Blue Pumpkin Integration 7.1

Deployment Guide

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Table of Contents

Chapter

1 About This Document

Welcome to the *Blue Pumpkin Integration 7.1 Deployment Guide*. This document:

- Provides a high-level overview of the product.
- Presents deployment-planning considerations.
- Tells you how to install and configure the product.
- Explains how to start and stop the product's components.

This document is valid only for the 7.1.0 release(s) of this product.

This chapter provides an overview of this document, identifies the primary audience, introduces document conventions, and lists related reference information:

The Blue Pumpkin Integration (BPI) enables you to gather real-time agent status and historical performance data from the Genesys Customer Interaction Management Platform and feed it to the Blue Pumpkin workforce management product. This enables you to access high-quality statistical data that the Genesys platform provides.

Intended Audience

This document, primarily intended for contact center managers and system administrators, assumes that you have a basic understanding of:

- Computer-telephony integration (CTI) concepts, processes, terminology, and applications.

- Network design and operation.
- Your own network configurations.

You should also be familiar with:

- Genesys Framework architecture and functions.
- Blue Pumpkin architecture and functions.

Chapter Summaries

In addition to this opening chapter, this document contains these chapters:

- Chapter 2, “Overview of the Blue Pumpkin Integration,” on page 11 introduces the Blue Pumpkin Integration product, explains its architecture, and offers deployment-planning considerations.
- Chapter 3, “Configuration and Installation,” on page 19 describes how to configure and install the product.
- Chapter 4, “Starting and Stopping,” on page 37 tells you how to start and stop each of the product’s components.

Document Conventions

This document uses some stylistic and typographical conventions with which you might want to familiarize yourself.

Document Version Number

A version number appears at the bottom of the inside front cover of this document. Version numbers change as new information is added to this document. Here is a sample version number:

```
70fr_ref_09-2004_v7.1.000.000
```

You will need this number when you are talking with Genesys Technical Support about this product.

Type Styles

Italic

In this document, italic is used for the titles of documents, when a term is being defined, for emphasis, and for mathematical variables.

Examples

- Please consult the *Genesys 7 Migration Guide* for more information.

- *A customary and usual practice* is one that is widely accepted and used within a particular industry or profession.
- Do *not* use this value for this option.
- The formula, $x + 1 = 7$ where x stands for . . .

Monospace Font

A monospace font, which is shown in the following examples, is used for:

- All programming identifiers and GUI elements. This convention includes the *names* of directories, files, folders, configuration objects, paths, scripts, dialog boxes, options, fields, text and list boxes, operational modes, all buttons including radio buttons, check boxes, commands, tabs, CTI events, and error messages; the values of options; logical arguments and command syntax; and code samples.

  Examples

  - Select the `Show variables on screen` check box.
  - Click the `Summation` button.
  - In the `Properties` dialog box, enter the value for the host server in your environment.
  - In the `Operand` text box, enter your formula.
  - Click `OK` to exit the `Properties` dialog box.
  - The following table presents the complete set of error messages T-Server® distributes in `EventError` events.
  - If you select `true` for the `inbound-bsns-calls` option, all established inbound calls on a local agent are considered business calls.
- For any text the user must manually enter during a configuration or installation procedure:

  Example

  - Enter `exit` at the command line.

Information About Screen Captures Used in This Document

Screen captures taken from the product GUI (graphical user interface) and used in this document may sometimes contain a minor spelling, capitalization, or grammatical error. The text accompanying and explaining the screen captures corrects such errors *except* when such a correction would prevent you from installing, configuring, or successfully using the product. For example, if the name of an option contains a usage error, the name would be presented exactly as it appears in the product GUI; the error would not be corrected in any accompanying text.

Use of Square Brackets

In any logical arguments, commands, and programming syntax presented in this document, square brackets are used to indicate that a particular parametric value is optional. That is, the value is not required to resolve a command, argument, or programming syntax. The customer/user decides whether to supply a value and what that value is. Here is a sample:

```
smcp_server -host [/flags]s
```

Use of Angle Brackets

Angle brackets are used to indicate that a value in a logical argument, command, or programming syntax is required, but that the user must supply the data for the value. Because the value is specific to an individual enterprise—for example, DNs or port numbers—the program cannot predict (that is, program in) what the value is. Here is a sample:

```
smcp_server -host <confighost>
```

Related Resources

Consult these additional resources as necessary:

- *Framework 7.1 Stat Server User's Guide*, which will help you understand statistics and how to configure them.
- The documentation for your Blue Pumpkin product.
- The *Genesys Technical Publications Glossary*, which ships on the Genesys Documentation Library CD and which provides a comprehensive list of the Genesys and CTI terminology and acronyms used in this document.
- The Release Notes and Product Advisories for this product, which are available on the Genesys Technical Support web site at http://www.genesyslab.com/support.

Information on supported hardware and third-party software is available on the Genesys Technical Support website in the following documents:

- *Genesys 7 Supported Operating Systems and Databases*
- *Genesys 7 Hardware Sizing Guide*
- *Genesys 7 Supported Media Interfaces*

Genesys product documentation is available on the:

- Genesys Technical Support web site at http://www.genesyslab.com/support.
- Genesys Documentation Library CD, which you can order by e-mail from Genesys Order Management at orderman@genesyslab.com.

