Business Edition Premise Provider's Guide

Business Edition Premise 8.1.2

2/3/2022

Table of Contents

Business Edition Premise Provider's Guide

Business Edition Premise is an all-in-one pre-installed packaging of Genesys technology onto a single virtual machine or a set of five virtual machines, typically run on a single hypervisor server. It includes SIP Inbound, Outbound, Chat, and Email solutions, as well as real-time and historical reporting for up to 300 contact center agents.

Business Edition Premise installation and initial configuration requires some knowledge of Genesys software. The Business Edition Premise Guide documents the procedures needed to configure and maintain an existing Business Edition Premise environment.

The "If you are new to Genesys software…" section below clarifies the expected roles of providers and customers.

If you are new to Genesys software…

Business Edition Premise enables you to use the Genesys Administrator Extension interface to set options (parameters) that tailor routing operations. Some of these options, such as declaring an emergency or changing open hours, are easily set even if you have no prior experience configuring Genesys software. Other options, such as auto-attendant (IVR) menus and business targets, are tied to more complex features that must be synchronized with settings in other Genesys applications.

We suggest that customers rely on their Business Edition Premise provider to set up these features for them. The provider can then show the customer what options they have customized, such as business reporting categories (Service, Segment, and Department, for example) and announcements. The Business Edition Premise Guide specifies the tasks that customers can complete without assistance from their provider.

Architecture
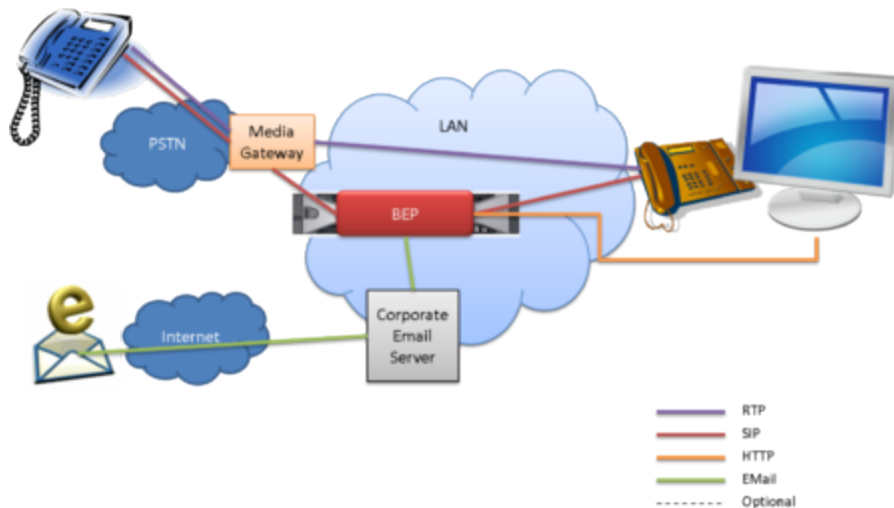
Business Edition Premise overview

Overview

Depending on your business needs, you can install the Business Edition Premise platform in one of two ways:

- As a **single-VM** platform, consisting of one VM installed on a single Dell R430 server running VMware ESXi 5.5.

- As a **multi-VM** platform, consisting of five VMs installed on a single Dell R720 or Dell R420 server running VMware ESXi 5.5.

Both platforms include the following features and components:

- Genesys software components, such as Framework, LCA/GDA, 3rd party Components (Apache Tomcat), eServices, Routing, and SIP Server, and the PostgreSQL configuration database

- Database features, including MS SQL Server, Genesys DB Servers, Genesys InfoMart, and RAA

- Genesys Voice Platform features, including Voice Platform components such as Media Control Platform and Resource Manager

- User interfaces, such as Genesys Administrator and Genesys Administrator Extension, IWS, Pulse, and GI2

After installation and initial configuration, the Business Edition Premise server is a basic Genesys 8 suite, which customers can extend with additional Genesys applications and functionality.

Multi-VM roles

In a multi-VM deployment, the five VMs play specific roles:

- **Core** VM includes core Genesys software components such as Framework, Routing, and SIP Server, as well as the PostgreSQL configuration database
- **DB** VM includes MS SQL Server, Genesys DB Servers, Genesys InfoMart, and RAA
- **GVP** VM includes Voice Platform components such as Media Control Platform and Resource Manager
- **UI** VM includes user interfaces such as Genesys Administrator and Genesys Administrator Extension, IWS, Pulse, and GI2
- **Aux** VM includes some Genesys Framework components (LCA/GDA), 3rd party components (Apache Tomcat), and room for additional packages such as eServices (required for email and chat functionality)

User interfaces

The table lists the key components used to control settings and reports. The component name links to its documentation home page.

Component	Role
Genesys Administrator	User and extension configuration, Outbound management
Genesys Administrator Extension	Web-based product that simplifies operation management with the ability to provision, deploy, and monitor all Genesys applications
Interaction Workspace	UI for agents and supervisors
Universal Contact Server Manager	Email contact management
Composer	Email deployment (and potential customization of voice and email routing)
Knowledge Manager	Email configuration
Genesys Interactive Insights	Historical reporting
Pulse (also known as EZPulse)	Real-time reporting

Pre-installed software components

The table below lists the pre-installed software components (or included IP Packages) that contribute to the Business Edition Premise solution.

> **Important**
>
> To view the supported version numbers (available after the virtual machines are deployed and tuned up), open a browser to `http://VM name or IP address` (for multi-VM deployments, use the core VM).

Component Name	Release Note
Composer	Composer 8.1.x Release Note
Configuration Conversion Wizard	Framework 8.1.x Wizard Advisory Release Note
Configuration Import Wizard	Framework 8.1.x Wizard Advisory Release Note
Configuration Manager	Configuration Manager 8.1.x Release Note
Configuration Server ST	Configuration Server 8.1.x Release Note
DB Server	DB Server 8.1.x Release Note Release Note
Genesys Pulse	Genesys Pulse 8.1.x Release Note Release Note
Genesys Pulse Collector	Genesys Pulse Collector 8.1.x Release Note
eServices Chat Server	Chat Server 8.1.x Release Note
eServices Classification Server	Classification Server 8.1.x Release Note
eServices E-Mail Server Java	E-mail Server 8.1.x Release Note
eServices Interaction Concentrator	eServices Interaction Concentrator 8.1.x Release Note
eServices Interaction Server	Interaction Server 8.1.x Release Note
eServices Knowledge Manager	Knowledge Manager 8.1.x Release Note
eServices Universal Contact Server	Universal Contact Server 8.1.x Release Note
eServices Universal Contact Server Manager	Universal Contact Server Manager 8.1.x Release Note
eServices Web API Server	eServices Web API Server 8.1.x Release Note
eServices GAX Deployment SPD	Restricted release; the release documentation is available from the installation package or through FTP.
Flex LM (License Manager)	-
Genesys Administrator	Genesys Administrator 8.1.x Release Note
Genesys Administrator Extension	Genesys Administrator Extension 8.1.x Release Note
Genesys Deployment Agent	Genesys Administrator Extension 8.1.x Release

	Note
Genesys Info Mart	Genesys Info Mart 8.1.x Release Note
Genesys Info Mart Administration Console	Genesys Info Mart Administration Console 8.1.x Release Note
Genesys Interactive Insights	Genesys Interactive Insights 8.1.x Release Note
Genesys Voice Platform Media Control Platform	Voice Platform Media Control Platform 8.1.x Release Note
Genesys Voice Platform Resource Manager	Voice Platform Resource Manager 8.1.x Release Note
Genesys Web Services	Genesys WebRTC Gateway 8.5.x Release Note
Interaction Concentrator	Interaction Concentrator 8.1.x Release Note
Interaction Workspace	Interaction Workspace 8.1.x Release Note
Interaction Workspace SIP Endpoint	Interaction Workspace SIP Endpoint 8.0.x Release Note
Local Control Agent	Local Control Agent 8.1.x Release Note
Message Server	Message Server 8.1.x Release Note
Orchestration Server	Orchestration Server 8.1.x Release Note
Outbound Contact Server	Outbound Contact Server 8.1.x Release Note
Reporting and Analytics Aggregates	Release Note Data Mart 8.1.x Release Note
SIP Server	SIP Server 8.1.x Release Note
SNMP Master Agent	SNMP Master Agent 8.1.x Release Note
Solution Control Server	Solution Control Server 8.1.x Release Note
Stat Server	Stat Server 8.1.x Release Note
Universal Routing Server	Universal Routing Server 8.1.x Release Note

Business Edition Premise and its components use these third-party components:

- Apache Tomcat
- Apache Cassandra
- Apache HTTPD
- Apache Tomcat Commons Daemon
- Eclipse Jetty Web Server
- MS SQL Server 2008
- MS SQL Server JDBC Driver
- Business Objects
- SoX
- Postgre SQL
- VMware vSphere

For information about updating components, see the Genesys Migration Guide.

Sizing and performance assumptions

This page describes the sizing and performance assumptions for each of the Business Edition Premise routing applications.

Voice input assumptions

[+] More Information

Input Assumptions	BEP 50	BEP 100	BEP 300
Agents per system (90% of customers)	50	100	300
Worst-case agents per system	50	100	300
Agent utilization	80%	80%	80%
Call qualification time	60s	60s	60s
Queue time	120s	120s	120s
Talk time	180s	180s	180s
Calculated worst-case values			
Calls/Agent/Hour	16	16	16
Concurrent active calls	100	100	300
Peak CAPS (Call Arrivals per Second)	0.4	0.8	2.2
Busy hour calls	1440	2880	7920
Calls per day	6,667	13,334	40,000
Calls per month	146,674	293,348	880,000
Additional assumptions			
Percentage of hold time	30%	30%	30%
Percentage of transferred calls	30%	30%	30%
Percentage of conference calls	10%	10%	10%
Percentage of monitored calls	5%	5%	5%
Average attached data size	512 bytes	512 bytes	512 bytes
Attached data requests per call	5	5	5
Retention period for historical data	13 months	13 months	13 months
UCS data retention	3 months	3 months	3 months

Input Assumptions	BEP 50	BEP 100	BEP 300
ICON data retention	7 days	7 days	7 days

Email input assumptions

[+] More Information

Input Assumptions	50 Agent	100 Agent	300 Agent
Agents per system (90% of customers)	12	25	75
Worst-case agents per system	12	25	75
Agent utilization	80%	80%	80%
Queue time	1-2 days	1-2 days	1-2 days
Processing time	10m	10m	10m
Calculated worst-case values			
Emails/Agent/Hour	4	4	4
Concurrent active emails being processed by an agent	12	25	75
Peak EAPS (Email Arrivals per Second)	0.2	0.4	1.25
Busy hour emails	720	1440	4500
Emails per day	1667	3334	10,000
Emails per month	36,674	73,348	220,000
Additional assumptions			
Average email size	50 K	50 K	50 K
Average attached data size	512 bytes	512 bytes	512 bytes
Attached data requests per email	5	5	5

Chat input assumptions

[+] More Information

Input Assumptions	50 Agent	100 Agent	300 Agent
Agents per system (90% of customers)	12	25	75
Worst-case agents per system	12	25	75
Agent utilization	80%	80%	80%
Queue time	120s	120s	120s
Processing time	10m	10m	10m

Input Assumptions	50 Agent	100 Agent	300 Agent
Calculated worst-case values			
Chats/Agent/Hour	16	16	16
Concurrent active chats being processed by an agent	4	4	4
Peak chats per second	0.15	0.3	1
Busy hour chats	540	1080	3600
Chats per day	3,000	6,000	18,000
Chats per month	66,000	132,200	396,000

Outbound input assumptions

[+] More Information

Input Assumptions	50 Agent	100 Agent	300 Agent
Agents per system (90% of customers)	20	40	60
Outbound interactions per day	1334	2667	8000
Outbound voice peak IPS	1.5	3	9
Inbound + outbound peak IPS	2	3.8	11.2
Peak Outbound CPH per System	54	108	324
Avg Talk Time (includes ACW)	20s	20s	20s
Outbound campaigns per system	5	5	10
Records per Outbound calling list	4,000	8,000	24,000
Bytes per Outbound calling record	600	600	600
Outbound customer calls (% answered)	33%	33%	33%
Outbound customer calls (% busy)	33%	33%	33%
Outbound customer calls (% no answer)	33%	33%	33%

Known Issues and Corrections

<tabber>

General=

This tab includes known issues found in or affecting **all** versions of Business Edition Premise 8.1.2.

To view known issues in BEP components, click the links in the Release Note column of the Components topic.

eServices component shutdown through the eServices Solution can cause voice call routing to stop

If you have deployed the email option in Business Edition Premise, any subsequent stoppage of eServices using the eServices solution shuts down call routing due to the presence of shared components in eServices and voice solutions. (ESHDP-153)

Workaround: Do not use the eServices solution to shut down eServices while voice call routing is ongoing; to shut down eServices, shut down the individual eServices applications.

|-| English=

Latest version: 8.1.200.07

This tab includes known issues found in or affecting English (U.S.) versions of BEP. All issues under the General tab also affect the English localization.

To view known issues in BEP components, click the links in the Release Note column of the Components topic.

Installing Business Edition Premise

The Business Edition Premise installation consists of an off-site and on-site portion. The **off-site** installation steps are performed *before* the server is delivered to the Premise (or customer) site and the **on-site** installation steps are performed *after* the server is delivered to the Premise site.

Although Business Edition Premise typically comes pre-installed on a server, you can also procure the required server and install Business Edition Premise on it yourself, as detailed on this page. Depending on your site or hardware requirements, you can install Business Edition Premise on a single virtual machine (VM) or as a set of five virtual machines.

> ### Tip
>
> If you have received your server with the VM(s) already deployed, you can skip Part I: Off-site installation and proceed directly to Part II: On-site installation.

Part I: Off-site installation

These steps describe how to prepare the server for delivery to the Premise site.

[+] Step 1. Procure the required hardware

Hardware requirements

The hardware required to run Business Edition Premise depends on the number of agents in the contact center and the virtual machine platform being deployed (multi-VM or single-VM).

