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ServicePattern

Version 3.7

Contact Center Administrator Guide

Revision SP37-CCADM-42059

Table of Contents

1 Introduction

1.1 Purpose

ServicePattern Contact Center Administrator Guide describes configuration of the contact center resources that the ServicePattern solution needs to know about in order to operate in a specific contact center environment. Such resources include agents and other users, agent teams, contact center services with associated skills, scenarios, and operation schedules, extensions and access points, and various other settings.

The guide assumes that your ServicePattern solution has been installed and properly configured at the service provider level. For ServicePattern configuration at the service provider level, see *ServicePattern Service Provider Guide.*

1.2 Audience

This guide is intended for personnel responsible for contact center operations including:

- Definition of contact center services and interaction processing scenarios
- Contact center workforce management
- Assessment of contact center efficiency and quality of customer service
- Outbound campaign definition and execution
- General contact center management
- Contact center reporting and quality monitoring

2 General Information

2.1 Login Procedure

The web application that you use for configuration of all contact center resources, definition of interaction processing logic for inbound call distribution and outbound campaigns, and for all reporting and quality monitoring tasks, is called *Contact Center Administrator*. This application is supported on the current versions of the following browser applications: Internet Explorer, Chrome, Firefox, and Safari.

To begin a working session with Contact Center Administrator, in the address field of your browser specify the URL provided by your system administrator. In the login dialog box that appears, enter your user name and password.

Login screen

Note: If the contact center functionality is provided to you as a service, you may also have to enter the tenant access domain name in the **Tenant** field when you log in for the first time. This name is assigned to your contact center at the service provider level. Upon a successful initial login, this name will be remembered by your browser application and used for all subsequent login attempts.

For your initial login, use the username and password provided to you by the administrator who created your user account. Depending on the policies of your organization, you may have to change this password upon a successful initial login. For password change instructions, see section *Application Settings*.

If you forgot your password, click **Forgot Password?** in the login dialog box. In the **Password reset** dialog box that appears, specify either your email address or your user name and the tenant access domain name if applicable, and click **Proceed**. An email with password reset instructions will be sent to your email address.

2.2 User Interface Overview

Upon successful login, you will be presented with the main application view consisting of an upper bar with general options, a contact center resources menu on the left, and an application pane, which is the main working area for viewing and editing the selected resources.

Contact Center Administrator user interface

To work with a specific resource, select the resource type from the resource menu. The left side of the application pane will provide a list view of previously configured resources of the given type. To configure a new resource of this type, click the "**+**" button at the bottom of the list. To view and edit an existing resource, select it from the list. To look for specific resource in long lists, use the search function - the field with the magnifying glass symbol above the list. To delete an existing resource, select it from the list, and click the "**x**" or "**-**" button at the bottom of the list.

The right side of the application pane is used to define new resources of the given type and to edit configuration properties of a resource currently selected in the list view. Depending on the resource type, its configuration settings may all fit in one property screen or occupy several screens. You can switch between screens by clicking corresponding tabs. When you finish entering or updating configuration settings within a screen, click the **Apply** button to save the changes in the configuration database. If the data you have entered for a particular property violates one or more of the data integrity rules, such as uniqueness or value range, the corresponding property filed will be highlighted in the red color. The subsequent chapters of this guide discuss the process of configuration of each type of contact center resource in detail. Refer to the descriptions of resource properties to see what kind of integrity rules may apply to them. You can use the **Reset** button to abandon any changes you have made in the current screen.

In addition to contact center configuration, the Contact Center Administrator application can be used for reporting tasks, such as generation of historical reports and for listening to call recordings. To switch between the configuration and reporting tasks, use the **Configuration** and **Reports** options in the upper bar.

To log out of the Contact Center Administrator application, click **Logout** in the upper bar. If you have any unsaved work, you will be prompted to confirm your intention to exit the application. Otherwise, your working session will terminate immediately. The application will remember the last task you worked on before you logged out and will display the corresponding view upon your next login so that you can continue the work you were doing at the end of your previous working session. Note that for

security reasons, you may also be logged out automatically if you have not shown any user activity for an extended period of time.

2.3 Application Settings

To manage the settings of your instance of the Contact Center Administrator application, click **Settings** in the upper bar menu.
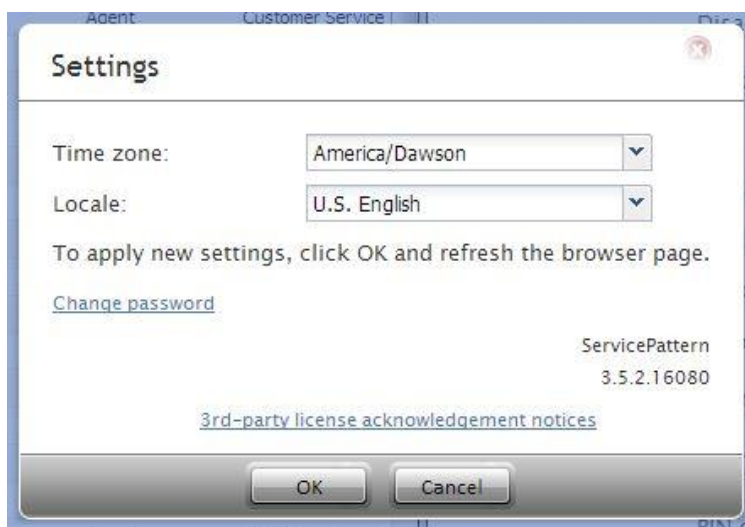
Application settings

The dialog box that appears provides the following options:

Settings options	
Option	**Description**
Time zone	Use this option to specify your default time zone. Note that this time zone setting will be applied only to your personal data requests such as time-based selection of audit log records. A different time zone setting is used for configuration of time-based parameters of contact center resources such as service hours. For more information, see section *General Settings*.
Locale	Use this option to select one of the available languages. Note that this setting will only affect the text of the application itself and will have no effect on the language you use for the actual configuration data that you enter and edit.
Change password	This option lets you change your password. You will need to enter your current password in the dialog box that appears, enter the new password and then confirm the new password by entering it again.

Any changes in the first two of the above settings will take effect as soon as you click **OK** and refresh/reload the application web page. A new password will take effect the next time you log in.

3 Contact Center Configuration Process

As the main reference guide for all types of contact center administration tasks, this document uses the same structure as the menus of the Contact Center Administrator application. This enables the reader to easily find information about specific configuration resources using the table of contents. This also means that the order in which the information is presented in this guide is not necessarily the order in which you configure the resources of your contact center during your solution setup.

The recommended order of the contact center configuration is described in this section. Each configuration step is referenced to specific sections of this guide where the related information is provided. Note that every configuration step recommended below is optional and depends on your specific environment. Because every contact center is unique, it is impossible to suggest a process that would universally apply to all possible types of installations. Use the information below as general guidelines only.

3.1 Initial General Configuration

The following table suggests the order of the initial general contact center configuration that can be recommended regardless of whether the contact center will be used for inbound services, or outbound campaigns, or both.

Step	Action	Section of This Guide
1	Log in with the default user name and password.	Login Procedure
2	Adjust the application settings such as the time zone and language.	Application Settings
3	Change the password.	Application Settings
4	Configure the voicemail system.	Voicemail
5	Create accounts for the other users who will be performing the configuration tasks discussed below. Initially, these users can be members of the default *Administrators* team. Assign them roles that will enable them to perform their tasks.	Users and Roles
6	Specify the email settings.	Email Settings
7	Prepare and upload custom audio treatments, shared voice segments, and default voicemail greeting.	Audio Treatments, Shared Voice Segments, and Voicemail
8	Review and change the default values of the general settings that apply to the entire contact center.	General Settings
9	Specify the desired percentage of recorded calls and, if necessary, change the default quality assessment categories.	Quality Management
10	Define operational schedules of your contact center.	Calendars and Hours of Operation
11	Create agent teams.	Teams
12	Create or import agents and assign them to teams.	Users
13	Create or import supervisors and assign supervisors to agent teams.	Users

3.2 Inbound Voice and Chat Service Configuration

The following table outlines the recommended general order of configuring an inbound voice or chat service.

Step	Action	Section of this Guide
1	Create an inbound voice or chat service and configure its general settings.	General Service Configuration
2	Assign agent teams to this service. Note that the service will be created with a default service skill that can be automatically assigned to all members of the associated agent teams.	General Service Configuration
3	Create additional skills required for this service.	Auxiliary Skills
4	Assign the additional skills to agents of the assigned teams.	Skill Levels
5	Specify service level threshold for the service.	General Service Configuration
6	Create the interaction processing scenario for this service. For voice, use text-to-speech to generate the voice messages and prompts, and once they are finalized, record them with voice talent.	Scenarios
7	For voice, specify dial-out information for outbound consultation calls.	Dial-out Entries
8	For voice, set up periodic export of call recordings.	General Service Configuration
9	For chat, specify the number of sessions that agents can handle simultaneously.	Media Routing Concurrency
10	Configure a caller ID for SMS communications	Service-Number Association
11	Associate scenario with an access number (for voice) or web pages (for chat).	Scenario Entries

3.3 Outbound Campaign Configuration

The following table outlines the recommended general order of configuring an outbound campaign. Note that for campaign configuration, the Contact Center Administrator application provides a diagnostics page that you can use to verify the completeness of your campaign configuration. For more information, see section *Outbound Campaign Settings*.

Step	Action	Section of this Guide
1	Import and configure calling lists.	Lists
2	Import and configure Do Not Call lists.	Do Not Call Lists
3	Review and update state calling hours	State Calling Hours
4	Create an outbound service (campaign) and configure its general settings.	General Service Configuration
5	Assign agent teams to the campaign. Note that the campaign will be created with a default skill that can be automatically assigned to all members of the associated agent team(s).	General Service Configuration

Step	Action	Section of this Guide
6	Create additional skills required for this campaign.	Auxiliary Skills
7	Assign the additional skills to agents of the assigned teams.	Skill Levels
8	Assign campaign operators to this campaign.	General Service Configuration
9	Associate the calling lists with this campaign, configure them for use within the campaign, and enable them when they are configured.	List-Campaign Association
10	Review and edit the default dispositions and define additional dispositions as may be necessary to analyze the results of your campaign.	General Service Configuration and Pre-defined Dispositions
11	Define interaction processing scenarios that may be needed for automatic processing of answered campaign calls and possible callbacks within this campaign.	Scenarios
12	Create activity forms that the agents will use to process campaign calls, and bind them to the calling list data.	Activity Forms and General Service Configuration
13	Decide which access numbers will be used as caller IDs for this campaign and, if necessary, associate these numbers with scenarios for possible callbacks.	Access Numbers
14	Configure campaign caller IDs.	Service-Number Association
15	Configure all campaign-specific settings, including campaign type, general schedule, estimated success rate, calling hours, dial rules, and Do Not Call lists.	Outbound Campaign Settings
16	Verify the completeness of campaign configuration using the campaign's Diagnostics page.	Outbound Campaign Settings
17	Set up periodic export of campaign results and recordings.	General Service Configuration
18	Enable the campaign	Outbound Campaign Settings

3.4 Email Service Configuration

The following table outlines the recommended general order of configuring email services associated with a particular email address.

Step	Action	Section of this Guide
1	Plan out categorization of email interactions arriving at a particular email address, create the corresponding email services, and configure their general settings.	General Service Configuration
2	Assign agent teams to these services. Note that each service will be created with a default service skill that can be automatically assigned to all members of the associated agent teams.	General Service Configuration
3	Specify targets for reply time (service levels) and other email-specific service settings.	Email Service Settings

Step	Action	Section of this Guide
4	Create acknowledgement message(s) that will be sent to customers automatically to confirm receipt of their email inquiries.	Knowledge Base and Email Service Settings
5	Create articles in the knowledge base that will help agents process emails associated with the above services more efficiently.	Knowledge Base
6	Create the mandatory messages that will be automatically inserted above and/or below the main text of every email that is sent to a customer.	Email Header and Footer
7	Specify the number of emails that agents can have in active processing on their desktops simultaneously.	Media Routing Concurrency
8	Make sure the agents who will process email have privilege *Handle email* granted to them	Roles
9	Create an email scenario entry for the given email address, configure its account settings, default service, and categorization/prioritization rules.	Email Scenario Entry

4 Users and Teams

4.1 Overview

All contact center personnel who may need access to any functionality of your ServicePattern solution must be registered in the solution configuration. Usually such personnel include all contact center agents and supervisors who need to have access to interaction handling and supervisor functions respectively, as well as all contact center managers and administrators who may need to use the Contact Center Administrator application for any types of administration tasks. The exact set of functionality available to a particular user is defined by the role assigned to this user in the solution configuration. For management and reporting purposes, users are assigned to teams. Note that in ServicePattern a user cannot be a member of more than one team.

The way you define your roles and organize users into teams usually reflects the administrative structure of your contact center. Note that typically you should define both the roles and teams before you begin to register your users.

4.2 Users

As suggested above, a user is anyone who may need access to any functionality of the ServicePattern solution. In order to access specific system functions, a user must not only be registered within the ServicePattern configuration but also have the corresponding roles assigned. For example, user's roles define whether the user is an agent, i.e., someone who can use the Agent Desktop application to handle customer interactions, or a supervisor, i.e., someone who can use the supervisor functionality of the same application to monitor and control agent activities in real time.

To define and edit user information, select the **Users** option from the **Users & Teams** menu.

Users & Teams > Users

Note that you can import user information from an Excel spreadsheet instead of entering it manually. You can also export user information to an Excel spreadsheet. Import and export operations are activated by the arrow buttons at the bottom of the user list view. For information about the spreadsheet format, click the import button. An easy way to obtain a user import template is to add a few users manually first, apply the export operation, and use the produced spreadsheet as an import template.

Note: If you do not wish to use certain records during a particular instance of import, but would like to keep those records in the spreadsheet for possible use in the future, you can add a column with name *Delete* to the spreadsheet and set its value to *yes* for the records that are not to be imported.

The **Users** screen properties are described in the following table:

Users screen properties	
Property	**Description**
Profile tab	
Username	Name that the user will enter when logging into any of the ServicePattern applications (except Service Provider). Mandatory and must be unique within the contact center.
Password	Password that the user will enter when logging into any of the ServicePattern applications. This field is displayed for new users only and its specification is mandatory. Note that some rules related to password complexity (length, special characters, etc.) may be defined and enforced at the service provider level.
Confirm password	Password confirmation field. Mandatory.

Users screen properties	
Property	**Description**
Profile tab	
Change password	This option is displayed for existing users only, and is used to change the selected user's password.
	Agents and supervisors may not have access to the Contact Center Administrator application; however, they can change their passwords via their Agent Desktop applications.
Disabled	Indicates whether this is an active user. Select this checkbox for users who may no longer have access to any of the system functionality, but must remain in the configuration, e.g., for reporting purposes.
	Note that inactive user accounts may also be disabled automatically. See section *Security Policy* for more information.
User must change password on next login	Indicates whether the user will be forced to change his password upon his next login. To comply with the PCI DSS security standard, select this checkbox for every new user.
	As soon as the user changes his password, the check mark will be automatically removed. You can force the user to change password at any time by selecting this checkbox again.
	This property exists to support manual password change enforcement. Note that the system also supports automatic password expiration (see section *Security Policy* for more information). The related automatic password changes are not reflected by this property.
Lockout	Indicates whether this user can access the system or is currently locked out due to a security policy violation. For more information, see section *Security Policy*. You can click the link to view current lockout status. If the user account is locked out, you can unlock it by clicking the **Unlock** button.
First name	User's first name. Mandatory.
Last name	User's last name. Mandatory.
Chat nickname	The name that will be displayed to the customers when they talk to this user via chat. This setting is essential for users who are agents only.
Rank	User's rank. This setting can be used as an additional selection criterion in custom agent reports. This setting is essential for users who are agents only.
Team	The team that this user is assigned to. A ServicePattern user must be assigned to a team, and cannot be assigned to more than one team. Please see section *Teams* for considerations regarding assignment of users to teams.
	Note that teams may be associated with services. Upon assignment to such a team, the user may automatically get a corresponding service skill with a certain level. You can change the level or remove the skill from the user manually using the *Skill Levels* option.
Phone extension	User's extension number. Must be specified, must contain numeric characters only, and must be unique within the contact center. This number will appear in the directory along with user's first and last name and can be used for making direct calls to this user when numeric input is preferred or when it is the only way to make a call (e.g., dialing the extension number from a hardphone or entering it through an IVR system).
	The extension can be used in combination with user's *PIN code for phone login* (see below) for authentication through interfaces that only accept numeric input, e.g., an IVR system.

Users screen properties	
Property	**Description**
Profile tab	
	ServicePattern assigns extension numbers to new users automatically in ascending order starting from 1000. You can change the default number to any other value. In this case, the default extension number assigned to the next new user will be the newly defined value + 1. Extension numbers are recycled, i.e., when you delete a user, his extension number will be assigned by default to the next new user.
	Note that a user's extension number cannot be changed while the user is logged on to his extension (in this case it will be displayed as read-only).
Default hardphone number	Extension number of the hardphone assigned to this user. Optional and, if specified, must be one of the existing hardphone extension numbers (see section *Hardphones*). This parameter should be only defined for users who normally use permanently assigned hardphones installed at their personal desks. Note that if the user logs into another hardphone, the system will ignore his default hardphone number for the duration of login.
PIN code for phone login	User's numeric password that can be used in combination with user's *Phone extension* for authentication through interfaces that only accept numeric input, e.g., an IVR system.
Email address	User's email address that the system will use for delivery of password reset instructions, voicemail messages, and scheduled reports. Note that this address is not used for distribution of service email interactions to the agents.
Recorded calls	Percentage of calls (both service and internal) handled by this user that will be recorded. If not specified, the parameter specified at the contact center level will be applied (see section *Quality Management*). If explicitly set to zero, no recordings will be made for conversations involving this user under any circumstances (e.g., even if the related contact-center-level property is set to 100% or if the other user on the call has this property set to 100%).
Maximum concurrent chats	Removed in version 3.7.
	This parameter was used in earlier versions of the product to set the maximum number of concurrent service chat sessions for this user. In version 3.7, a more advanced multi-media agent capacity configuration method has been introduced, making this parameter obsolete. For more information about agent capacity configuration, see section *Media Routing Concurrency*.
Voicemail greeting	User's personal voicemail greeting. Click **upload** to upload the desired voice file with the greeting. The greeting must be encoded in uncompressed PCM A-law or µ-law 16-bit format. Click the audio icon to listen to the previously uploaded greeting. If a personal greeting is not uploaded, the default voicemail greeting will be used (see section *Voicemail* for more information.)
Roles tab	
Roles list	A user can be assigned any number of roles that define what kind of system functionality he will be able to access. For more information, see section *Roles*. Select a role from the list in order to assign it to the user.
	By default, new users do not have any roles assigned to them. Since the majority of users registered in your configuration are likely to be agents, you can configure automatic assignment of the *Agent* role to every new user. See description of property *Assign this role to newly created users* in section *Roles* for more information.

4.3 Teams

Teams usually reflect you contact center organization. Agent teams, for example, are organized for convenient real-time management so that when a supervisor logs into his desktop application, he will only see the agents of the team that he is assigned to manage. Agent teams will also appear in historical reports for team-level performance evaluation. Note that team membership of agents may not have any direct effect on distribution of specific service interactions to them.

Teams for other contact center personnel are set up for organizational purposes only. For example, you can have teams that reflect main functions of contact center management (e.g., campaign operators, scenario designers, workforce managers). Upon initial solution setup, the default team *Administrators* is created automatically. You can use this team to register initially all non-agent personnel who need access to the system. Note that team membership of non-agents does not have any effect on their ability to access specific contact center resources and functions. Such ability is defined by roles assigned at the individual user level (see section *Roles* for more information).

To set up and edit teams, select the **Teams** option from the **Users & Teams** menu.

Users & Teams > Teams

The **Teams** screen properties are described in the following table:

Teams screen properties	
Property	**Description**
Properties tab	
Name	Team name. Mandatory and must be unique within the contact center.

Teams screen properties	
Property	**Description**
Properties tab	
Supervisors	Supervisors assigned to manage this team. Click **Edit** and select one or more supervisors from the list of users that have the supervisor role. This setting is optional and essential for agent teams only. Supervisors assigned to a team will be able to monitor activities of all agents in that team in real time via their desktop applications. Supervisors themselves do not need to be members of the teams that they are assigned to supervise. The system does not impose any restrictions on how many teams one supervisor can be assigned to manage.
Exit After Call Work	Sets the maximum time in the After-call Work state for the agents of this team. This setting is optional and essential for agent teams only. Select **automatically, after** to set the desired timeout in seconds. Select **system-wide setting** to use the timeout defined at the contact center level. Select **manually** to allow the agents of this team to remain in the After-call Work state until they exit this state manually.
Enter After Call Break	Specifies whether the agents of this team will be allowed any rest time when they finish handling of a service call (including After-call Work if it is defined). This setting is optional and essential for agent teams only. Select **enter Break state** to enable the rest time. Select **do not enter Break state** to automatically make agents ready for next call as soon as they finish handling of current service calls. Select **system-wide setting** to use the contact-center-level setting.
Exit After Call Break	Sets the maximum time in the Break state after finishing a service call for the agents of this team. This setting is optional and is essential for agent teams only. Select **automatically, after** to set the desired timeout in seconds. Select **system-wide setting** to use the timeout defined at the contact center level. Select **manually** to allow the agents of this team to remain in the Break state until they exit this state manually.
Non-call cases URL	URL of the web page that will be displayed for agents of this team upon interaction delivery (unless another URL is specified in the corresponding campaign or scenario). Select **system-wide setting** to display the web page defined at the contact center level. Select **custom** for a web page specific to the agents of this team. If you do not wish to display any web pages, select **none**.
Maximum concurrent chats	Removed in version 3.7. This parameter was used in earlier versions of the product to set the maximum number of concurrent service chat sessions for members of this team. In version 3.7, a more advanced multi-media agent capacity configuration method has been introduced, making this parameter obsolete. For more information about agent capacity configuration, see section *Media Routing Concurrency*.
Members tab	
Members List	Lists the users who are currently assigned to this team. For each team member, his first name, last name, extension number, and assigned Roles are displayed.
Move to another team	Select one or more users from the list. Use this control to move the selected users to another team.
Change roles	Select one or more users from the list. Use this control to change the roles of the selected users.
Services tab	
Services and campaigns	Lists the services that are provided by the agents of this team. This setting is essential for agent teams only. When you assign a service to an agent team, you have an option to assign the default service skill to all members this team with a specific level. If you

Teams screen properties	
Property	**Description**
Properties tab	
provided by this team	select this option, all current and future members of the team will get this service skill automatically. Individual levels can be changed manually later. For more information, see sections *Services and Campaigns* and *Skill Levels*.
	Also, when you assign a service to a team, supervisors of that team will be able to monitor this service in real time via their desktop applications. Select **edit** to assign one or more of the available services to this team and/or to remove previously assigned services. Note that when you remove a service from a team, the associated default service skill will be removed from all members of this team.
Dashboard tab	
General information	The Agent Desktop application can display real-time metrics related to agents' personal performance, as well as KPI's of their teams and services that they deliver.
	This tab contains properties that let you configure the content and appearance of these metrics for the agents of the given team.
Refresh rate	The rate at which real-time metrics will be refreshed at the Agent Desktop.
Item	Items that will be displayed for members of the given team.
	To add an item, click **add** and select the desired metric from the drop-down **Metric** menu. For description of the available metrics, see section *Agent Dashboard Metrics*.
	To help with self-evaluation, current values of agent personal metrics can be accompanied with agent's current ranking within the team (checkbox *Show team ranking*), and performance of the closest other agent in ranking (checkbox *Show next value*).
	Newly created dashboard items will appear at the end of the list. To change position of an item in the dashboard, drag it to the desired new location.
	To edit or remove an existing item, hover over it and select the desired function.
Label	Metric name as it will be displayed in the Agent Desktop. Due to the limited space allocated for the metrics on the desktop, metric names should be displayed in an abbreviated form.
Show team ranking	This option is available for personal agents' metrics only.
	Select this option if you want the agent's metric value to be accompanied with his current ranking within the team according to this metric. This can help agents with self-evaluation of their performance.
Show next value	This option is available for personal agents' metrics only.
	Select this option if you want the agent's metric value to be accompanied with the value of the same metric for the agent who is directly ahead of this one in the current ranking. (If the agent currently has the top ranking, the value of the next best agent will be displayed.)
Excluded services and campaigns	By default, the metrics you configure will be displayed for all services and campaigns assigned to the given team. If you do not want certain services to be displayed, click **add** and select the services that should be excluded.

