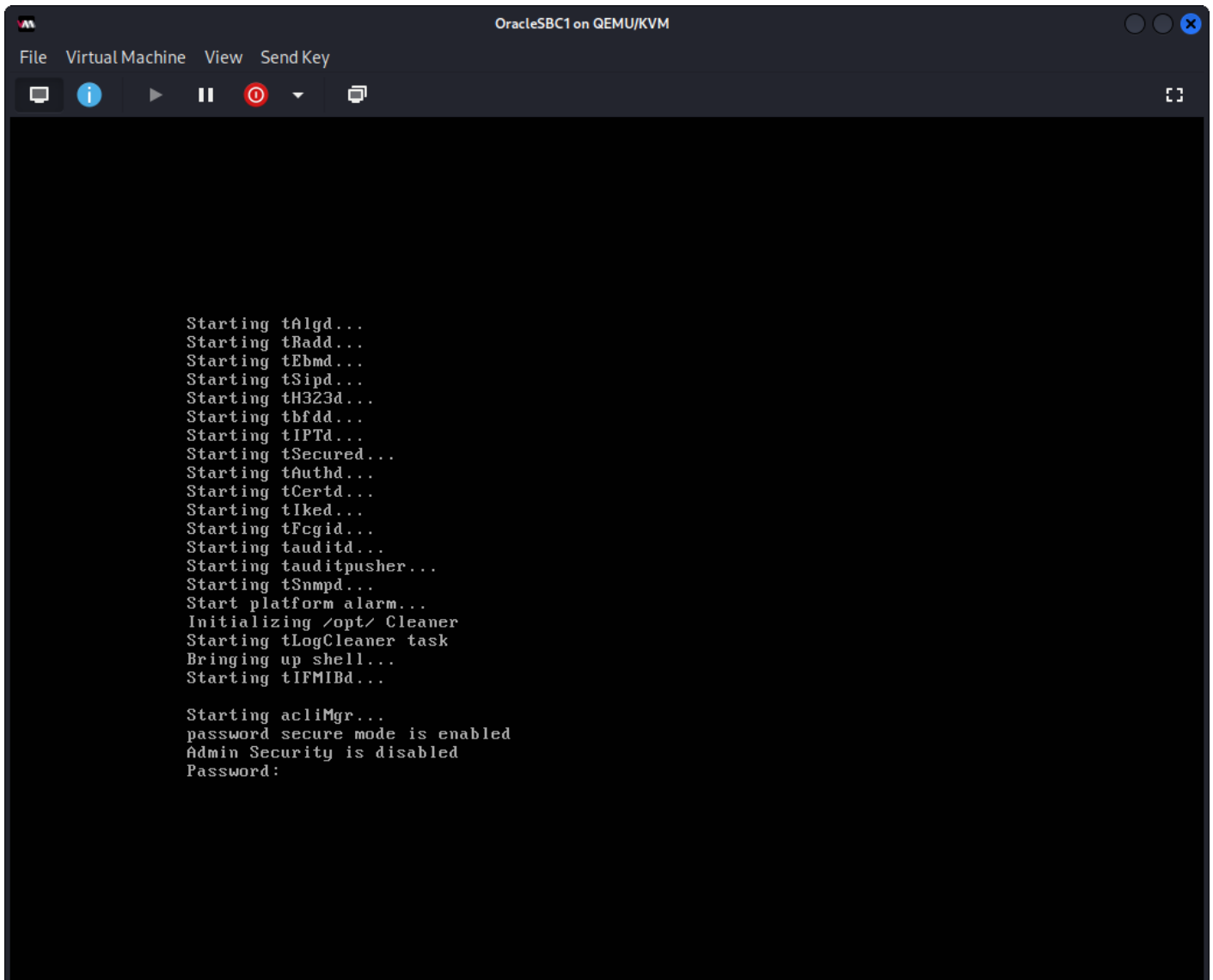


1. - SBC Initial configuration

Initial password acme

you will need to setup a new password



```
Starting tAlgd...
Starting tRadd...
Starting tEbfd...
Starting tSipd...
Starting tH323d...
Starting tbfdd...
Starting tIPTd...
Starting tSecured...
Starting tAuthd...
Starting tCertd...
Starting tIked...
Starting tFcgid...
Starting tauditd...
Starting tauditpusher...
Starting tSnmpd...
Start platform alarm...
Initializing /opt/ Cleaner
Starting tLogCleaner task
Bringing up shell...
Starting tIFMIBd...

Starting acliMgr...
password secure mode is enabled
Admin Security is disabled
Password:
```