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Chapter

2 Overview of the Blue Pumpkin Integration

This chapter introduces the Blue Pumpkin Integration product, describes its architecture, and presents points you should consider when planning your deployment. This chapter contains these sections:

Overview

The Blue Pumpkin Integration (BPI) enables you to gather real-time agent status and historical performance data from the Genesys Customer Interaction Management Platform and feed it to the Blue Pumpkin workforce management product. This enables you to access high-quality statistical data that the Genesys platform provides.

Integrating the Genesys Customer Interaction Management Platform with Blue Pumpkin workforce management offers the following benefits:

- Consistency between the historical statistics available through Genesys Reporting and those used in Blue Pumpkin for forecasting and scheduling.
- Accurate real-time agent status for display in the Blue Pumpkin Real-Time Agent Adherence module.
- Accurate data for Blue Pumpkin on `Virtual Queue` objects you have created in your Genesys environment.

Note: This *Deployment Guide* only covers the integration product itself. For more information on Stat Server and other Genesys components, see your Genesys documentation. For information on your Blue Pumpkin product, consult your Blue Pumpkin documentation.

BPI supplies two types of data:

- Historical statistics
- Real-time agent states

Historical Data

BPI records historical statistics every 15 minutes, on the quarter hour, in the form of a data file.

This data file is placed in a user-configured directory, where Blue Pumpkin accesses it and converts the data into a form that Blue Pumpkin can use in forecasting, scheduling, and intraday reporting.

You can collect historical data on these statistics:

- Interaction Volume
- Average Speed of Answer (ASA)
- Service Level
- Abandons Volume
- Average Handling Time (AHT)

You can collect historical statistics about these types of objects:

- Groups of Agents
- Groups of Places
- Groups of Queues
- Route Points
- Queues

Note: Not all statistic types apply to all objects. For example, you collect abandonment statistics on a `Queue` or `Route Point`, rather than an `Agent Group`.

Real-Time Agent States

BPI sends updated real-time agent states every time the state changes. These status-change events include reason codes, if the underlying switch or soft phone supports them.

> **Note:** There is a 5-second delay in the transmission of real-time agent states. However, an accurate timestamp of each agent state change is included when the data is sent to Blue Pumpkin.

If you are using reason codes, you can configure the source of the reason-code data in the `BPI` section of the `WFM Data Aggregator Application` object's `Options` tab. This ensures that BPI transmits the correct information.

Planning Objects

You use *`Planning` Objects* to link Genesys data from a specific Genesys object (for example, a `Queue` or `Virtual Queue` object) with a Blue Pumpkin `Queue` object. You create `Planning` objects in the Statistics Configuration Utility and associate them with Blue Pumpkin `Queue` objects using the Blue Pumpkin software. The exact identity of a `Planning` object depends on how routing is configured in your contact center. Depending on your routing structure, a `Planning` object might represent a specific call type or the call activity for an `Agent Group` (configured as a `Virtual Queue` object).

For example, in a banking contact center, you might configure a `Planning` object called *Mortgages*, which is associated with a specific Genesys `Queue` or `Virtual Queue` object that is designated as the place where all calls about mortgages are directed. In this case, Stat Server monitors this `Mortgage Queue` object (or `Virtual Queue` object) and collects the statistics you configured for the associated `Planning` object using the Statistics Configuration Utility. Stat Server sends this statistical data to WFM Data Aggregator, which aggregates them and writes them to a BPI-format file that Blue Pumpkin can read.

In Blue Pumpkin, this `Planning` object is associated with a Blue Pumpkin `Queue` object, which may also be called *Mortgages*. The Blue Pumpkin `Mortgages Queue` object is used to forecast the staffing required to handle the Mortgage calls, to schedule the appropriate personnel to handle those calls, and to monitor how closely actual performance matches the plan, during the day and over time. The Blue Pumpkin software uses the data that the Genesys CIM Platform collects as the basis for forecasting, scheduling, and performance-monitoring.

> **Note:** `Planning` object names must not include commas.

Architecture

BPI consists of:

- Genesys WFM Configuration Wizards.
- Genesys WFM Data Aggregator, which translates statistical information it receives from Stat Server into a form that your workforce management program can use.
- Statistics Configuration Utility, which enables you to configure the combination of Genesys objects (`Queues`, `Virtual Queues`, `Agent Groups`, and so on) and Genesys statistics that are mapped to Blue Pumpkin `Queue` objects.

`Note:` BPI does not require any external databases except the Genesys Configuration Database.

Figure 1 shows how the BPI components interact with the Genesys CIM Platform and Blue Pumpkin.