Teams screen properties	
Property	**Description**
Properties tab	
Preview	Preview shows you how the dashboard that you have configured will be displayed in the Agent Desktop.
	Note that due to a limited space allocated for the metrics on the Agent Desktop, if the given team provides multiple services, metrics related to those services will be displayed for one service at a time.
	To see what the dashboard will look like for a specific service, select the desired service from the list. The difference in the dashboard appearance for different services may be due to service specific disposition metrics (see section *Agent Dashboard Metrics* for more information).

4.4 Roles

A role is a combination of privileges, i.e., permissions to access specific functionality within ServicePattern solution. Roles, therefore, define the type of work that users are allowed to do in the contact center. For example, in order to design call distribution scenarios, a user must have a role that has the *Manage Scenarios* privilege. A user may have any number of roles assigned simultaneously.

ServicePattern provides a number of pre-configured roles that are available upon the initial solution installation. It is recommended that you review these roles first to see if they sufficiently reflect your contact center organization. If any changes are desired, you can modify the default privilege set of any pre-configured role, delete some of the pre-configured roles, and/or create some additional roles.

To work with roles, select the **Roles** option from the **Users & Teams** menu.
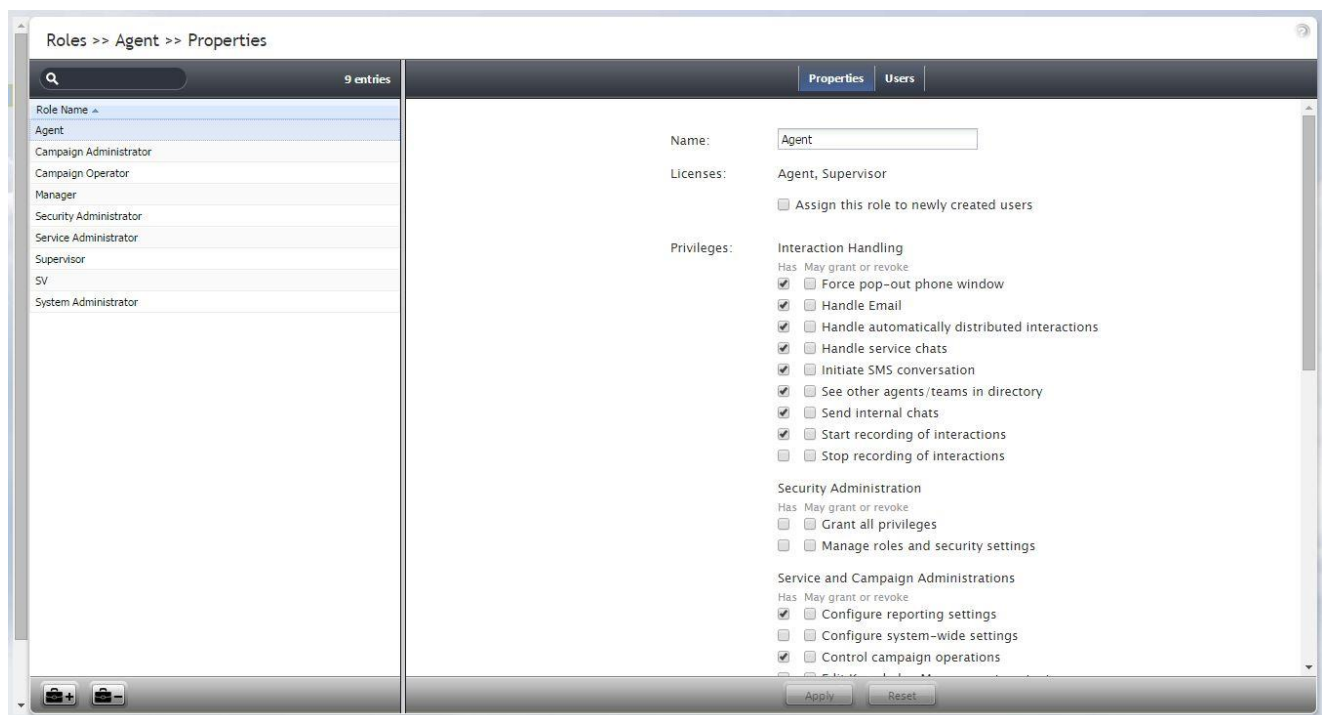
Users & Teams > Roles

The **Roles** screen properties are described in the following table:

Roles screen properties	
Property	**Description**
Properties tab	
Name	Role name. Must be unique within the contact center.
Licenses	Not used.
Assign this role to newly created users	Indicates whether the given role will be automatically assigned to every new user registered in your configuration. For example, if you want all or most of your users to be able to handle service interactions, you can select this property for the default role *Agent* and all new users will automatically get the corresponding permission. Remember that you can always remove a role assigned by default manually.
Privileges	Defines the privileges granted with this role. Note that there are two columns: **Has** and **May grant or revoke**. The first one defines whether users with this role can themselves access the corresponding functionality. The second one defines whether users with this role can assign roles containing such privileges to other users or to revoke them from other users. Most of the privileges have names that are self-explanatory. The following privileges deserve additional explanation: - **Manage roles and security settings:** provides access to the *Users & Teams > Roles* option - **Grant all privileges:** enables the user to grant any privilege, regardless of his *May grant or revoke* settings with respect to specific privileges (this is helpful during product upgrades where new privileges may be introduced)
Users tab	
List of users	Lists the users who currently have the selected role assigned to them. For each user, his first name, last name, extension number, and team membership are displayed. Double click a specific user row to manage settings of this user.

4.5 Skill Levels

In ServicePattern solution, skills assigned to an agent with certain proficiency levels define the types of customer interactions that this agent is able to handle. Before skills can be assigned to an agent, they must be defined in your contact center configuration. For information about skill definition, see sections *Services and Campaigns* and *Auxiliary Skills.*

There are two different ways to define skills in ServicePattern and two corresponding methods to assign such skills to agents.

With the first method, when you create your services, a *default service skill* representing qualification to provide the corresponding service is created automatically. When you assign a service to an agent team, you will have an option to assign this default service skill to all members of this team with a specific level. If you select this option, all current and future members of the team will get the service skill automatically. Note that the individual skill levels can be changed manually later. For more information, see section *Services and Campaigns.*

With the second method, skills are created independently of services. Such *auxiliary skills* are organized in groups (e.g., language skills) and can be used in combination with the default service skills to identify the most qualified agents to handle a specific interaction. For example an auxiliary language

skill can be used with the default service skill for technical support, to provide support in the language preferred by the customer. Auxiliary skills are assigned to agents manually. For more information, see section *Auxiliary Skills*

To view and change assigned agent skills, select the **Skill Levels** option from the **Users & Teams** menu.

				Language		Services	
First Name	Last Name	Team	Roles	English	Japanese	Support for Contact ...	Support for CSIM
Alan	Jenks	CSIM Support	Agent	100			100
Allen	Fawcett	Contact Center S...	Agent	100		100	
Amelia	Kirchner	Contact Center S...	Agent	100		100	
Blanca	Hesse	CSIM Support	Agent,Supervisor	100	70		50
Carlos	Clapper	CSIM Support	Agent	100			100
Chad	Landrum	Contact Center S...	Agent	100	30	50	
Clara	Heintz	Contact Center S...	Agent	100	50	50	
Clara	Caffey	CSIM Support	Agent	100			100
Donna	Gist	Contact Center S...	Agent	100		100	
Edward	Kempf	Contact Center S...	Agent	100		100	

Users & Teams > Skill Levels

The list that appears will contain all users of your contact center. You can limit the view to members of one or several specific teams by selecting those teams from the drop-down menu above the list. For each user, information about his team membership and assigned roles will be displayed.

The other columns of the list represent your contact center skills arranged according to their groups. The default service skills will be arranged under the group **Services**. Note that when you limit the list view to show the members of a specific team, only the default skills of the services associated with this team will be displayed.

The numeric values in the skill columns define the relative levels of proficiency in the given skill for the agents in the corresponding rows. Absence of any skill level value in a specific skill column for a specific agent means that the agent does not possess the given skill at all. Note that for default service skills, the skill levels will usually contain a certain default value specified at the time when the corresponding service became associated with the agent team. For auxiliary skills, levels will be initially absent and must be specified manually.

To focus on the particular skills whose assignments you wish to view and modify, click the **Skill columns** button and deselect the skills that you do not wish to work with right now.

To assign a skill to an agent, click the corresponding skill level cell, specify the desired value, and press the Enter key. The value must be an integer within the 0 to 100 range. Use the same operation to change the levels of the existing agent skills. Deleting an existing value or setting it to 0 means that the user will no longer possess the corresponding skill.

You can change any number of skill levels for any number of agents while in the *Skill Levels* screen. All cells with updated values will be highlighted with a red mark in the upper left corner. Click **Apply** to store the new values in the configuration.

4.6 Help Screens

ServicePattern allows you to define the content of the Help screen that users of the Contact Center Administrator and Agent Desktop applications will see when they click the help icon in the upper-right corner of the application screens. Help screens can contain multiple help items and can be customized for each role you have defined for your contact center (see section *Roles* for more information). A help item is usually a link to a web resource that provides information relevant to the person in the given role. For example, a link can point to a published user guide, a knowledge base article, or a documented customer service procedure. Phone numbers and email addresses can also be defined as help items. Items related to the same knowledge domain are arranged in sections, and these sections can be displayed or hidden depending on the role and/or team assignment of the user who will view the help screen.

To work with help screens, select the **Help Screens** option from the **Users & Teams** menu. Note that you must have privilege *Publish help* in order to see this option and edit help screens.
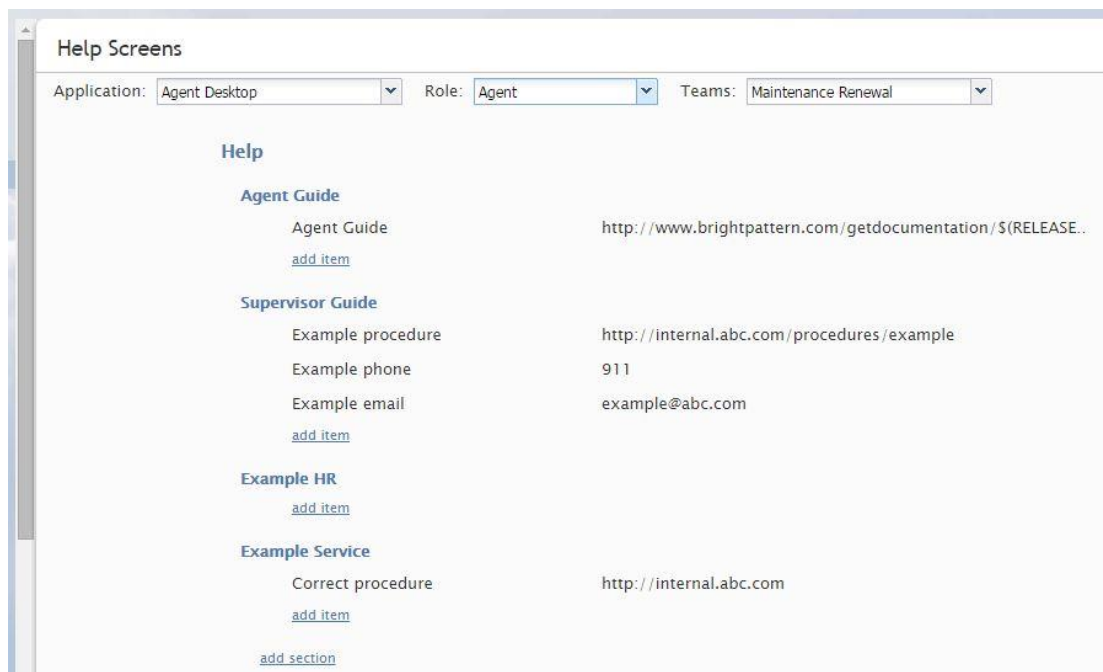
Users & Roles > Help Screens

When you open the Contact Center Administrator application for the first time, you will see some pre-defined content of the help screen provided to you as an example. Use the **Application** drop-down menu to work with the help screen content of the user-facing application of the desired type. By default, you will see sections and items for all roles and all teams. To see the content available to a specific user role, select the desired role from the **View As** drop-down menu. To see the content available to members of a particular team, select the desired team from the **Teams** drop-down menu.

To add a new section, click **add section**, provide the section title and, if necessary, re-define the intended audience (roles and teams) for the content of this section. If the content applies to all roles/teams, select **All**.

To add a help item to the section, click **add item**, provide the item title, select its type (URL, phone, or email), and specify the value.

To edit or delete existing sections and help items, mouse-over the corresponding titles.

4.7 Agent Dashboard Metrics

Most of the metrics available for display in the agent dashboard are also available via the real-time metric views of the supervisor's desktops. For detailed description of those metrics, see *ServicePattern Supervisor Guide*, *Appendix A.* The few metrics that are specific to the agent dashboard are explained in the table below. For general dashboard configuration settings, see section *Teams*.

Unless specifically noted otherwise with respect to a particular metric, all metrics below are calculated since the reset time. See section *Reporting Settings* for more information.

Agent Dashboard Metrics	
Metric	**Description**
Service name	Name of the service that this metric is related to. Display of the service name is helpful if you intend to show any service-level metrics to the agents of this team and if this team provides multiple services.
	Note that due to a limited space allocated for the metrics on the Agent Desktop, if the given team provides multiple services, metrics related to those services will be displayed for one service at a time.
My Success Rate	Percentage of interactions handled by the agent with dispositions indicating successful processing (dispositions of type *Success*) relative to all interactions handled by this agent. For more information about dispositions, see description of the *Dispositions* tab in section *General Service Configuration*.
My Team Success Rate	Percentage of interactions handled by all agents of the given team with dispositions indicating successful processing (dispositions of type *Success*) relative to all interactions handled by those agents. For more information about dispositions, see description of the *Dispositions* tab in section *General Service Configuration*.
Call handling rate per hour	The total number of interactions of the given service handled in the last hour. This metric is not counted for email services.
Dispositions	Number of interactions handled by the agent for the given service with the selected disposition. For more information about dispositions, see description of the *Dispositions* tab in section *General Service Configuration*.
	Select the desired service from the drop-down menu on the left, and then select the desired disposition from the menu on the right.
	To display the total number of interactions for the given service that the agent completed with any disposition, select the **Show total dispositioned calls** checkbox.

5 Directory

5.1 Overview

Options of the Directory menu deal primarily with configuration of the communication entities, such as access numbers, extensions, dial-out prefixes, and number-name associations.

5.2 Softphones

A softphone is a software program for handling telephone calls using the networking and sound processing capabilities of a general purpose computer. In VoIP systems, a softphone application is associated with a user at the moment of login, and is identified by the user's name and extension number for the duration of the login session. The extension number can be used for making direct calls to this user when numeric input is preferred or when it is the only way to make a call (e.g., dialing the extension number from a simple hardphone or entering it through an IVR system).

In ServicePattern, softphone software is an integral part of the Agent Desktop application. Softphone extensions are assigned to users automatically when you create a user. For more information, see section *Users*.

To view the current extension number assignment, get the real-time softphone status, and set up call forwarding options, select the **Softphones** option from the **Directory** menu.

Note that the softphone extensions are recycled, i.e., when you remove a user from the configuration, his extension number becomes available for assignment to another new user. All forwarding options of such a recycled softphone extension will be reset to their default values.

Directory > Softphones

The **Softphones** screen properties are described in the following table:

Softphones screen properties	
Property	**Description**
Phone tab	

Softphones screen properties	
Property	**Description**
Number	Softphone extension number. This is a read-only parameter that also shows the first and last name of the user that this extension number is currently assigned to. If you wish to assign a different extension number to the user, click the user name.
Phone registers dynamically as	Softphone unique registration name consisting of the extension number and tenant access domain name. This parameter is read-only and is essential in the multi-tenant mode only.
Current Registration	Shows real-time registration information for this softphone including the IP address, port, registration expiration time, and SIP server host name. The *no data* value for these parameters normally means that the user with this extension number is not currently logged on.
Forwarding tab	
General information	Options of this tab specify where calls intended for the given extension number will be re-directed under various conditions, such as No Answer or Busy. These settings affect non-service calls only, i.e., calls made directly to this extension.
Unconditional Forward	Unconditional Forward means that any non-service calls, i.e., calls made directly to this extension, will be immediately re-directed to the phone number specified in **Forward destination**. This type of forwarding is disabled by default.
Forward on No Answer	Forward on No Answer means that any non-service calls will be re-directed to the phone number specified in **Forward destination** if they are not answered from this extension within the specified **No answer timeout**. By default, such calls are re-directed to the voicemail number, if one is defined, after the timeout specified in the contact-center-level voicemail settings (see section *Voicemail*).
Forward on Busy	Forward on Busy means that any non-service calls will be re-directed to the phone number specified in **Forward destination** if this extension is busy. By default, such calls are re-directed to the voicemail number if one is defined.
Forward if Unreachable	Forward if Unreachable means that any non-service calls will be re-directed to the phone number specified in **Forward destination** if the user of this extension is not currently logged on. By default, such calls are re-directed to the voicemail number if one is defined.

5.3 Hardphones

A hardphone is a telephony device designed specifically for handling telephone calls. Unlike softphones, whose extensions are defined by users who are currently logged on, hardphones have their own extension numbers. In ServicePattern, the association between a user and a hardphone number is established when, while logging into the Agent Desktop application, the user selects *An internal phone* option for the *Phone device* setting, and specifies the hardphone number. Such an association is maintained for the duration of the login session. After the user logs out, another user can log into the same hardphone device following the same login procedure.

After hardphones have been created in the ServicePattern configuration, the hardphone devices themselves shall be configured with the corresponding extension numbers and registered with the system. You can check the current registration status of a hardphone from the Contact Center Administrator application (see description of parameter *Currently* below).

For manual hardphone set up procedures, refer to the documentation provided with your hardphone devices. ServicePattern also supports automatic provisioning for Polycom IP phones (see option *Phone MAC address* below for more information).

To configure hardphones, get their real-time status, and set up their call forwarding options, select the **Hardphones** option from the **Directory** menu.

Directory > Hardphones

The **Hardphones** screen properties are described in the following table:

Hardphones screen properties	
Property	**Description**
Phone tab	
Number	Hardphone extension number. Mandatory and must be unique within the contact center. Note that if you use both softphones and hardphones in your contact center, the uniqueness must be observed within the entire range of extension numbers including the softphone ones.
Caller ID	The name that will be displayed to other users when they receive calls from this phone.
MAC address	The unique identifier of this hardphone device on the physical network. This parameter is optional and is used for possible automatic provisioning of supported hardphone models. Entering or changing MAC address will automatically enable authentication and will require a new password for the phone (see screen *Authentication* below.)
Phone registers dynamically as	Hardphone unique registration name consisting of the extension number and tenant access domain name.

Hardphones screen properties	
Property	**Description**
Current Registration	Shows real-time registration information for this hardphone including the IP address, port, registration expiration time, and SIP server host name. The *no data* value for these parameters normally means that this hardphone is not registered with the system.
Authentication tab	
Username	Username for authentication of this hardphone. Mandatory.
Password	Password for this hardphone. This field is displayed for new hardphones only and its specification is mandatory.
Confirm password	Password confirmation field. Mandatory.
Change password	This option is displayed for existing hardphones only, and is used to change the selected hardphone's password.
Generate password	Use this button to let the system generate a random password for this hardphone. Note that the generated password will be displayed in clear text only until you close the pop-up window. Thus you should note and communicate it to the hardphone's user immediately upon generation. The password will be masked for any subsequent display attempts.
Forwarding tab	
Forwarding tab settings	For description of all settings in this screen, see description of the corresponding settings in section *Softphones*.

5.4 Access Numbers

Access numbers are the telephone numbers of your contact center that can be accessed from the public telephone network. These numbers are initially configured and assigned to your contact center at the service provider level. With the Contact Center Administrator application, you can view the available external access numbers and associate them with scenarios, which defines how calls arriving at these numbers will be processed by the system. Such associations are called *dial-in scenario entries*. For more information, see section *Scenario Entries*.

You can also associate external access numbers with specific extension numbers of your contact center. In this case, all calls arriving at the external number will be delivered directly to the associated extension. This functionality is called *Direct Inward Dialing (DID)*.

Access numbers can, and in some cases must, be used as caller IDs for regular outbound calls, campaign calls, and outgoing SMS communications. For more information about configuring caller IDs for regular outbound calls, see section *Dial-out Entries*. For more information about configuring caller IDs for campaign calls and SMS messages, see section *Service-Number Association*.

To view the available access numbers, select the **Access Numbers** option from the **Directory** menu.

Directory > Access Numbers

All access numbers assigned to you by the service provider will appear in the list view. Numbers dedicated to SMS communications will appear in the *[number]/SMS* format.

If an access number is already associated with a scenario, its type will be set to *scenario*, and the scenario name will appear in column *Details*. If an access number is associated with an extension, its type will be set to *extension*, the extension number will appear in column *Internal*, and the user of that extension will appear in column *Details*. If an SMS number is associated with a service for the caller ID purposes, its type will be set to *text out*. Access numbers that do not have any associations will have type *unassigned*.

To associate a selected access number with a scenario, set the **Destination** property to **scenario**, and edit the dial-in scenario entry properties that will appear in the right pane. For information about scenario entry properties, see section *Scenario Entries*.

To associate a selected access number with an extension (the DID function), set the **Destination** property to **extension**, and specify the extension number in the field **Extension**. If the specified extension is a softphone, the name of the associated user will appear next to the entered number. If the specified extension is a hardphone, the internal *Caller ID* of the hardphone will appear.

By default, access numbers used as caller IDs will be transmitted exactly as they appear in the list view of the *Access Numbers* screen. If you wish to attach a prefix to an access number when it is used as a caller ID, select the **Add prefix to all caller IDs** checkbox and enter the desired digits in the **Prefix** field.

Note also that use of access numbers as caller IDs for campaign calls must be enabled at the service provider level. Where such use is restricted, the property pages of the corresponding access numbers will display a read-only parameter *Restrictions* set to *No automated outbound dialing on this number*.

For the DID purposes, a range of numbers may be assigned to your contact center at the service provider level. The range will appear in the list view as the starting number followed by the number of numbers in the range in parentheses. Note that such numbers cannot be used for dial-in scenario entries. To associate a range of access numbers with a range of extensions, set the **Destination** property to **extension**, and specify the first extension number of the desired range in the field **Extension**. Association of subsequent extensions in the range will happen automatically.

5.5 Dial-out Entries

Dial-out entries define how outbound calls are made from the extensions of your contact center. The system recognizes a call as an outbound call by analyzing the first digit (or a set of digits) of the dialed number.

To configure a dial-out entry, select the **Dial-out Entries** option from the **Directory** menu.

Directory > Dial-out Entries

The **Dial-out Entries** screen properties are described in the following table:

Dial-out Entries screen properties	
Property	**Description**
Number	A set of digits which, when dialed from an extension of your private telephone network will indicate that an outbound call is requested. This parameter is mandatory and must be unique within the contact center.
Is a prefix	Indicates whether the above number is a prefix used only within your private telephone network, as opposed to being part of the PSTN number.
Remove prefix	Indicates whether the digit(s) specified in parameter *Number* shall be removed before transmitting the dialed number outside of your private telephone network.

