



Sentinel SBC HA Configuration

Technical Bulletin

2026/07/06

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Basic Concepts

HA definition

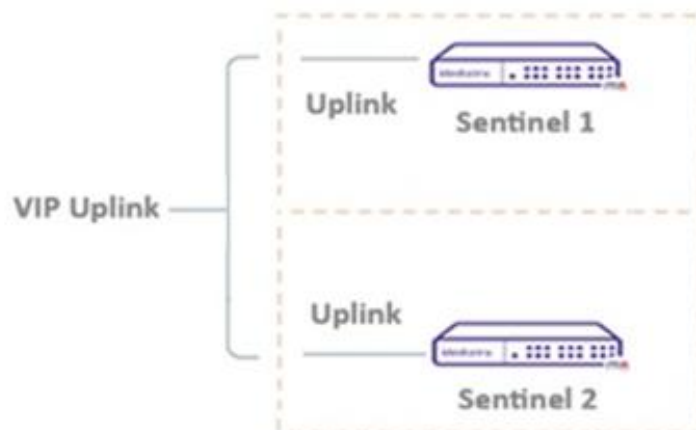
The High Availability (HA) service supports the VRRP protocol using [Keepalived](#).

The HA solution operates in an **Active-Standby** configuration, where one unit actively handles traffic while the second unit remains on standby, ready to take over in the event of a failure.

A **Virtual IP address (VIP)** is shared between both HA nodes. The VIP is always assigned to the currently active unit and automatically moves to the standby unit during a failover event, ensuring continuous network availability and minimizing service interruption.

This technical bulletin describes the installation, configuration, and troubleshooting procedures for the following HA scenario:

Uplink-Only HA



This scenario uses only the **uplink** interface for HA monitoring and failover.

- Failover is triggered only if the uplink interface becomes unavailable.
- The VIP is assigned to the active unit uplink interface.
- The standby unit assumes the active role when uplink failure is detected.

Required information

Complete the following table to make sure you have the required information to complete the different steps.

Information	Value
Network interfaces IPs/Names	
VIPs	

Before Starting

Before starting to use these configuration notes, make sure network interfaces are configured: [Basic Network Configuration - DGW Firmware - M5 Technologies](#)

Note: These configuration notes can be successfully executed, provided your unit is using the Factory default settings. Configuration steps apply to any Media5 products, but it is specific for Sentinel series.

If you are not familiar with the meaning of the fields and buttons, click Show Help, located at the upper right corner of the Web page. When activated, the fields and buttons that offer online help will change to green and if you hover over them, the description will be displayed.

Activating a License using web interface

Before you begin

You must have received the license key for your specific units.

Steps

1. Go to **System/Information**.
2. In the **Activate License** table, enter your license key.

Note: A license key is generated for one specific unit only, therefore it cannot be used on another unit.
3. Click **Apply**.
4. Validate that the **Licenses** table now displays the **HA License**.
5. At the top of the screen, **restart required services**.

Result

Licences
High Availability Licence

Configuration procedure

Uplink only HA

Create VRRP Instance – Active

Steps

- 1) Go to **Network/HA**.
- 2) In the **VRRP Instance Configuration** table, configure the Id value and click **+** to create a new instance.
- 3) In the **Name** field, set the name of the VRRP instance.
- 4) In the **Initial State** field, set it to Backup.
- 5) In the **Link** field, set the link on which the VRRP instance operates, eth1.
- 6) In the **Virtual IP Address** field, set the Virtual IP Address of the VRRP instance..
- 7) In the **Priority** field, set the priority of the VRRP instance, default is 100.
- 8) In the **Virtual Router Id** field, the unique number used to identify an instance of VRRP belonging to the same Virtual Router, default is 197.
- 9) In the **VRRP Preemption** field, set it to No preemption.
- 10) Click **Apply** to apply all changes to the configuration.
- 11) At the top of the screen, **restart required services**.

Result

The VRRP instance is created and enters Backup state awaiting election.