Single-VM platforms

51 to 300 agents

Requirement	Minimum configuration
Server type	Dell PowerEdge R420
Processor	Intel Xeon E5-2470 (2.30 GHz, 20 M Cache)
Additional processor	Intel Xeon E5-2470 (2.30 GHz, 20 M Cache)
Memory (RAM)	48 GB
Controller	PERC H710P 1 GB RAID Controller
Hard drives	7x300GB 15 K SAS disks: 6 disks for RAID5 + 1 hot spare; 2.5 inch drive chassis

Requirement	Minimum configuration
Guest Operating System	Microsoft Windows 2008 Server R2
Hypervisor Operating System	ESXi 5.5

50 agents or less

Requirement	Minimum configuration
Server type	Dell PowerEdge R430
Processor	Intel Xeon E5-2630 v3 (2.40 GHz, 20 M Cache)
Additional processor	Intel Xeon E5-2630 v3 (2.40 GHz, 20 M Cache)
Memory (RAM)	48 GB
Controller	PERC H730 1 GB RAID Controller
Hard drives	4x600 GB 15 K SAS disks: 3 disks for RAID5 + 1 hot spare; 2.5 inch drive chassis
Guest Operating System	Microsoft Windows 2008 Server R2
Hypervisor Operating System	ESXi 5.5

Multi-VM platforms

100 to 300 agents

Requirement	Minimum configuration
Server type	Dell PowerEdge R720 or Genesys BEP 300
Processor	Intel Xeon E5-2665 (2.40 GHz, 20 M Cache)
Additional processor	Intel Xeon E5-2665 (2.40 GHz, 20 M Cache)
Memory (RAM)	64 GB
Controller	PERC H710P 1 GB RAID Controller
Hard drives	7x300 GB 15 K SAS disks: 6 disks for RAID5 + 1 hot spare; 2.5 inch drive chassis
Guest Operating System	Microsoft Windows 2008 Server R2
Hypervisor Operating System	ESXi 5.5

100 agents or less

Requirement	Minimum configuration
Server type	Dell PowerEdge R420 or Genesys BEP 100
Processor	Intel Xeon E5-2470 (2.30 GHz, 20 M Cache)
Additional processor	Intel Xeon E5-2470 (2.30 GHz, 20 M Cache)
Memory (RAM)	48 GB
Controller	PERC H710P 1 GB RAID Controller
Hard drives	7x300 GB 15 K SAS disks: 6 disks for RAID5 + 1 hot spare; 2.5 inch drive chassis

Requirement	Minimum configuration
Guest Operating System	Microsoft Windows 2008 Server R2
Hypervisor Operating System	ESXi 5.5

[+] Step 2. Provision the network

Provision the network to include:

- One IP address within a management control subnet for Dell iDRAC setup and configuration.

- One IP address within the same subnet and available on a Windows domain running DNS/DHCP services for ESXi 5.5 server.

[+] Step 3. Set up the server hardware and iDRAC

1. Perform the initial hardware setup of the server:

    - Connect a network cable to the iDRAC internal management board.

    - Connect a network cable to port 1 of the main Ethernet board (integrated with the motherboard).

    - Connect the power cable.

    - Directly attach a monitor, keyboard, and mouse.

2. Power-on the server by pressing the power button on the front of the console.

3. After the Dell Lifecycle Controller completes the system inventory and displays the **Settings – Language and Keyboard** screen, do the following:

    - Select **Next** to accept the defaults for **Language and Keyboard Type** (English/United States).

    - On the **Network Settings** screen, select **DHCP** from the **IP Address Source** drop-down list and click **Finish**.

4. Configure the server for remote access using the iDRAC management board:

    - Go to **Hardware Configuration** > **Configuration Wizards** > **iDRAC settings** > **Network**.

    - Record the **MAC Address** displayed under **Network Settings** (this is required for an upcoming step).

    - In the **IPV4 Settings** section, set **Enable DHCP** and **Use DHCP to obtain DNS server addresses** to **Enabled**.

    - In the **IPMI Settings** section, set **Enable IPMI Over LAN** to **Enabled**.

    - Click **Back**.

    - Click **Finish** and select **Yes** to save the changes.

    - Click **System Time and Date Configuration**.

    - Set **Time** to the current local time.

    - Click **Finish** and then click **Back** to exit the Configuration Wizard.

- Go to **System Setup** > **Advanced Hardware Configuration** > **System BIOS** > **System Profile Settings**.

- From the **System Profile** drop-down menu, select **Performance**.

- Click **Back**.

- Click **Finish** and select **Yes** to save the changes.

5. Update DHCP and DNS for the iDRAC management board:

- Enter the MAC address you recorded earlier into the DHCP server configuration and restart the DHCP service.

- Update the DNS server with the iDRAC hostname and IP address.

- You can access the system using iDRAC by entering the following URL into a browser:
    `https://<hostname or ip address>/login.html`

[+] Step 4. Obtain the required licenses

Obtain the following licenses:

<tabber> Single VM=

License requirements for single-VM installations

- One Microsoft SQL Server 2008 R2 64-bit license, required for internal access of server components.
    Important: This license to be applied on the Premise site.

- One Microsoft Windows Server 2008 R2 64-bit licenses with the appropriate number of client access licenses.
    Important: These licenses to be applied on the Premise site.

- One VMware vSphere Standard Server ESXi 5.5 license for 2 physical CPUs (unlimited cores per CPU).

- Alternatively, you can purchase the BEP Operations pack from Genesys, which contains appropriate licenses from Microsoft without the need for client access licenses.

- One Genesys software license for 50 agents, or 100 or 300 agents.
    Important: The MAC address information required for this license is obtained from the VM during server configuration.

|-| Multi-VM=

License requirements for multi-VM installations

- One Microsoft SQL Server 2008 R2 64-bit license, required for internal access of server components.
    Important: This license to be applied on the Premise site.

- Three Microsoft Windows Server 2008 R2 64-bit licenses with the appropriate number of client access

licenses.

> **Important:** These licenses to be applied on the Premise site.

- One VMware vSphere Standard Server ESXi 5.5 license for 2 physical CPUs (unlimited cores per CPU).

- Alternatively, you can purchase the BEP Operations pack from Genesys, which contains appropriate licenses from Microsoft without the need for client access licenses.

- One Genesys software license for 100 or 300 agents.

> **Important:** The MAC address information required for this license is obtained from the core VM during server configuration.

[+] Step 5. Configure the server

This step describes how to configure the server storage as a RAID-5 disk group containing two virtual disks. Virtual Disk 1 is used for the installation of the ESXi operating system and Virtual Disk 2 is used for the virtual machine(s) VMFS5 datastore.

WATCH: To view a short demonstration of how to configure the server storage (for 100 to 300 agents) as a RAID-5 disk group containing two virtual disks, click the Genesys icon below:

Important

The creation of a root password for the ESXi server and the configuration of additional user accounts is at the discretion of the party performing the installation.

1. Login to iDRAC and launch the Virtual Console, and then power on the server.

2. Configure disk group 0 and Virtual Disk 1:

   a. Press **<CTRL>** + **<R>** during POST to enter the RAID Configuration Utility.

   b. Configure the server as RAID-5 with a single hot spare drive:

      - Under **Physical Disks**, select the Disk IDs as follows:

        For single-VM or BEP50 configurations of less than 50 agents, select Disk IDs *:00 through *:02

        For all other configurations, select Disk IDs *:00 through *:05

   c. Under **Basic Settings**, change the **VD Size** to **20 GB** and type ESXi as the **VD Name**.

   d. Enable the **Advanced Settings** option and select **Initialize** (reply OK to the warning) and **Configure Hot Spare**.

e. In the **Dedicated Hotspare for Disk Group 0** window, select the first Disk ID and select **OK**.

3. Configure virtual disk two:

- From the **Virtual Disk Management** screen, select **Disk Group** and then **Add New VD**.

- For the **VD Name**, type VM Storage.

- Enable **Advanced Settings** and confirm that the Read Policy is **Adaptive Read-Ahead** and the Write Policy is **Write Back**.

- Select **Initialize** (reply OK to the warning).

- Exit and reboot the server.

4. Modify the boot sequence for the server:

- Press **F2** during POST to enter the system BIOS.

- From the BIOS menu, navigate to **System Setup Main Menu** > **System BIOS** > **Boot Settings** > **Bios Boot Settings** > **Hard-Disk Drive Sequence**.

- Move the Integrated RAID Controller (H710P or H730) to the top of the list.

- Exit and reboot the server.

[+] Step 6. Install the VMware vSphere ESXi Server and Client

WATCH: To view a short demonstration of the ESXi Server installation, click the Genesys icon below:

1. Install VMware vSphere 5.5 Standard ESXi Server on the 20 GB Virtual Disk 1 (configured in the previous step), using the license you procured. Give the server a unique name such as bep_*location*.
    For more information about VMware vSphere 5.5 Standard ESXi Server, see the VMware vSphere ESXi and vCenter Server 5.5 Documentation (opens in a new window or tab).

- After installing, navigate to **Configure Management Network** > **IPv6 Configuration** and disable IPv6 support.

2. If you are installing the VMs off-site, you must perform the following steps, which you will need to repeat at the customer site (see On-site installation):

- Power on the ESXi server and retrieve its MAC address (for setup in a DHCP server to assign an IP address and in a DNS server so the host name of the ESXi server can be associated to the assigned IP address when first connected to the network):

- Open the ESXi console for your ESXi server and go to **<F2> Customize System/View Logs > Configure Management Network > Network Adapters/<D> View Details**.

- Copy the MAC address.

- Log into the DHCP server.

   - In the Command window, configure the MAC address with the assigned IP address for the ESXi server.

   - Restart the DHCP server.

3. Install the VMware vSphere 5.5 Client on any Windows workstation that has network connectivity to the ESXi Server:
   IMPORTANT: The ESXi server must be powered on.

   - Open a browser and enter the IP address assigned to the ESXi server.

   - On the **VMware ESXi Welcome** page, click the download link for the VMware vSphere 5.5 Client and follow the prompts to install. For more information, see the VMware vSphere ESXi and vCenter Server 5.5 Documentation (opens in a new window or tab).

[+] Step 7. Configure the VM storage requirements

WATCH: To view a short demonstration of the virtual storage configuration, click the Genesys icon below:

1. Log in to the vSphere Client workstation as a user with ESXi administrator rights and select the **Configuration** tab.

2. In the Hardware section, click **Storage**, and then select **Add Storage**.

3. Accept the default settings by clicking **Next** for each configuration screen, and give the datastore a name (for example, VM Storage).

4. For the Capacity, accept the default selection of **Maximum available space**.

5. Click **Finish**.

[+] Step 8. Deploy the VM platform (single or multi)

<tabber> Single VM=

Single-VM deployment

1. Obtain the OVA VM template:

- Log into the vSphere Client as a user with ESXi administrator rights.

- Select **File** > **Deploy OVF Template**

- Save the BEP OVA VM template to a network drive on the same subnet as the ESXi Server or to a Genesys-supplied hard drive.

2. Launch the file and deploy the VM:

- The VM name must be in the following format:

  VM role-platform-product version-language code.

  Example: `g1-sngl-p-win2008r2std_sp1-8120007-enus.`

  file:BEP_dep_vm_sngl.png

  > ## Important
  > Do not change the VM naming format!

- Genesys recommends that you keep the default settings during deployment.

  > ## Important
  > When selecting storage for the OVA file, a minimum of 800 GB of available storage is required.

|-| Multi-VM=

Multi-VM deployment

1. Obtain the OVA VM template:

- Log into the vSphere Client as a user with ESXi administrator rights.

- Select **File** > **Deploy OVF Template**

- Save the BEP OVA VM template to a network drive on the same subnet as the ESXi Server or to a Genesys-supplied hard drive.

2. Launch the file and deploy the five VMs (aux, core, db, gvp, ui).

- The VM names must be in the following format:

  VM role-platform-product version-language code

  Example: `g1-core-p-win2008r2std_sp1-8120008-enus`

  file:BEP_dep_vm_multi.png

> **Important**
>
> Do not change the format.

- Genesys recommends that you keep the default settings during deployment.

> **Important**
>
> When selecting storage for the OVA file, a minimum of 1.2 TB of available storage is required.

Dell R420 or Genesys BEP100 memory allocation: The default memory allocation for each VM applies to the Dell R720 or Genesys BEP300 and its 64GB of total memory. If you are installing the VMs on a Dell R420 or Genesys BEP100, you must open each VM Properties window and adjust the memory and processor allocation for each VM.

VM	Memory	Processors
Aux	4 GB	4
Core	6 GB	4
DB	6 GB	4
GVP	4 GB	4
UI	4 GB	4

[+] Step 9. Enable VM restoration

To enable VM restoration, take a snapshot of a VM in its current state. To take a snapshot, do the following for each deployed VM:

1. Right-click on the VM and select **Snapshot**.
2. From the Snapshot menu, select **Take Snapshot**.
3. In the **Take Virtual Machine Snapshot** window, enter a name and description for the snapshot.
4. Click **Ok**.

For more information about snapshots, see Using Snapshots To Manage Virtual Machines in the VMware in VMware vSphere ESXi and vCenter Server 5.1 Documentation (opens in a new window or tab).

[+] Step 10. Confirm that the VM(s) start

Power on each deployed VM and confirm that it starts by opening its Console window and verifying that the **Set Up Windows** screen is visible. Once confirmed, power off the VM.

Important: Do not proceed with the Set Up Windows steps unless the server is located at the

Premise site.

> ### Tip
>
> Although the tune-up script starts automatically on the VM after you log in, you can select to postpone the tune-up procedure until the next restart of the VM. To do so, select No when the script asks "Would you like to do the tune-up now?" The script automatically starts when the VM restarts at the customer site, and continues to run during each restart until it completes successfully.

[+] Step 11. Off-site verification checklist

This step confirms that the off-site portion of the installation is complete and that the server is ready for delivery to the Premise site.

1. Log in to iDRAC and confirm the following:

    -   The server configuration is RAID-5.

    -   The storage controller card model is H730 for R430 models (or H710P for all other models).

    -   Disk sizes are 600 GB, 15K, SAS (or 300 GB, 15K, SAS, for multi-VM, 100 to 300 agents).

2. Connect to the ESXi server with a vSphere client and confirm the following:

    -   The VM is deployed and able to start. (If you installed the multi-VM platform, confirm this for each of the five VMs.)

    -   The ESXi server has all CPUs (>= 16 CPUs) and RAM (48 GB, or 64 GB for multi-VM, 100 to 300 agents).

    -   The VM is present, with a snapshot taken. (If you installed the multi-VM platform, confirm for each of the five VMs.)

    -   You can locate the MAC address for the VM, as this is needed when ordering appropriate Genesys licenses. (For multi-VM, use the MAC address for the core VM.)

    -   Ensure that you have adjusted the memory and CPU values of the VMs according to the table shown in the step for deploying the VMs, as required for your deployment.