Dial-out Entries screen properties	
Property	**Description**
Set service	Service associated with the specified *Number*. Association of outbound calls with services is optional and is useful when you want to be able to count separately calls made with respect to different services, e.g., for reporting and/or billing purposes.
	Note that an outbound call can also be associated with a service via selection of the desired service directly from the Agent Desktop. In case of a conflict, the service explicitly selected by the agent overrides the service defined by this setting. For more information, see *ServicePattern Agent Guide*, section *How to Make an Outbound Call*.
Use customer number on transfers and consult calls	Indicates whether customer's number of original service calls, if available, will be used as the Caller ID for associated outbound calls (i.e., external consultation calls, two-step and blind transfers, and calls forwarded to external destinations via scenarios) made via this dial-out entry. If this option is enabled, the Caller ID of the original call will be relayed regardless of whether such an original call is inbound, regular outbound, or a campaign call.
	Note that this option must be explicitly enabled by your service provider before it can be used in your contact center. If this option is not enabled by the service provider, the Caller ID will be set according to one of the methods below.
Direct mapping of internal phones	Allows you to select the extensions for which their personal caller ID's will be displayed, when making outbound calls via this dial-out entry. Usually these are the DID extensions with direct external access numbers assigned to them (see section *Access Numbers*). To select such extensions, click **edit**.
	This option will be disregarded for the cases where the above setting applies.
	Note: Prior to version 3.7 this property was called *Caller ID exceptions*.
Use Caller ID form service configuration if service information is available, otherwise use this number	The number that will be displayed to called parties when they receive a call made through this dial-out entry unless a service was selected manually for this call (see description of property *Set service* above).
	If a service was selected manually for an outbound call, one of the numbers specified as a caller ID for the selected service will be displayed. For more information, see section *Service-Number Association*.
	This option will be disregarded for the cases where either of the above two settings applies.
	Note: Prior to version 3.7 this property was called *Caller ID*.

5.6 Static Entries

Static entries describe names and contacts of people/organizations that are external to your contact center. These entries appear in the directory of the Agent Desktop application. Usually these are the people/organizations that the agents of your contact center may need to call, e.g., for consultation purposes.

Note that caller IDs of inbound calls can be checked against the telephone numbers of configured static entries, and the corresponding static entry names can be displayed to agents instead of the caller ID numbers. For more information, see *ServicePattern Scenario Builder Reference Guide*, section *Search Directory*.

To configure a static entry, select the **Static Entries** option from the **Directory** menu.

Directory > Static Entries

The **Static Entries** screen properties are described in the following table:

Static Entries screen properties	
Property	**Description**
Name	Name of this entry as it shall appear in the Agent Desktop Directory. Mandatory.
Type	Destination type. For phone contacts, select **Voice**. For email contacts, select **Email**.
	The current product version, does not support unsolicited outbound emails. Therefore, only static entries of voice type will appear in the Agent Desktop directory. Email entries will only appear in the dialogs related to manual assignment and transfers of inbound emails.
Destination	For entry of the *Voice* type, destination's phone number. For entry of the *Email* type, destination's email address.
Directory folder	The folder of the Agent Desktop directory where this static entry will appear. You can select an existing folder or create a new one.

6 Scenario Entries

6.1 Overview

The logic of automated interaction processing is defined in *scenarios* (see section *Scenarios* for more information). Execution of a scenario with respect to a specific interaction is triggered by interaction arrival at a specific *access point*, e.g., a phone number in case of inbound calls or a webpage in case of web chats. The logical entities that associate specific scenarios with access points are called *scenario entries.*

6.2 Dial-in

The logic of processing of a phone call is initially determined by the phone number to which this call is delivered. Call arrival activates the scenario associated with that number. The scenario controls all further steps of call qualification and distribution until the moment when the call is answered by an agent (or sometimes self-serviced). The logical entity that describes association between a phone number and a call-processing scenario is called *dial-in scenario entry*.

To set up and manage such associations, select the **Dial-in** option from the **Scenario Entries** menu.

Scenario Entries > Dial-in

The **Dial-in Scenario Entries** screen properties are described in the following table:

Dial-in Scenario Entries screen properties	
Property	**Description**
Name	Name of the dial-in scenario entry. Mandatory and must be unique within the contact center.
Scenario	Scenario according to which calls arriving at the phone numbers defined in this dial-in scenario entry will be processed.
Service	Service associated with this dial-in scenario entry. Such direct association between telephone number and a service can be used when your access numbers directly identify your services. For more information, see section *Service-Number Association*.
	Even if you use one access number for many different services (i.e., use an interactive voice script within the associated scenario for service selection), you may still assign a default service directly to the access number in order to account for the calls abandoned before service selection and for the calls that bypass the service selection stage (e.g., someone is unable to use keypad to enter service selection choice or confused about which option to choose).
Internal numbers	Internal numbers associated with this scenario. Although service calls normally arrive at external access numbers, you can also set up an internal number to enable agents to transfer calls to this scenario entry. Once assigned a number cannot be associated with any other scenarios.
	Specification of an internal number for a dial-in scenario entry is optional. Note, however, that if you specify an entry without an internal number, it will not be displayed in the Dial-in Scenario Entries list. You will be able to see such an entry point in the list of external access numbers only. For more information, see section *Access Numbers*.
External numbers	External access numbers associated with this scenario. Select the desired number from the drop-down list. If the number is already assigned to another scenario or to an extension number, the drop down list will provide this information. Once assigned a number cannot be associated with any other scenarios.
	Note that the system allows you to define more than one access number within the same scenario entry point. This may be useful, for example, if you intend to provide your customers with a choice of numbers depending on where they call from, while otherwise applying exactly the same processing logic to all such calls.
Requested skills	Auxiliary skills (other than the default skill defined by the *Service* value) that the agents must possess in order to handle calls arriving through this scenario entry. For more information, see section *Auxiliary Skills*. By defining such skills externally, you can use the same scenario in multiple scenario entries that differ only in auxiliary skills. For example, for your technical support service, you can have separate numbers for product A support and product B support, where Product A and B are be defined as two different auxiliary skills defined for two different scenario entries associated with the same scenario.
Queuing priority	Queuing priority of interactions arriving through this scenario entry. Priority determines position of the given interaction in the queue relative to interactions arriving through any other scenario entries and requesting the same combination of skills (i.e., competing for the same agents). For example, you platinum-level customers may be given a different number to call the same service. In this case, you may define two different entries for the same scenario with a higher queuing priority for the platinum customers.
	The value range is from 1 (the lowest and the default value) to 100. The instantaneous priority of an interaction in the service queue is calculated as a function of its configured queuing priority and the time that the interaction has spent in the queue.

Dial-in Scenario Entries screen properties	
Property	**Description**
Hours of Operation	Schedule for this scenario entry. A schedule defines hours of operation for each day of the year. Choose **from service** to use the schedule of the selected service. Choose **select** to select one of the available schedules. Choose **specify** to define a new schedule specific to this scenario entry. For more information, see sections *Calendars* and *Hours of Operation*.
	Note that, unless you create an entry point for a 24/7 operation, the scenario that you have specified in the *Scenario* property above must define processing of interaction arriving at this entry outside as well as within the specified hours of operation. I.e., the scenario should normally begin with an *IF* block that has the condition *The current date and time is* (or *is not) in hours of operation*. For more information about creating scenarios, see *ServicePattern Scenario Builder Reference Guide*.
Visible to agents	Indication of whether this scenario entry shall appear in the Agent Desktop directory. Select the checkbox if you want your agents to be able to transfer interactions to this scenario entry.
Directory folder	The folder of the Agent Desktop directory where this scenario entry will appear if enabled by the previous option. You can select an existing folder or define a new one.
Scenario parameters	ServicePattern scenario language has a number of variables that can be set to different values depending on the scenario entry where this scenario is used. If such variables are present in the scenario selected for this entry, they will appear under this option and can be set to the values specific to the given scenario entry. Use of such externally defined variables enables you to have fewer scenarios since they can be re-used for various scenario entries. For more information, see description of variable *$(app.custom.XXX)* and voice segment type *Voice, from parameter* in *ServicePattern Scenario Builder Reference Guide*.

6.3 Chat

The logic of processing of inbound web chat interactions is initially determined by the web site elements (pages) from which the chat requests are made. Arrival of a chat request activates the scenario associated with the web page. This scenario controls all further steps of chat request qualification and distribution until the moment when the chat session is accepted by an agent. The logical entity that describes association between a web page and a scenario is called *chat scenario entry*.

To set up and manage such associations, select the **Chat** option from the **Scenario Entries** menu.

Note that many optional properties of chat scenario entries have the same names as optional properties of dial-in scenario entries. Refer to section *Dial-in* for their complete descriptions and examples of use.

Chat Scenario Entries screen properties	
Property	**Description**
Name	Name of the chat scenario entry. Must be unique within the contact center.
Scenario	Scenario according to which the chats arriving though the web page defined in this scenario entry will be processed.
Service	Service associated with this scenario entry. Optional. See the corresponding description in *Dial-in* scenario entry for more information.

Chat Scenario Entries screen properties

Property	Description
Requested skills	Auxiliary skills that the agents must possess in order to handle chats arriving through this scenario entry. Optional.
Queuing priority	Priority of interactions arriving through this scenario entry. Optional.
Hours of Operation	Schedule for this scenario entry point. Optional.
Visible to agents	Indication of whether this scenario entry shall appear in the Agent Desktop directory. Select the checkbox if you want your agents to be able to transfer interactions to this scenario entry.
Directory folder	The folder of the Agent Desktop directory where this scenario entry will appear if enabled by the previous option. You can select an existing folder or define a new one.
Chat nick for system messages	The name that will be displayed to the customers when they get automated chat responses through this scenario entry (for example, during an initial data collection stage). By default, this is the name of you contact center (tenant name) defined at the service provider level.
Chat HTML snippet	Specifies the web elements are necessary in order to associated an incoming chat request with the given scenario entry. Click the **HTML snippet** button, copy the provided HTML snippet code, and embed it into your web page(s) according to the instructions in the code comments. When this is done, specify the required URLs and the hostname of the chat web service.
Scenario parameters	Scenario parameters. Optional.

6.4 Mobile/Web

Mobile/web scenario entries are used to associate scenarios with contacts requested via mobile applications.

To set up and manage such associations, select the **Mobile/Web** option from the **Scenario Entries** menu.

Scenario Entries > Mobile/Web

The **Mobile/Web Scenario Entries** screen properties are described in the following table:

Mobile/Web Scenario Entries screen properties	
Property	**Description**
Name	Name of this mobile/web scenario entry. Mandatory and must be unique within the contact center.
Unique identifier	A unique identifier generated by the system for this scenario entry. This identifier must be used as *Application ID* in the mobile applications that will connect to your contact center via this scenario entry. For more information, see *ServicePattern Mobile/Web API Specification*, section *General Information*.
Parameters expected	Parameters that may be expected by the scenario in session requests coming from the mobile applications (e.g., customer's name). These parameters are optional. They may be used, for example, to look for the most qualified agents to handle the requested chat sessions and/or to display user information for the agents. For more information, see *ServicePattern Mobile/Web API Specification*, section *Expected parameters*. To define a new parameter, click **add**, select the parameter type and specify its name. To edit or remove existing parameters, hover over their names.
Scenario	Scenario according to which mobile application requests containing the specified *Unique identifier* will be processed.
Service	Service associated with this scenario entry. Optional. See the corresponding description in *Dial-in Scenario Entry* for more information.
Connect agent by phone automatically	Any mobile application contact is initially presented to the agent as a chat request. However, if the mobile application transmits the customer's mobile phone number, this number will be displayed at the Agent Desktop, and the agent can call the number to establish a voice call with the customer. Select this checkbox if you wish for such voice calls to be initiated automatically whenever the phone number is available.
Connect after delay of	If you selected the previous checkbox, you can define how quickly the automated call to the customer mobile number will be initiated. A slight delay may be desirable if, for example, the agent needs some time to review information that came with the original request.

6.5 Email

The logic of processing of an inbound email interaction is initially determined by the email address that was used by the email sender. In the simplest case, such email addresses can correspond to your email services (e.g., your *sales@company-name.com* and *support@company-name.com* may be associated with your *Sales* and *Support* services respectively). In a more complex configuration, you may want to apply some keyword-based analysis of email texts to associated emails with appropriate services (e.g., an email coming to *support@company-name.com* can be further categorized into *Smartphone Support* and *Tablet Support* services based on the presence of the words *phone* and *tablet* in the text of email messages).

The logical entity that describes association between email addresses and keywords on the one hand and email services on the other hand is called *email scenario entry.* Unlike the other types of scenario entries, the email entries do not currently refer to any actual scenarios. All information required for association of incoming emails with services in the current release is contained in the configuration settings of the email entries themselves.

Note that before you configure an email scenario entry, you should set up a corresponding email service. For more information, see section *Services and Campaigns*. If you plan any keyword-based categorization, it may also be easier to define upfront all of the known services that the emails arriving via this entry may be attributed to. Once the email entry is set up according to your initial needs, you can add more services and update the categorization rules at any time.

Note: ServicePattern stores all processed emails for activity history, reporting, and quality management purposes. These storage practices may not coincide with the general email retention policies of your organization. For compliance with such general retention policies, we recommend that you always store copies of all emails received to and sent from the email addresses used for email scenario entries.

To set up and manage email scenario entries, select the **Email** option from the **Scenario Entries** menu.

Note: This option is visible and available to you only if the email management capability is enabled for your contact center at the service provider level.

Scenario Entries > Email

The **Email Scenario Entries** screen properties are described in the following table:

| Softphones screen properties	
Property	**Description**
Account tab	
E-mail address	Email address that the customers will use to send emails to a specific service or a range of services. This address will also appear in the *From:* field of corresponding email replies as well as any outbound emails related to services associated with this scenario entry. This parameter is mandatory

Softphones screen properties	
Property	**Description**
Display name	Display name for the above email address. This parameter is mandatory
Visible to agents	Indicates whether this address will be visible to agents via the directory of their Agent Desktop applications.
Directory folder	The folder of the Agent Desktop directory where this address will appear if visible to agents. You can select an existing folder or create a new one.
Incoming Mail, Server type	Type of the server used for retrieval of incoming mail arriving to the mail box associated with the above address. Read-only. Currently the POP3 protocol is supported.
Outgoing Mail, Server type	Type of the server used for transmission of email messages from the above address. Read-only. Currently the SMTP protocol is supported.
Host	Name of the host where the above server is run. This parameter is mandatory
Connection security	Indication whether a cryptographic protocol (TLS or SSL) will be used to secure this connection. For a non-secure connection, select **none**. If a secure connection has to be negotiated with the remote server, select **upgrade to secure upon connect**. For an immediate secure connection, select **secure upon connect**.
Port	Port assigned to the above server on the above host. This parameter is mandatory.
Username	User name for email client authentication. This parameter is mandatory.
Password	Password for email client authentication. This parameter is mandatory.
Incoming Mail, Retrieval interval	Mail retrieval period. By default, the account is checked for presence of new mail every 15 seconds. Some POP3 mail servers may be configured to lock out accounts that access mailboxes at this rate due to excessive activity. If this is the case, use this parameter to increase the retrieval period to any value between 15 and 86400 seconds.
Incoming Mail, Enabled	Indicates whether the account is currently enabled. Accounts can be disabled manually or automatically as described below. Accounts can only be enabled manually. After incoming emails have been retrieved for processing, ServicePattern normally deletes those emails from the mailbox. However, if the POP3 server is configured for read-only access, the emails will stay in the mailbox and will be retrieved repeatedly until the system runs out of disk space. To prevent this from happening, the system will automatically disable the email account if an attempt to delete incoming mail returns an error from the POP3 server. If an account is disabled, you should check the *Last error* message (see below). If the message indicates that the account has been disabled for the above reason, re-configure your POP3 server for full access, and enable the account manually.
Incoming Mail, Last error	In case the account has been disabled automatically (see above), this read-only parameter displays the error message that caused the system to disable the account.
Test	Use this button to verify the correctness of your connection settings.
Services tab	
Default service	Service that will be associated with emails arriving via this entry if categorization rules are not set or do not provide any keyword matches. This parameter is mandatory.

Softphones screen properties	
Property	**Description**
Default priority	Queueing priority that will be given to emails attributed to the default service (see above). Priority determines position of the email interaction requesting the default service in the queue relative to email interactions associated with other services but competing for the same agents.
	The value range is from 1 (the lowest and the default value) to 100. Unlike other media types, priority of email is absolute, i.e., an emails with a higher priority will always be distributed to a qualified resource before emails with lower priority regardless of the time any of those emails spent in the queue.
Customer reply priority	Queuing priority of customer emails related to existing email threads.
	The system automatically checks whether an incoming email may be part of an existing email thread (e.g., after receiving a reply to an original email request, the customer may have additional questions). Such emails bypass the keyword-based analysis. Instead they are automatically attributed to the same the service as the original request. This parameter allows you to distribute such emails with a higher priority than any new email requests.
	For more information about email priority, see description of the *Default priority* setting.
Optional Filters	List of filters that will be used to assign emails arriving at the given email scenario entry to different services using keyword-based analysis of the email subjects and body text.
	To add a filter, click **add**.
	Filters are checked for possible keyword matches in the order in which they appear on the list. As soon as a match is found, the corresponding service and priority will be assigned to the email interaction. Note that this order may be affected by the language setting of the filter. See description of the *Language* setting for more details.
	Newly created filters will appear at the end of the list. To change position of a filter in the list, drag it to the desired location.
	To edit or remove an existing filter, hover over it and select the desired function.
Language	Select the language in which the keywords of the given filter will be written. This setting only matters if filter's keywords may have different meaning in different languages. Otherwise, leave this parameter set to the default value **<Any>**.
	Initially, the system will try to detect the language of the email text automatically.
	If the language is not identified, only the filters set to *Any* will be checked for keyword matches.
	If the language is identified, the system will first check the filters set to *Any* and then check the filters set to the detected language.
Keywords	Specify the keyword expression. Each keyword/phrase in the expression must be set in quotation marks. Logical expressions can include logical operators AND, OR, XOR, NOT, and parentheses. For example: *"connection loss" AND ("router" OR "modem")*.
Service	Select the service that will be associated with email interactions matching this filter.
Priority	Specify the priority that will be assigned to email interactions matching this filter.
	For more information about email priority, see description of the *Default priority* setting.

7 Scenarios

7.1 Overview

Scenarios define the logic of automated interaction processing in your contact center. Execution of a scenario with respect to a specific interaction is triggered by a particular event such as arrival of a call at a specific access number or initiation of a chat session from a specific web page. Scenarios can perform many different automated actions. For example, with respect to an inbound call, scenarios can collect additional information via interaction voice response, identify the requested service, and distribute the call to one of the qualified and available contact center agents.
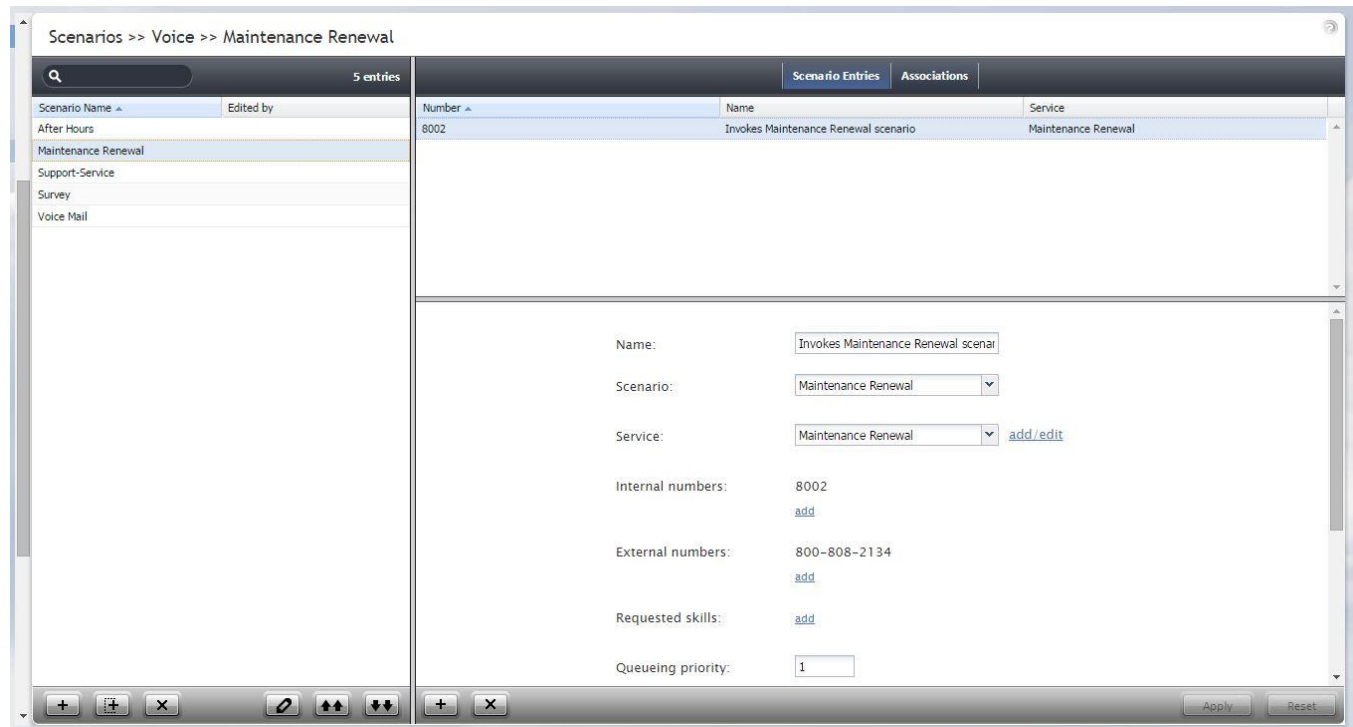
Scenarios

The list in left pane of the scenario view displays the existing voice scenarios. To create a scenario, click the **Add scenario** button at the bottom of the list. To edit a selected scenario, click the **Edit scenario** button at the bottom of the list. Either operation will open a new browser window with the Scenario Builder application with all control elements that may be used in automated voice interaction processing. For more information about creating scenarios, see *ServicePattern Scenario Builder Reference Guide*.

ServicePattern provides a number of scenario templates for some standard functions, such as voicemail and callback processing. It may be easier to use these templates as examples and customize them to the requirements of your contact center, as opposed to creating such scenarios from scratch. To create a scenario using a template, click the **Add from template** button, select the desired template, modify the content as needed, and save it as your new scenario.

ServicePattern supports two types of scenarios corresponding to the supported interaction media types: voice and chat.

7.2 Voice

To create or edit voice scenarios, select the **Voice** option from the **Scenarios** menu.

You can use the right pane of the **Scenarios > Voice** view to manage associations of voice scenarios with access numbers, i.e., to create and edit dial-in scenario entries.

The Voice screen properties are described in the following table:

Voice screen properties	
Property	**Description**
Scenario Entries tab	
List of dial-in scenario entries	Lists the dial-in scenario entries where the selected scenario is used. For more information, see section *Scenario Entries.*
	Note that if a scenario is associated with more than one number within the same entry, only one number will be displayed in the list. If both external and internal access numbers are associated with a scenario within the same entry, the internal number will be displayed. To see the full set of numbers associated with a selected scenario within the same entry, see the entry properties below the list.
Dial-in scenario entry properties	Properties of the dial-in scenario entry selected in the list above. For description of these properties, see section *Scenario Entries*.
	You can edit these properties, or define a new entry for the selected scenario in this view.
Associations tab	
List of associations	Lists all contact resources that are referred to in this scenario, such as skills and services. This may be useful, for example, when you use the same scenarios in several separate environments (e.g., development, staging, and production).

7.3 Chat

To create or edit chat scenarios, select **Chat** option from the **Scenarios** menu.

You can use the right pane of the **Scenarios > Chat** view to manage associations of chat scenarios with web pages, i.e., to create and edit chat scenario entries.

The Chat screen properties are described in the following table:

Chat screen properties	
Property	**Description**
Launched from tab	
List of chat scenario entries	Lists the chat scenario entries where the selected scenario is used. For more information, see section *Scenario Entries.*

Chat screen properties	
Property	**Description**
Chat scenario entry properties	Properties of the chat scenario entry selected in the list above. For description of these properties, see section *Scenario Entries*. You can edit these properties, or define a new entry for the selected scenario in this view.
Associations tab	
List of associations	Lists all contact resources that are referred to in this scenario, such as skills and services. This may be useful, for example, when you use the same scenarios in several separate environments (e.g., development, testing, and production).

8 Services and Campaigns

8.1 Overview

A service is a logical concept that reflects specific reason for customers to contact your business, or, in case of outbound campaigns, a specific reason for your business to contact customers. Services play the key role in design of interaction processing logic, evaluation of contact center efficiency, and workforce management.