en password is packet

```
OracleSBC1 on QEMU/KVM
File Virtual Machine View Send Key
[Icons: VM, Info, Play, Pause, Stop, Refresh]

- No Valid License Present! (aid: 327702, tid: 2895)
- Product not initialized; Please use 'setup product' (aid: 327725, tid: 2895)
>

Notifications:
- No Valid License Present! (aid: 327702, tid: 2895)
- Product not initialized; Please use 'setup product' (aid: 327725, tid: 2895)
>

Notifications:
- No Valid License Present! (aid: 327702, tid: 2895)
- Product not initialized; Please use 'setup product' (aid: 327725, tid: 2895)
> en
Password:
%
% 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:
```

enter setup product, press 1 to modify then 5 for sbc enterprise then s to save

```
OracleSBC1 on QEMU/KVM
File Virtual Machine View Send Key
# setup entitlements
<ENTER> no further known parameters

# setup product

-----
WARNING:
Alteration of product alone or in conjunction with entitlement
changes will not be complete until system reboot

Last Modified 2023-03-23 18:21:38
-----
1 : Product          : Enterprise Session Border Controller

Enter 1 to modify, d' to display, 's' to save, 'q' to exit. [s]: 1

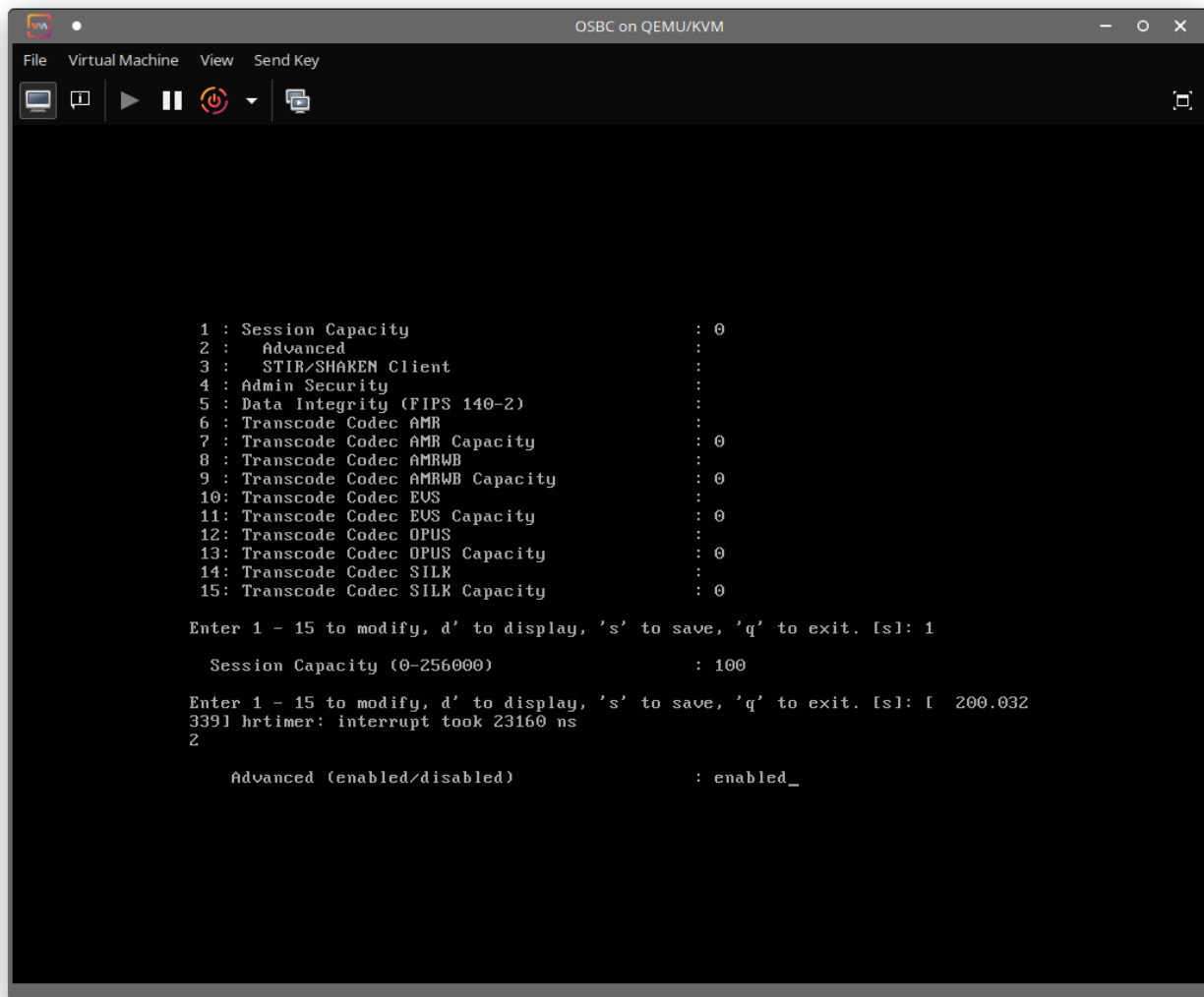
Product
1 - Session Border Controller
2 - Session Router - Session Stateful
3 - Session Router - Transaction Stateful
4 - Subscriber-Aware Load Balancer
5 - Enterprise Session Border Controller
6 - Peering Session Border Controller
Enter choice      :
```