    -   The VM(s) are the same version. If you deployed the VM(s) according to the steps described in this wiki, the version is included in the name of the VM.

Part II: On-site installation

> **Important**
>
> These steps describe how to finalize the server installation and configuration at the Premise site. Perform these steps only *after* the off-site portion of the installation is complete and the server is delivered to the Premise site. The steps are divided into several subsections and must be completed in the order described.

<tabber>

Single VM=

Single-VM installation

Follow these instructions if you are installing the single-VM environment for Business Edition Premise.

Before you begin

[+] Step 1. Confirm that you have the required licenses

> **Important**
>
> You require the following licenses before installing Business Edition Premise. If you do not have all required licenses, do not proceed with the installation steps.

- One Windows Server 2008 license key for activating Windows when starting the VM.
- One Genesys software license for the required number of agents.
- One Business Objects Enterprise (BOE) version 3.1 license key.
- One Microsoft SQL Server 2008 R2 64-bit license.

[+] Step 2. Provision the network

Provision the network to include:

- One IP address within a single subnet and available on the Windows domain running DNS/DHCP services for the Virtual Machine (VM); you also need to assign a hostname for the VM for entry into a DNS server
- One IP address within a management control subnet for Dell iDRAC configuration, to enable hardware alarming using email (the address must be able to access the customer corporate email server)

- One IP address within the same subnet and available on a Windows domain running DNS/DHCP services for ESXi server.

Hardware configuration

[+] Step 3. Set up hardware monitoring

Your Dell server includes an Integrated Dell Remote Access Controller (iDRAC) that monitors the server hardware and can send email notifications to help you avoid the data loss that *will* occur if two drives in the RAID array fail.

> ### Warning
> **Failure to monitor the health of your RAID array can result in loss of data.**
> Ensure that you set up Dell hardware monitoring with email notification.

To configure the iDRAC to send email notifications:

1. Use a browser to log into the Dell iDRAC at `https://IP address/login.html`, where *IP address* is the management interface IP address or DNS entry name. Enter the username and password that you specified when configuring the iDRAC.

2. Navigate to **Alerts > Alerts Filter**.

    - Ensure that *only* **System Health**, **Storage**, **Warning**, and **Critical** are checked.

    - Uncheck the other five items.

    - Click **Apply**.

3. Under **Alerts and Remote System Log Configuration**, check the **Email** box in the heading for *each* of the 8 pages.

4. Select the **SNMP and E-Mail Settings** tab.

    - Under **Destination E-mail Addresses**, add up to four addresses to receive alert emails.

    - Check **State** for each address.

    - Click **Apply**.

5. Under **SMTP (E-Mail) Server Address Settings**:

    - Enter the IP address or FQDN/DNS name of the corporate email server (authentication is optional).

    - Click **Apply**.

6. Under **Destination E-mail Addresses**:

    - Click **Send** to send an email alert to each of the configured accounts.

    - Verify that each account received the test email.

7. Return to the **Alerts** tab. Enable alerts and click **Apply**.

[+] Step 4. Configure Time Zone and Network Time Protocol (NTP)

To configure the Time Zone and NTP settings:

1. Navigate to **Overview** > **iDRAC Settings** > **Properties** > **Settings**. The Time Zone and NTP page appears.

2. From the Time Zone drop-down menu, select the required time zone and click **Apply**.

3. Enable NTP, enter the NTP server addresses, and click **Apply**.

DHCP and DNS server assignment

[+] Step 5. Update DHCP and DNS servers for ESXi

Power on the ESXi server (if needed) and retrieve its MAC address (for setup in a DHCP server to assign an IP address and in a DNS server so the host name of the ESXi server can be associated to the assigned IP address when first connected to the network):

1. Open the ESXi console for your ESXi server and do the following:
   - Go to **<F2> Customize System/View Logs > Configure Management Network > Network Adapters/<D> View Details**.
   - Copy the MAC address.

2. Log into the customer DHCP server.
   - In the Command window, replace the existing MAC address for the ESXi server with the one you copied.

3. Restart the DHCP server.

4. Update the customer DNS server with new host name of the ESXi server and the IP address assigned from the customer pool of addresses and given out by their DHCP server.

5. Open a DOS prompt and confirm the DNS association by doing a Forward and Reverse nslookup, as follows:
   - nslookup *<IP_address>*
   - nslookup *<hostname>*

[+] Step 6. Update DHCP and DNS servers for the VM

Before you power on the VM, retrieve its MAC address (from VM properties) to populate the DHCP server and update the DNS server:

1. In the vSphere Client inventory, do the following:
   - Right-click the VM and select **Edit Settings > Network adapter 1**.
   - Copy the MAC address.

2. Log into the DHCP server.
   - In the Command window, replace the existing MAC address for the VM with the one you copied.

3. Restart the DHCP server.

4. Update the customer DNS server with the new host name of the VM server and the IP address assigned from the customer pool of addresses and given out by their DHCP server.

5. Open a DOS prompt and confirm the DNS association by doing a Forward and Reverse nslookup, as follows:

   - `nslookup` *<IP_address>*

   - `nslookup` *<hostname>*

[+] Step 7. Configure NTP on the ESXi server to synchronize the VM

Configure an NTP (network time) daemon to synchronize the customer VM:

1. In the vSphere Client, select the ESXi server, and then select the **Configuration** tab.

2. From the **Software** menu, click **Time Configuration** and select **Properties**.

3. Select **NTP Client Enabled** and then click **Options**. The **NTP Daemon (ntpd) Options** window opens.

4. In the **NTP Daemon Options** window, do the following:

   - Under **General**, select **Start and stop with host**.

   - Click **OK**.

   > ### Important
   > You must be back in the **Time Configuration** screen to do the next step.

   - In the **Time Configuration** window, click **Options**.

   - Under **NTP Settings**, add an NTP Server in the customer time zone (the NTP Server website lists available NTP servers) and select **Restart NTP service to apply changes**.

   - Click **OK**.

5. Select **Options** and verify that the General settings are as follows:

   - Status = **Running**.

   - Startup Policy = **Start and Stop with Host**.

   - The **Start** button appears in the Service Commands section.

6. Click **OK** to close the **NTP Daemon Options** and **Time Configuration** windows.

VM configuration

[+] Step 8. Power on and configure the VM

1. Power on the VM.

2. In Windows setup, enter the locale and product key, accept the license terms, and change the password.

3. Confirm that the dialog for changing the user password at the first login appears. The Windows desktop loads and the tuneup script automatically runs.

> ### Tip
> If you enter incorrect information during the tuneup script configuration, Genesys recommends that you redeploy the VM and begin the tuneup script configuration again. If you made a snapshot of the VM prior to entering any data for the tuneup configuration script, you can revert to that snapshot.

4. After the tuneup script launches automatically, enter values when prompted.

   a. For the **Host** naming scheme:

      - Select 1 to use default host name (g1-sngl-p).

        Use this option for environments that you do not plan to extend and if the default naming convention suits your needs.

      - Select 2 to use default host names with custom suffixes (such as `g1-sngl-p-env1`).

        The script prompts you for the suffix. Use this option if default names with suffixes agree with your host naming convention.

        > ### Important
        > The suffix can contain no more than 4 characters.

      - Select 3 to use a custom name for the host (such as `newyork-sngl`).

        The script prompts you for a name. Use this option if you need to conform to a customer naming convention.

        > ### Important
        > The host name can contain no more than 15 characters.

   b. For the **Domain** configuration:

      This setting defines how the FQDN of the hosts is presented in Genesys Configuration; Genesys software uses these names when establishing network connections.

      - Select 1 to have the tuneup script use the domain name that it detects automatically.

      - Select 2 (Other domain name) to enter the domain name manually. When prompted, enter the domain name.

      - Select 3 if your environment does not require a domain name. (Typically, this option is reserved for lab use on systems not running in a domain.)

   c. Set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column

in List of tz database time zones.

d. When prompted, specify the following as required for your VoIP media gateway (source and destination of VoIP traffic) configuration:

- gateway-ip-address

- gateway-port

e. Rename? Yes

f. Reboot? Yes

> ## Important
> Ensure that the VM fully restarts before proceeding.

[+] Step 9. Configure the BOE tuneup script

The **tuneup_boe.bat** script launches automatically after VM startup.

1. Enter the BOE license code (Genesys does not provide this).

2. Wait for the BOE tuneup script to finish and close (the script can take 30 minutes or more to complete).

3. When it completes, restart the VM.

[+] Step 10. Configure Windows Server for the VM

> ## Important
> Make sure the BOE configuration script has already run before completing this step.

1. In the **Initial Configuration Tasks** window, click **Set time zone**.

- Set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column in List of tz database time zones.

2. Set up licenses by placing the Flex LM license file (acquired in the previous step) in the **GCTI\flexlm** folder.

3. If your environment uses a domain, you can add it by doing the following:

- Click **Provide computer name and domain**.

- In the **System Properties** window, click **Change**.

- In the **Computer Name/Domain Changes** window, select **Domain** and enter the domain name.

- Click **OK**.

- Restart the VM.

[+] Step 11. Verify the IP address of the VM

1. Verify the VM IP address is correct by doing the following:

- Run the Windows command `ipconfig/all`. If the host received proper IP configuration from your DHCP Server, the values will match your network settings.

- Verify that the server can reach the remote host:

   Ping an external server (such as a server you plan to use for your agent desktops) by running the command ping *<remote host name or IP address>*. The remote host must be reachable via ping and the output of the ping command looks similar to this example (note the shortened output and sample IP addresses; ping times may vary):

   Pinging agent-desktop.domain.com [1.2.3.4] with 32 bytes of data:

   Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

   Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

   Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

   Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

   Ping statistics for 1.2.3.4:

   Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)

   Approximate round trip times in milli-seconds:

   Minimum = 0ms, Maximum = 0ms, Average = 0ms

- From the remote host you just pinged, open the console window and issue the following command:

   ping *<remote host name or IP address>*

> ### Important
> The VM host must be reachable and the output of the `ping` command must look similar to the example above.

[+] Step 12. Verify the status of Genesys services

1. Click **Start**.

2. Enter `Services` in the **Search programs and files** dialog box.

3. Select **Services** and locate groups of services with names starting with `Genesys` in the list of local services.

4. Confirm that all Genesys services have a status of *Started* with a startup type of *Automatic*, with the following exceptions:

- Genesys DB Server [DBServer_OCS] (not started, Manual)

- Genesys Outbound Contact Server [OCS] (not started, Manual)

[+] Step 13. Enter Configuration Manager details

1. On the VM console, click **Start** and select **All programs > Genesys Solutions > Framework > Configuration Manager > Start Configuration Manager**.

2. In the dialog box, enter:

   - User name: default

   - Password: password

   - Application: default

   - Host name: localhost

   - Port: 8888

Important

Before proceeding to the next step, ensure that Configuration Manager starts and its main window displays Environment and Resources objects.

Final steps

[+] Step 14. Backup the VM

Genesys recommends that you backup the VM by exporting it to an external location or device.

1. Open the vSphere Client.

2. Power off the VM.

3. In the vSphere client, highlight the target VM and select **File** > **Export** > **Export OVF Template**.

4. For the file format, select Single File (OVA).

5. Specify the output file name and location.

6. Export the file.

|-| Multi-VM=

Multi-VM installation

Follow these instructions if you are installing the multi-VM environment for Business Edition Premise.

Before you begin

[+] Step 1. Confirm that you have the required licenses

> **Important**
>
> You require the following licenses before installing Business Edition Premise. If you do not have all required licenses, do not proceed with the installation steps.

- Three Windows Server 2008 license keys for activating Windows when starting each VM.
- One Genesys software license for either 100 or 300 agents.
- One Business Objects Enterprise (BOE) version 3.1 license key.
- One Microsoft SQL Server 2008 R2 64-bit license.

[+] Step 2. Provision the network

Provision the network to include:

- Five IP addresses within a single subnet and available on the Windows domain running DNS/DHCP services for the Virtual Machines (VMs); you also need to assign five hostnames for the VMs for entry into a DNS server
- One IP address within a management control subnet for Dell iDRAC configuration, to enable hardware alarming using email (the address must be able to access the customer corporate email server)
- One IP address within the same subnet and available on a Windows domain running DNS/DHCP services for ESXi server.

Hardware configuration

[+] Step 3. Set up hardware monitoring

Your Dell server includes an Integrated Dell Remote Access Controller (iDRAC) that monitors the server hardware and can send email notifications to help you avoid the data loss that *will* occur if two drives in the RAID array fail.

> **Warning**
>
> **Failure to monitor the health of your RAID array can result in loss of data.**
> Ensure that you set up Dell hardware monitoring with email notification.

To configure the iDRAC to send email notifications:

1. Use a browser to log into the Dell iDRAC at `https://IP address/login.html`, where *IP address* is the management interface IP address or DNS entry name. Enter the username and password that you specified when configuring the iDRAC.

2. Navigate to **Alerts > Alerts Filter**.

   - Ensure that *only* **System Health**, **Storage**, **Warning**, and **Critical** are checked.

   - Uncheck the other five items.

   - Click **Apply**.

3. Under **Alerts and Remote System Log Configuration**, check the **Email** box in the heading for *each* of the 8 pages.

4. Select the **SNMP and E-Mail Settings** tab.

   - Under **Destination E-mail Addresses**, add up to four addresses to receive alert emails.

   - Check **State** for each address.

   - Click **Apply**.

5. Under **SMTP (E-Mail) Server Address Settings**:

   - Enter the IP address or FQDN/DNS name of the corporate email server (authentication is optional).

   - Click **Apply**.

6. Under **Destination E-mail Addresses**:

   - Click **Send** to send an email alert to each of the configured accounts.

   - Verify that each account received the test email.

7. Return to the **Alerts** tab. Enable alerts and click **Apply**.

[+] Step 4. Configure Time Zone and Network Time Protocol (NTP)

To configure the Time Zone and NTP settings:

1. Navigate to **Overview** > **iDRAC Settings** > **Properties** > **Settings**. The Time Zone and NTP page appears.

2. From the Time Zone drop-down menu, select the required time zone and click **Apply**.

3. Enable NTP, enter the NTP server addresses, and click **Apply**.

DHCP and DNS server assignment

[+] Step 5. Update DHCP and DNS servers for ESXi

Power on the ESXi server (if needed) and retrieve its MAC address (for setup in a DHCP server to assign an IP address and in a DNS server so the host name of the ESXi server can be associated to the assigned IP address when first connected to the network):

1. Open the ESXi console for your ESXi server and do the following:

- Go to **<F2> Customize System/View Logs > Configure Management Network > Network Adapters/<D> View Details**.