Note that when you define a new service, a default skill representing this service is created automatically by the system. When you associate the service with an agent team, this default skill can be automatically assigned to all current and future members of the team.

8.2 General Service Configuration

To set up services or campaigns, select **Services & Campaigns** option from the root menu.

Services & Campaigns

The **Services & Campaigns** screen properties are described in the following table:

Services & Campaigns screen properties	
Property	**Description**
Properties tab	

Services & Campaigns screen properties	
Property	**Description**
Name	Service name. Mandatory and must be unique within the contact center.
	Note also that because service names are used as names for corresponding default service skills, they should not coincide with names of any auxiliary skills. For more information, see section *Auxiliary Skills*.
Type	Service type. For inbound voice services, select **Inbound Voice**. For outbound campaigns, select **Outbound Voice**. If you expect to receive inbound calls that are logically part of your outbound campaign (e.g., customers who missed your campaign call are calling back using one of the campaign Caller IDs), select **Blended Voice**. For chat services, select **Chat**. For email services, select **Email**.
	Note that some types of services may have to be enabled by the service provider in order to become available to you.
	Definition of many service properties will depend on the selected service type. Note that chat and email services cannot change their types after it was specified at the time of service creation.
Directory folder	For email services, the folder of the Agent Desktop directory where this service will appear. This directory will be shown to the agent when he selects an email transfer function. You can select an existing folder or create a new one. For more information about the Agent Desktop directory, see section *Static Entries*.
Hours of operation	Service schedule. Choose **select** to use one of the schedules pre-defined in *Hours of Operation*, and select a schedule from the drop-down list. Note that you can edit the selected schedule by clicking **customize**.
	Choose **specify** to define a schedule specifically for this service. See section *Hours of Operation* for information about creating a schedule. Once you have finished definition of this new schedule, you can make it available for use in other services by clicking **save this HOP as shared**.
Override schedule on selected days	You can override the above permanent service schedule temporarily by selecting this checkbox and defining a temporary schedule for a specified period of time.
Enable voice signature flag	If this checkbox is selected, agents will be able to indicate whether a voice signature has been collected during a particular call associated with this service. The voice signature flag will be stored as part of the call record, and can be used to facilitate export of, and subsequent search for, the corresponding recordings. For more information, see *ServicePattern Reporting Reference Guide*, sections *Interaction Records Search* and *Recordings Details Format*.
	The voice signature flag can be displayed for agents via the activity form associated with the given service. For more information, see *ServicePattern Form Builder Reference Guide*, section *Voice Signature System*. If the form is not used, the flag will be displayed in the Contact Info Panel of the Agent Desktop. For more information, see *ServicePattern Agent Guide*, section *How to Collect a Voice Signature*.
	Note that voice signature collection makes sense only if calls are recorded. Therefore, when you select this checkbox, the *Recorded calls* parameter of this service will be automatically set to 100% and become read-only.
	To facilitate, and ensure compliance of, the voice signature collection process, one of the following additional capabilities shall be considered:
	- Agents can use pre-recorded voice prompts defined as part of the service and made available to them during the corresponding calls. For more information about the pre-recorded service prompts, see description of the *Canned* tab in this section.

Services & Campaigns screen properties	
Property	**Description**
	- Agents can connect an IVR application that will play the necessary prompts, pausing after each such prompt giving the customer a chance to respond. ServicePattern provides a scenario template, called *Voice Signature*, which can be used as an example of such an application. For more information about creating scenarios from templates, see section *Scenarios* of this guide. This option is available for voice services only.
Recorded calls	Specifies percentage of calls associated with this service that will be recorded. If specified, overrides the system-wide setting for this service. Note that this parameter can also be specified for every agent individually in the *Users* settings and for each individual call in scenario block *Connect Call*. Both these settings have higher priority than the service-level setting. For more information, see section *Users* of this guide and *ServicePattern Scenario Builder Reference Guide*, section *Connect Call*, respectively. This setting is available for voice services only
Record IVR call segment	Indicates whether recordings of calls associated with this service will include recording for the IVR phase of the call. Note that use of this option should be avoided for any IVR applications that may process sensitive authentication data such as payment card PIN codes. This option is available for voice services only.
Encrypt stored recordings	Select this option to encrypt the recordings of calls associated with this service. Encryption takes place at the time of the recording. Encrypted recordings cannot be played back when accessed directly as audio files. Encrypted recordings will be played back normally when accessed via the Contact Center Administrator application. For more information, see *ServicePattern Reporting Reference Guide*, section *Quality Management*. Encrypted recordings will be decrypted when downloaded or exported via the Contact Center Administrator application. For more information about manual download of recordings, see *ServicePattern Reporting Reference Guide*, section *Quality Management*. For more information about automated periodic export of recordings, see description of tab *Results* in this section. For more information about data encryption, see section *Encryption Key Management*. This setting is available for voice services only. Note that the encryption capability may have to be enabled by the service provider in order to become available to you.
Enable callback functionality	Indicates whether a callback option can be offered to callers waiting for this service. The decision to offer and to accept the callback option can be made based on the current estimated wait time in queue. If a caller selects this option, his original inbound call will be disconnected while the position of this call in the service queue will be preserved. The callback is made when it is the caller's "turn" to be routed to an agent. Note that in order to function properly, this option must also be enabled in the *Find Agent* block and additionally configured in the *Request Callback* block of the scenario associated with this service. For more information, see the corresponding sections of *ServicePattern Scenario Builder Reference Guide.* This setting is available for inbound and blended voice services only.

Services & Campaigns screen properties	
Property	**Description**
Use dispositions	Indicates whether dispositions can be used for this service or campaign. For more information about dispositions, see description of the *Dispositions* tab below. If the checkbox is selected, you will be able to define service-specific dispositions in the Dispositions tab and the Agent Desktop application will display the disposition selection menu for the interactions associated with this service. Otherwise, the disposition-related elements will be hidden for this service. Note that for outbound and blended voice services use of dispositions is mandatory.
Require dispositions	If the use of dispositions is enabled by the previous setting, you can additionally indicate whether disposition selection is mandatory. If the checkbox is selected, Agent Desktop will force agents to select a disposition for the current interaction before exiting after-call work. Otherwise, agents will be able to finish interaction handling without selecting any disposition. Note that for outbound and blended voice services use of dispositions is mandatory.
Enter After Call Work	Specifies whether agents should enter the After Call Work state after finishing interactions associated with this service. To apply the setting defined at the contact center level, select *system-wide setting*. Note that after-call work is mandatory for services with mandatory disposition selection (see the previous setting). For the teams providing services with mandatory disposition selection, it is also recommended not to enforce automatic exit from the After Call Work state or set the timeout for such an exit generously.
Notify agents in ACW about calls in queue	Agents may be notified visually and audibly about new service calls waiting in queue while they are in the After Call Work state. This may be used to prompt the agents to finish their after-call work faster. This option is essential only for inbound and blended services, and only if the After Call Work state is used for handling of interactions associated with this service. If selected, notifications will be sent to all agents who have the default service skill with any level other than "0" and who are currently in the After Call Work state. This setting is available for voice services only.
Notify after calls are waiting for	Essential only if the previous option is selected. Specifies how long a new service call will wait in queue before notifying the agents. If not specified, the agents will be notified as soon as a new call enters the service queue.
Assignments tab	
Teams	Lists the agent teams that may handle interactions associated with this service. To assign a team click **add** and select it from the drop-down menu. Note that in ServicePattern, every service is represented by its own unique skill, called *service skill*, which is created automatically when the service is defined. When you assign a team to a service, all agents of this team can have this skill automatically assigned to them. You will be prompted to confirm such automatic assignment and specify the desired level. Individual levels can be changed manually later. For more information, see sections *Teams* and *User Skills*. Also, when you assign a service to a team, supervisors of that team will be able to monitor this service in real time via their desktop applications. To remove previously assigned teams, hover over their names. Note that when you remove a team from a service, the default service skill will be removed from all members of this team.

Services & Campaigns screen properties	
Property	**Description**
	Note that for campaigns teams can also be assigned and removed via the Agent Desktop application by a user designated as an operator for this campaign. For more information see *ServicePattern Supervisor Guide*.
Administrators	Lists the users who can change the service configuration. To add a user, click **add**, and select the user from the drop down menu. Only the users who have a role with privilege *Manage Services and Campaigns* will be available for selection. (For more information, see sections *Users* and *Roles*.)
Operators	Lists the users who can operate the service in real-time (e.g., start and stop the campaign, add and remove teams). Essential for services of outbound and blended voice type only. To add a user, click **add**, and select the user from the drop down menu. Only the users who have a role with privilege *Control Campaign Operations* will be available for selection. (For more information, see sections *Users* and *Roles*.)
Lists tab	
List of calling lists	The upper part of this tab displays the calling lists associated with the given service. For more information about calling lists, see section *Lists*. To associate a new list with the given service, click the button with the "+" sign in the right pane and select the list from the dialog box that appears. The lower part of this tab contains the settings that define how the list will be used within this service. For description of these settings, see section *List-Campaign Association*.
	This tab is not displayed for chat or email services.
Dispositions tab	
General information	This tab is displayed only if the *Use dispositions* option is selected on the *Properties* tab.
	Dispositions are used to specify the result of an interaction attempt. For example, a disposition may indicate that the requested service was provided or suggest a specific reason why it was not provided. Dispositions are stored in the interaction records and campaign results, and can be used in custom queries and reports for evaluation of service efficiency.
	In outbound campaigns, dispositions are also used to determine subsequent processing of calling records depending on the outcome of each call attempt. See description of *Dial Rules* in section *Outbound Campaign Settings* for more information. In outbound campaigns, some of the dispositions can be applied to entire calling records and some others to individual call attempts.
	For outbound campaigns of preview type, dispositions are also usually defined for preview records. In such campaigns, agents receive calling records from the system and preview them before making the corresponding outbound calls. During the preview, they may decide to discard some records without dialing. Dispositions in this case can indicate the reason (e.g., incomplete data).
	If the reason for a failed interaction attempt can be recognized automatically, the corresponding disposition can be provided by the system. Dispositions that are specified manually will be displayed by the Agent Desktop and can be selected by the agent at any time during interaction handling including the after call work. Dispositions can also be set by a scenario.
Show dispositions for	This option is displayed only for outbound and blended voice services. To review and edit dispositions for call attempts and list records, select **outbound**. To review and edit dispositions for preview records, select **preview record**.

Services & Campaigns screen properties	
Property	**Description**
List of dispositions	Lists the dispositions for this service. For the services that comprise different types of interactions (inbound, outbound, preview records), the list will display only the dispositions corresponding to the interaction type selected via the *Show dispositions for* option.
	For each interaction type, the system provides a pre-defined set of dispositions. You can edit such pre-defined dispositions, remove some of them, define mew ones, and arrange them in your own folders.
	Even though the system provides a pre-defined set of dispositions for each new service, you can still control whether these dispositions will or will not be made available to agents for selection. Furthermore you can control whether the use of dispositions is mandatory or optional. For more information, see description of settings *Use dispositions* and *Require dispositions* in the *Properties* tab above.
	Click **add folder** to add a new folder for dispositions and specify the folder name.
	Click **add disposition** in any folder to create a disposition in this folder. Specify the disposition name (must be unique within the given interaction type within the service). Select the disposition type:
	- **Success (completes record or case)**: for dispositions indicating successful interaction processing (e.g., the customer has accepted the offer) or closure of an email case
	- **Failure (completes record)**: for dispositions indicating unsuccessful interaction processing without subsequent attempts (e.g., the customer has rejected the offer); this type is available for voice services only
	- **Do not Call (completes record)**: for dispositions indicating that the customer has requested not to be contacted again for the given reason; this type is available for voice services only
	- **Continue:** for dispositions indicating unsuccessful interaction processing with possible subsequent attempts (e.g., the customer has asked to be called again at another time) or expected continued processing of an email case
	- **Spam:** for disposition indicating an immediate closure of an email case because the incoming message was a spam
	For the services that comprise different types of interactions (inbound, outbound, preview records), you can also specify if the disposition you define for one interaction type shall be available for interactions of other types within the same service. Select such desired additional interaction types via the **Scope** option.
	If, in addition to the disposition name you would like to use a numeric code, specify it in **Numeric code**. Numeric codes are optional, and when defined, will appear in reports along with disposition names. Numeric codes can also be used instead of disposition names for setting dispositions in scenarios. Note that the system does not check uniqueness of numeric codes.
	By default, dispositions that you define will be available to agents handling the corresponding interactions. If you do not want a disposition to be available to agents (e.g., you intend to use this disposition in scenarios only), unselect the **Show to agent** checkbox. Note that dispositions unavailable to agents appear in the list in italic.
	To modify or delete existing dispositions or folders, hover over their names. Note that most of the dispositions in the *Connection Problem* and *System* folders can only be modified, but not deleted, because they are used in the built-in system actions (e.g., re-scheduling of unsuccessful campaign calls).
Activity tab	

Services & Campaigns screen properties	
Property	**Description**
Enable screenpop activity form	If you have an activity form that you wish to appear at the agent desktop upon arrival of the interaction associated with this service, click the checkbox and select the desired form from the drop-down menu. For more information about activity forms, see section *Activity Forms.*
	Note that in the current version, editable activity forms are supported only for services of the outbound and blended types (i.e., campaigns). For all other types of services, static forms can be used (i.e., forms without any editable fields).
Pre-fill form fields from the following lists	For an outbound campaign, it is often desirable to display some of the data from calling list records in the agents' activity forms. To do this, you need to create the mapping between the fields of your form and the corresponding fields of the calling lists associated with the given campaign.
	Click the **Edit** button. In the list view of the dialog window that appears, select a form field that you wish to bind. For each list associated with the given campaign, select the calling record field that maps into the selected form field. Repeat this operation for other form fields that are supposed to display data from the calling records.
	Click **Apply** to save changes. Click **Close** to return to the main screen. The mapping you have created will be shown in a table.
Numbers tab	
List of numbers	This tab provides a multi-screen view for association of the given service with phone numbers and other access points for various reasons. For description of all settings within the Numbers tab, see section *Service-Number Association* below.
Service Level tab	
General information	Service Level specifies percent of calls/chats associated with this service that are expected to be answered within a specified threshold relative to all calls/chats that are answered at any time or abandoned after this threshold. Calls/chats abandoned within the threshold time are considered short-abandoned.
	Actual percentage of the interactions answered within the specified threshold time is monitored in real time and supervisors can be alerted in case it drops below the specified target.
	This tab is displayed for inbound voice, blended voice, and chat services only. For email services, the service level is defined differently. For more information, see section Email Service Settings.
Outbound tab	
General information	This tab is displayed only for services of Outbound and Blended type. It provides a multi-screen view of settings specific to list-based outbound calling. For description of all settings within the Outbound tab, see section *Outbound Campaign Settings* below.
Results tab	

Services & Campaigns screen properties	
Property	**Description**
General information	This tab provides access to settings related to export of campaign results as well as export of call recordings for any type of service.
	Campaign results can be downloaded manually in *.csv* format or exported periodically to designated network locations. For specification of the campaign results fields, see *ServicePattern Reporting Reference Guide*, section *Campaign Results*.
	Campaign results are stored in the Calling List Database and are deleted from it automatically when the campaign itself is deleted from configuration.
	Also, campaign results related to a particular calling list are deleted automatically when:
	- the list is deleted from configuration
	- the list is removed from the campaign
	- the list is updated with new content via periodic import with the update policy set to *replace list data*
	Storage of recordings is typically defined by the terms and conditions of a particular client contract.
	Before configuring export of recordings, consider the bandwidth and amount of space that may be required to transfer and accommodate all the exported voice files. As a general guideline, use 5.7MB per agent per working hour to calculate the necessary disk space. Note that some restrictions may be imposed at the service provider level on the hours during which export may take place (see property *Window* below) and bandwidth dedicated for the export tasks.
	Note that if your audio files were encrypted at the time of recording, they will be decrypted for export.
One-time Download	Allows you to download campaign results locally in the csv format. To download, click the **Download now** button, specify the download settings below, and click **Export**.
Lists	Select the lists whose records the downloaded file shall contain.
Dispositions	Select the dispositions that the downloaded file shall contain. To download results for all records regardless of their dispositions, select **All**.
Format	Indicate whether the downloaded file shall contain only the last result for each completed record (**simple**), or include results of all dialing attempts (**detailed**).
	For detailed results, specify whether the downloaded list shall contain all call attempts for the records that were completed within the requested timeframe or only the call attempts that were actually made within that timeframe.
	For specification of campaign result formats, see *ServicePattern Reporting Reference Guide*, section *Campaign Results*.
Between	By default, the downloaded file will contain all records since the last download. Use this setting to limit the download to only contain information about the records that were closed within a specific time interval.
Compress file	Select the checkbox to download results in a *zip* file.
Periodic Export Jobs	Allows you to configure multiple export jobs for results of this campaign. Each export job can have its own schedule, destination, and a set of filters. Click **add** to specify a new periodic export job.
Name	Name of this export job. This name will appear in the list of periodic tasks. See section *Tasks* for more information.
Enabled	Select this checkbox to activate this export job.

Services & Campaigns screen properties	
Property	**Description**
Lists	Select the lists whose records the exported results shall contain.
Dispositions	Select the dispositions that the exported results shall contain. To export results for all records regardless of their dispositions, select **All**.
Format	Indicate whether the exported file shall contain only the last result for each completed record (**simple**), or include results of all dialing attempts (**detailed**).
	For detailed results, specify whether the exported list shall contain all call attempts for the records that were completed within the requested timeframe or only the call attempts that were actually made within that timeframe.
	For specification of campaign result formats, see *ServicePattern Reporting Reference Guide*, section *Campaign Results*.
Start date and time	Specify the start date and time of the periodic export.
Export interval	Specify how often the results will be exported.
FTP URL with file name	Specify the FTP site and the name of the file to which the results should be exported. The date and time of export will be automatically appended to the file name for each export instance.
Protocol	Choose the transfer protocol (FTP or SFTP).
FTP username	Specify the FTP username.
FTP password	Specify the FTP password.
Test connection	Use this button to test the FTP connection with the supplied credentials.
Periodic Recordings Export Jobs	Allows you to configure multiple export jobs for call recordings of this service or campaign. Each export job can have its own schedule, destination, file name format, and a set of filters. Click **add** to specify a new periodic export job.
Name	Name of this export job. This name will appear in the list of periodic tasks. See section *Tasks* for more information.
Enabled	Select this checkbox to activate this export job.
Voice signature only	Select this checkbox if the operation shall only export recordings that contain voice signatures. For more information about voice signatures, see description of the *Properties* tab.
Dispositions	Select the dispositions for which recordings will be exported. To export recordings for all calls regardless of their dispositions, select **All**.
	For outbound services, note that recordings for some of the unsuccessful call attempts may not be available unless the *Record failed call attempts* setting is enabled for the given campaign. For more information, see section *Outbound Campaign Settings*.
Recording completed after	Specify the moment of time in the past starting from which the recordings will be exported.
	Upon completion of the initial and each subsequent task export task, this parameter will be updated automatically to show the date and time of the last exported recording. The next export task will begin with the chronologically next recording satisfying the selection criteria (service, disposition).
Estimate size	Click this button to obtain the estimated disk space that may be necessary to accommodate the recordings satisfying the selection criteria.
Daily export time window	The time window during which export of recordings will take place. This is a read-only parameter specified at the service provider level.

Services & Campaigns screen properties	
Property	**Description**
Recordings files folder FTP URL	Specify the FTP site folder where the recordings should be exported.
Recording file name	Specify the format of the recording file name and subfolder structure.
	By default, at the designated network location exported files are arranged in folders *recordings/[date]/[hour]* corresponding to the date and the hours when the calls started.
	The default recording file name consists of the call start date/time, phone number of the call party opposite to the agent, username of the last agent to handle this call, and a global unique identifier generated by the system for this recording.
	To modify the file name and/or folder structure, click on the current format. The current format will appear in an editable field. You can delete any of the current filename components or insert new ones. To add a new component to the current format, set the cursor to the desired place in the file name, click the **Insert placeholder** button and select the desired variable.
	A file name example corresponding to the currently specified format is provided under the editable field.
Recording CSV file name	Specify the format of the recording details file name.
	For each instance of periodic recordings export, the system also generates a data file. The file is exported to the same network location in the *csv* format and contains details of the corresponding calls, which may facilitate search for specific recordings once they have been exported out of the system. For more information about the format of this file, see *ServicePattern Reporting Reference Guide*, section *Recordings Details*.
	The default data file name is *recordings_details* with the date and time of export added to it.
Protocol	Choose the transfer protocol (FTP or SFTP).
Username	Specify the FTP username.
Password	Specify the FTP password.
Test connection	Use this button to test the FTP connection with the supplied credentials.
Canned tab	
Canned Prompts	Your agents have the capability to play back pre-recorded voice messages or prompts to their customers. For more information, see *ServicePattern Agent Guide*, section *How to Use Pre-recorded Messages*.
	You can define such prompts at the service level. Such prompts will be made available to agents when they handle calls associated with the given service.
	Since many prompts can be shared by multiple services and also used in various IVR applications, they are first configured as shared voice segments. For more information, see section *Shared Voice Segments* of this guide.
	To add shared voice segments to, or remove them from, the given service, click the **add/remove** link, and move the desired segments between the general and assigned lists.
Email tab	
General information	This tab is displayed only for email services and contains settings specific to email interaction processing. For more information, see section *Email Settings*.

8.3 Pre-defined Dispositions

This section provides description of the pre-defined dispositions that are offered by default whenever you define a new service. Note that many dispositions defined below apply only to outbound campaigns only and some of those are used only for preview records.

For general information about dispositions, their purpose and configuration, see description of the *Dispositions* tab in section *General Service Configuration*. The dispositions that are hidden from the agents are shown in italic, both in the application and in the list below.

Note that all dispositions in the *Connection Problem* folder are by default visible to agents. This is essential for preview campaigns where call progress is monitored by agents. If you are running a predictive campaign where the call progress analysis is performed by the system, you may consider hiding some of these dispositions. If you do so, it is recommended that you leave dispositions *Answering machine* and *Silence* visible.

Pre-defined Dispositions	
Disposition	**Description**
Final folder	
Product sold	The business purpose of the call/chat was fulfilled.
Offer rejected	The business purpose of the call/chat was not fulfilled but no follow up is required or expected by the customer.
Add to DNC	The remote party requested that no further calls be made to his numbers.
Record matches DNC	The attempted record matches an entry in one the associated record-based DNC lists.
Bad record	The agent reviewed the calling record and marked it as unusable (e.g., due to insufficient or corrupted data).
Problem solved	The customer email confirmed successful resolution of the original matter (e.g., a thank-you note) and was closed without reply. This disposition closes the email case.
Answer provided	The customer email was replied to and not follow-up is expected or necessary. This disposition closes the email case.
Spam	The content of the customer email had no connection to any services provided by the contact center. This disposition closes the email case.
Non-final folder	
Number matches DNC	The attempted number matches a number in one of the associated number-based DNC lists.
Wrong person	The person who answered the call was not the person for whom the call was intended (but the latter may be reached at the same number later).
Wrong number	The person for whom the call was intended cannot be reached at this number.
Dropped while talking	The call was dropped (accidentally disconnected) while the conversation was in progress. This disposition can also be used for chats that were ended due to customer inactivity. See section *Chat Settings* for more information.
Need more information	The customer email was replied to and some follow-up is expected. The email case stays open.
Connection problem folder	
Busy	The called number was busy.

