Setting up High Availability (HA) – Guide

Nov 3, 2026 · @Viktor

With High Availability (HA), several SMS Gateways run as a cluster: if the active node (master) fails, another node (slave) takes over automatically. Clients reach the cluster through one shared virtual IP. Up to version 25.x a cluster consists of exactly two gateways; from 26.00 it can have two or more (2, 3, 4 and so on).

Which section applies depends on the firmware version:

Firmware	Section
26.00 and newer	High Availability from version 26.00
24.00 to 25.x	High Availability from version 24.00
older than 24.00	High Availability for versions before 24.00

You find the firmware version in the web interface under Help → Info (Software Version). Both gateways must run the same firmware version.

High Availability from version 26.00

From 26.00 a cluster can consist of any number of gateways, e.g. 2, 3 or 4. One gateway is the master, all others are slaves. You set up the cluster on the master only: you add all other nodes there, enable HA and push the configuration to each slave with one click. Also new in 26.00 are the cluster strategy (including round-robin load balancing) and the standby and resume buttons for a manual failover.

Prerequisites

1. All gateways in the cluster run firmware 26.00 and have an active HA license. Each slave also checks its license during the import.
2. All gateways have static IP addresses or fixed leases in the DHCP server (Configuration → Network) and are in the same subnet or VLAN.
3. Each gateway has its own unique hostname (Configuration → General → Hostname). Note the hostnames of all slaves exactly; you need them on the master.
4. All gateways have a working DNS server configured (Configuration → Network → Primary DNS server).
5. The virtual IP is free and unique in the network.

6. The master can reach every slave via HTTPS (port 443). Firewalls between the nodes allow cluster traffic.

Step 1: Prepare the slaves

The slaves need no HA configuration. On each slave, only check under Configuration → Restful API:

- "Enable / Disable HTTP Basic authentication" is ticked (default from 26.00). The extra save from 24.00 is no longer needed.
- If you use an IP access list: the master's IP is allowed (whitelist) or not blocked (blacklist).
- A user with administrator rights, including the High Availability right, exists. The master logs in to each slave with this user in step 4.

Step 2: Add the slaves as nodes on the master

1. Log in to the master and open Configuration → High Availability.
2. HA must still be disabled. Under Cluster Information you see the gateway itself as "This gateway (master node)".
3. Below it, enter the first slave:
   - New node hostname: the slave's hostname, e.g. gw2. It must match the hostname on the slave exactly.
   - New node IP: the slave's IP address, e.g. 10.66.115.139.
4. Click "Add node to cluster". The node appears in the list.
5. Repeat items 3 and 4 for every further slave, e.g. gw3 and gw4.
6. Check the list: it must contain all gateways of the cluster. Use "Remove node" to delete a wrong entry.

Step 3: Enable HA on the master

Set in the upper form:

Field	Value	Example
Activate high availability	Enabled	
Master node	Master	
Cluster strategy	see table below	No load balancing
Virtual IP	IP that clients use to reach the cluster	10.66.115.141

Field	Value	Example
Virtual Netmask	Netmask of the HA network	255.255.255.0

Click Save. The message "The new settings were saved" confirms the activation.

Cluster strategy	Behaviour
No load balancing	The configured master is always active; a slave only takes over on failure.
Switch master to the gateway with the best signal	Signal strength counts in the HA score. The gateway with the best signal becomes master.
Load Balancing (Round Robin)	Web and API requests to the virtual IP are spread across all nodes.

While HA is active, the cluster strategy, virtual IP and netmask are locked. To change them, disable HA, save, change the values and enable HA again.

Step 4: Configure the slaves with one click

1. In the Cluster Information table, the slaves first show as OFFLINE.
2. In the row of the first slave under Clusternode Switch, enter the username and password of the administrator on that slave.
3. Click add.
4. Repeat items 2 and 3 for every further slave.

The master sends the cluster configuration to the slave via the REST API. The slave checks that its hostname is in the node list, imports the configuration and starts HA automatically. This can take up to two minutes.

Step 5: Check the cluster status

Shortly afterwards, the Cluster Information table shows all nodes of the cluster:

Column	Meaning
Node / Network address	Hostname and IP of the node
Health	Online, OFFLINE or standby
Services	"Started - <hostname>" on the node that currently holds the virtual IP

Column	Meaning
Signal receiving strength	Modem signal in dBm
Clusternode Switch	standby or resume for a manual failover

Then open the web interface via the virtual IP, e.g. https://10.66.115.141/.

Example setup with three nodes

Node	IP	Hostname	Role
gw1	10.66.115.140	gw1	Master
gw2	10.66.115.139	gw2	Slave
gw3	10.66.115.138	gw3	Slave

Virtual IP: 10.66.115.141, netmask: 255.255.255.0. On gw1 you add gw2 and gw3 as nodes and then activate both slaves one by one. A fourth node is added the same way.

Manual failover

- standby: the node releases the virtual IP and another node takes over.
- resume: the node rejoins the cluster.

Use this, for example, before maintenance or a firmware update.

