage / majority of the network failures.
 - Issues where large lab user community is impacted
 - Any critical customer issues

- Not to call for
 - Individual setup impact
 - Reservations not going through/issues with reservations
 - Normal ONT/OLT issues
- Access CVIL Policies
 - Reservations can be shared with other users or user groups by adding users in the "Shared Reservation" option in Velocity.
 - The duration of the reservation will have a fixed maximum duration based on the user group settings.
 - Some reservations may need to be created permanently such as smoke test beds. In such cases, the requester should file LHD JIRA request with the necessary details.
 - Users can request to recreate the identical reservation.
 - CAAL does not impose limits on the number of resources reserved by each user.
 - Reservation for static test beds have no restrictions on the maximum duration and the number of extensions.
 - Once the reservation time nears the end, users will receive a notification **30 minutes** before the end of the reservation.
 - If users still need the equipment they need to request an extension. The number of extensions and the maximum duration of extensions is limited based on the user groups.
 - The extension will be granted or escalated for resolution based on the maximum number of extensions and equipment conflict.
 - **Detailed CVIL (CAAL) Policies can be found at :** \\192.168.97.20\Systemstest\calix-local-DFS-Systemstest\Labs\ElevationDocs\Policies *(please raise helpdesk ticket in case you don't have access)*
- Add New Equipment to Meet Release Requirement
 - The lab intake process requests that tickets be submitted include: final topology, velocity reservation details; listing of new features / protocols being tested and any equipment / licenses needed for testing (type and number); details of Calix equipment ordered through TDR / expected date of availability.
 - LHDs related to a fixed version epic, must be linked in the appropriate fixed version epic created by the Lab Team...i.e. xx.x – ST; xx.x – DT; xx.x – CT.
 - Dates for ticket submissions and commitments from the lab are as follows:

Fixed Version	Lab Requests - Pre-Submission Meeting (DCP1 - 25)	Lab Requests - Final Submission (DCP1 - 24)	Lab / ST Alignment (DCP1 - 21)	DCP1 (Release -12)	Release Date	Maintenance / Upgrade Window (Release + 0 to 1 wk)
23.3	22-Nov-22	29-Nov-22	20-Dec-22	16-May-23	8-Aug-23	15-Aug-23
23.4	28-Feb-23	7-Mar-23	28-Mar-23	22-Aug-23	14-Nov-23	21-Nov-23
24.1	23-May-23	30-May-23	20-Jun-23	14-Nov-23	13-Feb-24	20-Feb-24
24.2	22-Aug-23	29-Aug-23	19-Sep-23	13-Feb-24	14-May-24	21-May-24
24.3	21-Nov-23	28-Nov-23	19-Dec-23	14-May-24	13-Aug-24	20-Aug-24
24.4	20-Feb-24	27-Feb-24	19-Mar-24	13-Aug-24	12-Nov-24	19-Nov-24

- Add new topology (not seen in Velocity)
 - Reach out to Lab Admins (**ToDo**: Add link to the Lab admins details)
- Capture Logs from BCG
 - Log files can be obtained through a web browser, if you go to the BCG's IP address and port 8080
 - User - administrator & password - password
 - Go to Public → for each linecard there will be a group of pages available.
 - Copy 'messages' for the card(s) that you have issues with and send them
 - This should be done before rebooting the cards as logs are cleared out at each reboot.
- Add new resources/equipment
 - All equipment changes in CAAL will require planning to ensure the changes are completed in a timely manner.
 - For any changes, the requester needs to file a Jira ticket in the under LHD project and mention the list of equipment to be installed, date required for the equipment to be in service and any specific connectivity requirements.
 - Newly developed hardware should not be installed in CAAL until the equipment has reached a stable state.