Pre-defined Dispositions	
Disposition	**Description**
Fast busy	The call attempt returned the fast busy signal (reorder tone) indicating that the call cannot be established due to network congestion. Note that sometimes network operators also use Fast Busy to indicate invalid and/or disconnected numbers.
No answer	The called party did not answer within the *No Answer* timeout (see section *Outbound Campaign Settings*).
Fax or modem	The called line is connected to a fax or modem.
Announcement	The connected call attempt returned speech that was not live voice or an answering machine greeting. (For example, this can be an IVR announcement indicating that a company office was closed or an IVR menu asking to press a digit for the desired department.)
Network announcement	The call attempt returned speech before connecting the call; typically, a network message indicating, for example, that the call could not be established at this time.
Answering machine	The call was answered by an answering machine.
Silence	The call was established but no sound from the remote party could be detected for more than 5 seconds.
Invalid number	The call attempt returned a tone indicating that the dialed number was invalid.
Other connection issue	The generic disposition reserved for any possible connection problems other than the ones specified above.
System folder	
Abandoned	The answered call was dropped before call progress analysis could be finished.
Congestion	Reserved for future use.
No agent	The call was dropped after being answered by the called party because it could not be connected to an agent in a timely manner.
No disposition	The agent who handled this interaction did not select any disposition for it.
System failure	The call ended because of a system failure.
Agent failure	The call ended because of an Agent Desktop application failure.
Phone network unavailable	The call could not be made because the public telephone network was not available.
Finalized by dial rule	Processing of this record was finalized by a dial rule.
Reached maximum attempts	Starting from release 3.7, this disposition is no longer in use. For calling records with multiple phone numbers, it has been replaced with *No numbers left to call* (see below). For records with one phone number, the final record disposition corresponds to the disposition of the last call attempt.
No numbers left to call	The maximum number of calling attempts has been reached for all numbers of this calling record and there are no more attempts for this record to be made. This disposition replaces the *Reached maximum attempts* disposition used in pre-3.7 product versions. Note that this disposition is used only when the record contains multiple phone numbers and they are tried during the campaign. When list records contain only one phone number (or only one is used during the given campaign), the final disposition of the record that reached maximum attempts corresponds to the disposition of the last call attempt.

Pre-defined Dispositions	
Disposition	**Description**
Disposition not found	Scenario attempted to set the interaction disposition to a value that could not be recognized.
Skipped	The agent accepted the preview record and then skipped it (i.e., discarded the record without dialing).
Record expired	Calling record has expired. See section *Lists* for more information about the uses of record expiration mechanism and the related settings.
Call failed	Call or call attempt terminated externally with an unknown error code.

8.4 List-Campaign Association

By default, lists assigned to a campaign will appear in the campaign with the same priority and without any filters applied. I.e., if you decided to run a campaign after such initial assignment, all records from assigned lists would be dialed in a round-robin fashion in the order in which they appear in the originally imported list.

ServicePattern allows you to configure list order, apply filters, and define sorting rules. These settings are configured in the *List* tab of the *Services and Campaigns* menu option. Assigned lists appear in the upper portion of this screen. Properties that define use of the currently selected list within the given campaign appear in the lower screen portion and are described in the following table:

List-Campaign Association screen properties	
Property	**Description**
Properties tab	
List	Name of the selected list. Read-only.
Enabled	Indicates whether the records from this list can currently be used within this campaign. Select the checkbox to use the records from this list.
	Note that lists can also be enabled and disabled via the Agent Desktop application by a user designated as an operator for this campaign. For more information see *ServicePattern Supervisor Guide*.
Order	Defines the order (form low to high) in which lists will be used within the service. If you want records from different lists to be dialed in a round-robin fashion, assign the same priority to all such lists. See property *Dialing ratio* for more information.
Dialing ratio	For lists with the same order, defines the ratio at which records from these lists will be used. For example, if you have two lists with order 1, the first list has dialing ratio set to 2 and the second list has dialing ratio set to 3, two records from the first list will be used, then three records from the second list, then again two records from the first list, and so on.
Instance name	The same list can be assigned to a campaign multiple times with different filters (see the *Filters* tab below). This property allows you to assign a different name for each instance of the same list within the same campaign. Note that the system does not verify uniqueness of such names.
Filters tab	

List-Campaign Association screen properties	
Property	**Description**
Filter	Specifies which records from this list will be used in the given campaign. Click **add filter field** to define a new filter and select the entity that will be used as a filter from the **Filter records by** drop-down menu. Note that you can define multiple filters for the same list instance.
list field values	Allows you to select records with specific values of certain fields. - From the **Field** drop-down menu, select the desired list field. - Select **specific values** if the field values in this list must (or must not) match one or more specific values. Specify the values in the field below. Note that each value must be specified on a new line. Indicate whether the records with the matching field values must or must not be dialed. - Select **value range** if the field value must (or must not) fit within a specified range. This option is supported for numerical values only. Specify the numerical range in the fields below. Indicate whether the records with the field values within the range must or must not be dialed.
dispositions from campaign	Allows you to select records that were used in a previous campaign and whose processing ended with a specific disposition. For example, if you previously ran a sales campaign, and now would like to run a customer satisfaction survey campaign for the products sold during that campaign, you may use this filter to only reach the customers who actually purchased the product (as may be indicated by dispositions in the results of the original campaign). - From the **Campaign** drop-down menu, select the desired previous campaign. (Only the campaigns where this list was previously used and whose results are still stored in the system will be available for selection.) - From the **Dispositions** drop-down menu, select the dispositions indicating that the corresponding records must (or must not) be dialed during the given campaign. - Indicate whether the records with the selected disposition must or must not be dialed.
only never attempted records	Allows you to select records whose dialing was never attempted during a previous campaign to which this list was assigned. For example, the campaign was terminated before all records on the list had been attempted. From the **Campaign** drop-down menu, select the desired previous campaign. (Only the campaigns where this list was previously used and whose results are still stored in the system will be available for selection.)
all unfinished records	Allows you to select all records whose processing was not finished during a previous campaign. This includes the never attempted records (see above) as well as the records that were attempted without a final result. For example, a dialing attempt was rescheduled due to no-answer event, but the campaign was terminated before the rescheduled time. From the **Campaign** drop-down menu, select the desired previous campaign. (Only the campaigns where this list was previously used and whose results are still stored in the system will be available for selection.)
Sorting tab	

List-Campaign Association screen properties

Property	Description
Sorting order	Allows you to choose the order in which the records of this list will be selected for dialing. - Select **natural** if the records are to be dialed in the same order they appear in the list. - Select **random** if the records are to be attempted randomly. - Select **custom** if the records are to be sorted by the values of a specific list filed. Click **add** to select the field to be used for sorting and specify the desired sorting direction (**ascending** or **descending**). Note that you can sort by multiple fields.

8.5 Outbound Campaign Settings

The *Outbound* screen of the *Services and Campaigns* menu provides a multi-tab view for configuration of campaign-specific settings of outbound and blended services.

Outbound campaign settings

These properties are described in the following table:

Outbound Campaign properties	
Property	**Description**
General tab	

Outbound Campaign properties	
Property	**Description**
Type	Campaign type. - In campaigns of **Preview** type, the calling records are submitted to the agents participating in the campaign. The agents review record information, dial destination numbers, and monitor call progress. - In campaigns of **Predictive** type, the system automatically dials numbers from the list records, monitors call progress, and connects successful (answered) call attempts to available agents. - In campaigns of **Automatic (IVR)** type, the system automatically dials numbers from list records, monitors call progress, and connects successful (answered) call attempts to a pre-recorded IVR message. Agents are not involved in campaigns of this type. Note that definition of some of the subsequent campaign properties will depend on the selected campaign type.
Enabled	Indicated the current state of the campaign. By default, the campaign is disabled and normally it should remain in this state until it is completely configured. Completeness of campaign configuration can be verified via the *Diagnostics* tab. After the campaign has been completely configured, select this checkbox to indicate that it is ready to run. Campaigns can be disabled again when they are no longer active but have to remain in configuration to ensure availability of campaign results. Note that disabling of campaigns is always a manual operation.
Start / Stop	After the campaign has been enabled, it can be started and stopped manually at any time using these buttons. Note that a campaign can also be started and stopped manually form the Agent Desktop application by a user designated as an operator for this campaign. For more information see *ServicePattern Supervisor Guide*. Note also that the campaign can be started and stopped automatically using the combination of the *From/Until* and *using hours of operation* settings as described below.
From	Indicates the moment from which this campaign can be started automatically based on the service schedule specified in the service *Properties* tab. If specified, the campaign will start automatically at the specified time provided that this time is within the specified service hours. If the specified time is outside of the service hours, the campaign will start automatically at the nearest opening hour following the specified campaign start time. Note this parameter controls automatic campaign start only. Even if it is defined, the campaign can still be started earlier manually.
using hours of operation	By default the campaign will be run automatically according to the schedule specified in the *Properties* tab for the given outbound service. If you click this link, you will be taken to that tab where you can modify the schedule. For more information, see General Note that this schedule reflects the time when the agents of the associated teams will be expected to handle interactions of the given campaign. The actual calling schedules for various types of phones are defined in the *Calling Hours* tab (see below).

Outbound Campaign properties	
Property	**Description**
Until	Indicates the moment when this campaign will be terminated automatically even if processing of some of the calling records hasn't been finished or attempted. This setting will not affect the campaign-related calls that may be in progress at the specified time.
	Note this parameter controls automatic campaign termination only. Even if it is defined, the campaign can still be started or resumed manually later.
Campaign link group	Campaigns of the same type with the same schedules and the same assigned agent teams can be linked together so that, when processing of all records of one campaign is finished, the next campaign in the group is started automatically.
	To associate this campaign with an existing group select the group from the list. If there are other campaigns associated with the selected list, the system will ask you to confirm that the type of this campaign, its schedule, assigned teams, and skills will be redefined to match the corresponding settings of campaigns already in the group.
	The service parameters whose settings are controlled by the link group membership will be highlighted with orange dots.
	To remove the campaign from a link group, select **None** from the drop-down menu.
Begin this campaign after	By default, the order in which campaigns in the link group will be activated is determined by the order those campaign are added to the group. You can redefine this order for the given campaign by selecting the preceding campaign from the drop-down menu. If the given campaign shall be processed first, select **none (1st)**.
Preview options	
Screenpop URL	URL of the web page that will be displayed by the Agent Desktop application when the agent receives a preview record. Normally this is a web page that might contain additional information about the calling record. A query string can be added to supply variables for the screenpop. See description of *Outbound Target Work Item Parameters* in section *List of Variables* of *ServicePattern Scenario Builder Reference Guide*.
	This parameter is optional. If it is not set, only the customer name and phone number to be dialed will be displayed in the contact panel of the Agent Desktop.
Start dialing first number automatically	By default, agents dial numbers from list records manually. Select this checkbox if the first number of the list record shall be dialed automatically after the amount of time allocated for record preview (see option *Start dialing after* below).
Start dialing after	The amount of time allocated for list record preview. This parameter is essential only if option *Start dialing first number automatically* is enabled.
Predictive options	
No Answer timeout	In case of receiving the ring back tone, specifies for how long the system shall wait for an answer before abandoning the call attempt with disposition *No Answer*.
Scenario to run when answered	Indicates which scenario should be run upon answer. The *Default* scenario will provide a simple connect to the longest available agent where calls that are not connected to agents within the specified *Unattended call timeout* (see below) are terminated.

Outbound Campaign properties	
Property	**Description**
Target occupancy	Specifies the target occupancy for the agents participating in this campaign that will be used by the predictive algorithm to calculate the dialing frequency. Occupancy is defined as the time spent handling calls relative to the time total working time, i.e., *(Busy Time + ACW Time) / (Busy Time + ACW Time + Ready Time) * 100.*
	Changes in the target occupancy of a running campaign will take effect immediately. Such changes may be necessary in order to observe compliance with the telemarketing law for maximum percentage of unattended calls (aka *Abandonment Rate*). Percentage of unattended calls can be monitored in real time (see *ServicePattern Supervisor Guide*, section *General Campaign Metrics View*) and/or historically (see *ServicePattern Reporting Reference Guide*, section *Telemarketing Compliance Report*.)
Estimated Success Rate, %	The expected percent of call attempts that will be answered relative to all call attempts that will be made for this campaign. This configured value will determine dialing frequency at the start of this campaign. For example, if you expect only every second attempt to be successful, you can set the estimated to success rate to 50%, and the system will initially make twice as many call attempts as there are agents in the Ready state.
	Once the system has accumulated enough statistics for dial frequency prediction, this configured value will be replaced with the actual success rate calculated and constantly updated in real time.
	You can reset statistics used in calculation of the actual success rate and re-apply the configured Estimated Success Rate value at any time during campaign operation by clicking the **Reset statistics** button.
Detect voice before connection	Indicates whether upon answer the system shall wait to detect voice before connecting this call to an agent. Deselect this checkbox if the calls should be connected to agents immediately upon answer.
Detect answering machine	Indicates whether upon voice detection the system shall try to distinguish live voice from an answering machine greeting or other pre-recorded announcement. Essential only if the *Detect voice before connection* setting is enabled (see above). Deselect this checkbox if the calls should be connected to agents immediately upon detection of a voice.
Wait for beep when detecting answering machine	Indicates whether the "announcement vs. answering machine" decision shall be based on detection of a beep sound after the speech segment. (If disabled, disposition *Announcement* will be used for all long speech messages.) Essential only if the *Detect answering machine* setting is enabled (see above).
Record failed call attempts	Indicates whether the Call Progress Analysis (CPA) phase of the campaign calls shall be recorded. Such recordings are stored in separate audio files and can be used to verify reaction of the system to various call attempt outcomes. CPA recordings can be checked using the Quality Management playback function and exported for off-line analysis.
	This option is visible and available to you only if specifically activated for your contact center at the service provider level.
Unattended call timeout	Specifies for how long, from the moment a call answered by the called party, the Find Agent block of the applied Scenario (see above) will wait for an available agent before processing it in the manner defined by the conditional exit *Time Out*.
	Note that the *Default* scenario will terminate such calls.
	In ServicePattern versions prior to 3.6, the same settings was called *Call drop timeout*.

Outbound Campaign properties	
Property	**Description**
Maximum dropped calls	Reserved for future use.
Automatic (IVR) options	
Max concurrent calls	Specifies how many calls can be in progress simultaneously.
No Answer timeout	In case of receiving the ring back tone, specifies for how long the system shall wait for an answer before abandoning the call attempt with disposition *No Answer*.
Scenario to run when answered	Indicates which scenario should be run upon answer. Note that for the Automatic (IVR) mode, the scenario containing a recorded IVR message should be explicitly defined.
Detect voice before connection	Indicates whether upon answer the system shall wait to detect a voice before connecting this call to an agent. Deselect this checkbox if the calls should be connected to agents immediately upon answer.
Detect answering machine	Indicates whether upon voice detection the system shall try to distinguish the voice from an answering machine greeting. Essential only if the *Detect voice before connection* setting is enabled (see above). Deselect this checkbox if the calls should be connected to agents immediately upon detection of a voice.
Wait for beep when detecting answering machine	Indicates whether the "announcement vs. answering machine" decision shall be based on detection of a beep sound after the speech segment. (If disabled, disposition *Announcement* will be used for all long speech messages.) Essential only if the *Detect answering machine* setting is enabled (see above).
Record failed call attempts	Indicates whether the Call Progress Analysis (CPA) phase of the campaign calls shall be recorded. Such recordings are stored in separate audio files and can be used to verify reaction of the system to various call attempt outcomes. CPA recordings can be checked using the Quality Management playback function and exported for off-line analysis. This option is visible and available to you only if specifically activated for your contact center at the service provider level.
Calling Hours tab	
Calling Hours table	This table defines calling schedules for phones of specific types and the order in which phones of different types will be called within each such schedule. For example, you can define that only mobile numbers will be called during the day, while during the evening hours, home phone numbers will be called first, and then mobile phones will be tried. Note that specification of calling schedules is mandatory. That is, you must define a schedule even if the associated calling lists contain only one type of phone. Note also that the system does not check whether these hours fit within the general campaign's hours of operation specified by *Start/Stop Automation* settings of the *General* tab. To define a schedule, click **add schedule** in the *Hours* column, select a calendar, and specify the calling hours. See section *Calendars* for more information. A schedule can have several calendars, each with its own hours of operation. To add another calendar, click **add**. To apply the schedule to a particular phone type, click **add** in the *Phones to call, by preference* column. The drop-down menu that appears will contain the phone types from the list(s) associated with this campaign. Select the phone type to which this calling schedule will apply. The same schedule can be used for multiple phone types. Click **add** again to add another phone type to the same schedule. Note that the order in which phones of the same record will be called within the given schedule is

Outbound Campaign properties	
Property	**Description**
	determined by the order in which they appear in this list. You can change the original order at any time by dragging a phone type to a new desired location in the list. Repeat the above procedure to create additional schedules.
Use safe calling hours	During campaign execution, the calling hours of each calling record will be automatically adjusted for the appropriate time zones based on the area code(s) of the corresponding telephone numbers. In addition to the area-code-based time zone adjustment, the system can also optionally check the time zone associated with the postal codes contained in the list records. (E.g., a customer who lives in Central time zone may have a mobile phone with an area code of the Pacific time zone. Without the postal code check, the system will attempt this phone number base on the schedule adjusted to the Pacific time zone, i.e., in the worst-case scenario the customer may receive this call two hours after the end of the specified calling window. With the postal code check, the calling schedule for this phone will be adjusted to the Central time zone.) Select this checkbox to enable time zone adjustment by postal codes. Note: This setting currently works only for the US ZIP codes.
Comply with State calling hours	Many countries impose restrictions on the hours when consumers can be called by businesses. In some countries such restrictions may differ from one state/province to another. For information about configuring state- and nation-wide calling hour restrictions, see section *State Calling Hours*. Select this checkbox if you would like to observe the configured calling hour restrictions while making calls for this campaign. If this checkbox is selected, the country/state information of the calling list record will be checked against the configured hours, and the call attempt will only be made if the current day and time fit within the permitted calling window. To review and/or change the configured restrictions, click the **State calling hours** link.
Dial Rules tab	
Maximum attempts per record	Specifies the maximum number of calling attempts for one list record within the campaign. A repeated attempt is made if the result of the previous attempt was unsuccessful. If the specified number of attempts for a particular record is reached, it will not be attempted again. If the result of the last attempt is unsuccessful, the record disposition will be set to *Reached maximum attempts*.
Maximum attempts per number	Specifies the maximum number of calling attempts for the same phone number within a record.
Attempt all numbers in record first	Use this setting to redefine the order in which multiple phones of the same record will be dialed relative to the other records of the same list. By default, the system will try to call phones of the first type (as determined in calling schedule) for each list record, and only then will start calling the phones of the next type. If you prefer that all phones of the same record be attempted before the system moves on to the next record, select the **Attempt all numbers in record first** checkbox.

Outbound Campaign properties	
Property	**Description**
List of dial rules by disposition	This list contains the dispositions that are defined for the given outbound campaign and indicate that the record processing within the campaign has not been finalized. For more information about dispositions, see description of the *Dispositions* tab in section *General Service Configuration.* Default actions are provided for all pre-defined dispositions. For any custom dispositions that may have been defined for this campaign and indicate incomplete record procession, the corresponding actions will be initially set to *None*. To define or modify an action for a particular disposition, click the corresponding table row. Specify the desired action in the *Edit Dial Rule* dialog that appears.
Edit Dial Rule dialog	
Disposition	Displays the selected disposition. Read-only.
Retry	Indicates whether the called phone number shall be retried within a short period of time (e.g., if the phone is busy). Such retries are considered to be part of the same calling attempt. Select the checkbox to enable retries for the given disposition.
Maximum retries	Specifies the maximum number of retries per calling attempt. Must be specified if the *Retry* option is selected,
Retry interval	Specifies the period of time in minutes between retries. Must be specified if the *Retry* option is selected,
Action	Action to be applied if a calling attempt produced the given disposition. - **Run scenario**: A specified scenario will be applied to this call attempt. This can be used, for example, to leave a pre-recorded message on the customer's answering machine. Note that this action will work only for predictive and automatic campaigns, and only for call attempts that do not result in connections to agents. In the above example, if an answering machine is recognized automatically, the call can be further processed by the specified scenario. If the call was connected to the agent, and the agent set the disposition to Answering Machine, the scenario will not be automatically applied. (However, the agent can transfer this call to the scenario manually.) - **Stop calling number**: No more attempts to call this number within this campaign will be made. - **Stop calling number for all campaigns**: This number will no longer be attempted as part of the calling list where it is defined. - **Stop calling record**: All attempts to call any number from this record within this campaign will be stopped. - **None**: No special action will be applied, processing of the corresponding record will continue according to the general campaign configuration. - **Reschedule**: Another calling attempt for this number within this campaign will be scheduled.
Reschedule interval	Specifies the amount of time in hours in which another attempt to call this number will be made. Must be specified if *Action* is set to *Reschedule*,
Scenario	Indicates the scenario that will be applied to the call attempt. Must be specified if *Action* is set to *Run scenario.*
DNC	

Outbound Campaign properties	
Property	**Description**
Do Not Call lists	The Do Not Call (DNC) lists against which the calling records to be dialed during this campaign will be checked. Records whose elements match corresponding elements of any of the specified DNC lists will not be dialed. For more information, see section *Do Not Call Lists*.
	To add a list, click **add**, select the desired **DNC List** from the drop-down menu, and specify the **Disposition** that will be attached to the call attempts whose phone numbers match numbers in this DNC list.
	If the campaign is part of a campaign link group, the selected DNC list can be automatically applied to all other campaigns in the link group. To indicate that the list shall apply to all campaigns in the link group, select the **apply to all campaigns in link group** checkbox.
	When selecting an internal DNC list, note that by default agents will be able to add new numbers to this list during the given campaign (e.g., upon request of the called party). If you wish to block this capability, deselect the **append OK** checkbox.
Diagnostics tab	
General information	This pages is used to verify completeness of campaign configuration. The system checks the elements of campaign that often become overlooked and indicates their current configuration status. (For the sequence of steps involved in configuration of an outbound campaign, see sections *Initial General Configuration* and *Outbound Campaign Configuration*.)
	You can refer to this Diagnostics page at any time during the campaign configuration process. For elements that are not configured yet, clicking **edit** will take you to the application screen where the corresponding configuration tasks can be accomplished.
	Note that this page can also be consulted in case of problems with campaigns that are already running as sometimes such problems can be caused by configuration changes.

8.6 Service-Number Association

The *Numbers* screen of the *Services and Campaigns* menu provides a multi-tab view for configuration of associations between the given service or campaign and access numbers for various purposes.

Service-number associations

These properties are described in the following table:

Service Numbers properties	
Property	**Description**
Scenario tab	
Compatibility note	Introduced in version 3.6, this tab replaces the *Inbound Scenario Entries* tab that existed in the general service settings in the earlier versions of the ServicePattern software.
List of scenario entries	When you define your services, you can at the same time create related scenario entries, i.e., associate your services with scenarios where they will be used and assign those scenarios to access points. Note that scenario entries can also be created using the *Scenarios* option and/or the *Scenario Entries* option of the main configuration menu.
	Scenario entries associated with the selected service appear in the list of inbound scenario entries regardless of where they were originally created. For each scenario entry, the list will also display the scenario name and the access number.
	If you decide to create a scenario entry from within the given service, click the "+" sign below the list of inbound scenario entries and define the scenario entry parameters in the property sheet that appears.
Scenario entry properties	Properties of the scenario entry selected in the list above. For description of these properties, see section *Scenario Entries*. You can edit these properties, or define a new entry for the selected scenario, in this view.
Caller ID tab	
Compatibility note	Introduced in version 3.6, this tab replaces the *Caller ID* tab that existed in the outbound campaign settings in the earlier versions of the ServicePattern software.
Selection method	Indicates which number will be displayed to the parties when they receive calls associated with this service/campaign in case more than one number is specified in the Caller ID list below. Note that some of the options below make sense for outbound campaigns only.
	- Select **Default** to display a specified external access number for all calls made for this service/campaign (see property *Default* below).

