SIP Feature Server Deployment Guide

Implement device management

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Device management implementation requires installation of the DM GAX plug-in, initial configuration, and setup of required and optional features such as logging and IVR provisioning.

To implement device management:

1. Log into GAX as an administrator (*GAX IP address:port*/gax).

2. Upload the plug-in. Follow the steps in Uploading Installation Packages, using the *Installation Package Upload (template uploaded separately)* method. In the **Installation Package Selection** window, choose these files:

   - Create the package `install.zip` from the contents of the **ip** folder

   - Upload the `install.zip` package

   - Upload the XML template: `dm-gax-plugin.xml`

   - Upload the APD template: `dm-gax-plugin.apd`

3. Install the plug-in. Follow the steps in Deploying Installation Packages, selecting the package you uploaded in the previous step.

4. Restart GAX.

5. Ensure that your GAX server and Feature Servers are synchronized within one second of each other.

6. Create an FQDN, called FQDN2, that includes the IP addresses of all the Feature Server instances (note that this FQDN is different from the one you created in Configure SIP Feature Server applications). Then configure a DNS server (your choice) to provide cyclic distribution of IP addresses for the FQDN.
   For example, if 172.24.128.34, 172.24.128.35, and 172.24.128.36 are the IP addresses of three instances, you create the FQDN with all three instances: FQDN2 = `fs1.genesys.com`, which resolves to 172.24.128.34, 172.24.128.35, and 172.24.128.36.

7. Identify your Feature Server instances. In the GAX application object, under the section **[dm-gax-plugin]**, add an option named `fs_urls`, as needed. Set the option values to a comma-separated list of Feature Server instances, identified by URL. Use the format `http://FQDN or FS1 IP address:port/fs`.
   Important: The order of the first two Features Server instances must be the opposite of the order of the first two Feature Server instances you identified under **[fs-gax-plugin]** or **[fs]**.

   For example:

   [dm-gax-plugin]: `fs_urls = http://`*10.10.192.02:8080*`/fs`, `http://`*10.10.192.01:8080*`/fs`

   [fs-gax-plugin]/[fs]: `fs_urls = http://`*10.10.192.01:8080*`/fs`, `http://`*10.10.192.02:8080*`/fs`

8. Grant your users access.

   - In GAX, go to **Configuration > Accounts > Roles** and create a new role.

   - Add users that need access to device management.

   - Under **Assigned Privileges > SIP Device Management**, check **Access to Genesys SIP Device Management**.

9. Set the device management configuration options. In Genesys Administrator, in the Feature Server

Application object, under the **[dm]** section:

- set **Active** to `true`.

- set **fs_url** to the FQDN and port of the Feature Server that controls the deployment, in the format `FQDN2:port/fs`, where *FQDN2* is the FQDN you created in step 6 above.

  For details, see Configuration options.

10. Restart the master Feature Server.

11. To collect the logging data from devices, you must set up a syslog server. Genesys recommends the NXLOG server. To configure your log server:

- Install the NXLOG server, downloadable from http://sourceforge.net/projects/nxlog-ce/files/.

- Download the file nxlog.zip and copy the enclosed **nxlog.conf** file to ***nxlog installation directory*\conf**, replacing the existing file.

- Create these directories in the nxlog installation directory:

  - **\log_deposit** (must be a network shared directory)

  - **\log_backup**

  In the case of devices behind SBC/Firewall, the syslog server must be deployed in the same network as the phones and DMs cannot be used for viewing the syslogs. Also, the IP Address that is displayed in the DM UI for the phones may not be accurate.

12. Configure DHCP for phone provisioning. Set the value of the DHCP option (66/160) to:
    URL: `[http:https:]//FQDN2:port/fs/dm/prov`, where *FQDN2* is the FQDN you created in step 6 above.

- **Note:** For Audiocodes phones that run on firmware 2.0.2.x or below, the DHCP option (66/160) should be set to URL: `[http:https:]//FQDN2:port/fs/dm/prov/`.

13. Set up Transport Layer Security (TLS) using the Genesys Security Deployment Guide. To upload the custom-generated server certificates, follow the instructions in Secure Sockets Layer (SSL) (which applies to Feature Server as well as Genesys Web Engagement).

14. For devices behind an SBC, create a trunk with the following options under the **SIP Switch > TServer** section:

- **contact** = *SBC address*

- **oos-options-max-forwards** = 1

- **oosp-transfer-enabled** = `true`

15. In GA, create a Trunk Group DN named `gcti_provisioning` under the SIP Server switch. Set one configuration option under the **TServer** section:

- **sip-from-pass-through** = `true`

16. Optionally, set up IVR provisioning, which enables an administrator to use an IVR system to assign an extension to a device.

- Under the same Switch object, create a Trunk DN object (Trunk_IVR Number). On the Annex tab, in the TServer section, create these options:

  - **contact** = *Resource Manager IP:Port*

  - **prefix** = the prefix of the number to be dialed to access the IVR system. For example, if the IVR number is 888 then prefix can be 8 or 88 or 888.

- Create a resource group of type **gateway** between SIP Server and the GVP Resource Manager.

- Create a resource group of type **Media control platform** between Media Control Platform and Resource Manager.

- Create an IVR profile using **Define New IVR Profile**. Add the following options:

  - **service-type** = voicexml

  - **initial-page-url** = [http: https:]//*Feature Server2 IP address:8080*/fs/dm/ivr (this value uses the first non-master Feature Server IP address)
    FS(n+1) IP address is the IP address of the "extra" Feature Server instance that is not included in *FQDN1*.

  - **alternatevoicexml** = [http: https:]//*FQDN1 or Feature Server1 IP address:8080*/fs/dm/ivr (this value uses either an FQDN or the master Feature Server IP address)
    FQDN1 is the FQDN you created while configuring Feature Server applications, if your environment includes more than two Feature Server instances per SIP switch.

- Create a DID group and add the IVR profile created in the previous step.

- Add a DID with the same value as the IVR number that you set under **Administration > SIP Device Management > Settings** in Genesys Administrator Extension.

17. To enable SIP Authentication for a device, add the following option in the **[TServer]** section on the extension DN assigned to the device:

- **authenticate-requests** = Comma-separated list of the following SIP requests:

  - register Enables an authentication procedure on DN registration.

  - invite Authenticates incoming invite requests from the DN.

- **password** = Any alphanumeric value.

18. You can configure a device that is not listed in the Supported models. From the following list, add the options with the appropriate device name to the **[dm]** section of Feature Server application. Use a comma-seperated list if you are adding more than one device:

- polycom

- yealink

- genesys

- audiocodes

  For example, to add the Polycom SoundStation IP 7000 to the existing support of Polycom SoundStation IP 6000:
      polycom = SSIP_7000,SSIP_6000