- Copy the MAC address.

2. Log into the customer DHCP server.

- In the Command window, replace the existing MAC address for the ESXi server with the one you copied.

3. Restart the DHCP server.

4. Update the customer DNS server with new host name of the ESXi server and the IP address assigned from the customer pool of addresses and given out by their DHCP server.

5. Open a DOS prompt and confirm the DNS association by doing a Forward and Reverse nslookup, as follows:

- nslookup *<IP_address>*

- nslookup *<hostname>*

[+] Step 6. Update DHCP and DNS servers for VMs

Before you power on the VMs, retrieve the MAC address for each deployed VM (from VM properties) to populate the DHCP server and update the DNS server:

1. In the vSphere Client inventory, do the following for each VM:

- Right-click the virtual machine and select **Edit Settings > Network adapter 1**.

- Copy the MAC address.

2. Log into the DHCP server.

- In the Command window, replace the existing MAC address for each VM.

3. Restart the DHCP server.

4. Update the customer DNS server with the new host name of each VM server and the IP address assigned from the customer pool of addresses and given out by their DHCP server.

5. Open a DOS prompt and confirm the DNS association by doing a Forward and Reverse nslookup, as follows:

- nslookup *<IP_address>*

- nslookup *<hostname>*

[+] Step 7. Configure NTP on the ESXi server to synchronize VMs

Configure an NTP (network time) daemon to synchronize the customer VMs:

1. In the vSphere Client, select the ESXi server, and then select the **Configuration** tab.

2. From the **Software** menu, click **Time Configuration** and select **Properties**.

3. Select **NTP Client Enabled** and then click **Options**. The **NTP Daemon (ntpd) Options** window opens.

4. In the **NTP Daemon Options** window, do the following:

   - Under **General**, select **Start and stop with host**.

   - Click **OK**.

   > ## Important
   > You must be back in the **Time Configuration** screen to do the next step.

   - In the **Time Configuration** window, click **Options**.

   - Under **NTP Settings**, add an NTP Server in the customer time zone (the NTP Server website lists available NTP servers) and select **Restart NTP service to apply changes**.

   - Click **OK**.

5. Select **Options** and verify that the General settings are as follows:

   - Status = **Running**.

   - Startup Policy = **Start and Stop with Host**.

   - The **Start** button appears in the Service Commands section.

6. Click **OK** to close the **NTP Daemon Options** and **Time Configuration** windows.

VM configuration

> ## Important
> You must power on and configure the core VM before powering on or configuring any of the other VMs.

CORE

[+] Step 8. Power on and configure the core VM

1. Power on the core VM.

2. In Windows setup, enter the locale and product key, accept the license terms, and change the password.

3. Confirm that the dialog for changing the user password at the first login appears. The Windows desktop loads and the tuneup script automatically runs.

> **Tip**
>
> If you enter incorrect information during the tuneup script configuration, Genesys recommends that you redeploy the core VM and begin the tuneup script configuration again. If you made a snapshot of the core VM prior to entering any data for the tuneup configuration script, you can revert to that snapshot. This approach can also be applied to the other VMs; however, if you redeploy the core VM (or revert to a snapshot), you must also redeploy the other VMs.

4. After the tuneup script launches automatically, enter values when prompted.

   For the **Host** naming scheme:

   - Select 1 to use default host names (`g1-core-p, g1-ui-p, g1-db-p, g1-aux-p, g1-gvp-p`).

     Use this option for environments that you do not plan to extend and if the default naming convention suits your needs.

   - Select 2 to use default host names with custom suffixes (such as `g1-core-p-env1`).

     The script prompts you for the suffix. Use this option if default names with suffixes agree with your host naming convention.

     > **Important**
     >
     > The suffix can contain no more than 4 characters.

   - Select 3 to use custom names for each host (such as `newyork-core` and `newyork-ui`).

     The script prompts you for each name, which should identify the role of the host (core, ui, db, aux, or gvp). Use this option if you need to conform to a customer naming convention.

     > **Important**
     >
     > Each host name can contain no more than 15 characters.

   For the **Domain** configuration:

   This setting defines how the FQDN of the hosts is presented in Genesys Configuration; Genesys software uses these names when establishing network connections.

   - Select 1 to have the tuneup script use the domain name that it detects automatically.

   - Select 2 (Other domain name) to enter the domain name manually. When prompted, enter the domain name.

   - Select 3 if your environment does not require a domain name. (Typically, this option is reserved for lab use on systems not running in a domain.)

   - Rename? Yes

   - Reboot? Yes

> ### Important
> Ensure that the core VM fully restarts before you proceed.

[+] Step 9. Configure Windows Server for the core VM

1. In the **Initial Configuration Tasks** window in the vSphere client on the core VM:
   - Set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column in List of tz database time zones.

2. Set up licenses by placing the Flex LM license file (acquired in the previous step) in the **GCTI\flexlm** folder.

3. If your environment uses a domain, you can add it by doing the following:
   - Click **Provide computer name and domain**.
   - In the **System Properties** window, click **Change**.
   - In the **Computer Name/Domain Changes** window, select **Domain** and enter the domain name.
   - Click **OK**.

4. Reboot the VM.

[+] Step 10. Verify the core IP address

1. Verify that the IP address of the core VM is correct:

- Run the Windows command `ipconfig/all`. If the host received proper IP configuration from your DHCP Server, the values will match your network settings.

- Verify that the server can reach the remote host:

   Ping an external server (such as a server you plan to use for your agent desktops) by running the command `ping remote host name or IP address`. The remote host must be reachable via ping and the output of the ping command looks similar to this example (note the shortened output and sample IP addresses; ping times may vary):

   `Pinging agent-desktop.domain.com [1.2.3.4] with 32 bytes of data:`

   `Reply from 1.2.3.4: bytes=32 time<1ms TTL=128`

   `Reply from 1.2.3.4: bytes=32 time<1ms TTL=128`

   `Reply from 1.2.3.4: bytes=32 time<1ms TTL=128`

   `Reply from 1.2.3.4: bytes=32 time<1ms TTL=128`

   `Ping statistics for 1.2.3.4:`

   `Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)`

   `Approximate round trip times in milli-seconds:`

   `Minimum = 0ms, Maximum = 0ms, Average = 0ms`

- From the remote host you just pinged, open the console window and issue the following command:

`ping `*`core VM name or IP address`*

The core VM host must be reachable and the output of ping command must look similar to the example in the previous substep.

[+] Step 11. Verify the status of Genesys services

1. Click **Start**.

2. Enter `Services` in the **Search programs and files** dialog box.

3. Select **Services** and locate groups of services with names starting with Genesys in the list of local services.

4. Confirm that all Genesys services have a status of *Started* with a startup type of *Automatic*.

[+] Step 12. Enter Configuration Manager details for the core VM

1. On the console of the core VM, click **Start** and select **All programs > Genesys Solutions > Start Configuration Manager**.

2. In the dialog box, enter:

   - User name: `default`

   - Password: `password`

   - Application: `default`

   - Host name: `localhost`

   - Port: 8888

> ### Important
>
> Before proceeding to the next step, ensure that Configuration Manager starts and its main window displays Environment and Resources objects.

DB

[+] Step 13. Configure the db VM

You must configure the db VM first, followed by the remaining VMs (do not configure the **ui** VM until instructed to do so).

1. Power on the db VM.

2. In Windows setup, set the **locale**, enter the **product key**, accept the **license terms**, and change the **password**. To verify, use the same criteria as for the core server.

3. The tuneup script automatically launches. When prompted:

- Enter the Primary Core Host **IP address** (do not use the host name).

4. The time zone is configured as part of the tuneup script (this only applies to the db VM).

    - Set the time zone for GIM in the format *Continent/City or Region*. (For a list of time zones, see the TZ column in List of tz database time zones.)

5. Enter **Yes** to rename and restart the VM.

> ### Important
> Ensure that the VM fully restarts before you proceed.

[+] Step 14. Configure Windows Server for the db VM

1. In the **Initial Configuration Tasks** window in the vSphere client on the db VM:

    - Set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column in List of tz database time zones.

2. If your environment uses a domain, you can add it by doing the following:

    - Click **Provide computer name and domain**.

    - In the **System Properties** window, click **Change**.

    - In the **Computer Name/Domain Changes** window, select **Domain** and enter the domain name.

    - Click **OK**.

3. Reboot the VM.

AUX and GVP

[+] Step 15. Configure the aux and gvp VMs

For the gvp and aux VMs, do the following:

1. Power on the VM.

2. In Windows setup, set the **locale**, enter the **product key**, accept the **license terms**, and change the **password**. To verify, use the same criteria as for the core server.

3. Confirm that the dialog for changing the user password at the first login appears.

4. The Windows desktop loads and the tuneup script automatically runs. When prompted:

    - Enter the Primary Core Host **IP address** (do not use the host name).

5. **For the gvp VM only**: When prompted, specify the following as required for your VoIP media gateway (source and destination of VoIP traffic) configuration:

    - `gateway-ip-address`

    - `gateway-port`

6. Enter **Yes** to rename and restart the VM.

> ### Important
> Ensure that the VM fully restarts before you proceed.

[+] Step 16. Configure Windows Server for the aux and gvp VMs

1. In the **Initial Configuration Tasks** window in the vSphere client on the aux and gvp VMs:

   - Set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column in List of tz database time zones.

2. If your environment uses a domain, you can add it by doing the following:

   - Click **Provide computer name and domain**.

   - In the **System Properties** window, click **Change**.

   - In the **Computer Name/Domain Changes** window, select **Domain** and enter the domain name.

   - Click **OK**.

3. Reboot the VM.

[+] Step 17. Verify the gvp and aux IP addresses

1. For the gvp and aux VMs, verify that their IP addresses is correct:

   - Run the Windows command `ipconfig/all`. If the host received proper IP configuration from your DHCP Server, the values will match your network settings.

   - Verify that the server can reach the remote host:

     Ping an external server (such as a server you plan to use for your agent desktops) by running the command ping *remote host name or IP address*. The remote host must be reachable via ping and the output of the ping command looks similar to this example (note the shortened output and sample IP addresses; ping times may vary):

     Pinging agent-desktop.domain.com [1.2.3.4] with 32 bytes of data:

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Ping statistics for 1.2.3.4:

     Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)

     Approximate round trip times in milli-seconds:

     Minimum = 0ms, Maximum = 0ms, Average = 0ms

- From the remote host you just pinged, open the console window and issue the following command:

  `ping <remote host name or IP address>`

  UI

[+] Step 18. Configure the ui VM

> ### Important
> Configure the ui VM only after you have configured all other VMs.

1. Power on the VM.

2. In Windows setup, set the **locale**, enter the **product key**, accept the **license terms**, and change the **password**. To verify, use the same criteria as for the core server.

3. The UI tuneup script automatically launches. When prompted:

   - Enter the Primary Core Host **IP address**.

   - Enter **Yes** to rename and restart the VM. Ensure that the ui VM fully restarts before you proceed.

   {{NoteFormat|After the ui VM restarts, the tuneup script for BOE (`tuneup_boe.bat`) runs automatically. Do not respond to the prompts at this time. Minimize the script window and continue to the next steps.

[+] Step 19. Configure Windows Server for the ui VM

> ### Important
> You must complete this step before configuring the BOE script.

1. In the **Initial Configuration Tasks** window in the vSphere client on the ui VM:

   - Set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column in List of tz database time zones.

2. If your environment uses a domain, you can add it by doing the following:

   - Click **Provide computer name and domain**.

   - In the **System Properties** window, click **Change**.

   - In the **Computer Name/Domain Changes** window, select **Domain** and enter the domain name.

   - Click **OK**.

   - Reboot the VM.

   {{NoteFormat|After the ui VM restarts, the tuneup script for BOE (`tuneup_boe.bat`) runs automatically. Do not respond to the prompts at this time. Minimize the script window and continue to the next steps.

[+] Step 20. Verify the ui IP address

1. Verify the ui VM IP addresses is correct by doing the following:

   • Run the Windows command `ipconfig/all`. If the host received proper IP configuration from your DHCP Server, the values will match your network settings.

   • Verify that the server can reach the remote host:

     Ping an external server (such as a server you plan to use for your agent desktops) by running the command ping *<remote host name or IP address>*. The remote host must be reachable via ping and the output of the ping command looks similar to this example (note the shortened output and sample IP addresses; ping times may vary):

     Pinging agent-desktop.domain.com [1.2.3.4] with 32 bytes of data:

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Reply from 1.2.3.4: bytes=32 time<1ms TTL=128

     Ping statistics for 1.2.3.4:

     Packets: Sent = 4, Received = 4, Lost = 0 (0% loss)

     Approximate round trip times in milli-seconds:

     Minimum = 0ms, Maximum = 0ms, Average = 0ms

• From the remote host you just pinged, open the console window and issue the following command:

  ping *<remote host name or IP address>*

[+] Step 21. Configure the BOE tuneup script

The `tuneup_boe.bat` script runs automatically during ui VM startup and should be minimized on your desktop. Restore the script window and do the following:

1. Enter the BOE license code (Genesys does not provide this).

2. Wait for the BOE tuneup script to finish and close (the script can take 30 minutes or more to complete).

3. In the **Initial Configuration Tasks** window, set the time zone in the format *Continent/City or Region*. For a list of time zones, see the TZ column in List of tz database time zones.

4. If your environment uses a domain, you can add it by doing the following:

   • Click **Provide computer name and domain**.

   • In the **System Properties** window, click **Change**.

   • In the **Computer Name/Domain Changes** window, select **Domain** and enter the domain name.

   • Click **OK**.

5. In the Windows security window, enter the administrator ID and password.

6. Restart the VM.

Final steps

### [+] Step 22. Backup the VMs

Genesys recommends that you backup the VMs by exporting them to an external location or device.

1. Open the vSphere Client.
2. For each VM, do the following:
   - Power off the VM.
   - In the vSphere client, highlight the target VM and select **File** > **Export** > **Export OVF Template**.
   - For the file format, select `Single File (OVA)`.
   - Specify the output file name and location.
   - Export the file.

