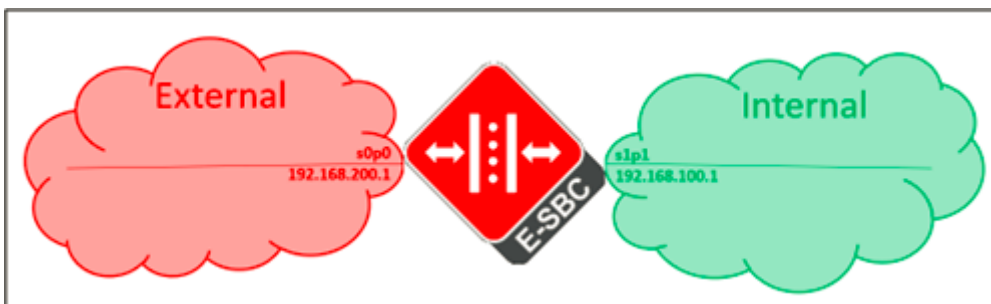


# 3. - SBC Realms

Session Border Controllers are network devices that secures voice over IP (VoIP) infrastructure while providing interworking between incompatible signaling messages and media flows from end device or application servers.

An important element in Oracle SBCs is realm which are defined as a logical way to identify domain, network, collection of networks.

Let's forget the management interfaces running in the lab devices for now, the concept of realm would be applied as the following image associating the SBCs interfaces to the realms and any external device sending traffic to the IPs associated.



Now let's go back to the CLI and configure the realms as shown in the image above, it's important to mention that identifier can have any name, in my case I used the same names used in physical interfaces and network interfaces, but the key is associate the correct network interface name created in the previous entry.

```
PCOSBC# config t
PCOSBC(configure)# media-manager
PCOSBC(media-manager)# realm-config
PCOSBC(realm-config)# identifier External
PCOSBC(realm-config)#
PCOSBC(realm-config)# network-interfaces External
PCOSBC(realm-config)#
PCOSBC(realm-config)# done
realm-config
```

**realm-config extended**

## realm-config

identifier	External
description	
addr-prefix	0.0.0.0
network-interfaces	External:0
media-realm-list	
mm-in-realm	disabled
mm-in-network	enabled
mm-same-ip	enabled
mm-in-system	enabled
bw-cac-non-mm	disabled
msm-release	disabled
qos-enable	disabled
max-bandwidth	0
fallback-bandwidth	0
max-priority-bandwidth	0
max-latency	0
max-jitter	0
max-packet-loss	0
observ-window-size	0
parent-realm	
dns-realm	
media-policy	
nsep-media-policy	
rtcp-mux	disabled
ice-profile	
teams-fqdn	
teams-fqdn-in-uri	disabled
sdp-inactive-only	disabled
dtls-srtp-profile	
class-profile	
in-translationid	
out-translationid	
in-manipulationid	
out-manipulationid	
average-rate-limit	0
access-control-trust-level	none
invalid-signal-threshold	0
maximum-signal-threshold	0
untrusted-signal-threshold	0
nat-trust-threshold	0
max-endpoints-per-nat	0
nat-invalid-message-threshold	0
wait-time-for-invalid-register	0

deny-period	30
session-max-life-limit	0
cac-failure-threshold	0
untrust-cac-failure-threshold	0
ext-policy-svr	
diam-e2-address-realm	
subscription-id-type	END_USER_NONE
symmetric-latching	disabled
pai-strip	disabled
trunk-context	
device-id	
early-media-allow	
enforcement-profile	
additional-prefixes	
restricted-latching	none
restriction-mask	32
user-cac-mode	none
user-cac-bandwidth	0
user-cac-sessions	0
icmp-detect-multiplier	0
icmp-advertisement-interval	0
icmp-target-ip	
monthly-minutes	0
options	
spl-options	
accounting-enable	enabled
net-management-control	disabled
delay-media-update	disabled
refer-call-transfer	disabled
hold-refer-reinvite	disabled
refer-notify-provisional	none
dyn-refer-term	disabled
codec-policy	
codec-manip-in-realm	disabled
codec-manip-in-network	enabled
rtcp-policy	
constraint-name	
session-recording-server	
session-recording-required	disabled
manipulation-string	
manipulation-pattern	
stun-enable	disabled
stun-server-ip	0.0.0.0
stun-server-port	3478

```

stun-changed-ip          0.0.0.0
stun-changed-port       3479
sip-profile
flow-time-limit         -1
initial-guard-timer     -1
subsq-guard-timer       -1
tcp-flow-time-limit     -1
tcp-initial-guard-timer -1
tcp-subsq-guard-timer   -1
sip-isup-profile
match-media-profiles
qos-constraint
block-rtcp              disabled
hide-egress-media-update disabled
tcp-media-profile
monitoring-filters
node-functionality
default-location-string
alt-family-realm
pref-addr-type          none
sm-icsi-match-for-invite
sm-icsi-match-for-message
merge-early-dialogs    disabled
user-site
srvcc-trfo
feature-trfo