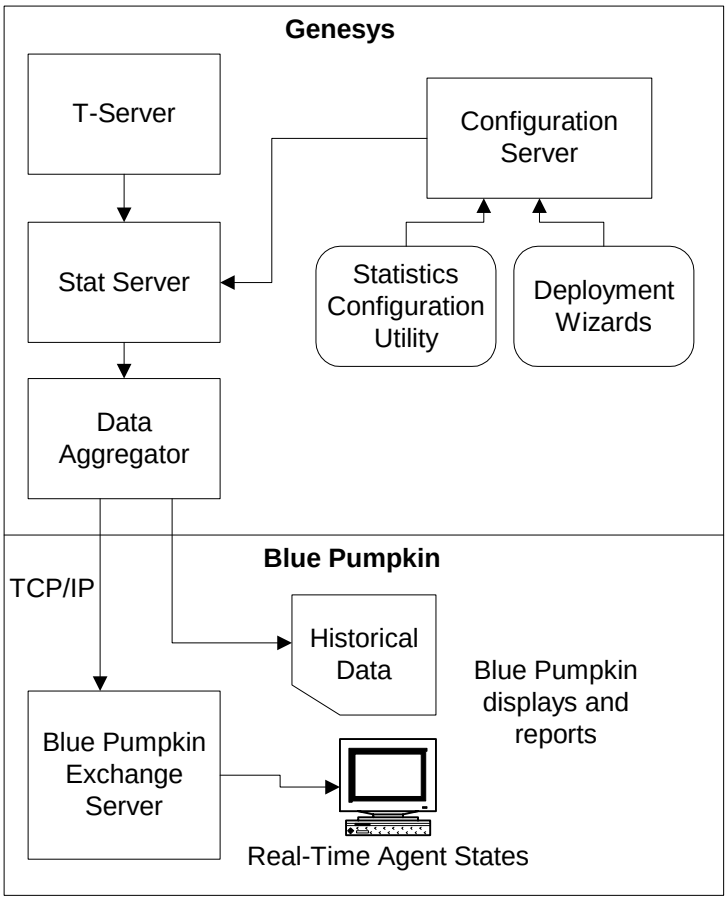

Figure 1: Blue Pumpkin Integration Architecture

Historical Statistics Data Flow

As interactions are processed in your contact center, Stat Server captures data about them that it compiles in the form of statistics. Which statistics Stat Server generates depends on which you have configured as you set up Stat Server and the various Genesys products it serves.

Note: BPI supports a primary and backup Genesys Stat Server, and a primary and backup Genesys Configuration Server.

Stat Server sends statistical data to Data Aggregator, which processes the information and tailors the data to present contact-center performance information that your workforce management application can use.

BPI sends this data in the form of `.bpi` files, a proprietary Blue Pumpkin format, to the Blue Pumpkin Exchange Server. `.bpi` files are Blue Pumpkin's standard for describing contact-center statistical data.

- These data files consist of one data row per `Planning` object in each 15-minute update.
- You can specify the host name and the path to the location in which Genesys places the historical data file.

After the data arrives at the Blue Pumpkin Exchange Server, Blue Pumpkin handles the data according to its own protocols.

Real-Time Agent State Data Flow

Stat Server sends real-time agent state events to Data Aggregator, which formats the agent state events into messages that are appropriate for Blue Pumpkin. Data Aggregator sends these agent state change messages to Blue Pumpkin over TCP/IP. Real-time agent state data is updated every time there is an agent-state change event.

Planning Your Deployment

When you are planning your deployment, among other things, you must consider:

- Software and hardware requirements.
- The historical statistics you want to collect.
- The objects for which you want to collect historical statistics.
- The Genesys `Agent Group` for which you want real-time status data.

Planning your statistics configuration is a critical part of deployment planning.

- For information about the statistics you can collect and for which objects you can collect them, see “Historical Statistics” on page 17.
- For detailed information on how to configure statistics, see *Blue Pumpkin Integration 7.1 Statistics Configuration Utility Help*.

Answer the following questions as part of your predeployment analysis.

1. Do you have supported versions of Genesys Framework and Blue Pumpkin? The Blue Pumpkin version can be:
   - Version 4.5
   - Version 3.3

   > `Note`: Blue Pumpkin 4.5 or higher is required to display reason codes in the Blue Pumpkin `Real-Time Adherence` module.

   You can use:
   - Framework 6.5.1, 7.0, or 7.1

   BPI supports these operating systems
   - Servers—Windows 2000 Server, Windows Server 2003
   - Clients—Windows 2000 Professional, Windows XP SP2, Windows 2000 Server, Windows Server 2003

   Client workstations must have installed:
   - Microsoft .NET 1.1 or later

   The computer on which WFM Data Aggregator is installed must have:
   - MDAC 2.7 SP1 or later
2. Do you know what objects, such as Genesys `Virtual Queues`, you intend to monitor?
3. Do you know what kind of information you want to obtain about each object?
4. Have you configured the statistics you need in Stat Server? When you run the Genesys WFM Wizards that create your BPI solution, you can choose to automatically add the recommended statistics to your Stat Server. Genesys recommends that you do so. See Table 1 for these statistics.

If you need instructions for checking your Stat Server statistics and manually configuring new ones, see the *Framework 7 Stat Server User's Guide* or the *Framework 7.1 Stat Server User's Guide.*

Historical Statistics

This table contains only a basic list of statistics. Full configuration information is available in *Blue Pumpkin Integration 7.1 Statistics Configuration Utility Help*, which you can access from the Statistics Configuration Utility or the Genesys Technical Support website.

Table 1: BPI Historical Statistics

Statistic Type	Statistics Options	Available Objects
Interaction Volume	TotalNumberCallsEntered (WFMTotalNumberCallsEntered)	Queue, Route Point, Group of Queues
Service Level	ServiceFactor1 (WFMServiceFactor1)	Queue, Route Point, Group of Queues
Abandons	TotalNumberCallsAband (WFMTotalNumberCallsAband)	Queue, Route Point, Group of Queues
Average Speed of Answer	AverTimeBeforeAnswering (WFMAverTimeBeforeAnswering)	Queue, Group of Queues
Average Handling Time	AverHandleDNStatusTime (BPIAverHandleDNStatusTime)	Group of Agents, Group of Places

Chapter

3 Configuration and Installation

This chapter explains how to use the Genesys Workforce Management (WFM) Configuration Wizards to configure the Blue Pumpkin Integration (BPI) product and how to install the required components. This chapter has these sections:

Overview

To deploy BPI, you must:

- Import the BPI Application templates into Configuration Manager.
- Run the Configuration Wizards, which enable you to configure the `WFM Data Aggregator` and `Statistics Configuration Utility Application` objects.