Back to top

Voice routing application

Overview
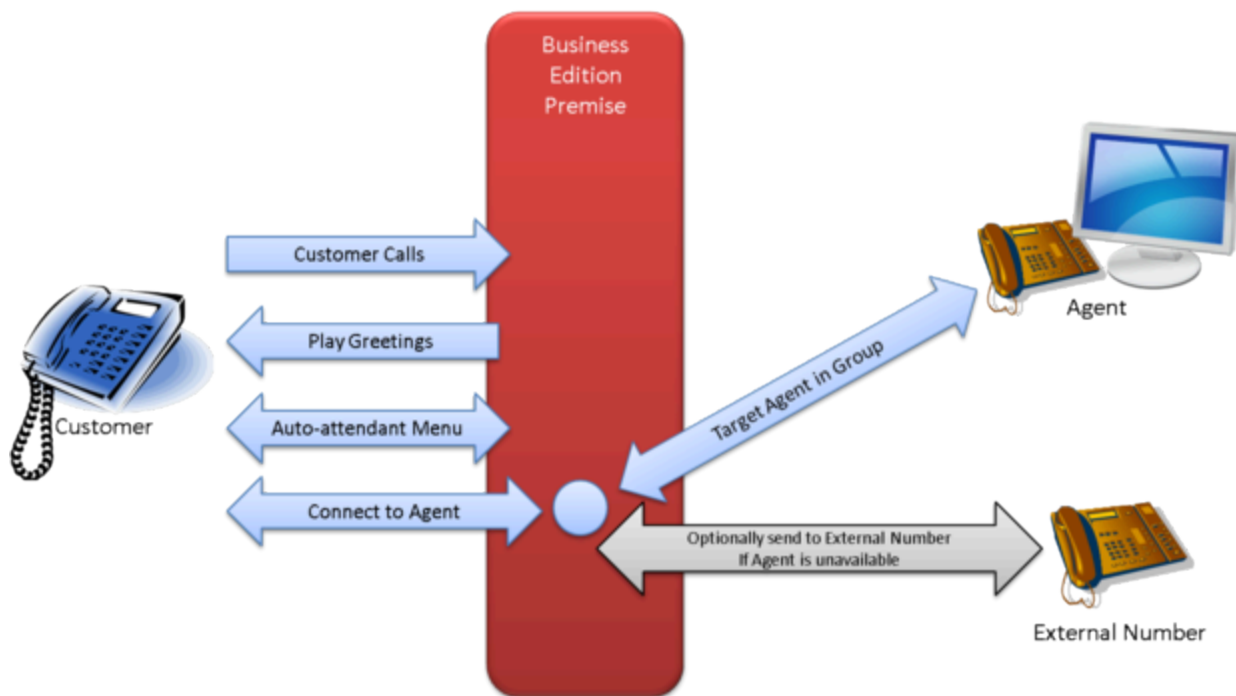
Inbound routing

The voice routing application is deployed automatically during BEP installation and provides essential inbound call center functions using built-in strategies:

- Entry handling based on contact center status
- Auto-attendant (Interactive Voice Response) menus
- Call distribution based on agent availability and call priority

Entry handling

The application receives the incoming call, retrieves the dialed number (DNIS), and applies status conditions to the call. Is the contact center closed, and if so, why?

- Is it a holiday? If so, the caller hears the Special Day announcement.
- Did the call come in outside of normal operating hours? If so, the caller hears the Closed announcement.
- Is an emergency underway? If so, the caller hears the Emergency announcement.

If the contact center is open, the caller hears an announcement or the auto-attendant menu (if one exists), or the call passes directly to an agent.

Auto-attendant menus

If you have given the caller a menu of options ("Press 1 for Sales," and so on), the call passes to the Auto-attendant menu (DTMF) workflow, which specifies the action to be taken depending on the caller's menu choice. The Auto-attendant flow can cycle up to three times, to accommodate three layers of routing. The Auto-Attendant Menus (DTMF) workflow, diagrammed below, acts as an Interactive Voice Response tree to the customer. It plays a menu announcement configured in the Inbound Template, and assigns a Distribution Parameter Group or an Inbound Parameter Group based on the digit (touch tones) collected. For example: The announcement gives the customer three choices (Press 1 for Customer Service, 2 for Sales, and 3 for Technical Support):

- Touch tone 1 = Customer Service (Distribution Template)

- Touch tone 2 = Sales (Distribution Template)

- Touch tone 3 = Tech Support at Route Point 6001 (the Inbound Template that matches the DNIS for the Technical Support Route Point)

The auto-attendant flow can accommodate up to three cycles during a call. In the example above, Touch tone 2 (Sales) might give the caller a second set of options: for Product A, press 1; for product B, press 2, and so on. To learn how to build your menus, see the **Configuration** tab.

Call distribution

The Distribution call flow distributes the call to an agent:

1. It collects statistics to determine what agents are logged in and available to take the call.

2. It routes the call to an agent from a target agent group: it first tries an agent from Target 1, then, in sequence, tries Targets 2, 3, and 4 if it does not find an agent within the timeout set for that target. Finally, if it does not find an agent from Targets 1-4 within the allotted time, it sends the call to the overflow target, which can be a standard telephone number (such as 415-555-1212) or a routing point (such as 6001). Note that Targets 2-4 are optional; routing skips any undefined targets.

The application plays queue music in a loop until the call is distributed to an agent or abandoned.

Redirect On No Answer (RONA): if the call has already been distributed to an agent who does not answer, the Distribution flow distributes the call as if it had not been previously distributed, and sets to *Not Ready* the status of the agent who did not answer.

Back to top

Configuration

Business Edition Premise routing configuration occurs at two levels:

- Initial configuration, which involves the automated setup of auto-attendant menus, business rules, and other configuration objects. The voice routing solution is automatically deployed and installed as part of

the BEP software installation, with default initial configuration settings. These settings are usually sufficient for most site requirements and do not need to be changed.

- Administrative configuration, such as setting open hours and switching among auto-attendant menu trees, is a subset of the initial configuration tasks and takes place entirely within Genesys Administrator Extension (GAX). It requires no advanced knowledge of Genesys software.

Important

To use Internet Explorer 10 to access Genesys Administrator Extension or Genesys Administrator, you must add your VM domain to the IE Trusted Sites (for multi-VM deployments, use the ui VM).

You can configure different values for a number of routing parameters, such as open hours and call priority. To handle different call flow and email scenarios, you use GAX to create parameter groups based on the default parameter group templates supplied in Business Edition Premise.

Voice solution definitions (SPDs)

When solution definitions (SPDs) are installed, they automatically create several objects. If you install a new SPD, Configuration Server objects created by previous voice or email installations are not overwritten. **[+] Show more info**

The Voice SPD creates these objects:

- Default personality
- Audio resources
- Parameters
- Parameter group templates
- Parameter groups

The Voice SPD also creates these samples (object name in parentheses):

- ACD Queues (*9000*)
- Action codes (*Admin Work, Locked, Lunch, Meeting, Pause, RONA, Training*)
- Agent groups (*AG_Voice_Sample, AG_Voice_Skill_Sample*)
- Agent Logins (*1000*)
- Business attributes
- DN Groups (*All_ACDQueues, All_RoutePoints, All_VirtualQueues*)
- Extensions (*8000*)
- Place Groups (*All_Places*)
- Places (*Place_SIP_8000*)
- Route Point (selected during SPD installation)

- Skill (*Skill_Sample*)

- Virtual queue (*VQ_Default_sample*)

Initial configuration

Initial configuration of the voice routing application is done automatically during the BEP software installation. Typically, the defaults supplied in the solution definition are sufficient for most customer requirements. Changing these settings requires some knowledge of Genesys software.

You can adjust voice routing parameters in either of two ways:

- To set new default values to be used in all new parameter groups that use the parameter, open Genesys Administrator Extension, navigate to **Operations > Parameters**, and adjust values as desired. Do not change Key Names.

- To set a new value that applies only to a specific parameter group, open Genesys Administrator Extension, navigate to **Operations > Parameter groups**, and adjust values as desired.

Administrative configuration

You can use the following procedures to change the administrative configuration settings of your voice routing solution:

[+] Define the auto-attendant menus

You can use parameter groups to build multiple sets of up to three cascading auto-attendant menus. Keep in mind that you must record corresponding *Auto attendant menu announcements* for each set you build.

To create a single set of three cascading menus:

1. Plan your menu set, because it is most efficient to begin by creating the third tier and its touch-tone selections, then the second tier, then the first. Your plan will look something like the following (the parameter group type is in parentheses):

```
8000 (Inbound)
  1: Customer Service (Distribution)
      1: Wondrous Product Line (Distribution)
      2: Stupendous Product Line (Distribution)
  2: Sales (Distribution)
      1: North America (Distribution)
      2: EMEA (Distribution)
  3: Technical Support at routing point 6001 (Inbound)
      1: Printers (Distribution)
      2: Monitors (Distribution)
      3: Mice (Distribution)
```

A customer having difficulty with their mouse calls the number that corresponds to routing point 8000, then presses 3 for Technical Support and 3 again for Mice. In this example, you create 11 parameter groups: 2 Inbound and 9 Distribution.

2. Deploy the third-tier parameter groups (in the example, Wondrous Product Line, Mice, and the other 5). See below for help in setting the individual parameters.

3. Deploy the second-tier parameter groups. Add the third-tier groups as values for the Touch tone parameters. In the example, you deploy the Sales parameter group, then assign the North America group to Touch tone 1, and EMEA to Touch tone 2.

> ### Important
>
> When you create an Inbound parameter group, the name of the parameter group must be the same as the routing point that you want to handle these incoming calls (in the example, the Technical Support group must be named 6001).

4. Deploy a parameter group based on the Inbound parameter group template. Add the second-tier groups as values for the Touch tone parameters. In the example, you deploy the 8000 parameter group, then assign the Customer Service group to Touch tone 1, Sales to Touch tone 2, and 6001 to Touch tone 3.

[+] Upload audio resources

In GAX, for each audio resource, upload the corresponding audio (WAV) files:

Resource name	Description
Announcement-Auto attendant menu	Played when the auto attendant is enabled
Announcement-Closed	Played when the service is closed
Announcement-Emergency	Played when *Emergency declared* is activated
Announcement-Greeting 1	Played when Greeting 1 is enabled
Announcement-Greeting 2	Played after Greeting 1 when Greeting 2 is enabled
Announcement-Special day	Played for a *Special day*
Music File	Music played while the caller is in the queue

[+] Customize business attributes

Your customer might require different Disposition Codes, which are the codes agents can select to specify the outcome of an interaction. The default disposition codes are:

- Cross Sell
- Not Right Skill
- Terminated
- Transferred
- Up Sell

To modify these samples or create your own codes, in Genesys Administrator, navigate to **Provisioning > Routing > eServices > Business Attributes**, and open the existing Disposition

Code Business Attribute.

Your customer might also require different reporting categories. The five default business parameters (Service, Segment, Product, Department, and Flow) represent reporting categories and are completely customizable to your business model. You can assign different combinations of these parameters to each of your Inbound and Distribution parameter groups, to distinguish them in reporting and enable you to identify the unique properties of the parameter group.

[+] Set open hours and special days

The parameter **Open hours** sets the standard hours that your office is open during the week. Use the **Special day** parameter to set:

* The dates or days of the week on which your office is closed for the entire day.

* The dates or days of the week on which your office is closed for only part of the day. In these cases, you use the **Time Ranges** field in GAX to set the hours that you will be open on that date.

Specific dates set in **Open hours** are treated as special days. Hours set for the same date in **Special day** override those set in **Open hours**; for example, if **Open hours** specifies that you are open from 9AM to noon on December 31, and **Special day** sets the hours of 11AM-2PM for the same date, callers who call at 10AM on that date hear the Closed announcement. Similarly, in both parameters, date patterns higher in the list take precedence over those lower in the list.

[+] Set targets and target timeouts

Assign at least one target agent group for each parameter group. Change the timeout for each group as needed (default is 300 seconds, or 5 minutes). You should also assign a **Target overflow**, which serves as the "last resort" number to which a call is transferred when none of the other target agent groups answers within their timeout.

[+] Tune priorities

You can adjust the priority of calls using the four priority tuning options. Over time, unanswered calls receive higher and higher priority, ensuring that calls do not remain in the queue for excessive lengths of time.

* **Priority start** sets the initial call priority; you typically have little reason to change the default of 1.

* **Priority interval** sets the number of seconds between priority increments. If you set the priority interval to 60 seconds, for example, and the priority increment is 1, then after 5 minutes of wait time, the call would have a priority level of 6, pushing it ahead of calls with priority values of 1-5.

* **Priority Increment** sets the number to add to the priority value each time the priority interval is exceeded. As the priority levels are relative, a setting of 1 typically works.

* **Priority limit** sets the upper limit for priority increments; all calls at the maximum priority level receive equal treatment.

[+] Configure UCS database pruning (recommended)

Genesys recommends that you configure automatic pruning of the Universal Contact Server (UCS) database to prevent it from growing too large in size.

> **Important**
>
> Changes made to the UCS database maintenance settings will apply to all deployed media strategies (Voice, Email, Chat, and Outbound).

1. On the VM host (for multi-VM installations, use the ui VM), log in to Universal Contact Server Manager.

2. Select the **Scheduled task on Main DB** tab.

3. Configure the **Main DB** maintenance settings as desired.

4. Click **Save**.

Back to top

Verification of voice call routing and reporting

You can use the following procedures to verify that your BEP system is correctly receiving and routing calls and that the call reporting functionality is working.

[+] Verify call routing

To verify that Business Edition Premise is correctly receiving and routing calls, make a test call to an agent:

1. Ensure that you have:

   - A soft phone, such as SJPhone

   - A sound-enabled Windows PC that can connect to the Core server

2. In GA, set the SIPS TServer option **enable-unknown-gateway** to `true`.
   Important: After completing the verification process, restore this value to `false`.

3. In GA, ensure that the user TestAgent belongs to the agent group AG_Voice_Sample.

4. In GAX, for parameter group **6000**, ensure that:

   - **Greetings activated** is True.

   - **Target 1** is AG_Voice_Sample.

   - **Open Hours** includes the current time (or the call will not route to the agent).

5. Install the Interaction Workspace (IWS) client by navigating to `http://VM name or IP`

address/InteractionWorkspace/publish.htm and selecting **Install** or **Launch**. (For multi-VM installations, use the ui VM.)

6. Open IWS and log in using these credentials:

   - User name: TestAgent

   - Password: (none)

   - Place: Place_1000

   - Queue: 1004@SIP_Switch

        Ensure that the agent can log in and set their status to ready.

7. Open a soft phone as any user. For **Domain**, enter the FQDN of the SIP Server. Uncheck **Register with domain**.

8. Dial 6000. If the installation was successful, the call appears in IWS.

[+] Verify call reporting

To verify reporting, run a report in Interactive Insights (GI2).