License details

Spirent name	Ip Address	version	S/N
SPT-N11U-001	10.137.14.103	4.97.7356	S13440617
SPT-N11U-002	10.137.14.105	4.97.7356	E14420244
SPT-N11U-003	10.137.14.101	4.97.7356	E15091818
SPT-N11U-004	10.137.14.107	4.97.7356	E16280814
SPT-N12U-001	10.137.14.104	5.40.2246	E19150208

Below are the License code details to be provided in Velocity to get right STC ports:

Chassis	Name
SPT-N11U-001	802.1AG/Y.1731 EOAM FAULT MANAGEMENT BASE PACKAGE B
SPT-N11U-001	802.1X BASE PKG A
SPT-N11U-001	CONFORMANCE TSM BASE PACKAGE A
SPT-N11U-001	CTS ETHERNET RING PROTECTION SWITCHING (G.8032)
SPT-N11U-001	DHCP CLIENT/SERVER BASE PACKAGE B
SPT-N11U-001	DHCP-PD BASE PACKAGE A
SPT-N11U-001	DHCP-PD CLIENT/SERVER BASE PACKAGE A
SPT-N11U-001	DHCPV6 CLIENT/SERVER BASE PACKAGE B
SPT-N11U-001	ETHERNET LINK OAM (802.3AH) EMULATION BASE PACKAGE A
SPT-N11U-001	HTTP/FTP BASE PACKAGE A
SPT-N11U-001	IGMP/MLD HOST IP MULTICAST BASE PACKAGE B
SPT-N11U-001	IPTV TEST PACKAGE B
SPT-N11U-001	JAVA API FOR WINDOWS AND LINUX
SPT-N11U-001	LAG EMULATION (PORT GROUPING) BASE PKG A
SPT-N11U-001	MPLS/LDP/RSVP-TE BASE PACKAGE B
SPT-N11U-001	MULTICAST ROUTING BASE PACKAGE B
SPT-N11U-001	PACKET GENERATOR AND ANALYZER BASE PACKAGE A
SPT-N11U-001	PPPOX BASE PACKAGE B
SPT-N11U-001	RFC-2544 WITH VLAN NETWORK DEVICE BENCHMARK TEST PACKAGE
SPT-N11U-001	RFC-2889 WITH VLAN SWITCHING BENCHMARK TEST PACKAGE
SPT-N11U-001	SEGMENT ROUTING LSP PING BASE PACKAGE
SPT-N11U-001	SIP/RTP/RTCP BASE PACKAGE A
SPT-N11U-001	SPIRENT SW UPDATE ENTITLEMENT
SPT-N11U-001	STP/RSTP/PVST+ BASE PACKAGE A
SPT-N11U-001	UNICAST ROUTING BASE PACKAGE B
SPT-N11U-001	VIDEO STREAMING SERVER BASE PACKAGE A
SPT-N11U-001	Y.1731 EOAM PERFORMANCE MONITORING BASE PACKAGE A

Chassis	Name
SPT-N11U-002	802.1AG/Y.1731 EOAM FAULT MANAGEMENT BASE PACKAGE A
SPT-N11U-002	802.1AG/Y.1731 EOAM FAULT MANAGEMENT BASE PACKAGE B
SPT-N11U-002	802.1X BASE PKG A
SPT-N11U-002	BIDIRECTIONAL FORWARDING DETECTION (BFD) BASE PACKAGE A
SPT-N11U-002	CONFORMANCE TSM BASE PACKAGE A
SPT-N11U-002	CTS IGMP SNOOPING TEST PACKAGE
SPT-N11U-002	CTS IGMPV2 TEST PACKAGE
SPT-N11U-002	CTS LACP/802.3AD TEST PACKAGE
SPT-N11U-002	CTS MEF 14 TEST PACKAGE
SPT-N11U-002	CTS MEF 21 TEST PACKAGE
SPT-N11U-002	CTS MEF 9 TEST PACKAGE
SPT-N11U-002	CTS RSTP TEST PACKAGE
SPT-N11U-002	CTS VLAN TEST PACKAGE