> Note: The Statistics Configuration Utility uses the `WFM Client Application` object.

- Install the software, which is located on the Blue Pumpkin Integration CD-ROM.

- Start all components and test their performance. You will find starting and stopping instructions in Chapter 4 on page 37.

Preliminary Preparation

BPI 7.1 works in conjunction with a number of software components. Before installing BPI, you must have set up Genesys Framework. The Framework installation should include at least the following components:

- Configuration Manager
- Configuration Server
- DB Server
- T-Server
- Stat Server

Note: BPI 7.1 is compatible with Genesys Framework 7.x and 6.5.1. However, for full interoperability with BPI 7.1—for example, to take advantage of the most complete reason-code support and for the ability to start and stop the BPI Solution through the Genesys Management Layer—use Genesys Framework version 7.0 or higher.

Genesys Agent Group Configuration

Before configuring and installing BPI, you must set up an `Agent Group` using Configuration Manager. All agents for whom you want Genesys to collect real-time status information to be sent to Blue Pumpkin must be members of this `Agent Group`. You can specify this `Agent Group` in the `BPI` section of the `WFM Data Aggregator Application` object's `Options` tab or set it on the main window of the Statistics Configuration Utility.

Note: An agent may be configured in the Genesys Configuration Database to belong to more than one `Agent Group`. However, you can only use one `Agent Group` for BPI.

Import the Application Templates

To import application templates:

1. In Configuration Manager, select `Environment > Application Templates`.
2. Right-click `Application Templates` and select `Import Application Template` from the shortcut menu.

A dialog box opens that enables you to browse to the application templates on your BPI 7.1 CD.

3. Select a template and then click Open. These are the template names:
   - WFM_Client_710.apd (used for the Statistics Configuration Utility)
   - WFM_Data_Aggregator_710.apd
4. Enter a name for the template in the Name text box on the General tab, if desired.

> Note: Do not make any other changes to the template. When you create Application objects using the imported templates, you configure them as explained in the following sections.

5. Click OK to save the template.
6. Repeat steps 1–4 to import the other application template.

After you have imported the application templates, you can configure new Application objects based on them, as described in the various sections that follow.

Import the BPI Solution Template

1. In Configuration Manager, select Environment > Solutions.
2. Right-click Solutions and select Import Solution Template from the shortcut menu.

   A dialog box opens that enables you to browse to the solution template on your BPI 7 CD.
3. Select the template and then click Open. The template name is BPI_Solution_710.sd.
4. Enter a name for the template in the Name text box on the General tab, if desired.

> Note: Do not make any other changes to the template. When you run the Genesys WFM Configuration Wizards, they configure the solution for you.

5. Click OK to save the template.

Install the Configuration Wizards

The Genesys WFM Wizards guide you through the process of creating the Application objects for the BPI components. They are run from the Genesys Wizard Manager.

You can also create and configure the component Application objects manually. For instructions, see “Configure Application Objects Manually” on page 26.

The procedure given in this section assumes that you have already installed the Genesys Wizard Manager. If not, you must do so before you can install the Genesys WFM Configuration Wizards. For instructions, see the *Framework 7.1 Deployment Guide*.

You must install the Genesys WFM Configuration Wizards before you can run them. To do so:

1. Navigate to the configuration_wizards directory on the BPI CD.
2. Double-click Setup.exe.

   The Genesys WFM Configuration Wizards 7.1 Setup begins.
3. Click Next in the Welcome window to start the installation process.

The setup process for the WFM Configuration Wizards locates the directory in which you have installed the Genesys Wizard Manager. You must install the WFM Configuration Wizards in the same directory.

4. Click Next to continue.

   A progress bar appears as the Wizard files are copied.
5. Click Finish to exit the setup process after all files have been copied.

Run the Configuration Wizards

1. Select Start > Programs > Genesys Solutions > Genesys Wizard Manager from the Windows taskbar.
2. Enter the login information for your Configuration Server in the LogIn screen that opens.
3. From the list of solutions at the left side of the Set Up Your Solutions screen, click Workforce Management.
4. Click the Deploy Workforce Management link that appears on the right-hand pane of the Set Up Your Solutions screen.

   The Genesys WFM Wizard Welcome screen opens.
5. Select the Genesys Blue Pumpkin Integration radio button and then click Next.

   The Welcome screen for the Genesys Blue Pumpkin Integration Wizard opens.
6. Click Next to continue.

   The General screen opens.

7. Enter a name for your BPI solution and select a Solution Control Server. Management Layer uses this Solution Control Server to start, stop, and monitor WFM Data Aggregator.
8. Click Next.

Configuring WFM Data Aggregator

The Genesys WFM Wizard now looks for a WFM Data Aggregator Application object. If you have already created a one, it is listed in the WFM Data Aggregator screen.

1. At this point:
   - Select an already created Application object and click Next to proceed to the next wizard.
   - Select an already created Application object and then click Properties to edit it before proceeding.
   - Click Add to create a new Application object.

     Clicking the Add button opens the Browse for Application (WFM Data Aggregator) screen, which shows the contents of your Configuration Manager Applications folder.
2. To create your WFM Data Aggregator Application object, click the New Application icon. It is the left-most icon at the top of the screen and looks like a piece of blank paper with a folded corner.