VIDEO: To watch a short demonstration of running a report, click the Genesys icon below:

Generating a Report	Generating a Report using Pre-Set Values
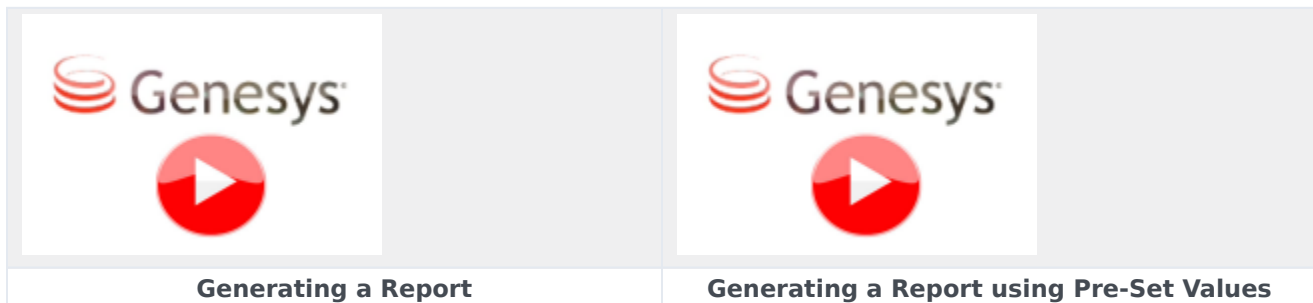
1. In a browser, log into GI2 at `http://VM name or IP address:9080/CmcApp/logon.faces` (for multi-VM installations, use the ui VM).

   - User: administrator

   - Password: G3n35y5

2. Go to **Folders > Interactive Insights > 8.1.1 > Agents**.

3. Run the report **Agent Group Interaction Handling Report**.

4. In the report list, click **Refresh** until status = success.

5. Open the report and click **Instance Time**. If the installation was successful, the call appears in the report.

6. In GA, reset the TServer option **enable-unknown-gateway** to `false`.

Back to top

Operational Parameters

For each parameter group, enter a description in the Description field. For instructions on setting these parameters, see Configuration.

Audio and Announcements

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Announcement-Closed	**Closed Annc**, *any valid audio resource*	Yes	Audio Resource played when the service is closed
Announcement-Auto attendant menu	**Auto-attendant Menu 1**, *any valid audio resource*	Yes	Audio Resource played when the auto attendant is enabled
Announcement-Emergency	**Emergency Annc**, *any valid audio resource*	Yes	Audio Resource played when *Emergency declared* is True
Announcement-Greeting 1	**Greeting 1**, *any valid audio resource*	Yes	Audio Resource played when Greeting 1 is enabled
Announcement-Greeting 2	**Greeting 2**, *any valid audio resource*	No	Audio Resource played after Greeting 1 when Greeting 2 is enabled
Announcement-Special day	**Special Day Annc**, *any valid audio resource*	Yes	Audio Resource played for a special day
Greetings activated	**False**, True	Yes	Activates the Greeting 1 and, if enabled, Greeting 2 announcements
Music File	**Music In Queue**, *any valid audio resource*	Yes	Audio Resource for music played while the caller is in the queue
Personality	**Default Personality**, *other personality defined in GAX*	Yes	The voice used in the announcements

Auto-attendant menus

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Auto attendant menu activated	**False**, True	Yes	Activates an auto-attendant menu (such as Press 1 for Sales) for this parameter group

Parameter	Values (default in bold)	Mandatory?	Description
Touch tone 0	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 0
Touch tone 1	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 1
Touch tone 2	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 2
Touch tone 3	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 3
Touch tone 4	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 4
Touch tone 5	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 5
Touch tone 6	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 6
Touch tone 7	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 7
Touch tone 8	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 8
Touch tone 9	**[none]**, *target parameter group*	No	Distribution or Inbound parameter group selected when the caller selects 9

Business (reporting)

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Department	**[none]**, *an item from*	No	A business organization

Parameter	Values (default in bold)	Mandatory?	Description
	the Department custom list for the parameter group		used as a category in reporting
Flow	**[none]**, *an item from the Flow custom list for the parameter group*	No	A business flow used as a category in reporting
Product	**[none]**, *an item from the Product custom list for the parameter group*	No	A product or product group used as a category for reporting
Segment	**[none]**, *an item from the Segment custom list for the parameter group*	No	A customer category used as a category for reporting
Service	**[none]**, *an item from the Service custom list for the parameter group*	No	Business categories typically used as the top level of the auto-attendant menu choices
Target virtual queue	**[none]**, *a target virtual queue set in GA*	No	A reporting entity set up in Genesys Administrator

Contact center status

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Emergency declared	**False**, True	Yes	Activates the emergency announcement, overriding any other announcement
Open Hours	**From Monday to Friday, 0800-2000, closed Saturday and Sunday**, *value set for parameter group*	Yes	Sets the hours that you are open and accepting calls; to specify open hours on specific dates, you must place the date above all day-of-week entries
Special day	**December 25, January 1**, *any dates*	No	A list of exceptions to the regular open hours, for a holiday or other reason.

Distribution

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Default distribution parameter group	**[none]**, *parameter group*	No	The distribution parameter group that provides the default and overflow target for this parameter group; if you do not set this parameter, the call flow uses the originally defined list of targets and timeouts
Target 1	**[none]**, *agent group*	No	The first agent group to which the call is routed
Target 2	**[none]**, *agent group*	No	The second agent group to which the call is routed
Target 3	**[none]**, *agent group*	No	The third agent group to which the call is routed
Target 4	**[none]**, *agent group*	No	The fourth agent group to which the call is routed
Target 1 timeout	**300**, *integer between 0 and 99999*	No	The timeout, in seconds, after which the call is routed to the next target agent group
Target 2 timeout	**1**, *integer between 0 and 99999*	No	The timeout, in seconds, after which the call is routed to the next target agent group
Target 3 timeout	**1**, *integer between 0 and 99999*	No	The timeout, in seconds, after which the call is routed to the next target agent group
Target 4 timeout	**1**, *integer between 0 and 99999*	No	The timeout, in seconds, after which the call is routed to the next target agent group
Target overflow	**[none]**, *a standard telephone number, such as 8005551212*	No	The phone number to which a call is routed if the final Target timeout is exceeded or if no target agent group is specified. **Important:** you cannot use a routing point as this number.

Priority tuning

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Priority Increment	**0**, *integer between 0 and 99999*	No	Sets the number to add to the priority value each time the priority interval is exceeded
Priority Interval	**0**, *integer between 0 and 99999*	No	The time interval (in seconds) between priority increments
Priority Limit	**0**, *integer between 0 and 99999*	No	Sets the upper limit for priority increments; all calls at the maximum priority level receive equal treatment
Priority Start	**1**, *integer between 1 and 99999*	Yes	The initial priority assigned to each incoming call

eServices application

Overview

The Business Edition Premise eServices application allows you to install and configure the optional Email and Chat routing solutions.

> **Important**
> You cannot install Chat as a standalone application. You can only install Chat if you have also installed and activated the Email routing application.

For more information about eServices, see the eServices documentation page.

Back to top

Deployment

The following steps describe how to deploy the eServices application. If you are not installing the Email or Chat options, you do not have to do these steps.

WATCH: To view a short demonstration of the eServices application deployment, click the Genesys

icon below:

1. In GAX, go to **Configuration > Solution Definitions** and select **Genesys eServices Single Host Deployment**.

2. From the **>** menu next to the **Delete** button, select **Install**.

3. Use the default values, except for the following:

   - Check or uncheck **Activate chat-media support**, depending on whether or not you want to activate chat.

   - DB Server for Interaction Server: DBServer_AUX

   - DB Server for Interaction Concentrator: DBServer_ICON

- Database Administrator Name: sa

- Database Administrator Password: G3n35y5!

- Database User Name: genesys

- Database User Password: Genesy$_0

- Set the customer Email Server Client Address, Email Server Domain Name, and Email Server POP Client Login Password.

Next Steps: After eServices is installed, you can deploy the Business Edition Premise Email and Chat routing applications. For more information, see Email routing and Chat routing.

Back to top

Email routing application

Overview
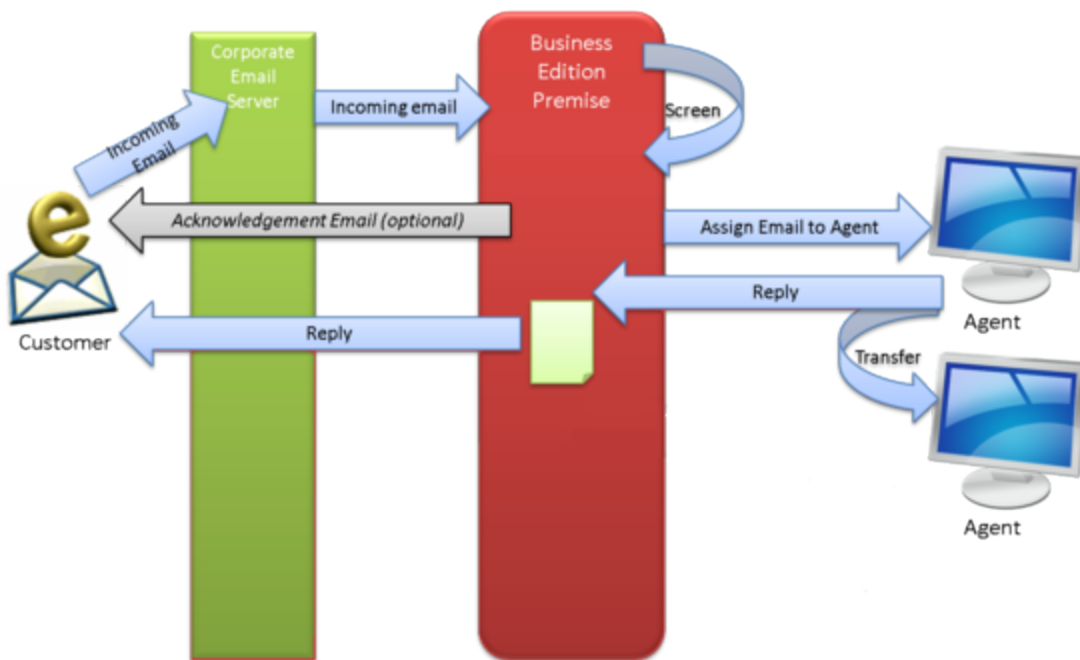
Email routing

The Business Edition Premise email routing application can:

- Screen incoming email subject lines for recognized terms
- Enable supervisor review before the emailer receives an agent response
- Distribute the email to a target agent group
- Send an acknowledgement based on contact center status

Content screening

If you enable screening, the application scans the subject line of the email, looking for terms that match those defined in the screening rules. If it finds a match, it uses the parameter values defined in one of the five Category parameter groups.

For example, if the email subject includes the term "annoyed", and the Category2 screening rule includes the term "annoyed", the application uses the Category2 parameter group values, such as Email supervisor review=True and Email supervisor review percentage=100, meaning that a supervisor will review every response to such an email.

If there is no match or screening is not enabled, the application assigns the default category.

Distribution

The screening rule also determines the target and overflow agent groups. If the email is not handled by an agent from the *Email target agent group* within the *Email target timeout* (default is one hour), the email is routed to the *Email overflow target agent group*. If the email is not handled by an agent from the overflow target agent group within the *Email overflow target timeout* (default is one day), the email returns either to the target agent group or to the overflow agent group, at a higher priority.

Acknowledgements

Like the voice routing application, the email application can send a different acknowledgement email based on the status of the contact center: open, closed, or special day.

Back to top

Deployment

To deploy the Business Edition Premise routing applications, you deploy the solution definition in Genesys Administrator Extension (GAX). Solution definitions are also known as solution package definitions, or SPDs. The email routing application also requires you to deploy eServices applications, import Knowledge Manager templates, and deploy the email strategy.

This section describes how to deploy the email routing application. Email deployment is optional; if you are not installing the email option, you can skip these steps.

[+] Step 1. Install the email solution definition

WATCH: To view a short demonstration of the email solution definition installation, click the Genesys

icon below:

1. In GAX, go to **Configuration > Solution Definitions** and select **Genesys One OPM Email Parameters**.

2. Complete the wizard, using default values except for:

   - GAX host: *VM host name* (for multi-VM installations, use the ui VM)

   - Switch: `eServices_Switch`

   - Email address: the Do Not Reply address that you select for the customer mail server

- Email Sample Configuration: True

[+] Step 2. Import the Knowledge Manager templates

VIDEO: To watch a short demonstration of how to import the Knowledge Manager templates (for a

multi-VM envinronment), click the Genesys icon below:

1. In Genesys Administrator, ensure that the eServices solution is started.

2. Go to: `http://`*VM host name or IP address*`/ips` and locate and download `email_strategy_ext_`*version*`.zip`. (For multi-VM installations, use the aux host.)

3. Unzip the file.

4. Browse to `email_strategy_ext\KNOWLEDGE` and copy the **GenesysOne_KnowledgeManager_Rules_Responses_ENU.kme** file to a temp folder on the local disk.

5. Under `Genesys Solutions\eServicesxxx\Knowledge Manager`, start Knowledge Manager.

    - Username: default

    - Password: password

    - Application: eServices_KnowledgeManager

    - Host: *VM name* (for multi-VM installations, use the core VM)

6. Go to **File > Import** and select the kme file from the temp folder.
    Important:

    - Uncheck **Preserve uniqueness of objects**

    - Check **Update screening rules**.

        Click **OK** and ignore the 5 warnings.

7. If you are using Special Day Auto Responses in Email, you must manually change the Time Zones for AutoResponse:

    - Start Knowledge Manager.

    - Click **AutoResponse**, and then double-click **Special Day**.

    - Locate the two instances of **TimeZone** and replace them with the correct time zone IDs.
        Important: You must use time zone database IDs to indicate time zones. For a list of time zone database IDs, see http://en.wikipedia.org/wiki/List_of_tz_database_time_zones.

    - Click **Check field Codes** to view the Special Day Auto Response with the field codes rendered.

    - Click **OK**.

[+] Step 3. Deploy the email strategy

1. In a browser, go to `http://`*`VM name or IP address`*`/ips` (for multi-VM installations, use the core VM). Locate, download, and extract the following zip files:

   - `email_strategy_`*`version`*`.zip`

   - `composer_`*`version`*`_enus.zip`

2. Install Composer 8.1.3 on a Windows system that is not a VM and is not already running Apache Tomcat (to avoid port conflicts). Follow the installation instructions in the Composer 8.1 Deployment Guide. Note that Composer 8.1.3 is an Eclipse plugin that requires JDK 1.7 and a supported version of Eclipse. Composer installs its own Apache Tomcat server.

