SGA 4 Management

Management of SGA 4 Nodes and Clusters is on the **Streaming Gateway** page at either the **Customer** or **Organization** entity level. The SGA management functionality will depend on whether you have deployed the SGA Cluster using Frame (Automatic Deployment) or manually (Manual Deployment).

Automatic Deployment

With automatic deployment of an SGA Cluster, Frame is responsible for the lifecycle of all network resources and the SGA VMs. The Frame Accounts must have been created using Frame-managed networking in order for administrators to use Automatic Deployment of SGA. If a Frame account was created using customer-managed networking, then the administrator must manually deploy the SGA cluster and nodes following the instructions under Manual Deployment .

> If you are creating an SGA 4 cluster with the expectation of upgrading from existing SGA 3.x Frame accounts, please ensure you use a non-overlapping CIDR for the SGA 4 cluster. To accomplish this, enable the "Use custom CIDR range" slider in the Create Streaming Gateway Cluster configuration form.

Create Cluster

1. To create a new SGA cluster, go to the Frame Console and at the Frame Customer or Organization entity level, click on **Streaming Gateways** on the lefthand menu.
2. Click on **Create New Cluster** in the upper right corner.

image.png

3. Select “Automatic” (Frame creates all resources) and then click the **Continue** button.

4. Complete the Create Streaming Gateway configuration form.

image.png

- **Name:** Name of the SGA cluster. The name of each SGA node will be the SGA cluster name appended with a unique ID.
- **Cloud Provider:** Select the cloud provider you wish to use for this SGA cluster. -
- **Cloud Account:** Select the Cloud Account where the public cloud resources for this cluster will be provisioned. -
- **Region:** Select the cloud region where the SGA cluster will reside.
- **Number of VMs:** Specify the number of SGA nodes (VMs) to be provisioned.
- **Custom CIDR:** Specify the CIDR range where the SGA nodes will be provisioned (default 172.16.0.0/24).

5. Once the required field values have been specified, click on the **Create** button to create the SGA Cluster and the SGA Nodes. You can view the status of the SGA Cluster on the Streaming Gateways page.

After your SGA cluster and SGA nodes have been created, you can then reference the SGA Cluster when creating your Frame Account so that your newly created Frame account uses the SGA Cluster.

Delete Cluster

A SGA Cluster can be deleted only if there are no Frame Accounts attached to the cluster.

1. To delete an SGA cluster, go to the Frame Console and at the Frame Customer or Organization entity level where the SGA Cluster is defined, click on **Streaming Gateways** on the lefthand menu.
2. Click on the kebab menu to the right of the SGA Cluster and select **Delete**.

image.png

3. You will be asked to confirm that you wish to delete the SGA cluster. Click **Cancel** or **Delete**.

image.png

For SGA 4 clusters that were automatically deployed, Frame Console will terminate the SGA Nodes and the related SGA network resources (subnets, VPC/VNET) in the infrastructure and then delete the SGA Cluster.

Add Node

Customer administrators can add another SGA 4 Node to their SGA Cluster at any time.

1. For automatically deployed SGA Clusters, navigate to the **Streaming Gateways** page and locate the SGA Cluster you wish to add a new SGA Node.

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2. Click on **+ Add a Node**. Frame will provision a new SGA VM and wait for the VM to register.

   image.png

3. The Status of the SGA Node will change from `Pending registration` to `Available` once the SGA Node registers.

> **SGA Instance types**
> Frame Platform will provision SGA VM(s) on the following instance/machine types. These VMs will run 24x7 since users need to be able to access the workload VMs at any time. Administrators can manually power off and power on SGA VMs that are auto deployed.
>
> - **AWS:** c5.xlarge, 30 GB disk
> - **Azure:** D4 v3, 30 GB disk
> - **GCP:** e2-standard-4, 50 GB disk
> - **IBM:** cx3d-4x10, 130 GB disk

Delete Node

Customer administrators can delete an existing SGA 4 Node from their SGA Cluster at any time, except when:

- The SGA 4 node is powered on.
- There is only one SGA 4 node left and there are one or more Frame accounts attached to the SGA Cluster.

1. For automatically deployed SGA Clusters, navigate to the **Streaming Gateways** page and locate the SGA Cluster you wish to delete one of the existing SGA Nodes. Note that the SGA Node to be deleted must be powered off with status `Unavailable`.

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2. Click on the kebab menu for the powered off SGA node and select **Delete**.

image.png

3. Confirm that you wish to delete the SGA Node by clicking on the **Delete node** button.

image.png

4. Once the SGA Node is deleted, the SGA Node will be removed from the list of nodes for the SGA Cluster.

image.png

Power On Node

With automatically deployed SGA 4 Clusters, customer administrators can power on an existing automatically deployed SGA 4 Node, if the VM is powered off.