VRRP Instance Configuration									
Id	Name	Initial State	Link	Virtual IP address	Priority	Virtual Router ID	VRRP Preemption	Current State	
1	SBC_HA1	Backup ▼	eth1 ▼	IP Address/Mask	100	197	No preemption ▼	Master	–

Create VRRP Instance – Standby

- 1) Go to **Network/HA**.
- 2) In the **VRRP Instance Configuration** table, configure the Id value and click **+** to create a new instance.
- 3) In the **Name** field, set the name of the VRRP instance.
- 4) In the **Initial State** field, set it to **Backup**.
- 5) In the **Link** field, set the link on which the VRRP instance operates, **eth1**.
- 6) In the **Virtual IP Address** field, set the Virtual IP Address of the VRRP instance..
- 7) In the **Priority** field, set the priority of the VRRP instance. This value should be lower than the configured one for the Active unit, e.g. 99.

- 8) In the **Virtual Router Id** field, set the unique number used to identify an instance of VRRP belonging to the same Virtual Router, default is 197.
- 9) In the **VRRP Preemption** field, set it to No preemption.
- 10) Click **Apply** to apply all changes to the configuration.
- 11) At the top of the screen, **restart required services**.

Result

The VRRP instance is created and enters Backup state awaiting election.

VRRP Instance Configuration									
Id	Name	Initial State	Link	Virtual IP address	Priority	Virtual Router ID	VRRP Preemption	Current State	
1	SBC_HA1	Backup ▼	eth1 ▼	IP Address/Mask	99	197	No preemption ▼	Master	—

NOTE: Both nodes start in **Backup state**. The node with the highest priority becomes Master after VRRP election. **NoPreemption** is recommended to avoid unnecessary MASTER role changes after a node recovers. This minimizes service interruptions and prevents active calls from being dropped due to a pre-emption event. Both units should therefore be configured with an initial state of Backup and NoPreemption enabled.

Configuring the SBC HA

Setting the active unit

- 1) Go to **SBC/HA**.
- 2) In the **HA Enable** field, set it to **Enable**.
- 3) In the **HA Network Interface** field, select the previously configured interface.
- 4) In the **HA Local Sync Network Interface** field, select the network interface used to synchronize with the peer call database, **uplink**.
- 5) In the **HA Peer Sync IP Address** field, configure the peer IP address to synchronize the call database with.
- 6) Click **Apply** to apply all changes to the configuration.

Result

HA Configuration	
HA Enable:	Enable ▼
HA Network Interface:	Ha_SBC_HA1 ▼
HA Local Sync Network Interface:	Uplink ▼
HA Peer Sync IP Address:	Standby Peer IP Address

Setting the standby unit

- 1) Go to **SBC/HA**.
- 2) In the **HA Enable** field, set it to **Enable**.
- 3) In the **HA Network Interface** field, select the previously configured interface.
- 4) In the **HA Local Sync Network Interface** field, select the network interface used to synchronize with the peer call database, **uplink**.
- 5) In the **HA Peer Sync IP Address** field, configure the peer IP address to synchronize the call database with.
- 6) Click **Apply** to apply all changes to the configuration.

Result

HA Configuration	
HA Enable:	Enable ▼
HA Network Interface:	Ha_SBC_HA1 ▼
HA Local Sync Network Interface:	Uplink ▼
HA Peer Sync IP Address:	Active Peer IP Address

Interface configuration

- 1) Go to **SBC/Configuration**.
- 2) In the **Signaling Interface Configuration** table, set the Network field for the **uplink_s** to the previously configured **Ha_SBC_HA1**.
- 3) In the **Media Interface Configuration** table, set the Network field for **uplink_m** to the previously configured **Ha_SBC_HA1**.
- 4) Click **Apply** to apply all changes to the configuration.

Result

Signaling Interface Configuration								
Name	Network	Port	Secure Port	Allowed Transports	Tls Mode	DiffServ (QoS)	Public Address	
loop_s	Loop ▼	0	0	All ▼	Client ▼	184		–
lan1_s	Lan1 ▼	0	0	All ▼	Both ▼	184		–
uplink_s	Ha_SBC_HA1 ▼	0	0	All ▼	Both ▼	184	Public IP Address	–
								+

Media Interface Configuration					
Name	Network	Port Range	DiffServ (QoS)	Public Address	
loop_m	Loop ▼	20000-20999	184		–
lan1_m	Lan1 ▼	20000-20999	184		–
uplink_m	Ha_SBC_HA1 ▼	20000-20999	184	Public IP Address	–
					+

Validating the HA operation

1. Verify VIP exists on Active node.
2. Start a SIP call.
3. Disconnect Active uplink.
4. Confirm VIP moves to Standby.
5. Verify call handling continues.
6. Restore Active node.

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