enter command setup entitlements then 1 for session capacity enter 100 then save

```
OracleSBC1 on QEMU/KVM
File Virtual Machine View Send Key
#
#
# setup entitlements
-----
Entitlements for Enterprise Session Border Controller
Last Modified: Never
-----
 1 : Session Capacity           : 0
 2 :   Advanced                 :
 3 : STIR/SHAKEN Client         :
 4 : Admin Security             :
 5 : Data Integrity (FIPS 140-2) :
 6 : Transcode Codec AMR        :
 7 : Transcode Codec AMR Capacity : 0
 8 : Transcode Codec AMRWB      :
 9 : Transcode Codec AMRWB Capacity : 0
10 : Transcode Codec EVS        :
11 : Transcode Codec EVS Capacity : 0
12 : Transcode Codec OPUS       :
13 : Transcode Codec OPUS Capacity : 0
14 : Transcode Codec SILK       :
15 : Transcode Codec SILK Capacity : 0

Enter 1 - 15 to modify, d' to display, 's' to save, 'q' to exit. [s]:
```

Select 2 to enable advance licenses then press s to save config



go to config t and setup bootparam

IP address to ssh remotely for management

```
(configure)# bootparam
```

'.' = clear field; '-' = go to previous field; q = quit

```
Boot File : /boot/bzImage
IP Address : 192.168.10.100
VLAN :
Netmask : 255.255.255.0
Gateway : 192.168.10.1
IPv6 Address :
IPv6 Gateway :
Host IP :
```

```
FTP username      :
FTP password      :
Flags             :
Target Name       : PCOSBC
Console Device    : VGA
Console Baudrate  : 115200
Other            :
```

NOTE: These changed parameters will not go into effect until reboot.

Also, be aware that some boot parameters may also be changed through PHY and Network Interface Configurations.

After rebooting, SBC must show LabOSBC in the prompt name and must reply in the network.

configure options

```
(configure)# session-router
(session-router)# sip-config
(sip-config)# options +max
(sip-config)# options +max-udp-length=0
(sip-config)# options +reinvite-trying=yes
(sip-config)# options +sag-target-uri=ip
(sip-config)# enum-sag-match enabled
(sip-config)# extra-method-stats enable
(sip-config)#
(sip-config)# done
sip-config
```

Options explained

These are some configuration options for SIP (Session Initiation Protocol) on an Oracle SBC:

1. `options +max`: This command sets the maximum number of simultaneous sessions that the SBC can handle. The value can be any integer between 1 and 50000.
2. `options +max-udp-length=0`: This command sets the maximum UDP packet size to 0, which effectively disables UDP transport for SIP signaling. This can be useful for troubleshooting or for environments where UDP traffic is not allowed.
3. `options +reinvite-trying=yes`: This command enables the SBC to send 100 Trying responses to re-INVITE requests from the far-end UA (user agent). This is useful when the far-end UA sends re-INVITE requests without waiting for an answer to the previous

request.