   The WFM Data Aggregator Wizard opens.

The WFM Data Aggregator Wizard

This Wizard opens with a Welcome screen.

1. Click Next to proceed.
2. Enter a name for your WFM Data Aggregator Application object and then click Next.
3. Select the host name of the computer on which you want to install this application.

   This is the computer where WFM Data Aggregator will be installed, not the host for the Configuration Server computer.

   Click Next to continue.
4. On the Connections screen, select from the drop-down list or browse to your Stat Server Application object.
5. Click Add WFM Statistics to have the Wizard add preconfigured WFM-specific statistics to your Stat Server. Then click Next to continue.

Note: For a description of these statistics and instructions for configuring them to gather information about the objects in you environment, see the *Blue Pumpkin Integration 7.1 Statistics Configuration Utility Help*.

6. On the Options for Blue Pumpkin Integration screen, enter the full path to the location where you want the historical data files to be placed. Then enter the port number on which the Blue Pumpkin Exchange Server will listen for real-time agent status change events

   The default port number is 12000.

7. Click Next to open the Log Configuration screen. You can click Run Log Wizard to customize your log settings or click Next to accept the default log settings.

Note: The default setting, all, is recommended for testing, not for a production environment.

You can change the log settings at any time by using the Wizard to edit your WFM Data Aggregator Application object or by editing the Log section on the Options tab of the WFM Data Aggregator Application object.

Procedures for editing Options tab settings are described in "Configure Application Objects Manually" on page 26

8. Click Finish to close the WFM Data Aggregator Wizard. The Browse for Applications (WFM Data Aggregator) screen reopens, showing your new WFM Data Aggregator Application object.
9. Select your new WFM Data Aggregator Application object and click OK.

   The new Application object now appears in the Solution Components list.
10. Click Next to continue.

Configure the Statistics Configuration Utility Application Object

You configure the Application object for the Statistics Configuration Utility based on the WFM Client Application template. To create the Statistics Configuration Utility Application object:

1. Start at the Genesys WFM Wizard's WFM Client screen. Click New.
2. Click Next to begin using the WFM Application Wizard.
3. Enter a name for your Statistics Configuration Utility Application object and then click Next.
4. Click Finish to close the WFM Application Wizard.

The new Application object appears in the Application List.

5. Select your new Statistics Configuration Utility Application object and then click OK.

   The Completing the WFM Solution Wizard screen opens.

6. Click Finish to close the Genesys WFM Configuration Wizards.

   Your new BPI solution appears under Currently Installed Solutions on the Genesys Wizard Manager's Workforce Management pane.

Install the Components

This installable components of the Blue Pumpkin Integration are WFM Data Aggregator and the Statistics Configuration Utility.

To run BPI, you must also set up your Blue Pumpkin Exchange Server to receive the data that the Genesys Framework and BPI collect. This document covers only BPI itself. It does not explain how to configure the Blue Pumpkin Exchange Server to receive the data.

Install WFM Data Aggregator

1. Verify that the Genesys Configuration Server and DB Server are started.
2. Navigate to the solution_specific\WFMDataAggregator\windows directory on your BPI CD.
3. Double-click Setup.exe. This opens the WFM Data Aggregator Installation Wizard.
4. Click Next to begin using the Wizard.
5. Enter this information for your Configuration Server: host name, port number, user name, and password. Then click Next.

   A list of WFM Data Aggregator Application objects appears.

6. Select the object that you created for BPI and then click Next.
7. Specify the destination directory where you want WFM Data Aggregator to be installed. Then click Next.
8. On the Ready to Install screen, click Install.

   A progress bar shows the setup status.

9. Click Finish to close the Installation Wizard.

Install Blue Pumpkin Integration

1. Verify that the Genesys Configuration Server and DB Server are started.
2. Navigate to the solution_specific\BPI\windows directory on your BPI CD.

3. Double-click `Setup.exe`. This opens the Blue Pumpkin Integration (BPI) Installation Wizard.
4. Click `Next` to begin using the Wizard.
5. Enter this information for your Configuration Server: host name, port number, user name, and password. Then click `Next`.

   A list of `Data Aggregator Application` objects appears.
6. Select the same object that you selected during the Data Aggregator installation. Then click `Next`.
7. On the `Ready to Install` screen, click `Install`.

   A progress bar shows the setup status.
8. Click `Finish` to close the Installation Wizard.

Install the Statistics Configuration Utility

1. Navigate to the `solution_specific\WFMConfigurationUtility\windows` directory on your BPI CD.
2. Double-click `Setup.exe`. This opens the Statistics Configuration Utility Installation Wizard.
3. Click `Next` to begin using the Wizard.
4. Specify the destination directory where you want the Statistics Configuration Utility to be installed. Then click `Next`.
5. On the `Ready to Install` screen, click `Install`.

   A progress bar shows the setup status.
6. Click `Finish` to close the Installation Wizard.

Configure Application Objects Manually

Although the Configuration Wizards do the configuration required to deploy BPI, you may need to manually change some settings after the initial deployment. Or you may prefer to do the entire configuration manually.

To edit settings:

1. In Configuration Manager, open the `Environment > Applications` folder.
2. Open the `Application` object you want to edit.
3. Make your changes. For recommended settings for all tabs *except* the `Options` tab, see “Configuring WFM Data Aggregator” on page 23 and “Configure the Statistics Configuration Utility Application Object” on page 24. For descriptions of the `Options` tab options and their recommended settings, see “Options Tab Settings for WFM Data Aggregator” on page 28.