Service Numbers properties	
Property	**Description**
	- Select **Random within list** to display one of the caller ID numbers randomly chosen from the list of numbers defined in the Caller ID list below. - Select **Random within state, otherwise default** to display a number randomly chosen from the Caller ID list below whose state/province setting matches the state/province property of the dialed record. If the state/province information is not present in the record, the specified default number will be displayed (see property *Default* below). - Select **Random within state, otherwise random within list** to display a number randomly chosen from the Caller ID list below whose state/province setting matches the state/province property of the dialed record. If the state/province information is not present in the record, a caller ID number will be randomly chosen from the entire list. - Select **From list field of type "Caller ID", otherwise default** to display the caller ID defined in the calling record. If the number is not available from the calling record, or if the number specified in the calling record is not one of the access numbers assigned to your contact center, the specified default number will be displayed (see property *Default* below). - Select **Closest to the dialed area code's location** to display the number from the Caller ID list below whose area code happens to be the same as, or geographically closest to, the area code of the dialed number. (This may increase the probability that the called party will answer the call.)
Default	Specify the default service/campaign caller ID number. Note that the numbers available for selection must first be added to the *Caller ID list* (see below). This parameter must be specified if the *Campaign caller ID* property is set to either *Default, Random within state, otherwise default*, or *From list field type "Caller ID", otherwise default*
Caller ID list	Lists caller ID numbers with the associated state information. Click the "+" sign button to add a number to the list. Note that a number used as a service/campaign caller ID must be one of the available access numbers. For campaigns, there is an additional condition that such access number must not be restricted for automated outbound dialing. See section *Access Numbers* for more information. Access numbers of any destination type (extension, scenario, or unassigned) can be used as caller IDs. Note however that sometimes customers who missed a call may want to call back using the caller ID number; thus, it may be expedient to use an access number associated with scenarios for handling of such callbacks. This is particularly important for blended services where callbacks are expected and should normally be distributed to the same agents who handle the corresponding outbound calls. For each number, you can optionally define state/province information. See description of the *Campaign caller ID* property for explanation of how state/province information is used. Note that the spelling of state/province information must match the spelling used in the calling lists associated with this campaign. You can define multiple caller ID numbers with the same state/province, and you can add the same caller ID number multiple times with different states/provinces. You can also export caller ID lists for possible use in other campaigns. You can also import caller ID lists defined for other campaigns. At least one number must be defined for an outbound campaign. For inbound services, definition of caller IDs is optional. If no numbers are defined for an inbound service, the

Service Numbers properties	
Property	**Description**
	caller ID number from the dial-out entry associated with the dialed prefix will be used. See section *Dial-out Entries* for more information.
Text Out	
The number to send texts from	The phone number that will be used as a caller ID when sending SMS messages to customers within this service. Must be one of the access numbers dedicated to SMS communications. If you assign an SMS caller ID to a service, members of the agent teams associated with this service will be able to send SMS messages to customers' mobile phones. For more information, see *ServicePattern Agent Guide*, section *Exchanging SMS Messages*. Note that the agents must also have privilege *Initiate SMS Conversations* in order to be able to send SMS texts. For more information, see section *Roles*.
	The customers who receive SMS messages from agents may use the assigned caller ID to send text responses. The system will automatically associate such incoming texts with the original outgoing messages, and deliver them to the agents who sent those original outgoing messages. Such SMS message exchange will be presented to the agent as if it were a chat session.

8.7 Email Service Settings

This section explains settings specific to email services.

To view and edit these settings, select the **Email** tab of the desired email service.

Services and Campaigns > Email Settings

The **Email** service settings are described in the following table:

Email service settings	
Property	**Description**
Acknowledgement	The message that will be sent as an immediate response to inbound emails categorized to this service to acknowledge receipt of their request, advise them about the estimated reply time, etc.
	Acknowledgment is not considered a reply and will not affect any metrics related to this service. Acknowledgement is only sent for the initial email in an email thread.
	Acknowledgements are first prepared as articles in the Knowledge Base. For more information, see section *Knowledge Base*.
	To select an article that will be used as an acknowledgment for the given service, click on the link, enter some article keywords in the search field and choose the language. A list of matching articles will be displayed in the list below. Select the desired article; it will be displayed in the preview field.
	Note that in the current product version acknowledgement can only be defined in one language.
Distribution method	Method of email delivery to the agent desktop.
	With the **pull** method, all incoming email remains in the service queue and will be visible to the agents of the teams associated with this service (see description of the Assignments tab). The agents will be expected to manually pick email for processing from this queue.
	With the **push** method, incoming email is delivered directly to the agent desktop in the same manner as calls and chats. The agents will be able to either accept incoming email for immediate processing or move it to his personal queue for processing at a later time. For information about agent availability to process email interactions, see section *Media Routing Concurrency*.
	Note that the order in which incoming emails are delivered to agents (for push method) or appear in the service queue (for pull method) is determined first by priority and then by the shortest remaining time to breach the configured service level (see description of the *Service Level* settings below). For more information about email priority, see section *Scenario Entries > Email*.
Enable personal routing	Indicates whether personal email routing is enabled for this service.
	If enabled, the system will attempt to deliver an email identified as part of an existing email thread to the desktop of the agent who composed the previous reply.
Personal routing timeout	If personal routing is enabled (see above), this timeout specifies for how long the system will wait for the agent who composed the previous reply to become available before switching to the regular distribution method involving all qualified agents.
	This timeout is essential for the *push* method only. For the *pull* method, such emails will be immediately delivered to the agent's personal queue.
Return emails to general queue after	Specifies for how long the system will wait (from the moment the email is placed in a personal agent's queue) before returning this email to the general service queue.
Return emails to general queue if SLA is breached	Indicates whether emails that have breached service level while in personal queues will be returned to the general service queue. See description of the *Service Level* settings below.
Service level, Replied emails	Specifies percent of emails associated with this service that are expected to be replied within the specified service level threshold (see below) relative to all replied emails.

Email service settings	
Property	**Description**
Service level, Within threshold	Sets the service level threshold for this service, A service level threshold is the amount of time in which emails associated with this service are expected to be replied to. The reply time is measured from the moment the email is placed in the service queue to the moment when the first reply is sent. Acknowledgement is not considered a reply. The email service level threshold can be specified either in hours or in days and in either case excludes the time that is outside of the hours of operation specified for the given service.
Screenpop URL	URL of the web page that will be displayed by the Agent Desktop application when the agent receives an email associated with the given service. A query string can be added to supply variables for the screenpop. The following variables are supported: - *$(item.from)* – sender's email address - *$(item.to)* – emails address in the *To:* field - *$(item.subject)* – content of email subject This parameter is optional.

9 Activity Forms

ServicePattern enables your contact center to define data forms for interaction handling. If a form is defined for a particular service, it will be displayed by the Agent Desktop application when a corresponding interaction is distributed to the agent. Activity forms can be pre-filled with data from third-party databases (via scenarios) and from calling lists.

Activity forms associated with outbound campaigns can also be used for new data entry during active interaction handling and/or after-call work. Filled-out forms can be transferred between agents working on the same interactions. The data collected via editable forms can be stored as part of the campaign results and is available for off-line processing.

Note: Editable forms are currently supported for services of Outbound Voice and Blended Voice types only. For all other types of services, static forms can be used (i.e., forms without any editable fields).

To create or edit an activity form, select **Activity Forms** option from the root menu.

Activity Forms

The list in left pane will list the existing forms. To create a form, click the "+" button at the bottom of the list. To edit a selected from, click the button with the pencil symbol at the bottom of the list. Either operation will open a new browser window with the Form Builder application. For more information about creating forms, see *ServicePattern Form Builder Reference Guide*.

Use the **Properties** tab to assign a **Name** to the selected form.

To associate a form with a campaign, use the *Activity* tab of the desired campaign (option *Services and Campaigns* of the root menu). For more information, see section *General Service Settings*.

To see the services with which the selected form is currently associated, click the **Used in…** tab.

10 Lists

Lists contain destination data for automated outbound dialing. Each list record provides information about a single destination, and typically includes customer's name, at least one telephone number, and other information specific to the dialing purpose. For example, lists used in a satisfaction survey campaign may include information about products purchased by the customers. Lists are used in outbound and blended services (campaigns) as discussed in section *List-Campaign Association*.

To work with lists, select **Lists** option from the root menu. To import and configure a new list, click the button with the "+" sign. A list import wizard will open.

List import wizard

The list import wizard screens and properties are described in the following table:

List import wizard properties	
Property	**Description**
Name and Source screen	
List name	List name. Mandatory and must be unique within the contact center.

List import wizard properties	
Property	**Description**
List format	List format. If you wish the format of this list to be based on the format of one of the previously imported lists, select the desired format from the drop-down menu. Use of an existing list format can save you time while going through the subsequent import steps, especially the *Fields* wizard screen (see below). Thus, it is important that the layout of the selected format corresponds to the layout of the imported list.
	If you need to check the layout of the desired format before assigning it, close the wizard, locate the desired format in the *Format* column of the list view, select the corresponding list, and click the **Contents** tab.
	Note that if you select an existing list format, but decide to introduce some changes for the imported list (e.g., change some field names), then upon completion of the wizard you will be prompted to save these changes as a new format.
	If there are no formats corresponding to the layout of the imported list, or if you wish to create a new format using the layout of the imported list, select **Create new format**.
Data source	Source of data for this list. To upload a file from a local source, select **Upload**, click **Browse**, and select the data file. To obtain data from an external source, select the transfer protocol (**FTP** or **SFTP**), and specify the address (URL), **Username**, and **Password**.
	Note that only plain text list files (CSV or fixed width) are supported as sources for list data.
Format Type screen	
Delimited	Select this option if a character, such as comma or tab, separates each field in the imported data
First line contains field names	Select this checkbox if the first line of the imported data appears to contain column headings.
Fixed width	Select this option if fields of the imported data appear to be aligned in columns with spaces between each field.
Format Options screen	
Delimiter	Select the character that is used to separate each field in the imported data. If the delimiting character is anything other than the comma, tab, or semicolon, use the **Custom** option to specify the character. When the correct delimiter is selected, the preview below should show the imported data arranged as a table.
Fields screen	
Do not import field (skip)	Indicates whether the selected field is to be imported. Select this checkbox if the data in the selected field is not essential for any contact center operations (i.e., will not be used for dialing, analyzed in a scenario, or displayed for agents) and does not need to appear in campaign results.
Type	Specify the type of data that the selected field contains. If the type of data is anything other than the data types pre-defined in the drop-down menu, select **Other**. Note that at least one field of the imported list must have type *Phone*. Usage of some field types is described below:
	- If the calling list is based on customers' callback requests (opt-in callback list), your local telemarketing regulations may require that such callbacks are made within a specific number of days. In this case, the imported list will typically have information about when the callback request was made. Use the field type *Date/Time* for this information.

List import wizard properties	
Property	**Description**
	- If calling records contain numbers that should be displayed as caller IDs when dialing corresponding records during campaigns, use the filed type *Caller ID* for this information. Note that such a caller ID will only be used if it matches one of the access numbers assigned to your contact center. Otherwise, a default caller ID specified for the given campaign will be used. For more information, see sections *Service-Number Association* and *Access Numbers*. - A field of the *Priority* type can be used to indicate that the record shall be attempted as soon as possible relative to other records within the same list. This can be useful, for example, in order to give calling priority to the most recent web leads that tend to be most effective when followed up on immediately. A record will be treated as a prioritized record when its priority field is set to any value other than empty string. Note that once a prioritized record is completed, its priority goes back to normal. Priority of records can also be set to expire after a specified time period (see below). - A field of *Encrypted data* type can be used to store sensitive information that must be stored encrypted and only be presented in clear text to the agent who will be processing the record in case of a successful call attempt. Note that the encrypted data cannot be not automatically processed by the system, and thus, may not include any information used for campaign automation, such as phone numbers, zip codes, states, etc. If you do not see this data type, the data encryption function is not enabled for your contact center by the service provider.
Name	If the first line of the imported data contains column headings, these headings will be used as the default field names. Otherwise, default names *Field1*, *Field2*,…, *FieldN* will be assigned. Use this option to change the default field name if necessary.
Required Field	Indicates that the data in this field is required. If selected, the imported list will not contain records that have no data in this field.
Remove prefix	This setting is displayed for the fields of type *Phone* only. If phone numbers in this field contain a prefix that must be removed, select the checkbox and specify the prefix that shall be removed.
Has country code	This setting is displayed for the fields of type *Phone* only. By default, numbers in a field of type *Phone* are assumed to have country codes included. If this is not so, deselect the checkbox. You can either specify the country code that will be automatically added to each number in the given field (default value is *1*). If you do not wish to add a country code to the numbers in this field, set the country code to an empty string.
Time zone	This setting is displayed for the fields of *Date/Time* type only. By default, the time in this field is assumed to be specified for the time zone indicated in the general settings of your contact center. See section General Settings for more information. You can use this setting to specify another the time zone for this field.
Date/Time format	This setting is displayed for the fields of *Date/Time* type only and allows you to select the format in which the date and time is specified in this field. If you cannot find a format that matches exactly the date/time pattern used in the imported list, use the editable field to specify this format manually, using the Java SimpleDateFormat conventions: http://docs.oracle.com/javase/7/docs/api/java/text/SimpleDateFormat.html.
Order of prioritized records	This setting is displayed for the fields of type *Priority* only and defines the order in which prioritized records received during list updates will be attempted.

List import wizard properties	
Property	**Description**
Priority expires after	This setting is displayed for the fields of type *Priority* only and specifies the time period during which records with a non-empty value of this field will be considered a prioritized record. Upon expiration, priority of these records will be lowered to normal.
Key screen	
Fields	This screen allows you to select a field, or a combination of fields, whose values will be used as keys, i.e., will uniquely identify records within the list. Only the fields that were marked as *Required* in the previous wizard step will appear as possible keys. Records with the same key values are considered duplicates, and only one of such duplicate records will appear in the imported list. Keys are also used to reference the campaign results to the original list records.
Save config only	Click this button, instead of clicking **Next**, if you wish to save only the list format, i.e., the configured field and key information, without the actual data. The result will appear as a new list with zero records in the list view.
Import Complete screen	
Import results	This screen provides statistics about the imported list, including the number of successfully imported records, as well as the numbers of records that have not been imported for various reasons.

New lists imported via the list import wizard appear in the list view of Lists. You can update these lists manually or set up periodic automatic updates.

To update a list manually, select it from the list view and click the **Add records** button at the bottom of the screen. A list update wizard appears. Its screens and properties are described in the following table:

List update wizard properties	
Property	**Description**
Name and Source screen	
List name	Name of the selected list. Read-only.
Data source	Source of data for this list. To upload a file from a local source, select **Upload**, click **Browse**, and select the data file. To obtain data from an external source, select the transport protocol (**FTP** or **SFTP**), and specify the address (URL), **Username**, and **Password**.
	Note that only plain text list files (CSV or fixed width) are supported as sources for list data.
	Note that the data structure of the selected data source shall correspond to the data structure of the data source used for the original import.
Update Policy screen	
replace list data	Select this option if the data from the specified data source shall replace the existing list data. Note that in this case, any campaign results that may have been associated with the existing list records will be deleted. For more information about campaign results, see section *Services and Campaigns*.
add list data	Select this option if the data from the specified data source shall be added to the existing list data. Note that data records whose keys match with keys of the existing records will not be imported.
Import Complete screen	

List update wizard properties	
Property	**Description**
Import results	This screen provides statistics about the imported list, including the number of successfully imported records, as well as the numbers of records that have not been imported for various reasons.

To view the current content of a list, set up periodic automatic updates, or view the list import/update history, select the desired list from the list view.

Lists

The **Lists** screen properties are described in the following table:

List screen properties	
Property	**Description**
Properties tab	
Name	Name of the list. List name is originally defined during the initial list import, but can be changed at any time. The name must be unique within the contact center.
Format	Name of the format that this list is based on. Read-only. (The format is selected or defined during the initial list import as described above.)
Campaigns	Click **add** to associate this list with one or more campaigns.
Expire records	You can set the list records to expire in a specified number of days. If a record expires before it is completed according to the regular campaign dial rules, its processing within campaign will be finished with the pre-defined disposition *Record Expired*. To set the records of the given list to expire, select the checkbox, specify the *Expiration period* (see below), and indicate the starting point from which this period will be counted:

List screen properties	
Property	**Description**
	- To count from the date when records appear in the system (either via initial list import or subsequent list updates), select **Count expiration period since record insertion**. This expiration mechanism can be used to comply with your local telemarketing regulations that may require periodic scrubbing of calling records against national or state-wide do-not-call lists, after which any unmatched numbers are considered to be good for dialing over a certain period (e.g., 30 days for numbers added to the US National Do-Not-Call Registry or 15 days for numbers ported to mobile phones). - To count from the date specified in the calling record itself, select **Count expiration period using date in record**. This expiration mechanism can be used for calling lists that are based on customers' callback requests (opt-in callback lists) if your local telemarketing regulations require that such callbacks are made within a specific number of days.
Expiration period	The number days in which the records of this list expire. See description of the *Expire records* setting above for more information.
Expiration field	The field of the calling list that will be used to determine when the callback request was made, which is necessary in order to calculate when it expires. Only fields of type *Date/Time* are available for selection as expiration fields. This setting is essential if you have selected the *Count expiration using date in record* option. See description of the *Expire records* setting above for more information.
Periodic Import	To set up automatic periodic updates for this list, click **edit**. In the dialog that appears: - specify the protocol (**FTP** or **SFTP**), **URL with file name**, **FTP Username**, and **FTP Password** - select the **Start date and time** of the first update and specify the desired **Import interval** - select the desired **Update Policy** (see description of the List Update Wizard properties above for more information about the update policies) - click **OK** Once the above parameters are defined, select the **Enabled** checkbox to activate periodic import. You can also run import with the above settings at any time by clicking **Run import now**.
Contents tab	
List pane	Shows the entire content of the list. Read-only.
Record pane	Shows the content of the record selected from the List pane. Read-only.
Log tab	
Timestamp	Time stamp of the operation.
File	Name of the list data source file
Direction	Type of the operation (*IN* for import/updates, *EXP* for export of campaign results).
Number of records	Total number of successfully imported/exported records during this operation.
Errors	Total number of records that were not imported due to various errors (missing required fields, duplicate keys, incorrect format).
Operator	Username of the user who performed this operation.

List screen properties	
Property	**Description**
Comment	Operation result.

List data is deleted from the Calling List Database automatically when:
- the corresponding list object is deleted from configuration
- the list is updated with new content via periodic import with the update policy set to *replace list data*

11 Do Not Call Lists

Do Not Call (DNC) lists contain data about destinations that may not be called during outbound calling campaigns. At the configuration stage, one or more DNC lists may be associated with a campaign. When the campaign is started, records from the campaign's calling lists are checked against the DNC data, and, if a match is found, the number or the entire record is skipped.

For more information about associating DNC lists with campaigns, see description of the *DNC* tab in section *Outbound Campaign Settings*.

To view and edit DNC lists, select the **Do Not Call Lists** option from the root menu.

Do Not Call Lists

When you click the button with the "**+**" sign to configure a new DNC list, you will first be prompted to select the list type. The set of properties that you will have to configure will depend in part on the DNC list type.

The **Do Not Call Lists** screen properties are described in the following table:

Voice screen properties	
Property	**Description**
Properties tab	
Name	Name of this DNC list. Mandatory and must be unique within the contact center.
Type	Type of this DNC list. Mandatory and once specified cannot be changed. The following types of DNC lists are supported: - **Internal**: a list of phone numbers created and maintained within you contact center; new numbers are typically added to this list by the agents handling outbound calls for various campaigns; numbers in the calling records that match numbers in this type of DNC list will not be dialed (but the record itself may continue to be used if it has other numbers in it) - **Geographic (Postal)**: a list of postal codes; if a postal code of a calling record matches a postal code in this type of DNC list, processing of this calling record within the given campaign will stop - **Geographic (State/Province)**: a list of states/provinces; if the state/province info of a calling record matches a state/province in this type of DNC list, processing of this calling record within the given campaign will stop - **Area codes**: a list of area codes; if the area code of a phone number in a calling record matches an area code in this type of DNC list, this number will not be dialed (but the record itself may continue to be used if it has other numbers in it)

Voice screen properties	
Property	**Description**
	- **Record Exclusion**: a list of identifiers of customer records in calling lists (e.g., customers' account number); if a match is found, processing of this calling record within the given campaign will stop; note that DNC lists of this type can be updated periodically via FTP (see property *Periodic Import* below); the results of such periodic updates are displayed in the *Log* tab
List field to match	Select the calling list field that will be used as identifier of customer records that must not be dialed. This property is displayed only for DNC lists of *Record Exclusion* type and contains list fields from all available calling list formats.
Country	The country whose postal codes or state/provinces this DNC list shall contain. This property is displayed for DNCs of types *Geographic (Postal)*, *Geographic (State/Province)*, and *Area Codes*.
Campaigns	Campaigns associated with this DNC list. Such association is typically established as part of campaign configuration. See description of the *DNC* tab in section *Outbound Campaign Settings*.
	However, if you need to associate a new DNC list with an existing campaign, it may be more convenient to do it directly from this screen.
	To do so, click **add**, select the desired **Campaign** from the drop-down menu, and specify the **Disposition** that will be attached to the call attempts (in case of number match) or to completed records (in case of record match).
	If the campaign is part of a campaign link group, the selected DNC list can be automatically applied to all other campaigns in the link group. To indicate that the list shall apply to all campaigns in the link group, select the **add all linked campaigns** checkbox.
	When associating an internal DNC list, note that by default it will be possible to add new numbers to this list during the given campaign (e.g., upon request of the called party). If you wish to block this capability, deselect the **append OK** checkbox.
	To associate a DNC list with all campaigns, click **add all** and select the desired disposition. To remove all previously established associations, click **remove all**.
States/Provinces:	The states/provinces whose phone records must be excluded from outbound campaigns associated with this DNC. This property is displayed for DNCs of type *Geographic (State/Province)* only. To add a state/province to this list, click **add**.
Periodic Import	Parameters for periodic list import. These parameters apply to DNC lists of type *Record Exclusion* only.
	To set up automatic periodic updates for this list, click **edit**.
	In the dialog that appears:
	- specify the protocol (**FTP** or **SFTP**), **URL with file name**, **FTP Username**, and **FTP Password**
	- select the **Start date and time** of the first update and specify the desired **Import interval**
	- select the desired **Update Policy** (see description of the List Update Wizard properties above for more information about the update policies)
	- click **OK**
	Once the above parameters are defined, select the **Enabled** checkbox to activate periodic import.
	You can also run import with the above settings at any time by clicking **Run import now**.

Voice screen properties	
Property	**Description**
Periodic Reset	Parameters for daily list data reset. These parameters apply to DNC lists of type *Record Exclusion* only.
	To enable periodic reset, select the **Reset list data daily** checkbox, and specify the desired **Reset time**.
Contents tab	
List view	Shows the entire content of the DNC list. Read-only. Note that the view will be different depending on the DNC list type.
	- An *Internal* list displays the numbers, identifiers of the agents who added them, time and date when they were added, and campaigns during which they were added.
	- A *Geographical (Postal)* list displays postal codes and possible free-text notes. To add a postal code to this list, click the "**+**" button at the bottom of tab view, specify the desired code in the **Postal Code** field, enter any additional information in the **Notes** field, and click **Apply**.
	- An *Area Codes* list displays area codes and possible free-text notes. To add an area code to this list, click the "**+**" button at the bottom of tab view, specify the desired code in the **Area Code** field, enter any additional information in the **Notes** field, and click **Apply**.
	- A *Record Exclusion* list displays values of the selected field that should lead to record exclusion when matched.
Log tab (for DNC lists of type *Record Exclusion* only)	
Timestamp	Time stamp of the operation.
File	Name of the imported/reset file
Operation	Type of the operation
Number of records	Total number of successfully imported/reset records during this operation.
Operator	Username of the user who performed this operation.
Notes	Operation result.

DNC list data is deleted from the Calling List Database automatically when the corresponding DNC list object is deleted from configuration. Current data of the DNC lists of type *Record Exclusion* is also deleted when the list is reset or updated with new content via periodic import (where applicable) with the update policy set to *replace list data.*

12 Tasks

12.1   Overview

The Tasks view provides a convenient way to see all automated contact center tasks that may have been scheduled for periodic execution, such as periodic report generation and automatic start and stop of outbound campaigns. The tasks whose execution has ended appear in the task log.

12.2   Scheduled and In-progress Tasks

To view the tasks that have been scheduled for execution and the ones that are currently being executed, select **Scheduled and In-progress Tasks** option from the **Tasks** menu.

The scheduled and progress tasks will appear in the list view in the upper portion of the screen. Depending on the type of the selected task, you may be able to see and edit task information and request an immediate execution of this task.

The fields for the **Scheduled and In Progress Tasks** list view have the following meaning.