4. `options +sag-target-uri=ip`: This command sets the target URI for the SAG (Session Agent) to the IP address of the SBC. This is useful when the SAG and SBC are on different networks and the SAG needs to know the IP address of the SBC.
5. `enum-sag-match enabled`: This command enables the ENUM (Electronic Numbering) feature on the SBC. ENUM is a protocol that maps telephone numbers to IP addresses, allowing SIP calls to be routed more efficiently.
6. `extra-method-stats enable`: This command enables additional SIP method statistics to be collected by the SBC. This can provide more detailed information on SIP traffic patterns and help with troubleshooting.

Toggle to display options

Options

state	enabled
operation-mode	dialog
dialog-transparency	enabled
home-realm-id	
egress-realm-id	
auto-realm-id	
nat-mode	None
registrar-domain	
registrar-host	
registrar-port	0
register-service-route	always
init-timer	500
max-timer	4000
trans-expire	32
initial-inv-trans-expire	0
invite-expire	180
session-max-life-limit	0
inactive-dynamic-conn	32
enforcement-profile	
pac-method	
pac-interval	10
pac-strategy	PropDist
pac-load-weight	1
pac-session-weight	1
pac-route-weight	1
pac-callid-lifetime	600
pac-user-lifetime	3600
red-sip-port	1988

red-max-trans	10000
red-sync-start-time	5000
red-sync-comp-time	1000
options	max-udp-length=0 reinvite-trying=yes sag-target-uri=ip
spl-options	
add-reason-header	disabled
sip-message-len	4096
enum-sag-match	enabled
extra-method-stats	enabled
extra-enum-stats	disabled
mpps-volte	disabled
rph-feature	disabled
nsep-user-sessions-rate	0
nsep-sa-sessions-rate	0
registration-cache-limit	0
register-use-to-for-lp	disabled
refer-src-routing	disabled
add-ucid-header	disabled
proxy-sub-events	
allow-pani-for-trusted-only	inherit
atcf-stn-sr	
atcf-psi-dn	
atcf-route-to-sccas	disabled
eatf-stn-sr	
pass-gruu-contact	disabled
sag-lookup-on-redirect	disabled
set-disconnect-time-on-bye	disabled
refer-reinvite-no-sdp	disabled
msrp-delayed-bye-timer	15
transcoding-realm	
transcoding-agents	
create-dynamic-sa	disabled
node-functionality	P-CSCF
match-sip-instance	disabled
sa-routes-stats	disabled
sa-routes-traps	disabled
rx-sip-reason-mapping	disabled
add-ue-location-in-pani	inherit
hold-emergency-calls-for-loc-info	0
retry-after-upon-offline	0
reg-reject-response-upon-offline	503
hold-invite-calls-for-loc-info	0

cache-loc-info-expire	32
msg-hold-for-loc-info	0
npli-upon-register	inherit
start-hold-timer-event	AAR
hist-to-div-for-cause-380	inherit
anonymize-history-for-untrusted	disabled
asymm-preconditions-evs-swb-support	disabled
sms-report-timeout	32
user-agent	

config continue

```
(sip-config)# exit
(session-router)# exit
(configure)# media-manager
(media-manager)# media-manager
(media-manager-config)# select
(media-manager-config)# options active-arp
(media-manager-config)#
(media-manager-config)# done
```

Media Manager options

media-manager	
state	enabled
latching	enabled
flow-time-limit	86400
initial-guard-timer	300
subsq-guard-timer	300
tcp-flow-time-limit	86400
tcp-initial-guard-timer	300
tcp-subsq-guard-timer	300
tcp-number-of-ports-per-flow	2
hnt-rtcp	disabled
algd-log-level	NOTICE
mbcd-log-level	NOTICE
options	active-arp
red-flow-port	1985
red-mgcp-port	1986
red-max-trans	10000

