Oracle SDWAN Service Chaining with Oracle SBC

Technical Application Note

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1 Intended Audience

This document is intended for use by Oracle Systems Engineers, third party Systems Integrators, and end users of the Oracle Session Border Controller. It assumes that the reader is familiar with basic operations of the Oracle Session Border Controller and Oracle SDWAN.

2 Document Overview

Oracle SDWAN Edge supports Service Chaining on the E100 platforms. This capability allows the installation of the guest VM from the WEB UI. Oracle Session Border Controller (SBC) can be deployed as a guest VM on the E100 appliance. The Oracle SBC is instantiated as a small-footprint VM using 4GB RAM, 2 cores and 2 Virtio-based media ports. This section covers how to install the VM through initial sign-on and gaining access to the console interface. Once the console access is provided, the user can configure through the Guest VM web interface.

3 Related Documentation

3.1 Oracle SBC

- Oracle® Communications Session Border Controller Platform Preparation and Installation Guide
- Oracle® Enterprise Session Border Controller Web GUI User Guide
- Oracle® Enterprise Session Border Controller ACLI Configuration Guide
- Oracle® Enterprise Session Border Controller Release Notes

3.2 Oracle SDWAN

- Oracle SDWAN Release Notes
- E100 Hardware Guide
- E100 installation Guide

3.3 Software Used

Oracle SDWAN:

Software version
Oracle SD-WAN Edge 9.0

Oracle SBC:

Software version
nnSCZ840p1

3.4 Revision History

Version	Date Revised	Description of Changes
1.0	11/23/2020	Initial publication

4 Requirements

- Download the XML file from My Oracle Support, and download the SBC KVM image file from OSDC or MOS

5 Install SBC VM on E100

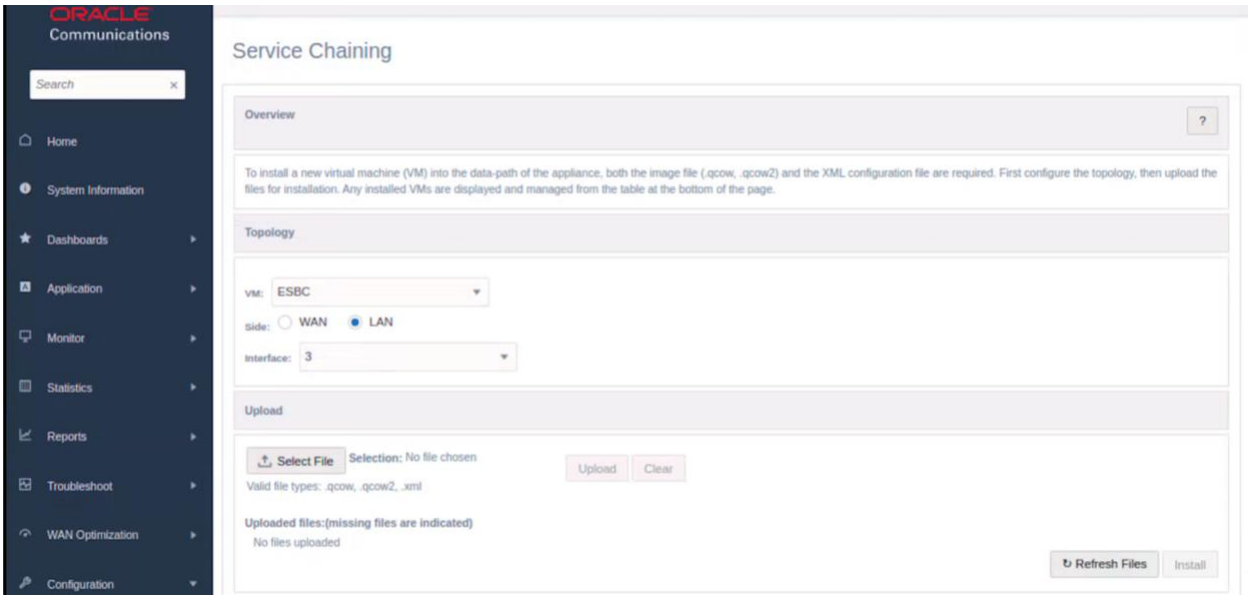
5.1 Prerequisites to install SBC on E100