Scheduled and In Progress Tasks list view fields	
Field	**Description**
Start time	Date and time when the next execution of the given task is scheduled to take place.
Resource Name	The name of the resource that this task is executed for. For example, for a task of the *Campaign trigger* type, this field shows the name of the campaign.
Number of Attempts	Number of execution attempts.
State	Current state of this task, scheduled or in progress.
Progress	For the tasks that are in progress, displays the overall progress of the task execution.
Type	Type of task. Can be one of the following: - *Report execution*: periodic report generation and distribution. For more information, see section *Scheduled Reports*. - *Campaign trigger*: automatic start and stop of an outbound campaign. For more information, see section *Outbound Campaign Settings*. - *Campaign results export*: periodic export of results of an outbound campaign. For more information, see section *Services and Campaigns*. - *Calling list import*: periodic import of a calling list. For more information, see section *Lists* - *Import exclusions by account*: periodic import of a Do Not Call list of the *Record Exclusion* type. For more information, see section *Do Not Call Lists*.
Step	The task step that will be executed at the time specified in *Start Time*. This parameter may be helpful for the tasks of the *Campaign trigger* type, since it shows whether the campaign will be started or stopped at the specified time.

12.3   Task Log

To view the task log, select the **Task Log** option from the **Tasks** menu.

The results of scheduled task execution appear in the log in the chronological order. Note that you can reverse the order, by clicking on the *Start Time* column title, or use a different field for sorting.

The fields for the Task Log table have the following meaning.

Scheduled and In Progress Tasks list view fields	
Field	**Description**
Start time	Date and time when execution of the given task started.
End time	Date and time when execution of the given task ended.
Result	The task execution result; can be either *completed* or *failed*.
Type	Type of task. See section Scheduled and In Progress Tasks for more information about the task types.
Step	The task step that was executed at the time specified in *Start Time*. This parameter may be helpful for the tasks of the *Campaign trigger* type, since it shows whether the campaign was started or stopped at the specified time.
Resource Name	The name of the resource that this task was executed for. For example, for a task of the *Campaign trigger* type, this field shows the name of the campaign.

13 Call Center Configuration

13.1   General Settings

General settings define various aspects of your operations that apply to your entire contact center as opposed to any individual entity. When you specify a certain parameter at this level, the specified value will be applied to all corresponding resources of your contact center. Note that some of the same settings can also be defined at lower levels such as teams, services, and/or users. The values defined at such lower levels always supersede these general settings defied at the contact center level.

To view and edit the general settings, select the **General Settings** option from the **Call Center Configuration** menu. Note that all of these settings are optional.

Call Center Configuration > General Settings

The **General Settings** screen properties are described in the following table:

General Settings screen properties	
Property	**Description**
Default time zone	Time zone that will be used by default when you define time-based parameters of your contact center resources such as service hours. Note that you will be able to change this default time zones setting when defining time-based parameters of individual contact center resources. Note also that changing this default time zone parameter will not affect any of the previously defined time-base parameters of your contact center.

General Settings screen properties	
Property	**Description**
System Not Ready reason names for	Allows you to define custom names for Not Ready agent state for various conditions when the system automatically applies this state to agents. The Not Ready state indicates that the agent is logged in but unavailable to handle customer interactions.
	If defined, such custom names will be displayed instead of the generic *Not Ready* in the corresponding situations for the agents themselves, for the supervisors monitoring agents' performance, and in the agent activity reports.
Agent no answer	The agent is set to Not Ready because he has rejected an incoming service interaction or failed to answer it within a pre-defined amount of time. Default name *No answer.* The No Answer timeout is specified in the scenario *Connect Call* block. The default value is 10 seconds. For more information see *ServicePattern Scenario Builder Reference Guide*.
UI connection loss	The agent is set to Not Ready because the connection between his Agent Desktop application and the system has been lost. Default name *Connection loss.*
After call break	The agent is set to Not Ready because he has finished handling of an interaction and must have a mandatory break time. (See setting *Enter Break* below.) Default name *After call break.*
Logout Pending	The agent is set to Not Ready because he has requested to be logged out of the system while handling an interaction (e.g., when his working shift is almost over). In this case, the system will let the agent finish processing of the current interaction and will then switch him to Not Ready for a brief moment before logging him out.
	Note that for email interactions, logout is immediate. All actively processed emails will be stored as drafts in agent's personal queue.
Custom Not Ready reasons	Allows you to define a custom name and select an icon for the Not Ready agent state depending on the reason the agent makes himself Not Ready manually. If such reasons are defined, agents will have to select one of these reasons, instead of the generic *Not Ready*, when making themselves unavailable to handle customer interactions.
	ServicePattern provides a number of default Not Ready reasons. To delete or edit any of the existing reasons, hover over their names. To define additional Not Ready reasons, click **add.**
Agent state upon login	The state that will be applied to the agents of your contact center when they log into their Agent Desktops. You can select any of the custom Not Ready reasons defined above or make the agent Ready. Note that if you select Ready for this setting, the agents may start receiving service calls as soon as they log in. Otherwise, they will have to manually make themselves Ready before they begin receiving any service calls.
Auto logout timeout upon connection loss	Specifies how long the system will wait for the Agent Desktop application to reconnect, from the moment a connection loss is detected, before the agent is logged out automatically.
Enter After Call Work	Specifies whether After Call Work is used in your contact center. If selected, agents will enter the After Call Work state after finishing any type of service call. Note that you can override this setting at the service level.

General Settings screen properties	
Property	**Description**
Exit After Call Work	Sets the maximum time in the After Call Work state for the agents of your contact center. This setting is essential only if option *Enter After Call Work* is selected. If you wish to restrict the After Call Work time, select the checkbox and set the desired timeout in seconds. Deselect this option to allow the agents to remain in After Call Work until they exit this state manually. Note that you can override this setting at the team level.
Enter Break	Specifies whether the agents of your contact center will be allowed any rest time when they finish handling of a service call including after-call work. Select this option to enable a mandatory break.
Exit Break	Sets the maximum time in the Break state after finishing a service call for the agents of this team. This setting is essential only if option *Enter Break* is selected. If you wish to restrict the mandatory break time, select the checkbox and set the desired timeout in seconds. Deselect this option to allow the agents to remain in the Break state until they exit this state manually. Note that you can override this setting at the team level.
Non-call cases URL	URL of the web page that will be displayed for agents upon delivery of a service interaction (unless another URL is specified at the team level, or in the applied scenario, or for the corresponding campaign).
Display name format	The format for displaying users' names in reports and in the Agent Desktop application.
Maximum concurrent chats	Removed in version 3.7. This parameter was used in earlier versions of the product to set the maximum number of concurrent service chat sessions for agents at the contact center lever. In version 3.7, a more advanced multi-media agent capacity configuration method has been introduced, making this parameter obsolete. For more information about agent capacity configuration, see section *Media Routing Concurrency*.
External number inactivity timeout	This settings is essential for agents who connect to the system using phone device option *Dial-in and keep line open*, also known as a *nailed connection*. The setting specifies in how many minutes agents' nailed connections will be disconnected automatically in absence of any active calls on them. For more information about this phone device option, see section *How to Select a Phone Device* of *ServicePattern Agent Guide*.

13.2 Integration Accounts

Integration accounts specify parameters required for interoperability of your contact center solution with third-party applications, such as customer relationship management and workforce management applications.

To define, view, and edit integration accounts, select the **Integration Accounts** option from the **Call Center Configuration** menu.

Call Center Configuration > Integration Accounts

Current version of the ServicePattern solution supports out-of-the-box integration with the Aspect Workforce Management and Salesforce.com customer relationship management applications.

Note that you can only have one integration account of each type in your contact center.

For Salesforce.com, the integration scope includes single sign-on, access to CRM data from scenarios, screen-pop, activity history, and click-to-dial functions. For detailed integration instructions, including specification of the Salesforce.com integration account properties, see *ServicePattern Salesforce.com Integration Guide*.

For Aspect Workforce Management, the integration scope includes a number of automatically generated reports for workforce scheduling and real-time monitoring of agents' adherence to work schedules.

The reports required for workforce scheduling are configured for automatic generation and delivery via the *Scheduled Reports* menu option of the Contact Center Administrator application. For more information, see section *Scheduled Reports* of this guide.

Setup of the integration account is only necessary if you plan to use Aspect Workforce Management for real-time adherence monitoring. Typically in this case, the Universal interface of the Aspect Real-Time Adherence server (RTA) must be configured to be ready to receive a data feed. For more information, please refer to *Aspect Workforce Management 7.5 Installation Guide*, chapter *Configuring ACD Instances*, section *Universal ACD*. Note that the *Unicode* checkbox of the Universal interface must be selected (the ASCII option is not supported).

The table below describes the parameters that must be configured on the ServicePattern side to enable the real-time adherence data feed:

Aspect Workforce Management Integration Account screen properties	
Property	**Description**
Name	Name of the integration account, must be unique.

Aspect Workforce Management Integration Account screen properties	
Property	**Description**
Protocol	Communication protocol. Currently TCP is the only option. Read-only.
Host name	Name or IP address of the host where Aspect Real-Time Adherence server (RTA) is run.
Port	TCP port assigned to the Aspect RTA server on the above host. Must correspond to the port configured on the RTA side.
Periodic update interval	The period with which real-time metrics will be updated.
Record field sizes	Lengths of the data fields communicated to Aspect RTA. The default values correspond to the default settings of the same fields on the RTA side. If values of these fields are changed on the RTA side, they must be changed accordingly in this property.

13.3   Knowledge Base

Knowledge base is a repository of articles that help agents quickly find answers to customer inquiries and improve response times via using pre-defined/approved text in text-based communications.

To work with the knowledge base, select the **Knowledge Base** option from the **Call Center Configuration** menu.

Note: While the Knowledge Base screen is the main interface for creation and editing of articles, you can also allow some of your agents to contribute to the knowledge base directly from their Agent Desktops. Not that such agents, as well as any other users who contribute to the knowledge base, must have the *Edit knowledge base* privilege. For more information about user roles and privileges, see section *Roles*.
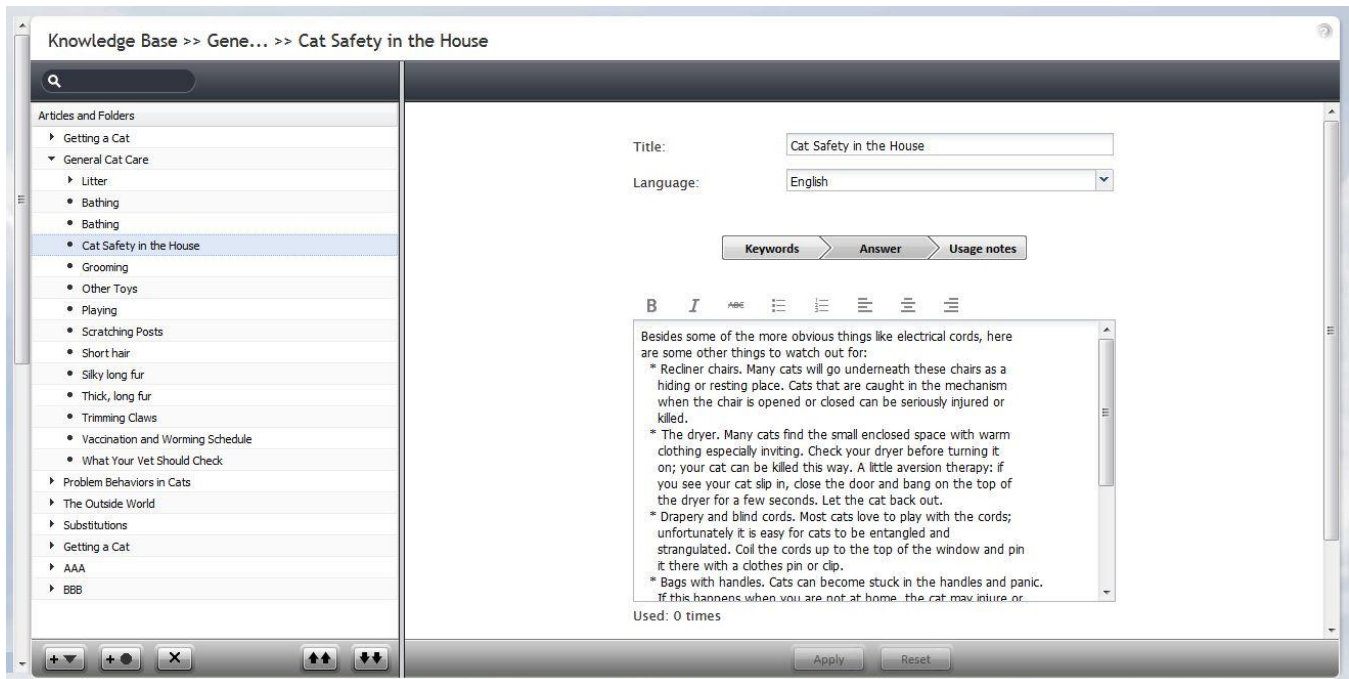
Call Center Configuration > Knowledge Base

The list view of the Knowledge Base screen displays existing articles arranged in folders and subfolders. To create a folder at the root level, select an existing folder at this level without unfolding it and click [+▼]. To create a subfolder in a certain folder, unfold and select this folder, and click [+▼]. To create an article in a certain folder, unfold and select this folder, and click [+●].

The **Knowledge Base** screen properties are described in the following table:

Knowledge Base screen properties	
Property	**Description**
Hours of Operation tab	
Name	Name of the folder or article. Mandatory and must be unique within the folder.
Language	Languages that the article is written in. The system will attempt to automatically detect the language of incoming email. If the detection is successful, only articles written in the same language will be offered to the agent as possible replies.
Keywords	A statement of customer problem or question that this article will address. In a more general sense, this field can be used for any kind of information that will help agents quickly assess relevance of the article to the email being handled. Content of this field will not appear in the email draft.

Knowledge Base screen properties	
Property	**Description**
Answer	Text that will be inserted into the email draft if the agent chooses to use this article. To insert a substitution field, click the **Insert $()** button. The following substitution fields can be used: - *$(user.firstName)* – agent's first name - *$(user.lastName)* – agent's last name - *$(user.email)* – agent's email address from agent's user settings; note that this setting is optional and may not have direct relevance to any email services; see section *Users* for more information - *$(from.name)* – customer's name (the display name taken from the *From:* field of the email for which the given reply is composed) - *$(from.emailAddress)* - customer's email address (the email address taken from the *From:* field of the email for which the given reply is composed) - *$(case.number)* – number of the case this message is related to - *$(app.emailAddress)* – email address of the email scenario entry (this is the same address will appear in the *From:* field of any outgoing emails sent via this scenario entry); see section *Scenario Entries > Email* for more information - *$(cursor)* – position of the input text cursor immediately after the article is inserted
Usage notes	Notes, comments, and suggestions regarding usage of this article. Content of this field will not appear in the email draft.
Services	Services that this article can be used for. The system automatically assigns a service to every incoming email. When looking for articles, the agent will be able to limit search to the articles associated with the same service.
This is the default article for	Services for which this article will be displayed as a suggested reply in the email draft pane of the agent desktop.

13.4   Calendars

Unless all services of your contact center operate on a 24/7 basis, you will have to define separately what happens to incoming interactions when your services are open for business and when they are closed. You can define service operation hours directly in the services or scenario entries (for more information, see sections *Services, Dial-in Scenario Entries* and *Chat Scenario Entries*). However, if your contact center has many different services, and some of them operate on the same schedules, it may be more convenient to define such schedules externally first, and then assign them to services and/or scenario entries. This way, if you need to change a service operation schedule, you do it once, and the change will automatically apply to all services associated with this schedule.

Creating an external schedule involves two steps. First you create calendars, i.e., define the days that are supposed to have the same hours of operation (e.g., Monday through Friday or public holidays). Calendars are discussed in this section. After that, you create the schedule itself by combining the different calendars and specifying hours of operation for each assigned calendar. Schedules are discussed in section *Hours of Operation*. Note that the calendars are also used for definition of calling hours of outbound campaigns (see section *Outbound Campaign Settings* for more information).

Note: The system provides a number of pre-defined calendars that include a typical work week, weekends, and US holidays. The latter can be used for definition of state calling hours (see section *State Calling Hours* for more information.) The default holiday information is current as of the release of version 3.6 of the ServicePattern system (June of 2014). It is recommended that you periodically check the federal and state legislation regarding holidays and update the calendars as may be necessary.

To work with calendars, select the **Calendars** option from the **Call Center Configuration** menu.
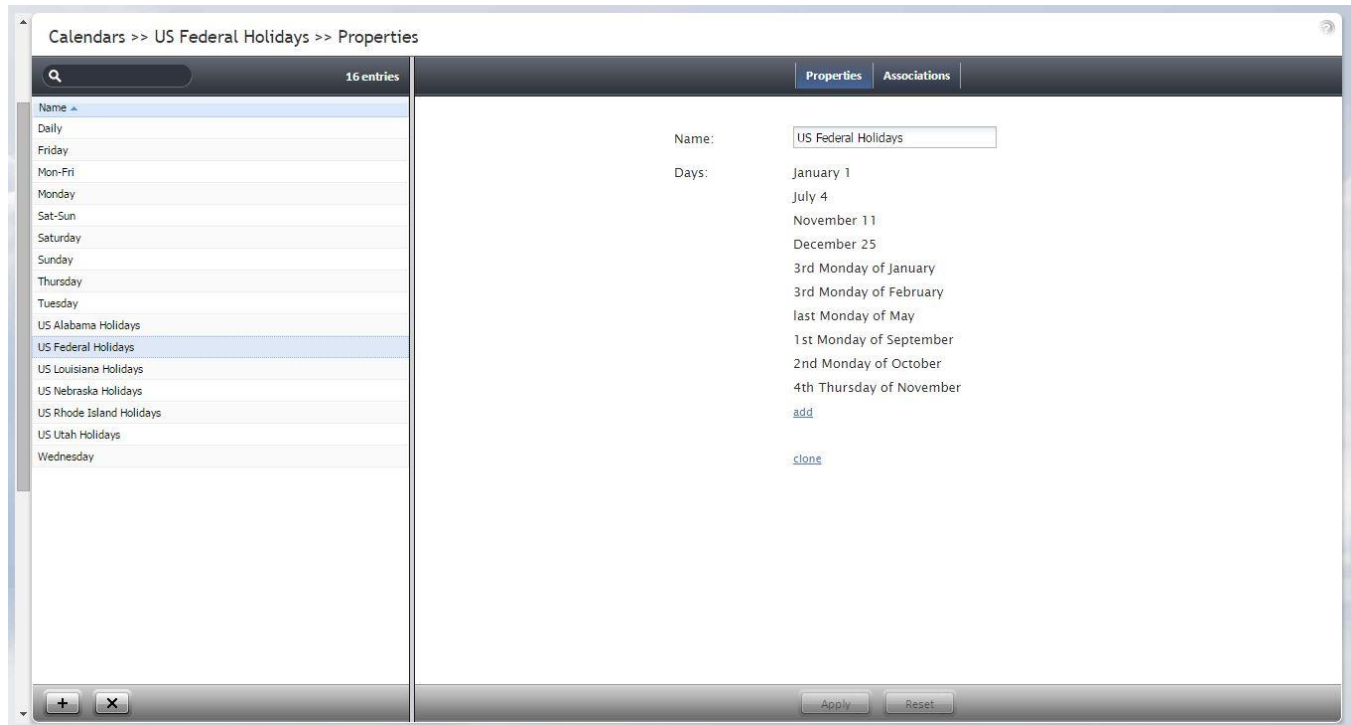
Call Center Configuration > Calendars

The **Calendars** screen properties are described in the following table:

Calendars screen properties	
Property	**Description**
Day types tab	
Name	Calendar name. Mandatory and must be unique within the contact center.
Days	The days that comprise this calendar. Note that all days within a calendar are supposed to have the same hours of operation.
	To add a day to the calendar click **add**. Select the recurrence pattern from the drop-down menu and provide the necessary data. For example, for the US Labor Day holiday, select **day of Nth week** and provide **1st**, **Monday**, and **September**.
	To remove or edit calendar days, hover over their names.
clone	This option allows you to define a new calendar based on the currently selected one. When you click **clone**, a copy of the currently selected calendar is created with default name *Copy of [Calendar Name]*. You can change the calendar name, as well as add days to, or remove them from, or edit them in, this new calendar.
Associations tab	

Calendars screen properties	
Property	**Description**
Services	Lists the services that use the given calendar. Select a service from the list to see the service definition.
Hours of operations	Lists the hours of operation (HOPs) that use the given calendar. Select a schedule from the list to see the schedule definition.

13.5 Hours of Operation

Hours of Operation (HOPs) are the service schedules that you define externally and then assign to services or scenario entries. For more information, see introduction notes in section *Calendars*.

To work with external service schedules, select the **Hours of Operation** option from the **Call Center Configuration** menu.
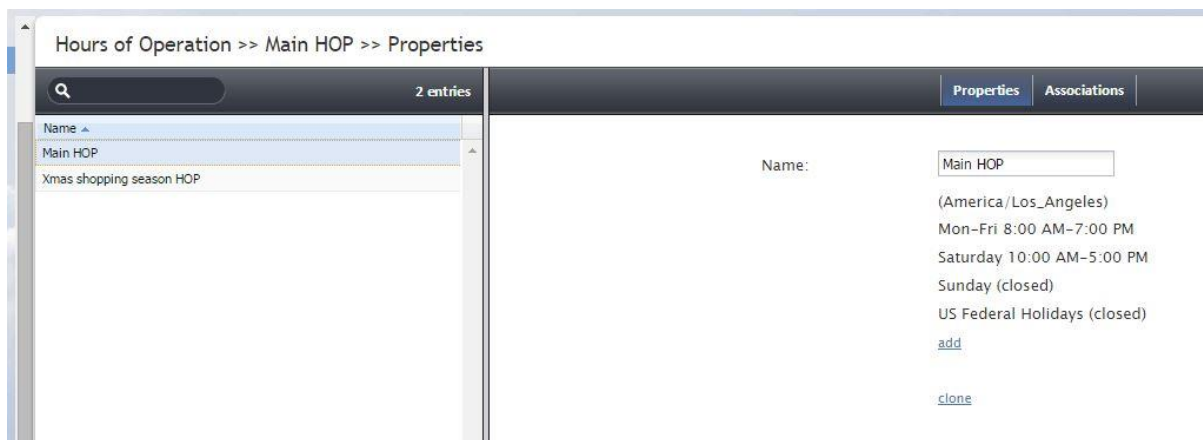
Call Center Configuration > Hours of Operation

The **Hours of Operation** screen properties are described in the following table:

Hours of Operation screen properties	
Property	**Description**
Hours of Operation tab	
Name	HOP name. Mandatory and must be unique within the contact center.
Hours	The calendars that comprise this HOP with the hours of operation defined for each.
	By default (no calendars assigned), this schedule will be treated as a 24/7 operation.
	To add a calendar, click **add**, select the calendar from the drop-down menu, and specify the operation hours for the days in that calendar. If your contact center does not operate during the days of the given calendar, select **closed**.
	You can define a new calendar directly within calendar assignment dialog by clicking **add/edit**.
	To remove or edit previously defined hours, hover over their names.
	If you HOP contains any gaps, i.e., undefined days, ServicePattern will consider the associated services to be closed during such days. E.g., if you have a schedule that only have the following calendars defined: Mon-Fri 9 am – 7 pm and Sat 10 am – 5 pm, the associated service will be considered closed on Sundays.

Hours of Operation screen properties	
Property	**Description**
	If you HOP contains two calendars with the same days, and with different hours of operation, the resulting hours of operation for such days will be the union of two time intervals. E.g., if you have an HOP with calendar Sat 9 am – 3 pm, and with calendar Sat-Sun 10 am – 5 pm, the resulting hours for Saturday in the associated services will be 9 am – 5 pm. One exception is the *closed* check box that overrides any open hours. E.g., if you have an HOP with calendar Sat marked as "closed", and with calendar Sat-Sun 10 am – 5 pm, Saturday will be considered "closed."
clone	This option allows you to define a new HOP based on the currently selected one. When you click clone, a copy of the currently selected HOP is created with default name *Copy of [Schedule Name]*. You can change the HOP name, as well as add calendars to, or remove them from, or edit their hours in, this new HOP.
Associations tab	
Services	Lists the services that use the given schedule. Select a service from the list to see the service definition.