red-sync-start-time	5000
red-sync-comp-time	1000
media-policing	enabled
max-arp-rate	10
max-signaling-packets	0
max-untrusted-signaling	100
min-untrusted-signaling	30
dos-guard-window	5
untrusted-minor-threshold	0
untrusted-major-threshold	0
untrusted-critical-threshold	0
trusted-minor-threshold	0
trusted-major-threshold	0
trusted-critical-threshold	0
arp-minor-threshold	0
arp-major-threshold	0
arp-critical-threshold	0
tolerance-window	30
untrusted-drop-threshold	0
trusted-drop-threshold	0
acl-monitor-window	30
trap-on-demote-to-deny	disabled
trap-on-demote-to-untrusted	disabled
syslog-on-demote-to-deny	disabled
syslog-on-demote-to-untrusted	disabled
rtcp-rate-limit	0
anonymous-sdp	disabled
rfc2833-timestamp	disabled
reactive-transcoding	disabled
default-2833-duration	100
rfc2833-end-pkts-only-for-non-sig	enabled
translate-non-rfc2833-event	disabled
media-supervision-traps	disabled
dnalg-server-failover	disabled
syslog-on-call-reject	disabled
xcode-fax-max-rate	14400

Interface-mapping show

```
# interface-mapping show
```

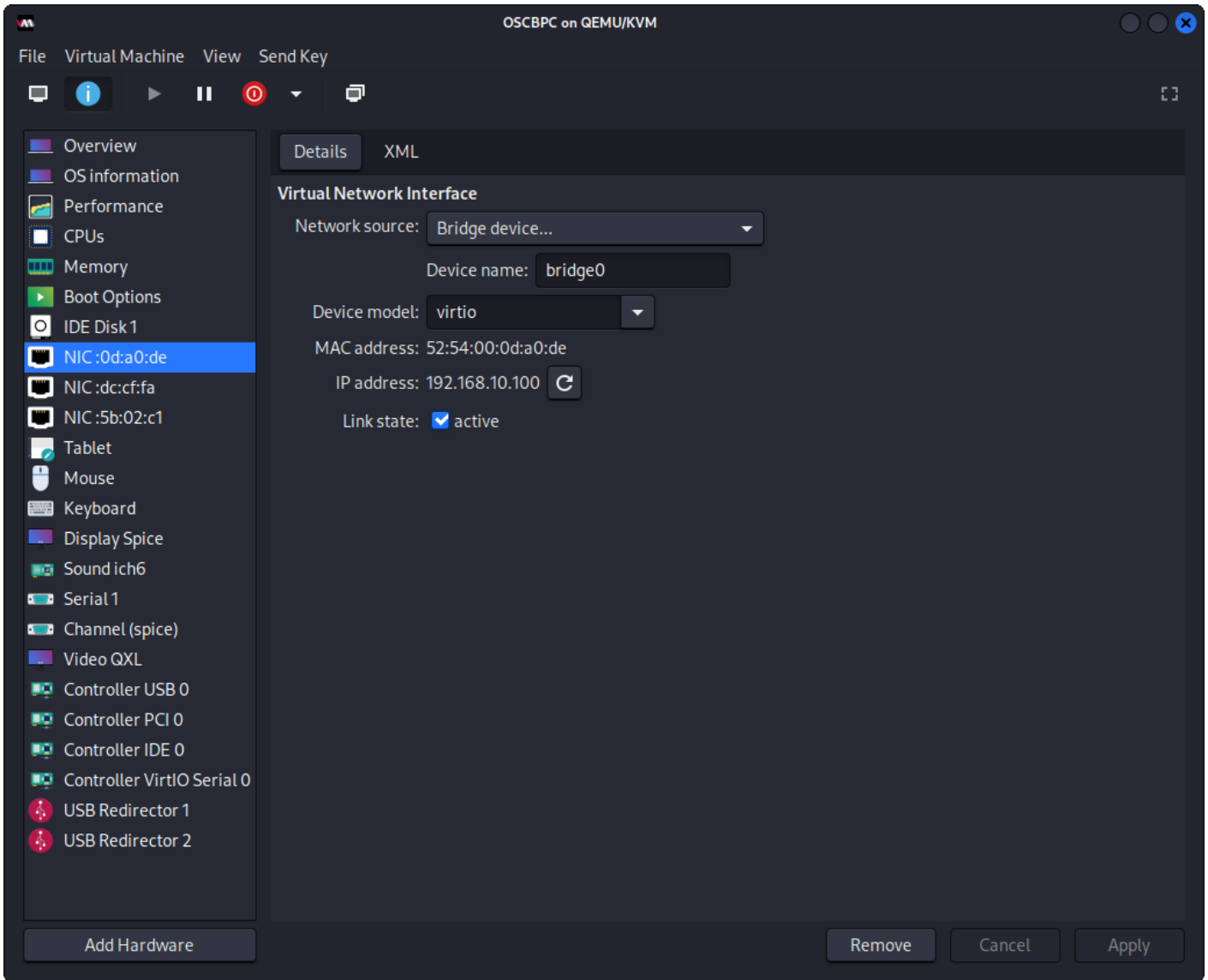
```
Interface Mapping Info
```

```
-----
```