Chassis	Name
SPT-N11U-002	DHCP BASE PACKAGE A
SPT-N11U-002	DHCP CLIENT/SERVER BASE PACKAGE B
SPT-N11U-002	DHCP-PD BASE PACKAGE A
SPT-N11U-002	DHCP-PD CLIENT/SERVER BASE PACKAGE A
SPT-N11U-002	DHCPV6 CLIENT/SERVER BASE PACKAGE B
SPT-N11U-002	ENHANCED CAPTURE AND DECODE BASE PACKAGE A
SPT-N11U-002	ETHERNET LINK OAM (802.3AH) EMULATION BASE PACKAGE A
SPT-N11U-002	FCOE INITIATOR/TERMINATOR EMULATION BASE PACKAGE A
SPT-N11U-002	HTTP/FTP BASE PACKAGE A
SPT-N11U-002	IEEE 1588V2 NETWORK-BASED TIMING & SYNCHRONIZATION BASE PKG
SPT-N11U-002	IEEE 802.3AD LINK AGGREGATION BASE PKG A
SPT-N11U-002	IGMP/MLD HOST IP MULTICAST BASE PACKAGE A
SPT-N11U-002	IGMP/MLD HOST IP MULTICAST BASE PACKAGE B
SPT-N11U-002	IPTV TEST PACKAGE A
SPT-N11U-002	IPTV TEST PACKAGE B
SPT-N11U-002	MPLS/LDP/RSVP-TE BASE PACKAGE B
SPT-N11U-002	MULTICAST ROUTING BASE PACKAGE B
SPT-N11U-002	PACKET GENERATOR AND ANALYZER BASE PACKAGE A
SPT-N11U-002	PPPOX BASE PACKAGE A
SPT-N11U-002	RFC-2544 WITH VLAN NETWORK DEVICE BENCHMARK TEST PACKAGE
SPT-N11U-002	RFC-2889 WITH VLAN SWITCHING BENCHMARK TEST PACKAGE
SPT-N11U-002	RFC-6349 TCP THROUGHPUT BENCHMARKING TEST PACKAGE
SPT-N11U-002	SEGMENT ROUTING LSP PING BASE PACKAGE
SPT-N11U-002	SIP/RTP/RTCP BASE PACKAGE A
SPT-N11U-002	SPIRENT SW UPDATE ENTITLEMENT
SPT-N11U-002	STC ENHANCED L4-7 LICENSE
SPT-N11U-002	STP/RSTP/PVST+ BASE PACKAGE A
SPT-N11U-002	SYNCHRONOUS ETHERNET BASE PACKAGE A
SPT-N11U-002	UNICAST ROUTING BASE PACKAGE B
SPT-N11U-002	VIDEO STREAMING SERVER BASE PACKAGE A

Chassis	Name
SPT-N11U-003	802.1AG/Y.1731 EOAM FAULT MANAGEMENT BASE PACKAGE B
SPT-N11U-003	ASYMMETRIC PERFORMANCE TEST PACKAGE B
SPT-N11U-003	DHCP CLIENT/SERVER BASE PACKAGE B
SPT-N11U-003	DHCP-PD BASE PACKAGE A
SPT-N11U-003	DHCP-PD CLIENT/SERVER BASE PACKAGE A
SPT-N11U-003	DHCPV6 CLIENT/SERVER BASE PACKAGE B
SPT-N11U-003	ETHERNET LINK OAM (802.3AH) EMULATION BASE PACKAGE A
SPT-N11U-003	FCOE INITIATOR/TERMINATOR EMULATION BASE PACKAGE A
SPT-N11U-003	HTTP/FTP BASE PACKAGE A
SPT-N11U-003	IEEE 1588V2 NETWORK-BASED TIMING & SYNCHRONIZATION BASE PKG
SPT-N11U-003	IEEE 802.3AD LINK AGGREGATION BASE PKG A
SPT-N11U-003	IGMP/MLD HOST IP MULTICAST BASE PACKAGE B

Chassis	Name
SPT-N11U-003	IPTV TEST PACKAGE B
SPT-N11U-003	JAVA API FOR WINDOWS AND LINUX
SPT-N11U-003	MPLS/LDP/RSVP-TE BASE PACKAGE A
SPT-N11U-003	MPLS/LDP/RSVP-TE BASE PACKAGE B
SPT-N11U-003	MULTICAST ROUTING BASE PACKAGE B
SPT-N11U-003	PACKET GENERATOR AND ANALYZER BASE PACKAGE A
SPT-N11U-003	PPPOX BASE PACKAGE B
SPT-N11U-003	RFC-2544 WITH VLAN NETWORK DEVICE BENCHMARK TEST PACKAGE
SPT-N11U-003	RFC-2889 WITH VLAN SWITCHING BENCHMARK TEST PACKAGE
SPT-N11U-003	RFC-3918 MULTICAST BENCHMARK TEST PACKAGE
SPT-N11U-003	SIP/RTP/RTCP BASE PACKAGE A
SPT-N11U-003	SPIRENT SW UPDATE ENTITLEMENT
SPT-N11U-003	STP/RSTP/PVST+ BASE PACKAGE A
SPT-N11U-003	SYNCHRONOUS ETHERNET BASE PACKAGE A
SPT-N11U-003	UNICAST ROUTING BASE PACKAGE B
SPT-N11U-003	VIDEO STREAMING SERVER BASE PACKAGE A
SPT-N11U-003	Y.1731 EOAM PERFORMANCE MONITORING BASE PACKAGE A