> Note: There are no Option tab options to set in the Statistics Configuration Utility Application object.

To configure the Application objects manually:

1. In Configuration Manager, open the Environment > Applications folder.
2. Right-click in the folder and select New Application from the shortcut menu that appears.
3. Browse to and select the appropriate application template from those you previously imported. If necessary, see "Import the Application Templates" on page 20 for instructions.
4. Enter the appropriate information in each tab of the Application object. If you need guidance, check the description of how to configure that component in "Run the Configuration Wizards" on page 22. For a list of the Options tab options, with default settings and descriptions, see "Options Tab Settings for WFM Data Aggregator" on page 28.

Manually Create the BPI Solution Object

If you are using Management Layer, you must use the Genesys WFM Configuration Wizards to create the BPI Solution object and add the necessary components. If you have not yet imported the solution template, see "Import the BPI Solution Template" on page 21.

To configure the Solution object:

1. Double-click the BPI Solution template you imported to open its Properties dialog box.
2. On the Components tab, add the servers that BPI needs to run (see Table 2 on page 28).

> Note: The Components Definition tab displays the preset component types that the solution connects with. The actual connections are configured on the Components tab, but you can use the Components Definition tab as a guide to correct settings.

- Application is the name of the application that the BPI Solution object runs.
- Optional is the requirement status. False means that the application must run successfully for BPI to run. True means that the application is optional for BPI to run.
- Startup Priority is the order in which to start the servers.

> Note: You cannot revise Startup Priority after you have configured it.

3. Click OK.

Table 2: Definitions Tab Settings for the BPI Solution Components

Application	Optional	Startup Priority
WFM Data Aggregator	False	2
Stat Server	False	1

Options Tab Settings for WFM Data Aggregator

From the Options tab you can modify the default WFM Data Aggregator configuration settings. The tab contains five sections. The options in each of these sections are described in the following pages.

Client Section

CfgServerRequestTimeout

Type: Mandatory
Default Value: 10 seconds
Valid Values: Any positive integer
Dependencies: None

The BPI configuration synchronization timeout.

SOAPTimeout

Type: Not applicable
Default Value: 90 seconds
Valid Value: Any positive integer
Dependencies: None

Not used.

Identity Section

ApplicationType

Type: Optional
Default Value: WFMDataAggregator
Valid Value: WFMDataAggregator
Dependencies: None

Used only if you are running Framework 6.x. If so, you must specify ThirdPartyServer as the application type in the WFM Data Aggregator Application object and use this option to notify Configuration Server that the Application object is for WFM Data Aggregator.

Log Section

verbose

Type: Mandatory
Default Value: `all`
Valid Values: `all, trace, standard, none, yes (= all), no (= none)`
Dependencies: None

Filters output of log messages based on their assigned priority. `All` enables output of all messages to the log file. `Trace` enables informational and error messages and disables debug messages. `Standard` enables error messages only and disables informational and debug messages. `None` disables all messages.

buffering

Type: Mandatory
Default Value: `no`
Valid Values: `yes, no`
Dependencies: None

Turns system file buffering on or off.

segment

Type: Mandatory
Default Value: `no`
Valid Values: `no, <number>, <number>KB, <number>MB, <number>Hr`
Dependencies: None

Sets the maximum size (in KB, MB, or hours) of the log file segment, after which a new segment is created. The default size is in KB. The value cannot be less than `100 KB` or less than one hour. `No` indicates no segmentation of the log file.

expire

Type: Mandatory
Default Value: `no`
Valid Values: `no, <number>, <number> file, <number> day`
Dependencies: None

Sets the expiration mode for old segments. The number of files to be stored cannot be less than 1 file or 1 day or more than 100 files or 100 days. `No` indicates that files do not expire.

messagefile

Type: Mandatory
Default Value: `wfmdataaggreagtor.lms`
Valid Value: Any character string
Dependencies: None

Sets the name of the file that stores application-specific log messages.

multithreaded

Type: Mandatory
Default Value: `no`
Valid Values: `yes, no`
Dependencies: None

Sets whether the logging subsystem creates a special logging thread to process log messages. This option is available only for a multithread-enabled log library.

standard

Type: Mandatory
Default Value: `stdout`
Valid Values (log output types): `stdout, stderr, syslog, network, <filename>`
Dependencies: None

Specifies that log events of the `Standard` level are to be sent to the listed outputs. For centralized logging, use `network`. You can use a local file name or `stdout` as well as `network`.

trace

Type: Mandatory
Default Value: `stdout`
Valid Values (log output types): `stdout, stderr, syslog, network, <filename>`
Dependencies: None

Specifies that log events of the `Trace` level are to be sent to the listed outputs. For centralized logging, use `network`. You can use a local file name or `stdout` as well as `network`.

debug

Type: Mandatory
Default Value: `stdout`
Valid Values (log output types): `stdout, stderr, syslog, network, <filename>`
Dependencies: None

Specifies that log events of the `Debug` level are to be sent to the listed outputs. Do not use `network` unless Genesys Professional Services directs you to do so because that setting generates extremely heavy message loads that can degrade system performance.

all

Type: Mandatory

Default Value: `stdout`
Valid Values (log output types): `stdout, stderr, syslog, network, <filename>`
Dependencies: None

Specifies that log events of all levels, `Standard, Trace`, and `Debug`, are to be sent to the listed outputs. Do not use `network` unless Genesys Professional Services directs you to do so because that setting generates extremely heavy message loads that can degrade system performance.