Eth-IF	MAC-Addr	Label
wancom0	52:54:00:0D:A0:DE	#generic
wancom1	52:54:00:DC:CF:FA	#generic
s0p0	52:54:00:5B:02:C1	#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
s0p1	FF:FF:FF:FF:FF:FF	#dummy
s1p1	FF:FF:FF:FF:FF:FF	#dummy
s0p2	FF:FF:FF:FF:FF:FF	#dummy
s1p2	FF:FF:FF:FF:FF:FF	#dummy
s0p3	FF:FF:FF:FF:FF:FF	#dummy
s1p3	FF:FF:FF:FF:FF:FF	#dummy

In case of an incorrect interface mapping between the VM settings with the interfaces in the Oracle SBC use the following command to swap the MAC addresses. Important note, any swap change requires a reboot of the virtual Oracle SBC.

Below screenshot its using linux KVM Virtual Machine Manager



```
# interface-mapping show
```

Interface Mapping Info

```
-----  
Eth-IF  MAC-Addr      Label  
wancom0 52:54:00:0D:A0:DE   #generic  
wancom1 52:54:00:DC:CF:FA   #generic  
s0p0    52:54:00:5B:02:C1    #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  
s0p1    FF:FF:FF:FF:FF:FF    #dummy  
s1p1    FF:FF:FF:FF:FF:FF    #dummy  
s0p2    FF:FF:FF:FF:FF:FF    #dummy  
s1p2    FF:FF:FF:FF:FF:FF    #dummy
```

```
s0p3 FF:FF:FF:FF:FF:FF #dummy
s1p3 FF:FF:FF:FF:FF:FF #dummy

# interface-mapping swap
Error: Missing label text!
# interface-mapping swap wancom0 wancom1
```

Interface Mapping Info after swapping

```
-----
Eth-IF  MAC-Addr      Label
wancom0 52:54:00:DC:CF:FA #generic
wancom1 52:54:00:0D:A0:DE #generic
s0p0    52:54:00:5B:02:C1    #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
s0p1    FF:FF:FF:FF:FF:FF   #dummy
s1p1    FF:FF:FF:FF:FF:FF   #dummy
s0p2    FF:FF:FF:FF:FF:FF   #dummy
s1p2    FF:FF:FF:FF:FF:FF   #dummy
s0p3    FF:FF:FF:FF:FF:FF   #dummy
s1p3    FF:FF:FF:FF:FF:FF   #dummy
```

Changes could affect service, and Requires Reboot to become effective.

Continue [y/n]?:

show arp and ping gateway

```
# show arp
IP address  HW type  Flags  HW address    Mask  Device
192.168.10.1  0x1     0x2    7c:2b:e1:13:be:3d  *    wancom0
192.168.10.10 0x1     0x2    f0:2f:74:20:1a:17  *    wancom0

Total L2 Entries = 0
-----

No Gateway Entries (0)
# ping 192.168.10.1
PING 192.168.10.1 from wancom0:1
```

44 bytes from 192.168.10.1: icmp_seq=1 ttl=64 time=0.183 ms

44 bytes from 192.168.10.1: icmp_seq=2 ttl=64 time=0.158 ms

44 bytes from 192.168.10.1: icmp_seq=3 ttl=64 time=0.211 ms

44 bytes from 192.168.10.1: icmp_seq=4 ttl=64 time=0.209 ms

4 packets transmitted, 4 received, 0% packet loss

Revision #7

Created 23 March 2023 18:15:59 by Cesar Gzz

Updated 27 April 2023 02:54:26 by Cesar Gzz