Chassis	Name
SPT-N11U-004	802.1AG/Y.1731 EOAM FAULT MANAGEMENT BASE PACKAGE B
SPT-N11U-004	ASYMMETRIC PERFORMANCE TEST PACKAGE B
SPT-N11U-004	DHCP CLIENT/SERVER BASE PACKAGE B
SPT-N11U-004	DHCP-PD BASE PACKAGE A
SPT-N11U-004	DHCP-PD CLIENT/SERVER BASE PACKAGE A
SPT-N11U-004	DHCPV6 CLIENT/SERVER BASE PACKAGE B
SPT-N11U-004	HTTP/FTP BASE PACKAGE A
SPT-N11U-004	IGMP/MLD HOST IP MULTICAST BASE PACKAGE B
SPT-N11U-004	IPTV TEST PACKAGE B
SPT-N11U-004	MPLS/LDP/RSVP-TE BASE PACKAGE B
SPT-N11U-004	MULTICAST ROUTING BASE PACKAGE B
SPT-N11U-004	PACKET GENERATOR AND ANALYZER BASE PACKAGE A
SPT-N11U-004	PPPOX BASE PACKAGE B
SPT-N11U-004	RFC-2544 WITH VLAN NETWORK DEVICE BENCHMARK TEST PACKAGE
SPT-N11U-004	RFC-2889 WITH VLAN SWITCHING BENCHMARK TEST PACKAGE
SPT-N11U-004	SEGMENT ROUTING LSP PING BASE PACKAGE
SPT-N11U-004	SIP/RTP/RTCP BASE PACKAGE A
SPT-N11U-004	SPIRENT SW UPDATE ENTITLEMENT
SPT-N11U-004	STP/RSTP/PVST+ BASE PACKAGE A
SPT-N11U-004	UNICAST ROUTING BASE PACKAGE B
SPT-N11U-004	VIDEO STREAMING SERVER BASE PACKAGE A

Chassis	Name
SPT-N12U-001	802.1AG/Y.1731 EOAM FAULT MANAGEMENT BASE PACKAGE B
SPT-N12U-001	BIDIRECTIONAL FORWARDING DETECTION (BFD) BASE PACKAGE A

Chassis	Name
SPT-N12U-001	DHCP CLIENT/SERVER BASE PACKAGE B
SPT-N12U-001	DHCP-PD BASE PACKAGE A
SPT-N12U-001	DHCP-PD CLIENT/SERVER BASE PACKAGE A
SPT-N12U-001	DHCPV6 CLIENT/SERVER BASE PACKAGE B
SPT-N12U-001	ETHERNET LINK OAM (802.3AH) EMULATION BASE PACKAGE A
SPT-N12U-001	FCOE INITIATOR/TERMINATOR EMULATION BASE PACKAGE A
SPT-N12U-001	HTTP/FTP BASE PACKAGE A
SPT-N12U-001	IEEE 1588V2 NETWORK-BASED TIMING & SYNCHRONIZATION BASE PKG
SPT-N12U-001	IGMP/MLD HOST IP MULTICAST BASE PACKAGE B
SPT-N12U-001	JAVA API FOR WINDOWS AND LINUX
SPT-N12U-001	MPLS/LDP/RSVP-TE BASE PACKAGE B
SPT-N12U-001	MULTICAST ROUTING BASE PACKAGE B
SPT-N12U-001	PACKET GENERATOR AND ANALYZER BASE PACKAGE A
SPT-N12U-001	PPPOX BASE PACKAGE B
SPT-N12U-001	RFC-2544 WITH VLAN NETWORK DEVICE BENCHMARK TEST PACKAGE
SPT-N12U-001	RFC-3918 MULTICAST BENCHMARK TEST PACKAGE
SPT-N12U-001	SIP/RTP/RTCP BASE PACKAGE A
SPT-N12U-001	SPIRENT SW UPDATE ENTITLEMENT
SPT-N12U-001	SYNCHRONOUS ETHERNET BASE PACKAGE A
SPT-N12U-001	UNICAST ROUTING BASE PACKAGE B
SPT-N12U-001	VIDEO STREAMING SERVER BASE PACKAGE A
SPT-N12U-001	Y.1731 EOAM PERFORMANCE MONITORING BASE PACKAGE A