x-LogAgentEventTrace

Type: Optional
Default Value: No default value
Valid Values: `yes, no`
Dependencies: None

Indicates whether WFM Data Aggregator should write agent event data to a log file. Used for debugging only.

x-LogConfigServerConnectionTrace

Type: Optional
Default Value: No default value
Valid Values: `yes, no`
Dependencies: None

Indicates whether WFM Data Aggregator should write Configuration Server connection data to a log file. Used for debugging only.

x-LogConfigServerTrace

Type: Optional
Default Value: No default value
Valid Values: `yes, no`
Dependencies: None

Indicates whether WFM Data Aggregator should write Configuration Server process data to a log file. Used for debugging only.

x-LogSynchronizationTrace

Type: Not applicable
Default Value: No default value
Valid Values: `yes, no`
Dependencies: None

Not used.

x-LogWFMServerTrace

Type: Not applicable
Default Value: No default value
Valid Values: `yes, no`

Dependencies: None

Not used.

Options Section

DBDumpFile

Type: Not applicable
Default Value: No default value
Valid Value: Any valid file name
Dependencies: None

Not used.

HandleTimeWriteBack

Type: Not applicable
Default Value: No default value
Valid Value: `1-12`
Dependencies: None

Not used.

PrimaryServer

Type: Mandatory if you are using a backup server; otherwise optional
Default Value: No default value
Valid Value: The primary Data Aggregator application name
Dependencies: Only configured when setting up a backup Data Aggregator server

Indicates the name of the primary Data Aggregator that this backup is supporting.

ReasonCodeKeyName

Type: Optional
Default Value: No default value
Valid Values: `ExtensionReasonCode, ReasonCode`
Dependencies: None

Specifies the reason (aux)-code key used in the enterprise. You do not need to configure this option if you do not use reason codes.

WFM Data Aggregator can process reason codes that come from hard and/or soft phones. For WFM Data Aggregator to receive reason codes from hard phones, set this option to `ExtensionReasonCode`. In a mixed hard/soft phone environment, set this option to `ReasonCode`.

You can only use reason codes from hard phones if you are using Stat Server 7.x.

ReasonCodeWaitTime

Type: Not applicable
Default Value: `15`
Valid Value: `2–600`
Dependencies: None

Not used.

ScheduleLookAheadMinutes

Type: Not applicable
Default Value: No default value
Valid Value: `0-1440`
Dependencies: None

Not used.

SynchronizeUnassignedAgents

Type: Not applicable
Default Value: No default value
Valid Value: `yes, no`
Dependencies: None

Not used.

BPI Section

If you did not use the WFM Configuration Wizards to set up WFM Data Aggregator, this section does not appear. You must create this section, using the exact name `BPI`, and then create and set values for the options it should contain.

`Note`: You do not need to configure the `TimeValueFormat` or `MaxFileSize` options. They are not used in BPI 7.1.

To create the `BPI` section:

1. On the `Options` tab, right-click in an empty spot.
2. Select `New`.

   A new section appears.
3. Enter `BPI` as the section name.

To create the settings in the section:

1. Right-click in an empty spot in the `BPI` section pane.
2. Select `New`.
3. Enter an option name and value for the new setting.

   Read the descriptions below to determine the settings to enter.

4. After entering the values, click `OK`.
5. Repeat Steps 1–4 until you have configured all the options.

AgentGroupName

Type: Mandatory
Default Value: No default value
Valid Value: Any valid agent group name
Dependencies: None

Specifies the Configuration Manager `Agent Group` for which this WFM Data Aggregator should send real-time agent states.

TenantName

Type: Mandatory
Default Value: No default value
Valid Value: Any valid tenant name, `Resources`
Dependencies: None

Indicates the tenant to which the specified `Agent Group` belongs. In a single-tenant environment, use `Resources`.

TenantPassword

Type: Mandatory
Default Value: No default value
Valid Value: The password configured for the specified tenant.
Dependencies: `TenantName`

Identifies the password for the tenant specified in the `TenantName` option.

TimeProfile

Type: Optional
Default Value: No default value
Valid Value: Any time profile that has been configured in Stat Server.
Dependencies: None

Sets the time profile that is to be used for any statistics WFM Data Aggregator gathers that require a time profile. You can set this value in the Statistics Configuration Utility or here.

MaxFileSize

Type: Not applicable
Default Value: `1024`
Valid Value:
Dependencies: None

Not used.

TimeValueFormat

Type: Not applicable
Default Value: `S`
Valid Values: `comma, semicolon, tab`
Dependencies: None

Not used.

Port

Type: Mandatory
Default Value: `12000`
Valid Value: Any valid port number
Dependencies: None

Specifies the port number over which Genesys sends the real-time agent state changes to the Blue Pumpkin Exchange Server. You initially configure this value using the Genesys WFM Configuration Wizards. You can change the port number at any time by entering a different value here.

FileName

Type: Mandatory
Default Value: No default value
Valid Value: Any valid path and file name
Dependencies: None

This option specifies the name of the historical data file and the location where BPI should place it. This value is set during configuration using the WFM Configuration Wizards. If you did not use the WFM Configuration Wizards to set up WFM Data Aggregator, there is no value set for this option and the historical file is written to the same directory as the WFM Data Aggregator executable.

You can use either of these formats to specify the historical file location:

- Using a drive letter: <*drive*>:\<*directory*>
- Using UNC format: <*host*>\<*directory*>

Relative paths are not supported.