- Disable service on this Oracle Talari E100 appliance.
- SBC VM should be installed on the LAN side. The port used to bridge SBC should not be part of a bypass pair.
- VLANs cannot be configured on the port connecting the SBC.
- Navigate to Configure, Service Chaining page.
- Stop any running VMs, and then uninstall them.
- Click on the Restore Interfaces option. If the previous install failed due to unsupported installs, you may need to clean up using the factory default option

5.2 Install SBC

1. Log in your Oracle SDWAN device
2. On the left-hand side menu click Configuration to open the drop-down menu
3. Select “Service Chaining”

4. On the Service Chaining page, select SBC from the VM drop-down.



5. Select LAN side
6. Select the interface number used by the guest VM (SBC)
7. Upload the esbc.xml file you downloaded from MOS by doing the following:
    - Select the file from the file browser
    - Click on **OK**
    - Click on **Upload**
8. Upload the SBC image file in qcow2 format with a qcow2 file extension by doing the following:
    - Select the file from the browser
    - Click on **OK**
    - Click on **Upload**
9. Click on **Install**

The SBC VM should be running now. Any errors will be reported in /home/talariuser/log/APN_webconsole.log

6 Initial Access to SBC VM

6.1 VNC Viewer to access SBC VM

After installing, follow these steps to sign into the SBC VM from your local system. This procedure explains how to use vncviewer to access the SBC VM

a. SSH into the E100 Appliance as talariuser

```
ssh -x talariuser@<your_managment_ip>
password
```

b. Enter the following command to find the vncviewer connector:

```
sudo virsh vncdisplay esbc
127.0.0.1:0
```

c. Enter the following command to start the vncviewer:

```
vncviewer 127.0.0.1:0
Note: Use PageUp or PageDown to scroll up or down in vncviewer
esbc password:acme


 ********************************************************************
 user password has not been set. Please set password now.
 ********************************************************************
 ** Only alphabetic (upper or lower case), numeric and punctuation
 ** characters are allowed in the password.
 ** Password must be 8 - 64 characters,
 ** and have 3 of the 4 following character classes :
 ** - lower case alpha
 ** - upper case alpha
 ** - numerals
 ** - punctuation
 ********************************************************************
 Enter New Password:
 Confirm New Password:

  >
```

d. Set the administrative password by typing enable at the command prompt. (the initial enable password is “packet”.)

```
> enable
Password:
*ALERT*
********************************************************************
admin password has not been set. Please set password now.
******************************************************************** **
```

```
Only alphabetic (upper or lower case), numeric and punctuation **
characters are allowed in the password.

** Password must be 8 - 64 characters,
** and have 3 of the 4 following character classes :
** - lower case alpha
** - upper case alpha
** - numerals
** - punctuation
*****************************************************************
Enter New Password:
Confirm New Password:
```

6.2 Interface Mapping on SBC VM

This section explains how to make corrections to interface mapping on SBC VM.

Example:

Use the “show interfaces mapping” command to verify the network interfaces have expected MAC addresses.

```
# show interfaces mapping
    Interface Mapping Info
    ------------------------------------------
    Eth-IF MAC-Addr Label
    wancom0 52:54:00:32:F4:65 #generic
    wancom1 52:54:00:56:7C:31 #generic
    s0p0 52:54:00:B2:E7:C6 #generic
    wancom2 FF:FF:FF:FF:FF:FF #dummy
    spare FF:FF:FF:FF:FF:FF #dummy
    s1p0 FF:FF:FF:FF:FF:FF #dummy
```

Note: s1p0 does not valid MAC address

– Find the sbWAN MAC interface name (wancom1 in this example) in the mapping and execute the “interface-mapping swap” command, in order to correct issues with your interface to MAC address mapping. See below for example command

```
# interface-mapping swap wancom1 s1p0
Interface Mapping Info after swapping
------------------------------------------
Eth-IF MAC-Addr Label
wancom0 52:54:00:32:F4:65 #generic
wancom1 FF:FF:FF:FF:FF:FF #dummy
s0p0 52:54:00:B2:E7:C6 #generic
wancom2 FF:FF:FF:FF:FF:FF #dummy
spare FF:FF:FF:FF:FF:FF #dummy
```

```
s1p0 52:54:00:56:7C:31 #generic
Changes could affect service, and Requires Reboot to become
effective. Continue [y/n]?: y
WARNING: This change requires a reboot to become effective.
# reboot
```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