Shared Service Available in CAAL

› [Expand here](#)

Shared Services Available in CAAL users should use the credentials cafetest/cafetest

Server	VM OS	Hostname
Diameter	CentOS 7	slcx-diameter.caal.dev
Radius-01	CentOS 7	slcx-radius-01.caal.dev
Radius-02	CentOS 7	slcx-radius-02.caal.dev
Radius-03	CentOS 7	slcx-radius-03.caal.dev
Radius-04	CentOS 7	slcx-radius-04.caal.dev
TACACS-01	CentOS 7	slcx-tacacs-01.caal.dev
TACACS-01	CentOS 7	slcx-tacacs-02.caal.dev
TACACS-03	CentOS 7	slcx-tacacs-03.caal.dev
TACACS-04	CentOS 7	slcx-tacacs-04.caal.dev
IPFIX	CentOS 7	slcx-ipfix.caal.dev
SilverCreek	Windows. See notes	slcw-silvercreek.caal.dev
Netconf	CentOS 7	slcx-netconf.caal.dev
Infoblox	Vendor supplied	slcx-infoblox.caal.dev
NTP Server		
Symetricon Timing reference/ NTP Reference	N/A	slc-ntp.caal.dev
35 TB scratch storage controller	N/A	slc-scratch.caal.dev

Server	VM OS	Hostname
OOKLA	N/A	slc-ookla.caal.dev
Dell Win subscriber server 01	N/A	slc-win-sub01.caal.dev
Dell Lnx subscriber server 01	N/A	slc-lnx-sub01.caal.dev
4x 10 G JunOS & IOS VM Router	N/A	slc-vrouter-01.caal.dev
16x 10 G JunOS VM Router	N/A	slc-vrouter-02.caal.dev
8 x 10G 4x 100G - JunOS VM Router	N/A	slc-vrouter-03.caal.dev
Slingboxes	N/A	slc-sling-01 - slc-sling-32.caal.dev
Dell Win subscriber server 02	N/A	slc-win-sub02.caal.dev
Dell Win subscriber server 03	N/A	slc-win-sub03.caal.dev
Dell Lnx subscriber server 02	N/A	slc-lnx-sub02.caal.dev
Dell Lnx subscriber server 03	N/A	slc-lnx-sub03.caal.dev

Steps to add L3 Services to your topology

[Click Here](#)

Tools page to get system information -

http://10.136.0.100/System_information.html

http://slc-scripts01-caal.dev/System_information.html

OpenGear (terminal server lag)

This is a known issue believed to be caused due to the buffer limitation in the OpenGear terminal servers,

Occasional high input transfer between the automation scripts and the output brings the Opengear into a interrupt state.

we are actively monitoring this issue and are working on the fix

if you observe this issue please perform a packet capture using the following commands logging into the terminal server using ssh

```
>ssh root@ipaddress
```

```
password : default
```

```
command :
```

```
tcpdump -ni eth0 port <6015> -w /var/mnt/storage.sd/telnetcapture -W 48 -C 10
```

instead of <6015> use the port you are having issue on.

please collect the TCP packet capture using SFTP (winscp) and create an LHD.

End User IP Address Range available to use

[Click Here](#)

FAQ

- **STC - port not coming up?**
 - Please check port property - it should be fiber. We do not have any ethernet port
- **STC - 4.97 FAQ** → please refer [Spirent Test - 4.97 FAQ](#).
- **What Golden Images are used in Lab?**
 - E9-2-AGG/CLX : http://bamboo.calix.local/artifact/MBAXOS214-CI/shared/build-127/FullRelease.run/FullRelease_system-E9_MB-AXOS-21.4_20211105180113_builder.run
 - E9-2-AGG/ASM : http://bamboo.calix.local/artifact/MBAXOS214-CI0/shared/build-138/FullRelease.run/FullRelease_system-E9-ASM_MB-AXOS-21.4_20211105173936_builder.run
 - E3-2 : http://bamboo.calix.local/artifact/MBAXOS214-CI1/shared/build-134/FullRelease.run/FullRelease_eolus_MB-AXOS-21.4_20211106001508_builder.run
 - E7-2 : http://bamboo.calix.local/artifact/MBAXOS214-CI1/shared/build-134/FullRelease.run/FullRelease_system-E7-2_MB-AXOS-21.4_20211105175317_builder.run
- **E9 Recovery steps**
 - **CAAL team has robust startup and teardown steps and procedure. However if due to any bad image loaded if system is not coming up please follow system recovery steps listed below :**
 - [E9 Recovery](#)
 - [E9 Line Card Recovery - FPGA](#)
 - Raise LHD with logs for above steps tried so that development team can take a look at logs to take care of AXOS issues.