Error messages

Message	Cause and fix
Invalid username or password	Check the slave's credentials. Basic authentication must be enabled on the slave.
Cannot access the server	The master cannot reach the slave via HTTPS. Check IP, firewall and REST API access list.
Node not provisioned: node name does not match the target gateway's hostname	Remove the node on the master and add it again with the slave's exact hostname.
This node's own hostname cannot be added as a cluster node	You entered the master's hostname instead of the slave's.

Message	Cause and fix
An error has occurred in the DNS configuration	Disable the cluster, check hostname, domain and DNS server, then set it up again.
Your license does not contain this feature	The HA license is missing. From 26.00, HA is then disabled permanently. Enable HA again after installing the license.

High Availability from version 24.00

Applies to firmware 24.00 to 25.x. You configure HA on the master and then set up the slave automatically with one click.

Prerequisites

1. Both gateways have static IP addresses or are bound to fixed addresses via the DHCP server (Configuration → Network).
2. Both gateways have unique hostnames (Configuration → General).
3. Both devices are in the same subnet, e.g. 10.66.115.0/24.
4. DNS is mandatory: enter a valid DNS server under Configuration → Network (e.g. firewall, router or DNS server). Without a working DNS entry, the master cannot configure the slave automatically, even if its IP address is known.
5. Network communication between the devices works (ping test recommended).
6. The HA license is activated.

Step-by-step configuration

1. **Login:** Log in to both SMS Gateways with an administrative user, e.g. http://<IP address of your SMS Gateway>/.
2. **Prepare the RESTful API (on the slave only):** Open Configuration → RESTful API and click Save, even if all checkboxes are already ticked. Only then is the REST configuration fully initialized. This step is essential for HA communication.
3. **Open the HA configuration on the master:** Configuration → High Availability.
4. **Enable HA (on the master):**
   - Set High Availability: Enabled
   - Select Node: Master
   - Optional: enable "switch master to the gateway with the best signal"
5. **Set the network parameters:**

Field	Description	Example
Virtual IP	IP address accessible to clients	10.66.115.141
Virtual Netmask	Netmask of the HA network	255.255.255.0
Other Node IP	IP of the second gateway	10.66.115.139
Other Node Hostname	Hostname of the second gateway	gw2

6. **Save the configuration:** Click Save. If the nodes do not appear immediately, reload the HA page.
7. **Configure the slave:** Under Cluster Information, enter the username and password for the inactive slave and click Activate. The slave is configured automatically.
8. **Check the cluster status:** Health shows the online/offline status, Services the current role (e.g. Master or Standby), Signal the signal strength in dBm.
9. **Reboot (if required):** If the system recommends it, reboot to fully activate the HA services.

Example setup

Node	IP	Hostname	Role
gw1	10.66.115.140	gw1	Master
gw2	10.66.115.139	gw2	Slave

Virtual IP: 10.66.115.141, netmask: 255.255.255.0.

Important notes

- Both nodes must have identical configurations (except IP and hostname). Use Configuration → Configuration Export/Import to align them.
- The virtual IP must be unique within the network.
- If DHCP is used: bind the IPs statically in the DHCP server.
- No firewalls between the nodes that block HA communication, or allow the gateways through the firewall.
- Test the failover by shutting down one node (e.g. disconnect the network). Check signal strength regularly and export the configuration.

High Availability for versions before 24.00

With firmware before 24.00 you configure both gateways separately and as mirror images: each gateway knows the IP and hostname of the other one. Devices without a support service need a license for the High Availability module.

Configuration

1. Give both gateways a static IP address (Configuration → Network), or set the DHCP service so that both gateways always get the same IP address. Both gateways must be in the same network (VLAN).
2. Under Configuration → High Availability, enable High Availability and choose a mode (Broadcast or Unicast). Both devices must use the same mode.
3. Assign a virtual IP address from the network of the two SMS Gateways. The web interface is then reachable at this IP address.
4. Enter a SHA1-encoded string as the secret. The secret identifies the nodes to each other, is 40 characters long and identical on both gateways.
5. Tick Master Node on the primary gateway only.
6. Under Other node IP, enter the IP address of the other gateway.
7. Under Other Node Hostname, enter the hostname of the other gateway.
8. Save the settings.
9. Restart both SMS Gateways.

Example configuration

Field	Primary gateway (master)	Backup gateway (slave)
Hostname	test-sms-gw1	test-sms-gw2
Activate high availability	Enabled	Enabled
Mode	Broadcast	Broadcast
Virtual IP	10.66.115.199	10.66.115.199
Virtual Netmask	255.255.255.0	255.255.255.0
Secret (40 bytes Hex)	identical SHA1 value	identical SHA1 value
Master Node	ticked	not ticked
Other node IP	IP of test-sms-gw2, e.g. 10.66.115.108	IP of test-sms-gw1
Other Node Hostname	test-sms-gw2	test-sms-gw1

After the restart, Cluster Information shows "Heartbeat is running on this machine" and both nodes. Use "Manual cluster failover" to switch to the other node manually.

Devices without a support service need identically licensed modules on both gateways. Only then can the backup gateway fully replace the primary one if it fails.