Chapter

4 Starting and Stopping

You can start and stop the BPI servers—that is, WFM Data Aggregator and Stat Server—using Management Layer or you can start and stop all components manually.

You must start the Statistics Configuration Utility manually even when you are using Management Layer.

Note: This chapter does not provide instructions for starting and stopping the Genesys Framework components or the Blue Pumpkin components. For this information, see *Framework 7.1 Deployment Guide* and your Blue Pumpkin documentation.

This chapter contains these sections:

Overview

These starting and stopping instructions cover a number of methods you might use to start and stop WFM Data Aggregator, Stat Server, and the Statistics Configuration Utility. Select the methods that are best suited to your environment.

Note: When starting BPI, confirm that the servers are running before you start the Statistics Configuration Utility.

Start and Stop BPI with SCI

To start BPI from SCI:

1. Start the SCI.
2. Go to the `Solutions` view.
3. Right-click the desired solution and select `Start` from the shortcut menu.
   -or-
   Select the desired solution and choose `Action > Start` on the menu bar.

The command to start BPI is sent to Solution Control Server (SCS), which uses Local Control Agents to activate the BPI solution components in the order established during solution configuration. SCI reports a successful start of BPI after both the Stat Server and WFM Data Aggregator associated with BPI display `Running` status within the configured timeout. When both servers are started, the solution status changes from `Stopped` to `Started`.

`Note`: Because a number of solutions may share a Stat Server, your Stat Server may display `Running` status before you start BPI.

To stop BPI from SCI:

1. Start SCI.
2. Go to the `Solutions` view.
3. Right-click the desired solution and select `Stop` from the shortcut menu.
   or
   Select the desired solution and choose `Action > Stop` on the menu bar.

The command to stop BPI is sent to Solution Control Server, which uses Local Control Agents to shut down the BPI servers in the order established during solution configuration. When both servers are stopped, the solution status changes from `Started` to `Stopped`.

`Note`: Because a number of solutions may share a Stat Server, Stat Server may display `Running` status after BPI is stopped.

For more information on SCI, see *Framework 7.1 Solution Control Interface Help*. To view *Help*, open SCI, and click `Help`. For more information on Management Layer topics, see the *Framework 7.1 Management Layer User's Guide*.

Start and Stop the Servers

There are several ways to start the BPI servers (WFM Data Aggregator and Stat Server).

By default, all Genesys servers are installed as Windows Services. The Services are configured to start when the computer starts.

You may configure the Services to start manually instead of automatically or remove them from Services.

Configure the Windows Services

To configure the Windows Services to start manually rather than automatically:

1. From the Windows taskbar, select `Start > Programs > Settings > Control Panel > Services.`

   The `Services` window appears. Each Service has status settings showing whether it starts manually or automatically and whether it is currently running.
2. Highlight the service you want to configure and then click `Startup.`
3. Select `manual.`
4. Click `OK.` In the `Services` window, click `Close.`

   The settings are saved.

Manually Start a Windows Service

If you have configured a Windows Service to start automatically, it starts whenever you start the computer. No further action is required.

If you have configured a Windows Service to start manually:

1. From the Windows taskbar, select `Start > Programs > Settings > Control Panel > Services.`

   The `Services` window appears.
2. Highlight the Service to start.
3. Click `Start.`

Start the BPI Servers Manually

1. From the Windows taskbar, select `Start > Programs > Genesys Solutions > BPI > <`*`server name`*`>.`

   The server console window opens and the server begins its initialization routine.

2. If desired, right-click the console window's title bar to change server display settings.
3. Minimize the window after the server has started.

Stop the BPI Servers

You can stop the BPI servers in several ways depending on whether the servers are installed as Windows Services.

> Warning! If you terminate a server using the Windows Task Manager, you will lose all data on currently active interactions because Windows does not allow enough time for the servers to save the active data.

Stop the Servers Manually

The method for stopping a server manually depends on whether it is running as a Windows Service.

If the server is running in a console window rather than as a Service, shut it down using the following method:

- Enter [Ctrl+Break] or [Ctrl+C].

> Note: You cannot close a server by clicking the Close button (X) or selecting File > Close from the console window menu bar. This restriction prevents abnormal shutdown and data loss.

You can also stop a server's Windows Service from a command prompt:

1. From the Windows taskbar, select Start > Programs > Command Prompt.
2. Change to the directory in which the server's .exe file is located.
3. At the prompt, enter <*servername*>.exe -sstop.

Stop a Server's Windows Service

To stop a Service from the Services window:

1. From the Windows taskbar, Start > Programs > Settings > Control Panel > Services in Windows and select the appropriate Service.
2. Click Stop.

Start and Stop the Statistics Configuration Utility

1. First, verify that the BPI servers are running.
2. From the Windows taskbar, select `Start > Programs > Genesys Solutions > BPI > Statistics Configuration Utility.`

   The `Login` dialog box appears.
3. Enter your user name and password.
4. If this is the first time you are opening the Statistics Configuration Utility, click `Details.` Then enter the Configuration Server host name and port number and the name of the `Statistics Configuration Utility Application` object that you configured using the Genesys WFM Configuration Wizards.

`Note:` Click `Help` or press `F1` in any Statistics Configuration Utility window to open *Blue Pumpkin Integration 7.1 Statistics Configuration Utility Help.*

Stop the Statistics Configuration Utility

- Select `File > Exit` from the menu.

or

- Click the `X` button in the upper-right corner of the application window.

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