- **ONT is not getting discovered**
 - [Please refer this guideline for ONT ranging/discovery issue.](#)
- **NGPON/XGS-PON E9 port selection when creating abstract topology**
 - [Refer this PPT for PON port conditions](#)
- **I want to power cycle my device**
 - In your reservation Remote Power cycler information is provided - login via username : "admin" and password "1234"
 - Power cycler is one port per shelf
 - For each ONT you will have different port so you can control each ONT separately
- **FTP Server in CAAL**
 - **FTP server : 10.136.1.54** – cafetest/cafetest (Note: original server @ 10.136.10.34 was decommissioned)
 - SSH into slc-scratch.caal.dev (using your windows username/password)
 - Create a directory named "ftp" in your home directory (mkdir ftp)
 - chmod 777 ftp
 - Mount a drive on your local PC for the VM scratch pad - `\\slc-scratch.caal.dev\export\home\<Username>`
 - On your local PC, download the image from Bamboo and copy it to your scratch ftp directory.
- **On your OLT:**
 - upgrade activate filename `ftp://<Windows-Username>:<Windows-Password>@10.136.1.54/<Release-Name>`
 - Example - upgrade activate filename `ftp://me:lasagna@10.136.1.54/FullRelease_eolus_IB-AXOS-19.2_20190329161856_builder.run`
 - This is useful if you need to do repeated upgrade testing.
- **NTP Server in CAAL**
 - 10.136.10.32 (Management Network)
 - 10.136.10.33 (Management Network)
 - 10.128.0.108 (Content Network)
 - 10.128.0.109 (Content Network)
- **How to reuse STC Port config**
 - R:\public\ProdDev\Engineering\SystemTest\Labs\CAAL\Training\Calix Academy\Reusing STC port configs.mp4
 - Network path - If R drive is not mapped for you : `\\calix.local\storage\public\ProdDev\Engineering\SystemTest\Labs\CAAL\Training\Calix Academy`
- **With Released Image - connections are not up**
 - In CAAL all optics are non branded, please issue below CLI to disable branding optic check
`cli halm_xgs set module checks 0`
`cli halm_xgs set module demilitarization 1`
 - *Alternative to this is - use image with SOED → Signed-Optics-Enforcement-Disabled from release location*
- **Please do not leave system in Vi edit mode** - we find that occasionally engineers leave the system during debug and a console port is left in Vi mode, system recovery does not happen and it leads to subsequent reservation failures.
- **Next Reservation available with future date - reason - VLAN conflict.**
 - Please choose checkbox Ignore VLAN conflict and continue
- **I need VM in CAAL Lab**
 - Please open IT helpdesk for any VM requirement in Lab
- **I need to create LAG in my setup.**
 - [Click Here](#)
- **Device is showing offline in CAAL/Velocity**
 - That only means that Management ip is not set and up on E9 or other device. If you see such device, just set IP and no shut it should show green/Online after that.
- **My Card is continuously rebooting**
 - We are investigating it, for such case please raise LHD with Card Name in Headline with details example - LHD-4138, LHD-4136. Add "whoareyou.sh" output to ticket to get serial number and other information captured.
- **Spirent Setup Considerations**
 - Make sure the source MAC is unique on all of the stream blocks
 - Do not use all zeros for the destination MAC address
 - Specifically the destination MAC address to the desired Rx port/stream source MAC address
 - More details : [General Spirent Setup Considerations](#)
 - It is a good practice to use Traffic generator chassis IP's last segment, slot and port number in the MAC address created to make it unique.
 - For example: SPT-N11U-004 (10.137.14.107) 5/12 may use mac as : XX:XX::6B:05:0B:XX
- **E3-2 port numbering given in Velocity/reservation is incorrect?**
 - Velocity port numbering is as per format defined in AXOS 4.x. Which used module number in the name. Please remap to 19.1 as per new definition
 - Example - 1/3/x1 to 1/3/x4 will change to 1/1/x1 to 1/1/x4
 - Full mapping:
 - WAN connections:

Module	Design	CLI identifier
3 (WAN)	1/3/x1	1/1/x1
	1/3/x2	1/1/x2
	1/3/x3	1/1/x3
	1/3/x4	1/1/x4

- PON Connections:

Module	Design (GPON)	CLI identifier (GPON)	Design (XGS)	CLI Identifier (XGS)
1 (PON)	1/1/gp1	1/1/gp1	1/1/xp1	1/1/xp1
	1/1/gp2	1/1/gp2	1/1/xp2	1/1/xp2
	1/1/gp3	1/1/gp3		

	1/1/gp4	1/1/gp4		
2 (PON)	1/2/gp1	1/1/gp5	1/2/xp1	1/1/xp3
	1/2/gp2	1/1/gp6	1/2/xp2	1/1/xp4
	1/2/gp3	1/1/gp7		
	1/2/gp4	1/1/gp8		

- **Syslog Server in CAAL ?**

- There is the below common CAAL VM that can be used as syslog server:

Name: slc-scratch // IP: **10.136.1.54** – cafetest/cafetest (Note: original server @ 10.136.10.34 was decommissioned)

- Steps -

- You can login using your Windows login password:

```
[nphilip@cfemp-nphilip ~]$ ssh nphilip@slc-scratch.caal.dev
```

Files are saved in a folder named with device's hostname:

```
[nphilip@slc-scratch 09]$ pwd
```

```
/var/log/syslog_devices/neebea/2019/05/09
```

```
[nphilip@slc-scratch 09]$ ls
```

```
syslog.log
```

```
[nphilip@slc-scratch 09]$
```

- **Velocity is not showing all ports under connection editor?**

- You need to enable **show isolated ports** in connection editor for showing all ports while editing the topology. This feature included in Velocity 9.3.

Setting the time automatically to SYNC to NTP server on OpenGear(enable NTP client)

- Login to the OpenGear device web UI as root or an *admin* group user
- Click **System -> Date & Time**
- Select a **Time Zone** based on the locality (daylight savings are automatically applied) or GMT/UTC offset, click **Apply Time Zone**
- Check **Enable NTP**
- Enter a **Remote NTP Server Address** hostname or IP address such as pool.ntp.org
- If the server requires it, enter an **NTP Authentication Key** and **Key Index**
- If multiple servers are being set, click **New Server** to begin configuring the next one
- Click **Apply NTP Settings**

Setting the time automatically to SYNC to NTP server on DigitalLogger(enable NTP client)

https://IPADDRESS/restapi/config/ntp_peers/

click on NTP-pool address 1 address and enter 10.136.10.32 click PUT

Known Issues

- Currently we are seeing issues where MAC addresses are not learned by Juniper switches and hence Spirent is not able to resolve ARP. Issue is under debug with Juniper team.
- In some case the Juniper switch is removing both inner and outer VLAN tags when it should be removing only the outer tag. We have work around - please reach out to [@ssama \(Deactivated\)](#) .
 - Case 1) When you observe PPPoE session not coming up after a couple of minutes your topology (PPPoE might come up immediately after the topology reservation)
 - Case 2) When you observe Double tagged packets not reaching the ONT in multicloud environment in CVIL, we can run the below Velocity asset to error correct this.

AJITH JACOB, Melissa Ortiz, Harikrishnan Palliyalil, Viralkumar Shah, VISWAS NARAYANAN (Deactivated)

Gallery

ONT Ranging issues

Method of changing one or more connections in an existing topology from vPPN to L3

Step 1: Open the topology

Step 2: Change the topology from vPPN to L3

Step 3: Add the L3 services

Step 4: Add the L3 services to the topology

Step 5: Add the L3 services to the topology

Step 6: Add the L3 services to the topology

Step 7: Add the L3 services to the topology

Step 8: Add the L3 services to the topology

Step 9: Add the L3 services to the topology

Step 10: Add the L3 services to the topology

PDF

Adding L3 Services in CAAL topology

PDF

Unknown macro: 'viewtracker'