```

```

PCOSBC(media-manager)# realm-config
PCOSBC(realm-config)# identifier Internal
PCOSBC(realm-config)# network-interfaces Internal
PCOSBC(realm-config)#
PCOSBC(realm-config)# done

```

### real-config extended

```

realm-config
  identifier          Internal
  description
  addr-prefix         0.0.0.0
  network-interfaces  Internal:0

```

media-realm-list	
mm-in-realm	disabled
mm-in-network	enabled
mm-same-ip	enabled
mm-in-system	enabled
bw-cac-non-mm	disabled
msm-release	disabled
qos-enable	disabled
max-bandwidth	0
fallback-bandwidth	0
max-priority-bandwidth	0
max-latency	0
max-jitter	0
max-packet-loss	0
observ-window-size	0
parent-realm	
dns-realm	
media-policy	
nsep-media-policy	
rtcp-mux	disabled
ice-profile	
teams-fqdn	
teams-fqdn-in-uri	disabled
sdp-inactive-only	disabled
dtls-srtp-profile	
class-profile	
in-translationid	
out-translationid	
in-manipulationid	
out-manipulationid	
average-rate-limit	0
access-control-trust-level	none
invalid-signal-threshold	0
maximum-signal-threshold	0
untrusted-signal-threshold	0
nat-trust-threshold	0
max-endpoints-per-nat	0
nat-invalid-message-threshold	0
wait-time-for-invalid-register	0
deny-period	30
session-max-life-limit	0
cac-failure-threshold	0
untrust-cac-failure-threshold	0
ext-policy-svr	

diam-e2-address-realm	
subscription-id-type	END_USER_NONE
symmetric-latching	disabled
pai-strip	disabled
trunk-context	
device-id	
early-media-allow	
enforcement-profile	
additional-prefixes	
restricted-latching	none
restriction-mask	32
user-cac-mode	none
user-cac-bandwidth	0
user-cac-sessions	0
icmp-detect-multiplier	0
icmp-advertisement-interval	0
icmp-target-ip	
monthly-minutes	0
options	
spl-options	
accounting-enable	enabled
net-management-control	disabled
delay-media-update	disabled
refer-call-transfer	disabled
hold-refer-reinvite	disabled
refer-notify-provisional	none
dyn-refer-term	disabled
codec-policy	
codec-manip-in-realm	disabled
codec-manip-in-network	enabled
rtcp-policy	
constraint-name	
session-recording-server	
session-recording-required	disabled
manipulation-string	
manipulation-pattern	
stun-enable	disabled
stun-server-ip	0.0.0.0
stun-server-port	3478
stun-changed-ip	0.0.0.0
stun-changed-port	3479
sip-profile	
flow-time-limit	-1
initial-guard-timer	-1

subsq-guard-timer	-1
tcp-flow-time-limit	-1
tcp-initial-guard-timer	-1
tcp-subsq-guard-timer	-1
sip-isup-profile	
match-media-profiles	
qos-constraint	
block-rtcp	disabled
hide-egress-media-update	disabled
tcp-media-profile	
monitoring-filters	
node-functionality	
default-location-string	
alt-family-realm	
pref-addr-type	none
sm-icsi-match-for-invite	
sm-icsi-match-for-message	
merge-early-dialogs	disabled
user-site	
srvcc-trfo	
feature-trfo	

At this point any device communicating with IP 192.168.10.101 will be associated with the Internal realm and any traffic to/from 192.168.10.201 associated with the External realm.

---

Revision #2

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