3. Copy the **GenesysOne_Email** folder (from the `email_strategy_ext_`*`version`* zip that you just extracted) to a temp folder on the Composer system.

4. Open Composer and go to **File > Import > General > Existing Projects into Workspace**.

5. Choose **Select archive file** and then select the email strategy you copied from the VM. **Important**: Select the project from the newly populated list, ensuring **Copy projects into workspace** is enabled, and click **Finish**.

6. Verify that the local Tomcat server details are correct for your Composer installation:

   - Go to **Window > Preferences > Composer > Tomcat**.

   - Enter the **Port**, **Login** (admin), and **Password** (admin).

   - Check the Tomcat Location to confirm that it is on the local disk (for example, `c:\Program Files (x86)\GCTI\Composer 8.1\tomcat`).

7. In Composer Package Explorer, expand the GenesysOne_Email package, right-click **Interaction Processes > Email ixnprocess**, and select **Publish to Configuration Server** (you might first need to connect to Configuration Server from the Composer menu bar).

8. Right-click the package name and select **Properties**. Deploy the project.

9. Create a war file:

   - Right-click the package name and select **Export > Composer > Java Composer Project as WAR file**.

10. Copy the war file to ***VM host*\c$\GCTI\apache-tomcat\webapps** (for multi-VM installations, use the core VM). The war file automatically extracts to a new **GenesysOne_Email** folder.

11. Point the new scripts to the correct server:

   - Open GA and go to **Provisioning > Routing/eServices > Orchestration**, which includes nine enhanced routing scripts.

   - Double-click **GenesysOne_Email.Email.Entered.Routing** and change the Orchestration URI to include the correct VM server name; for example, `http://g1-sngl-p:8380/GenesysOne_Email/ IPD_Email_Entered.scxml` (single-VM) or `http://g1-core-p:8080/GenesysOne_Email/ IPD_Email_Entered.scxml` (multi-VM).

   - Repeat for each of the other scripts.

Back to top

Configuration

Business Edition Premise routing configuration occurs at two levels:

- Initial configuration, which involves the setup of auto-attendant menus, business rules, and other configuration objects, requires a basic understanding of Genesys software, particularly Genesys Administrator, SIP Server, and, for email, eServices Knowledge Manager.

- Administrative configuration, such as setting open hours and switching among auto-attendant menu trees, is a subset of the initial configuration tasks and takes place entirely within Genesys Administrator Extension (GAX). It requires no advanced knowledge of Genesys software.

You can configure different values for a number of routing parameters, such as open hours and call priority. To handle different call flow and email scenarios, you use GAX to create parameter groups based on the default parameter group templates supplied in Business Edition Premise.

Email solution definitions (SPDs)

Installation of the solution definitions (SPDs) automatically creates several objects. Configuration Server objects created by previous voice or email installations are not overwritten. **[+] Show more info**

The Email SPD creates these objects:

- Parameters
- Parameter group templates
- Parameter groups
- Transaction (Technical, Email Default)

The Email SPD creates these additional samples (object name in parentheses):

- Agent groups (*AG_Email_Sample, AG_Email_Overflow_Sample, Email Supervisors*)
- Business attributes (*Disposition Code (Attributes), iWS_ToastUserData, iWS_UserData*)
- Capacity Rule (*GenesysOne_1Voice_1Email*)
- Persons (*AgentSample, SupervisorSample*)
- SIP Switch Virtual queue (*VQ_Default_email*)
- Transactions (*Category1OverrideIWS, Category2OverrideIWS, Category3OverrideIWS, Category4OverrideIWS, Category5OverrideIWS*)

Initial configuration

Initial configuration of the email routing application depends on the needs of the customer. In many cases, the defaults supplied in the solution definition will be sufficient.

You can adjust email routing parameters in either of two ways:

- To set new default values to be used in all new parameter groups that use the parameter, open Genesys

Administrator Extension, navigate to **Operations > Parameters**, and adjust values as desired. Do not change Key Names.

- To set a new value that applies only to a specific parameter group, open Genesys Administrator Extension, navigate to **Operations > Parameter groups**, and adjust values as desired.

[+] Step 1. Configure screening rules

You can use the eServices Knowledge Manager application (for multi-VM, this is on the aux VM) to customize the screening rules used to route email to any of the five Category parameter groups.

"Content screening", in the **Overview** section, explains how screening works in Business Edition Premise.

"Screening Rules" in the eServices 8.1 User's Guide explains how to use the Screening Rule Editor and details how the rules work.

[+] Step 2. Configure email acknowledgements

You can also use the eServices Knowledge Manager application to customize the text of the acknowledgement emails: **Email acknowledgement body open hours**, **Email acknowledgement body closed hours**, and **Email acknowledgement body special days**, as well as the opening (salutation), closing, and time zone.

"Using Categories and Standard Responses" in the eServices 8.1 User's Guide explains how to edit the acknowledgement content.

[+] Step 3. Configure distribution

After you customize the screening rules, you can adjust their associated parameter groups to distribute emails to the correct targets. If you added the term "sales" to the Category 3 screening rule, for example, you can route emails with "sales" in their subject lines to a particular target agent group by setting the Category 3 parameter group **Email target** value to the Sales agent group.

You can also enable or disable supervisor review, and change the percentage of emails subject to review.

[+] Step 4. Set open hours and special days

The parameter **Email open hours** sets the standard hours that your office is open during the week. Use the **Email special day** parameter to set:

- The dates or days of the week on which your office is closed for the entire day.

- The dates or days of the week on which your office is closed for only part of the day. In these cases, you use the **Time Ranges** field in GAX to set the hours that you will be open on that date.

Specific dates set in **Email open hours** are treated as special days. Hours set for the same date or day of the week in **Email special day** override those set in **Email open hours**; for example, if **Email open hours** specifies that you are open from 9AM to noon on December 31, and **Email special day** sets the hours of 11AM-2PM for the same date, people who send an email at 10AM on that date receive the special day acknowledgement.

Similarly, in both parameters, date patterns higher in the list take precedence over those lower in the list.

[+] Step 5. Tune priorities

You can adjust the priority of emails using the two priority tuning parameters:

- **Email priority** sets the initial email priority; you typically have little reason to change the default of 100.

- **Email overflow priority** sets the priority of emails that exceed the **Email target timeout**. The default value is also 100, which means that emails that have already passed the overflow timeout will be re-queued based solely on their age, ensuring that the oldest emails will appear in the queue first.

[+] Step 6. Send a test email

To verify that Business Edition Premise is correctly receiving and routing emails, send a test email:

1. Install an email client and ensure that it connects to your email server.

2. Send an email to the address specified during the eServices SPD deployment.

3. Ensure that you have installed an IWS client (you did this when you were making a test call during the voice routing configuration).

4. If Business Edition Premise is successfully installed, an IWS interaction window containing the email appears when the email arrives.

[+] Step 7. Configure UCS database pruning

Genesys recommends that you configure automatic pruning of the Universal Contact Server (UCS) database to prevent it from growing too large in size.

Important

Changes made to the UCS database maintenance settings will apply to all deployed media strategies (Voice, Email, Chat, and Outbound).

1. On the VM host, log in to Universal Contact Server Manager. (For multi-VM, use the ui VM.)

2. Select the **Scheduled task on Main DB** tab.

3. Configure the **Main DB** maintenance settings as desired.

4. Click **Save**.

<div align="right">Back to top</div>

Operational Parameters

This section describes the operational parameters that are available for the email routing application. For instructions on setting these parameters, see Configuration.

Acknowledgements

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Email acknowledgement	**True**, False	Yes	Sends customer an acknowledgement email, content depending on whether you are open, closed, or on a special day
Email acknowledgement body open hours	**Thank you for your email. We will get back to you as soon as possible.**, *text string entered in Value field*	Yes	The body text used for acknowledgements sent during regular hours
Email acknowledgement body closed hours	**Thank you for your email. We are currently closed and will get back to you as soon as possible. Our office hours are:**, *text string entered in Value field*	Yes	The body text used for acknowledgements sent during closed hours
Email acknowledgement body special days	**Thank you for your email. We are currently closed and will get back to you as soon as possible. Our office reopens on date**, *text string entered in Value field*	Yes	The body text used for acknowledgements sent during special days
Email acknowledgement opening	**Dear *Customer name***, *text string entered in Value field*	Yes	The greeting to the customer at the beginning of the acknowledgement
Email acknowledgement	**Regards**, *text string*	Yes	The closing term to the

Parameter	Values (default in bold)	Mandatory?	Description
closing	*entered in Value field*		customer at the end of the acknowledgement
Email acknowledgement time zone	**[none]**, *free-form text such as* `Central Time` *or* `GMT`	No	The time zone text that you want to include in your email acknowledgements.
Email from	**[none]**, *email address*	No	The email address (typically DoNotReply) used in sending email responses to customers

Contact center status

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Email open hours	**From Monday to Friday, 0800-2000, closed Saturday and Sunday**, *any value set in the* **Value > Date Pattern** *field*	Yes	Sets the hours that you are open and accepting emails; to specify open hours on specific dates, you must place the date above all day-of-week entries
Email special day	**December 25, January 1**, *any value set in the* **Value > Date Pattern** *field*	No	A list of exceptions to the regular open hours, for a holiday or other reason.

Distribution

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Email screening	**True**, False	Yes	Enables email screening rules
Email target	**[none]**, *agent group*	Yes	The agent group that first receives all emails
Email overflow target	**[none]**, *agent group*	No	The agent group that receives all emails that exceed the overflow target timeout
Email target timeout	**3600**, *integer between 1 and 99999*	No	The length of time (in seconds) that an email can go unattended before being passed to the overflow agent

Parameter	Values (default in bold)	Mandatory?	Description
			group
Email overflow target timeout	**86400** (24 hours), *integer between 1 and 99999*	No	The length of time (in seconds) that an email can go unattended before being passed to the first available agent group (either target or overflow)
Email supervisor review	**False**, True	Yes	Enables supervisor review.
Email supervisor review percentage	**100**, *integer between 0 and 100*	Yes	The percentage of emails routed to supervisors for review
Email supervisor agent group	**[none]**, *agent group*	No	The supervisor agent group that receives the emails when supervisor review is enabled
Email default virtual queue	**VQ_Default_email**, *a target virtual queue set in GA*	Yes	The default virtual queue to which all emails are routed, for reporting

Priority tuning

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Email priority	**100**, *integer between 1 and 99999*	Yes	The initial priority assigned to each incoming email
Email overflow priority	**100**, *integer between 1 and 99999*	Yes	The priority assigned to all emails that exceed the overflow target timeout

Back to top

Chat routing application

Overview

The Business Edition Premise chat routing application delivers chat interactions to the `AG_Voice_Sample` Agent Group.

> ### Important
> You cannot install chat as a standalone application. Chat can only be activated if you have first deployed, installed, and activated the email routing application.

Acknowledgements

The chat application sends acknowledgements to customers, informing them that:

- They are queuing.
- Their chat interaction has been delivered, along with the name of the receiving agent.

The `AG_Voice_Sample` Agent Group is a system-defined destination and cannot be changed. To configure a different destination for chat interactions, you must modify the chat strategy in Composer. For more information about configuring the chat strategy, refer to the Composer documentation.

Back to top

Deployment

This section describes how to activate, install, and deploy the chat routing strategy.

[+] Step 1. Activate the chat option

You can activate the chat option when first deploying the email routing application or when modifying an existing email routing application deployment.

Activating chat when deploying the email routing application

To deploy chat with email, follow the instructions described in Deploying the email routing

application, but select **Activate chat-media support** when choosing the eServices applications to install.

Activating chat by modifying an existing email routing application deployment

To activate chat by modifying an existing email deployment, do the following:

1. In GAX, go to **Configuration** > **Solution Definitions** and select **Genesys eServices Single Host Deployment**.

2. Click the operations icon (gear) and select **Upgrade**.

3. Click **Next** to check the availability of required Installation Packages.

4. Select **eServices Solution** and check **Activate chat-media support**, and then click **Next**.

5. Click **Finish** to start the deployment.

[+] Step 2. Install the chat solution definition

WATCH: To view a short demonstration of the chat solution installation, click the Genesys icon below:

1. In GAX, go to **Configuration** > **Solution Definitions** and select **Genesys One OPM Chat Parameters [ENU]**.

2. Keep all default options, except for the following, which are specific to your site:

   - GAX host

   - GAX user

   - GAX password

   - Application Server host

[+] Step 3. Deploy the chat strategy

WATCH: To view a short demonstration of the chat strategy deployment, click the Genesys icon

below:

1. In a browser, go to `http://<VM name or IP address>/ips` (for multi-VM, use the core VM). Locate, download, and extract the following zip files:

   - `chat_strategy_version.zip`

   - `composer_version_enus.zip`

2. Install Composer 8.1.xx on a Windows system that is not a VM and is not already running Apache Tomcat (to avoid port conflicts). To do this, follow the installation instructions in the Composer 8.1 Deployment Guide.
   Important: Composer 8.1.xx is an Eclipse plugin that requires JDK 1.7 and a supported version of Eclipse. Composer installs its own Apache Tomcat server. (See the Release Note.)

3. Open Composer and go to **File** > **Import** > **General** > **Existing Projects into Workspace**.

4. Choose **Select archive file** and then select the chat strategy you downloaded and extracted.
   Important: Select the project from the newly populated list, ensuring **Copy projects into workspace** is enabled, and click **Finish**.

5. Create a .war file:

   - Right-click the package name and select **Export** > **Composer** > **Java Composer Project as WAR file**.

6. Copy the .war file to `\\<VM name or IP address>\c$\GCTI\apache-tomcat\webapps` (for multi-VM, use the core VM). The .war file automatically extracts to a new GenesysOne_Chat folder.

Important

If this folder is not automatically generated, a restart of the Apache/Tomcat service may be required. To do this, use GA to restart the **apache-tomcat_ors** application.

After chat is activated and deployed, you can access the following sample chat page: `http://<VM name or IP address>:8380/eservicesweb/chat/index.jsp` (for multi-VM, use the aux VM and port 8080)

[+] Step 4. Verify that chat is deployed successfully

1. Log into Interaction Workspace (IWS) as an agent and confirm that:

   - **Chat** is listed in the **Media** column with a **Ready** status.

   - The Agent Group is **AG_Voice_Sample**.