1. Navigate to the **Streaming Gateways** page and locate the SGA Cluster containing one or more SGA Nodes you wish to power on.

image.png

2. Click on the kebab menu and select **Start**.

image.png

3. You will be asked to confirm that you wish to power on the SGA Node.

image.png

Power Off Node

With automatically deployed SGA 4 Clusters, customer administrators can power off an existing automatically deployed SGA 4 Node, if the VM is powered on.

1. Navigate to the **Streaming Gateways** page and locate the SGA Cluster containing one or more SGA Nodes you wish to power off.

   image.png

2. Click on the kebab menu and select **Stop**.

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3. You will be asked to confirm that you wish to power off the SGA Node.

   image.png

Reboot Node

With automatically deployed SGA 4 Clusters, customer administrators can reboot an existing automatically deployed SGA 4 Node.

1. Navigate to the **Streaming Gateways** page and locate the SGA Cluster containing one or more SGA Nodes you wish to power off.

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2. Click on the kebab menu and select **Reboot**.

   image.png

3. You will be asked to confirm that you wish to reboot the SGA Node.

   image.png

Manual Deployment

With manual deployment of an SGA Cluster, the customer is responsible for the lifecycle of all network resources and the SGA VMs. The Frame Accounts must have been created using customer-managed networking in order for administrators to use Manual Deployment of SGA. If a Frame account was created using Frame-managed networking, then the administrator must follow the instructions under Automatic Deployment of an SGA Cluster.

Create Cluster

1. To create a new SGA cluster, go to the Frame Console and at the Frame Customer or Organization entity level, click on **Streaming Gateways** on the lefthand menu.
2. Click on **Create New Cluster** in the upper right corner.

image.png

3. Select “Manual” and then click the **Continue** button. 4. Complete the Create Streaming Gateway configuration form.

image.png

- **Name:** Name of the SGA cluster. The name of each SGA node will be the SGA cluster name appended with a unique ID.
- **Cloud Provider:** Select the cloud provider you wish to use for this SGA cluster.
- **Cloud Account:** Select the Cloud Account where the public cloud resources for this cluster will be provisioned.

5. Frame Console will display the newly created SGA Cluster and one SGA Node entry. Notice that Frame Console provides the Activation Code for this first SGA Node. You will need this Activation Code to register the SGA Node you manually provision.

Once the SGA Cluster has at least one registered SGA Node, you can then reference the SGA cluster when creating new Frame accounts.

> The Activation Code must be used within 30 minutes of creation. If the Activation Code expires, you may click on **Generate new code** on the SGA Node line to obtain a new Activation Code.

Delete Cluster

A SGA Cluster can be deleted only if there are no Frame Accounts attached to the cluster.

1. To delete an SGA cluster, go to the Frame Console and at the Frame Customer or Organization entity level where the SGA Cluster is defined, click on **Streaming Gateways** on the lefthand menu.
2. Click on the kebab menu to the right of the SGA Cluster and select **Delete**.

image.png

3. You will be asked to confirm that you wish to delete the SGA cluster. Click **Cancel** or **Delete**.

If the SGA 4 cluster was manually deployed, Frame Console will delete the SGA Cluster in Frame Console. However, the customer is responsible for terminating the SGA Nodes and any related SGA network resources in their infrastructure.

Add Node

For customers who are manually deploying an SGA Cluster, you must manually provision and configure the SGA Nodes from within your infrastructure console.

Prerequisites

SGA 4 prerequisites are as follows:

- Download the Frame SGA disk image from the Downloads Page for the hypervisor/infrastructure on which you wish to deploy the SGA.
- Determine which data center or public cloud region where the SGA Nodes for the SGA Cluster will be provisioned. To minimize network latency for the best user experience, the SGA Nodes for an SGA Cluster and the associated Frame accounts using that SGA Cluster should be in the same data center or public cloud region.
- Configure the firewall(s) and networking to support the required FRP8 protocols/ports from the Internet to the SGA Cluster and from the SGA Cluster to the workload network (e.g., VLAN or VNET/VPC and subnet) as well as from the workload network back to the Internet via the SGA Cluster.
- Assign a static private IP address to each SGA VM.
- Assign a static public IP address to each SGA VM. The public IP address can be configured in a firewall or load balancer with network address translation (NAT) to the SGA VM private IP address.

Step 1: Provision the SGA Node

1. To manually create an SGA Node, go to the **Streaming Gateways**