---

2. Go to `http://<VM name or IP address>:8380/eservicesweb/chat/index.jsp` (for multi-VM, use the aux VM and port 8080) and do the following:

   - Click **Chat** > **Simple Chat**.

   - Complete all fields and click **Live Help online click to chat**.

3. If the deployment is successful, accept the chat request using the IWS Agent.

Back to top

Configuration

There are no specific Business Edition Premise configuration requirements for chat. However, Genesys recommends that you configure automatic pruning of the Universal Contact Server (UCS) database to prevent it from growing too large in size.

> **Important**
>
> Changes made to the UCS database maintenance settings will apply to all deployed media strategies (voice, email, chat, and outbound).

To configure automatic pruning of the UCS database, do the following:

1. On the VM host, log in to Universal Contact Server Manager. (For multi-VM, use the ui VM.)

2. Select the **Scheduled task on Main DB** tab.

3. Configure the **Main DB** maintenance settings as desired.

4. Click **Save**.

Back to top

Outbound routing application

Overview

The Business Edition Premise Outbound solution is an Outbound VoIP deployment that allows for the following types of dialing modes:

- **Predictive:** This dialing mode predicts agent availability when it dials calls from a calling list and is recommended for high-volume, low-value campaigns.

- **Progressive:** This dialing mode dials calls from a calling list when an agent is actually available and is recommended for low-volume, high-value campaigns.

- **Preview:** This dialing mode allows an agent to request one or several records from Outbound Contact Server (OCS), preview each record, and decide whether to dial a call.

For more information about dialing modes, see Dialing Modes in the Outbound documentation.

Outbound routing

The Outbound routing strategy directs the outbound call to an agent group according to the options configured in the Outbound Parameter Group. For more information about Outbound routing, see the Outbound documentation.

Back to top

Deployment

This section describes how to deploy the outbound routing application.

> **Important**
> You must obtain and install a valid license for outbound before deploying the application.

[+] Show deployment steps.

1. Log into the core host.

2. Go to **Start** > **All Programs** > **Genesys Solutions** and select **Activate Outbound Contact Server**.

   Important: Confirm that the appropriate Outbound license is installed before proceeding.

3. Click **Yes** to start the deployment.

4. After the deployment completes, verify that it was successful (see video):

    a. In GA,   Link to video
        confirm
        that Outbound Contact Server (OCS) is started.

    b. In GA, load and start the sample campaign:

        - Go to **Operations** > **Outbound Contact** > **Dialing Sessions**.

        - For **Campaign ID**, select **Test** > **TestCampaign** and for **Outbound Contact Server**, select **OCS**.

        - Click **Load**, and then click **Start**.

    c. Log into IWS using the **TestAgent** ID:

        - Navigate to http://*VM name or IP address*/InteractionWorkspace/publish.htm and select **Launch**. (For multi-VM, use the ui VM.)

    d. Add a record to be dialed:

        - Go to **Operations** > **Outbound Contact** > **Calling Lists**.

        - Select **Calling Lists: Test > TestCallingList**.

        - Select **Insert record**.

        - Enter the details for a valid destination, changing `contact_info` to the telephone number to be dialed by SIPS.

        - Select **OK**.
          Important: You might need to adjust the following options, depending on the time of day and your timezone:
          `daily_from` — The time you want calling to start
          `daily_till` — The time you want calling to cease.
          `tz_dbid` — Your timezone.

5. When the outbound call is established, `TestAgent` receives a call using IWS.

Back to top

Configuration

There are no specific Business Edition Premise configuration requirements for the outbound routing application. By default, the Outbound Parameter Group is loaded against Routing Point 7000. To edit the Outbound Parameter Groups, login to GAX and go to **Operations** > **Parameter Groups**.

Also, Genesys recommends that you configure automatic pruning of the Universal Contact Server (UCS) database to prevent it from growing too large in size. To configure automatic pruning of the UCS database, do the following:

> **Important**
>
> Changes made to the UCS database maintenance settings will apply to all deployed media strategies (voice, email, chat, and outbound).

1. On the VM, log in to Universal Contact Server Manager (for multi-VM, use the aux VM).

2. Select the **Scheduled task on Main DB** tab.

3. Configure the **Main DB** maintenance settings as desired.

4. Click **Save**.

Back to top

Operational Parameters

To edit the Outbound Parameter Groups, log in to GAX and under **Operations**, select **Parameter Groups**.

Outbound Parameter Group

[+] Show parameters.

Parameter	Values (default in bold)	Mandatory?	Description
Voice Target	**TestAgentGroup**, *agent group*	Yes	The Agent Group to which the call is routed.
Voice Target Timeout	**2**, *integer between 1 and 99999*	Yes	The timeout (in seconds) after which the call is routed to the overflow target.
Overflow Voice Target	**(none)**	No	The number to which the call is routed if no target is specified or if the target timeout is exceeded.

Back to top

Frequently Asked Questions About...

Business Edition Premise System Requirements

Related Topics

- Installing Business Edition Premise
- System Maintenance

This page provides answers to common questions that IT personnel might have when planning or considering the addition of a Business Edition Premise system to their site. The information on this page applies to 8.1.x versions of Business Edition Premise.

Hardware

This section contains common questions about BEP hardware requirements.

[+] Can I deploy Business Edition Premise in a High Availability (HA) configuration?

Yes, please contact Genesys Professional Services for more information.

[+] What type of disk configuration is used?

Business Edition Premise uses a RAID-5 disk configuration.

[+] Is the storage disk or data encrypted?

No, the storage disk or data is not encrypted, although some of the logs do have masking ability.

[+] Which system components do I need to monitor (for example, uptime, disks, ports)?

The Dell iDRAC system management tool is built-into the system board and can be configured to provide all required hardware and system monitoring.

[+] How do I get replacement parts? What is the warranty and service arrangement?

This depends on your agreed maintenance contract. If you are experiencing hardware issues, contact your BEP provider for diagnostics and replacement of failed components.

[+] My servers are utilizing the iDRAC7 controller, but I am unable to access or login after several days of continuous use.

For best performance, make sure the iDRAC firmware is version 1.57.57 or higher. For workarounds and additional information, visit Dell support.

[+] What are the memory requirements for Business Edition Premise 8.1.201?

The Business Edition Premise 8.1.201 single-host VM image is assigned with 32 GB memory. In addition, the ESXi 5.5 operating system requires a minimum of 4 GB memory (8 GB is required for full functionality). The Business Edition Premise server (Dell PowerEdge) has dual CPUs, which use dual memory banks that must contain the same amount of memory in each bank.

To ensure maximum system performance, a total of 48 GB memory is recommended for Business Edition Premise 8.1.201.

Back to top

Software

This section contains common questions about BEP software requirements.

[+] Which operating systems does BEP use?

Business Edition Premise uses the following operating systems:

- ESXi 5.5
- Windows Server 2008 R2

[+] Does the system include a database?

Yes, Business Edition Premise uses the following database types:

- Postgre SQL (Configuration Server)
- MS SQL Server 2008 R2 (all other Genesys servers)
- Apache Cassandra (ORS, GWS)

[+] Can MS SQL Server be used instead of Postgre SQL?

Yes, if you prefer to use MS SQL Server, you can remove Postgre SQL. After your Business Edition Premise solution is fully tuned-up, contact Professional Services and ask them to migrate your Configuration Manager database from Postgre SQL to MS SQL Server.

[+] Does the system have a built-in antivirus or anti-malware package?

No, customers are responsible for their own antivirus and anti-malware monitoring.

[+] Which types of authentication methods are used (for example, Kerberos, RADIUS, or LDAP)? Will it work with Active Directory?

For details on the authentication methods used and for Active Directory compatibility, refer to the following VMware document: VMware-vCenter-Server-5.5-Technical-Whitepaper.pdf.

[+] Does the system store any personally-identifiable information (PII) or protocol-control information (PCI)?

Yes, during the course of normal operations the Universal Contact Server (UCS) database does store some caller information.

[+] How do I back up the critical system files and configuration files?

The VM Snapshots utility (included as part of the VMware server software) allows you to capture the VM images in their present state and, if required, instantly restore the system to a known good earlier state. Genesys recommends that you create snapshots of each VM before performing the tune-up procedures, as well as when performing important deployments and configuration modifications.

Note that the VM Snapshots are stored on the ESXi server, so you will need to monitor the hard disk space being used for the backups. For more information, refer to the following document: VMware-vCenter-Server-5.5-Technical-Whitepaper.pdf.

[+] What kind of routine maintenance procedures are required?

The Genesys component software in Business Edition Premise requires limited maintenance. Any required maintenance is described in the documentation for each component.

[+] How do I update the operating systems for security and critical fixes?

You can update the operating systems using the following methods:

- For Windows, use the **Windows 2008 Server Download and Install Updates** function on the VM. (If your Business Edition Premise installation does not have internet access, you can update Windows offline. Contact Genesys Professional Services for more information.)

- For VMware, use the VMware vSphere Update Manager.

[+] For a multi-VM deployment, is there a specific order in which the Virtual Machines must be powered-on or off?

Yes, the VMs must be powered-on in the following order:

1. core
2. db
3. aux
4. gvp
5. ui

There is no specific order in which the VMs must be powered-off.

[+] Are any routing applications deployed automatically during BEP installation?

Yes, the voice routing application is deployed automatically during BEP installation.

[+] Where do I get the required licenses?

For information about requesting licenses, contact your Genesys representative or visit this page.

[+] While executing the tuneup_boe script on the ui VM (for a multi-VM deployment), I received a CMS error. What might be the cause?

The db VM hostname must be resolvable in DNS or the BOE installation will fail. Check the network configuration by performing an `nslookup` command (both forward and reverse) for all VMs. For example:

`nslookup` *<FQDN version of VM hostname>*

`nslookup` *<IP version of VM hostname>*

Do this for each VM in your system. Each should return a successful result.

[+] During tuneup, I entered incorrect information. What do I do?

If you enter incorrect information during the tuneup script configuration, Genesys recommends that you redeploy the VM and begin the tuneup script configuration again. If you made a snapshot of the VM prior to entering any data for the tuneup configuration script, you can revert to that snapshot. In a multi-VM environment, you would redeploy the core VM or revert to a snapshot. But note that if you redeploy the core VM (or revert to a snapshot), you must also redeploy the other VMs.

[+] I am receiving calls from gateways that are not represented as Trunk DNs in my environment. How do I fix this?

Go to the SIP Server application in Configuration Manager. Under the **T-Server** option, make sure that the value of the **enable-unknown-gateway** option is **false**. This secures the SIP Server so that it only accepts calls from configured Trunk DNs within the configuration environment.

[+] I want to install chat but I am not using the email application. Can I do this?

No, you cannot install chat as a standalone application. It can only be used if the email application is also installed and activated.

[+] I have deployed my email (or chat) strategy but they are not routing. What could be wrong?

After you exported the .war file in Composer, did you copy it to the \\g1-core-p\c$\GCTI\apache-tomcat\webapps folder? Once copied, the .war file will automatically extract itself to a new GensysOne_xx folder and the routing should work correctly. (If this folder is not automatically generated, a restart of the Apache/Tomcat service may be required. To do this, use Genesys Administrator to restart the **apache-tomcat_ors** application.)

[+] How do I optimize my Universal Contact Server database so that it does not use too much disk space?

Genesys recommends that you configure automatic pruning of the Universal Contact Server (UCS) database to prevent it from growing too large in size. You can do this by modifying the main database maintenance settings in Universal Contact Server Manager.

[+] How do I check the software version of the pre-installed components?

To view the supported version numbers (available after the virtual machine(s) are deployed and tuned up), go to http://*VM name or IP address* (for multi-VM, use the core VM).

[+] I'm making changes to the configuration sever settings. What is the [chef] section used for?

This section is used by Genesys during the deployment of your software and can be ignored. It has no impact on Genesys servers or services.

[+] Our installation is in a Middle Eastern time zone. Why do our reports not show the correct local time?

If your system is in a Middle Eastern time zone, you should select **NET** for your local time zone.

Back to top

Networking

This section contains common questions about BEP networking requirements.

[+] How many IP addresses are required?

This depends on which version of the Virtual Machine (VM) platform you decide to install (single-VM or multi-VM). Business Edition Premise requires the following IP addresses to prepare the server for delivery and to finalize the server installation and configuration at the Premise site:

For single-VM:

- The Dell iDRAC configuration requires one IP address that is within a management control subnet to allow hardware alarms to be sent using email (the email address used to receive alarms must have access to the email server at the site).

- The ESXi server requires one IP address that is within the same subnet and is available on a Windows domain running DNS/DHCP services.

- The Virtual Machine requires an IP address that is within a single subnet and is available on the Windows domain running DNS/DHCP services. You will also need to assign a hostname for the VM for entry into a DNS server.

For multi-VM:

- The Dell iDRAC configuration requires one IP address that is within a management control subnet to allow hardware alarms to be sent using email (the email address used to receive alarms must have access to the email server at the site).

- The ESXi server requires one IP address that is within the same subnet and is available on a Windows domain running DNS/DHCP services.

- Each of the five Virtual Machines (VM) requires an IP address that is within a single subnet and is available on the Windows domain running DNS/DHCP services. You will also need to assign five hostnames for the VMs for entry into a DNS server.

[+] Do external vendors require remote access?

No.

[+] Does the server need access to the internet?

Internet access is not required; however, if you choose to deploy optional eServices features, such as Chat or Email, the virtual machine(s) will require internet access.

[+] Does the system have a built-in firewall?

The Virtual Machine(s) use the Windows operating system, which has a built-in firewall that is disabled by default. If desired, you can enable and configure this firewall.

[+] What are the network speeds, and can I configure network load balancing or link aggregation?

Business Edition Premise uses 1 GbE (Gigabit Ethernet) networking and is compatible with network load balancing configurations.

Back to top

Requesting licenses

To request Genesys and VMware licenses for Business Edition Premise, complete the following steps:

1. Prepare an email request containing the following details:

   - Your software order number or purchase order number.

   - The Core VM NIC MAC address (this is for the Genesys software license). If you do not know the MAC address, and your server was provided by Genesys, you can find it on the label of the box in which your server was shipped. Otherwise, contact your Genesys Partner.

   - For existing deployments, include a copy of your existing license file.

   - For non-revenue orders, you should request licenses only if you are upgrading to a major version release (for example, if you are upgrading version 7.x to 8.x).

2. Send the email request to the appropriate Genesys contact for your geographical region:

   - Americas / APAC

   - EMEA

   - Japan

The response time for license requests is typically 2-3 days.

For more information about licenses, refer to the Genesys Licensing Guide.