13.6   State Calling Hours

Many countries regulate the hours during which businesses are allowed to contact consumers by phone. In some countries, such calling hours may also be regulated at the state level. To be compliant with such regulations during your outbound campaigns, you can define calling hours at the country level, and if necessary, for each state separately. Note that after you have configured the calling hours, you must explicitly enable the related check in the configuration of the campaigns that are supposed to be compliant. See section *Outbound Campaign Settings* for more information.

Note: The system provides a number of pre-defined entries for the US federal calling hours and state calling hours where they are known to be different (more restrictive) than the federal hours. This information is current as of the release of version 3.6 of the ServicePattern system (June of 2014). It is recommended that you periodically check the federal and state legislation regarding calling hours and update these entries as may be necessary.

To define calling hours, select the **State Calling Hours** option from the **Call Center Configuration** menu.

Call Center Configuration > State Calling Hours

The **State Calling Hours** screen properties are described in the following table:

State Calling Hours screen properties	
Property	**Description**
Country code	The code of the country to which this restriction applies. To define a restriction that will apply country-wide, specify the country code and leave the *State name* fields for this entry blank.
State name (as in calling records)	Name of the state/province to which the given restriction applies as defined in the records of your calling lists. At campaign run time, the calling hours will be checked against the calling record state information using this name.
State display name	Name of the state/province to which the given restriction applies as displayed in the title and the list view of the State Calling Hours screen. Note that you can only enter this name if you defined the *State name (as in calling record)* property.
Calling hours	Calling hours are configured in the same way as they are configured in HOPs. The same rules apply in case of possible duplicates. See section *Hours of Operation* for more information. If there is a gap in the definition of calling hours, the system will default to the country-wide setting for the corresponding days.

13.7   Auxiliary Skills

In ServicePattern, distribution of service interactions to agents is based on matching the skills requested by the incoming interaction with the skills possessed by agents. Skills are typically associated with services that the customers are trying to get. Thus, when you configure a service, a default skill representing this service is automatically created by the system. For more information about such default service skills and their assignment to agents, see section *Services and Campaigns*.

However, in many cases, a single skill may not sufficiently describe customer's expectation for the requested service. For example, a customer may request a service in a specific language. In this case, in addition to the default service skill, you need to define a language skill and assign it to the agents who can provide the requested service in this language.

Note: In the current release, auxiliary skills are supported for voice and chat services only.

To define such auxiliary skills, select **Auxiliary Skills** from the **Call Center Configuration** menu.
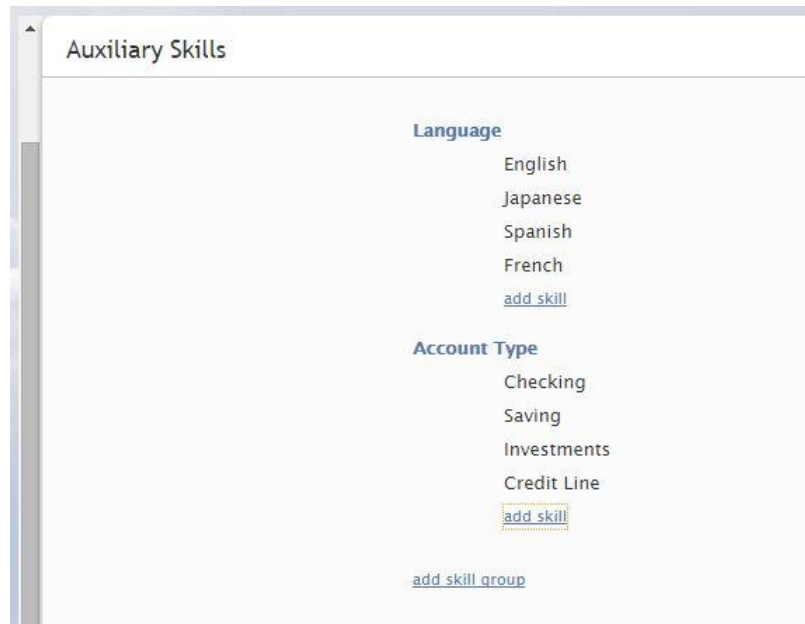
Call Center Configuration > Auxiliary Skills

In ServicePattern, related skills are organized in groups. Following the above example, the languages in which your contact center provides services would be organized into a language skill group. To set up a new group of related skills, click **add skill group** and enter the group name, e.g., *Language*. To define a skill within this new group, click **add skill** and enter the skill name, e.g., *English*. Repeat the last step for every language used in your contact center.

Note that skill names must be unique within the entire contact center configuration, and not just within the group. Note also that auxiliary skill names may not coincide with names of any services since the latter are used for default service skills.

To edit or delete previously defined skills and skill groups, hover over their names. When you delete a group, all skills within this group will be deleted as well.

Unlike the default service skills, auxiliary skills must be assigned to agents explicitly. See section *Skills Levels* for more information.

13.8   Audio Treatments

Audio treatments are pre-recorded music and/or notifications that the system plays to the listener in specific situations, for example, while a call is waiting in queue or on hold. ServicePattern provides default audio treatments for all such situations. You can replace these default treatments with your own custom treatments.

To listen to the current treatments or to replace them with custom treatments, select the **Audio Treatments** option of the **Call Center Configuration** menu.
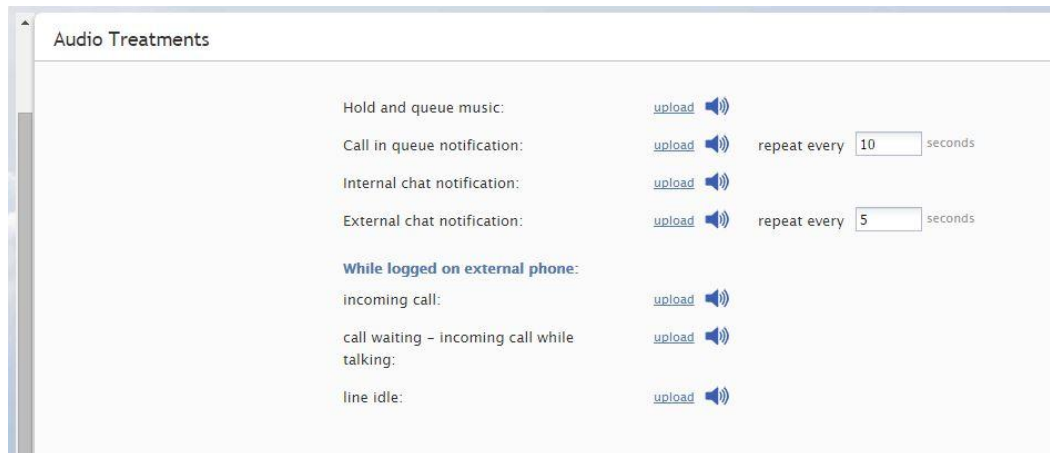
Call Center Configuration > Audio Treatments

Select the situation for which you wish to use your custom audio treatment. You can click the audio icon to listen to the currently used message. To replace the current treatment with your new custom treatment, click **upload** and select the desired voice file. The audio content must be encoded in uncompressed PCM A-law or μ-law 16-bit format.

The **Audio Treatments** screen properties are described in the following table:

Audio Treatments screen properties	
Property	**Description**
Hold and queue music	The default audio message (usually music) that is played to the party currently waiting on hold or in queue.
Call in queue notification	The audio message indicating that there is a service call waiting in queue. This notification can be provided to agents with matching skills who are currently in the After Call Work state. Note that this message will be played only if enabled as part of configuration of the corresponding service. For more information, see section *General Service Configuration*.
	Use the **repeat every** setting to define how often this notification will be played.
Internal chat notification	The audio message indicating an incoming internal chat message.
External chat notification	The audio message indicating an incoming external chat message (i.e., customer chat request). Use the **repeat every** setting to define how often this notification will be played.
When logged on external phone	You can re-define the three signal tones that the agents hear when using an external phone: **incoming call**, **call waiting**, and **line idle**. Note that you can either replace these tones altogether or adjust the volume of the existing tones. For the latter, **download** the corresponding audio files, use a third-party audio editing application to adjust the volume, and **upload** the modified file back into the system.

13.9   Shared Voice Segments

The initial step or processing of incoming voice calls typically involve an interactive voice response script that is used to greet the callers, prompt them to select specific services and/or provide information, and to play various announcements, such as business hours. You can upload the related

voice messages directly into the corresponding scenario blocks. However, if your contact center has many different scenarios that use similar voice prompts and announcements, it may be more convenient to define their common parts externally, and then use them in specific scenarios. Such externally defined voice messages are called *shared voice segments*. Note that if your contact center provides services in several languages, you may need to provide the same voice segment in all those languages. Voice messages in different languages with the same meaning are treated as one logical shared voice segment. To use a shared voice segment in a specific prompt of your scenario, set the voice segment type to *Shared Voice*, and select the desired segment (for more information, see *ServicePattern Scenario Builder Reference Guide*).

Shared voice segments can also be used as pre-recorded (canned) messages that agents can play to the customers directly from their desktops. Such segments must first be assigned to the services/campaigns where they can be used. For more information see section *General Service Configuration* of this guide. When assigned, the segments will appear in the pre-recorded message menu of the agent desktop when the agent handles calls associated with the corresponding service/campaign. For more information, see *ServicePattern Agent Guide*, section *How to Use Pre-recorded Messages*.

To create and edit shared voice segments, select the **Shared Voice Segments** option from the **Call Center Configuration** menu.
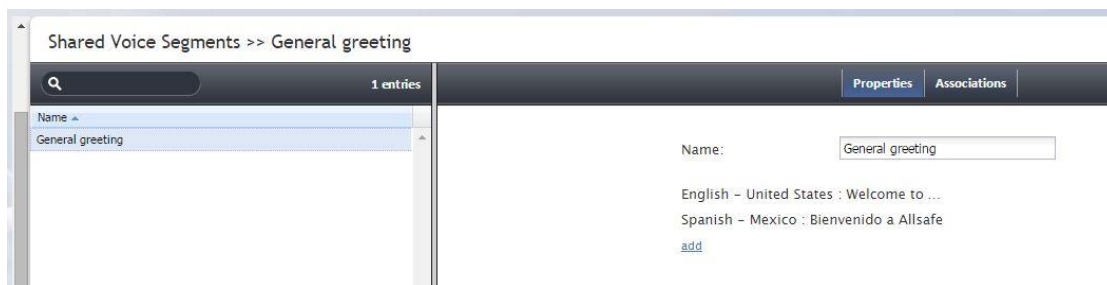
Call Center Configuration > Shared Voice Segments

The **Shared Voice Segments** screen properties are described in the following table:

Shared Voice Segments screen properties	
Property	**Description**
Properties tab	
Name	Name of this shared voice segment. Mandatory and must be unique within the contact center.
add	Click **add** to upload a voice message for this segment. Select the **Language** in which of the voice message is recorded. Provide a **Description** of the message, e.g., the text of the message itself. Click **upload** and select the voice file with the message. The message must be encoded in uncompressed PCM A-law or μ-law 16-bit format.
	You will see the voice message identified by its language and description in the list.
	Repeat the steps above for the same message in other languages. You can use the mouse-over operation to edit or delete specific voice messages within the segment.
Associations tab	
List of associations	Lists the scenarios where the selected shared voice segment is currently used.

13.10   Voicemail

ServicePattern supports a voicemail function. This function is enabled by default for non-service calls (calls made directly to user's extension numbers) for all softphone users when they are unreachable (logged out), busy, or do not answer an incoming call for a specified amount of time. Forwarding to voicemail can be disabled for any individual user and for any of the above conditions separately via changing the corresponding *Forwarding* options of user's extension (softphone or hardphone). For more information, see sections *Softphones* and *Hardphones*. Note that for hardphones forwarding of any type is by default disabled.

Recorded voicemail messages are delivered to the user as email attachments and can be played back using a general purpose media player.

To configure voicemail options, select the **Voicemail** option from the **Call Center Configuration** menu.

Call Center Configuration > Voicemail

The **Voicemail** screen properties are described in the following table:
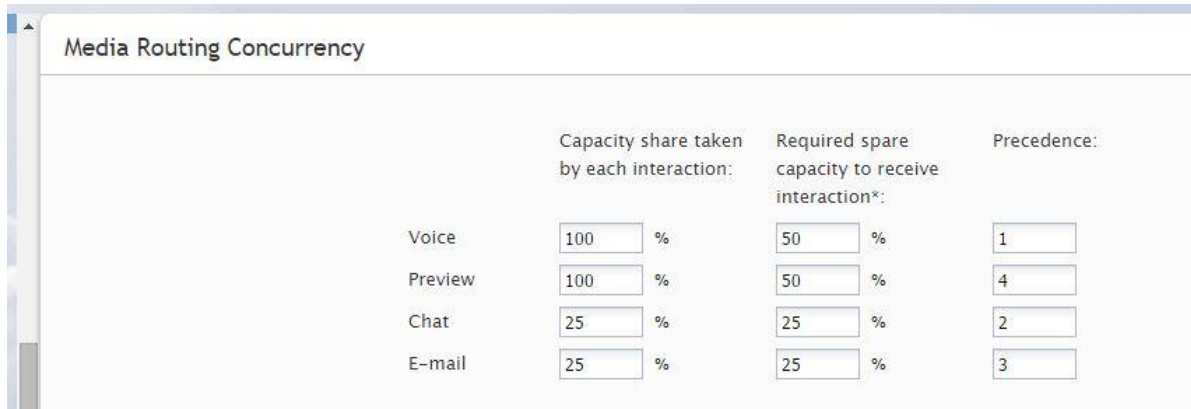
Voicemail screen properties	
Property	**Description**
Voicemail forwarding phone number	Extension number of the voicemail recording channel. The default value is 8888. Unless you need to use this number for other purposes, you do not need to change it.
	Be especially careful about changing this number after some users have been defined in your configuration since changing of the voicemail number does not affect forwarding settings of the existing extensions.
Voicemail forwarding timeout	The default timeout for forwarding of unanswered calls to voicemail. The default value is 15 seconds. Note that changes in this setting will be applied by default to new users' extensions only.
Default greeting	This option allows you to upload a default voicemail greeting. This message will be used as a greeting for users who do not have their personal voicemail greetings set up (see section *Users* for more information).
	Click **upload** and select a voice file with the default greeting. The greeting must be encoded in uncompressed PCM A-law or μ-law 16-bit format.

13.11   Media Routing Concurrency

ServicePattern enables contact center agents to processing of multiple interactions of different media types simultaneously. Agent's availability to handle an interaction is determined via a capacity model that takes into account how much of the agent's capacity is occupied by interactions of various media

types that the agent is already handling, how much spare capacity the agent must have to be delivered an interaction of the given media type, and relative priority of the given media type.

To agent capacity, select the **Media Routing Concurrency** option from the **Call Center Configuration** menu.

Call Center Configuration > Media Routing Concurrency

The **Media Routing Concurrency** screen properties are described in the following table:

Media Routing Concurrency screen properties	
Property	**Description**
Capacity share taken by each interaction	Percentage of total agent capacity occupied by a single interaction of the given media type. E.g., according to the default settings, an agent handling a single call will be 100% busy, while an agent handling a single chat session will have 75% spare capacity (i.e., 100 – 25).
	For multimedia interactions such as rich contact, the total capacity share is the sum of capacity shares of all media types involved.
Required spare capacity to receive interaction	Percentage of spare capacity the agents must have to be delivered an interaction of the given media type. E.g., according to the default settings, an agent handling three service chats may still receive another chat or an email since his spare capacity of 25% (i.e., 100 – 25*3) is sufficient to get one more chat or an email.
Precedence	The order in which interactions of the given media type will be distributed to agents relative to interactions of the other media types (i.e., when competing for the same available agent). E.g., according to the default settings, if an agent becomes simultaneously available for a chat and an email interaction waiting in queue, the chat interaction will be delivered to him first, regardless of how long either of those interactions has been waiting in queue.
	This parameter should not be set to the same value for different media types.

13.12 Chat Settings

Chat settings specify system response to the situation when a customer involved in a chat session with an agent becomes inactive.

To configure system response, select the **Chat Settings** option from the **Call Center Configuration** menu.

Call Center Configuration > Chat Settings

The **Chat Settings** screen properties are described in the following table:

Chat Settings screen properties	
Property	**Description**
Customer Inactivity Timeout	Period of time that the system will wait for a chat response from the customer before closing his chat session. The default value is 10 minutes.
Inactivity warning message	Text of the inactivity warning message that the customer will receive before his chat session will be closed automatically unless he resumes chatting. This message is sent at half the time of the specified inactivity timeout. I.e., if the *Customer Inactivity Timeout* is set to 14 minutes, this warning message will be sent in 7 minutes.
Inactivity timeout message	Text of the message that the customer will receive after automatic closure of his chat session upon expiration of the *Customer Inactivity Timeout*.

13.13   Email Settings

This menu contains various setting related to email communications. Note that in addition to customer interactions, email in ServicePattern is used for various auxiliary tasks such as sending transcripts of chat sessions, password reset instructions, scheduled reports, and voicemail audio files. To configure email settings, select **Email Settings** from the **Call Center Configuration** menu.

Note the following:

- Except for the SMTP settings, configuring the system to send voicemail attachments is done via scenarios. The *Voice Mail* scenario template can be used to facilitate this process. For more information see section *Scenarios* of this guide and the description of the *EMail* block in *ServicePattern Scenario Builder Reference Guide*.

- Except for the SMTP settings, configuring the system to send scheduled reports via email is done via the reporting settings. For more information, see section *Scheduled Reports*.

- Except for the SMTP settings and chat transcript template, configuring the system to email chat transcripts is done via scenarios. Note that the *EMail* scenario block is not used for this purpose. Rather, sending a chat transcript email is triggered by setting variable *$(item.sendTranscript)* to *1* in the chat scenario. You can see an example of such configuration in the *Support Chat* scenario template.

Email Header and Footer

This section relates to customer email interactions and lets you define a mandatory standard messages that will be inserted above (the header) and/or below (the footer) the main text of each email that is sent to a customer. Some examples of such messages are references to case numbers, legal disclaimers, and company's contact information. Note that headers and footers are not applied to automatic replies sent to acknowledge receipt of incoming mail.

To configure these messages, select option **Email Header and Footer** from the **Email Settings** menu.

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Email Settings > Email Header and Footer

The **Email Header and Footer** screen properties are described in the following table:

Option	Description
Language	Select the language of the header and footer message. Note that you can define the header and footer in multiple languages. The system will automatically insert the version corresponding to the language of the main text of the email.
Header	Type the text of the message that should appear above the main text of all emails sent to customers.
Footer	Type the text of the message that should appear below the main text of all emails sent to customers.

Option	Description
Insert $()	Menu of substitution fields that can be inserted in the header and footer messages. Except for *$(cursor)*, the same substitution fields that are used in Knowledge Base articles can also be used in headers and footers. See section *Knowledge Base* for more information.
Remove	Use this button to remove the header and footer in the selected language.

SMTP Configuration

This section contains settings for connection to the SMTP server used for auxiliary email communications, including transcripts of chat sessions, password reset instructions, scheduled reports, and voicemail audio files. Note that this section is not used to configure SMTP for the outbound customer email interactions. For the latter, email scenario entries are used. See section *Scenario Entries > Email* for more information.

To configure SMTP connection settings, select **SMTP Configuration** from the **Email Settings** menu.

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Email Settings > SMTP Configuration

The **SMTP Configuration** screen properties are described in the following table:

Option	Description
SMTP server hostname	SMTP server host name.
SMTP server port	SMTP server port.
Use secure connection	Indication whether a cryptographic protocol (TLS or SSL) will be used to secure this connection.
Server requires authentication	Indication whether client authentication is required for the SMTP server.
Username	User name for SMTP client authentication. Must be specified if the *Server requires authentication* option is selected.
Password	Password for SMTP client authentication. Must be specified if the *Server requires authentication* option is selected.

Option	Description
Check settings	Use this button to verify the correctness of your SMTP settings.

Password Recovery Template

To configure a template for password reset instructions, select **Password Recovery Template** from the **Email Settings** menu.

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Email Settings > Password Recovery Template

The **Password Recovery Template** screen properties are described in the following table:

Option	Description
Sender display name	Name that will appear in the *From* field of the emails with password reset instructions. This setting is mandatory for sending emails with password reset instructions.
Sender email address	Email address that will appear in the *From* field of the emails with password reset instructions. This setting is mandatory for sending emails with password reset instructions.
Subject	Text that will appear in the *Subject* field of the emails with password reset instructions.
Message	Text that will appear in the body of the emails with password reset instructions. You can use the following variables in this text: *$(FIRST)* for the first name of the email recipient, *$(LAST)* for the last name of the email recipient, *$(LOGIN)* for recipient's username, and *$(LINK)* as a placeholder for password recovery link.

Chat Transcript Template

To configure a template for chat transcripts, select **Chat Transcript Template** from the **Email Settings** menu.

Email Settings > Chat Transcript Template

The **Chat Transcript Template** screen properties are described in the following table:

| Option	Description
Sender display name	Name that will appear in the *From* field of the emails with chat transcripts. This setting is mandatory for sending emails with chat transcripts.
Sender email address	Email address that will appear in the *From* field of the emails with chat transcripts. This setting is mandatory for sending emails with chat transcripts.
Subject	Text that will appear in the *Subject* field of the emails with chat transcripts.
Message	Text that will appear in the body of the emails with chat transcripts. You can use the following variables in this text: *$(FIRST)* for the first name of the email recipient, *$(LAST)* for the last name of the email recipient, *$(LOGIN)* for recipient's username, *$(CHAT_TRANSCRIPT)* for chat transcript, *$(TENANT_NAME)* for your business name.

14 Quality Management

14.1 Grading Categories

In contact centers, quality management refers to the process of evaluation of agent performance based on review of call recordings, chat transcripts, and email replies. You can define up to ten different categories of evaluation. These categories will be available to contact center personnel during the interaction review process. For more information, see *ServicePattern Reporting Reference Guide*, section *Quality Management*.

To view and edit evaluation categories, select **Grading Categories** from the **Quality Management** menu.
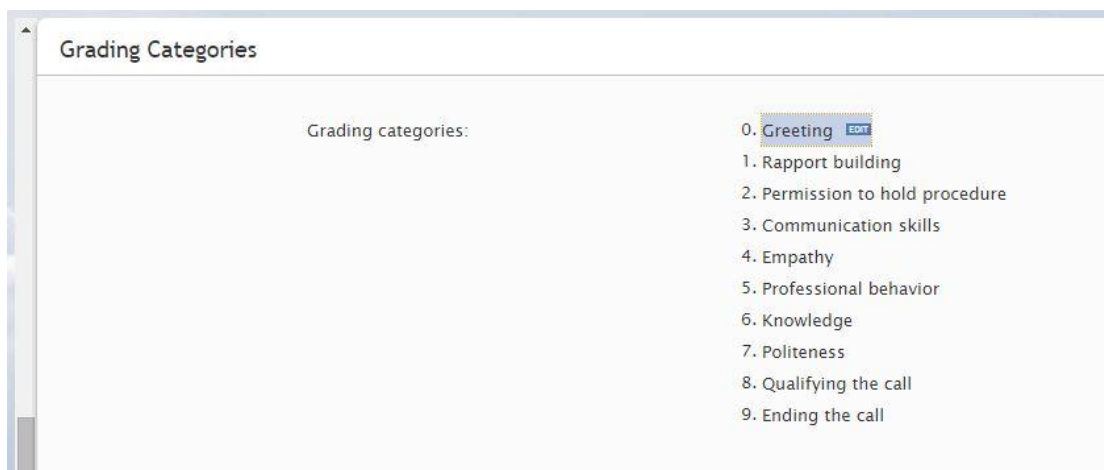
Quality Management > Grading Categories

ServicePattern provides a set of default categories. To change a default category, hover over it and click **EDIT**.

14.2 Call Recording

For text-based services, the system unconditionally stores all chat transcripts and emails for the period of time agreed upon with your service provider. For voice services, you can set percentage of calls that will be recorded relative to all calls of your contact center (i.e., both internal and service calls).

To set percentage of recorded calls, select **Call Recording** from the **Quality Management** menu.
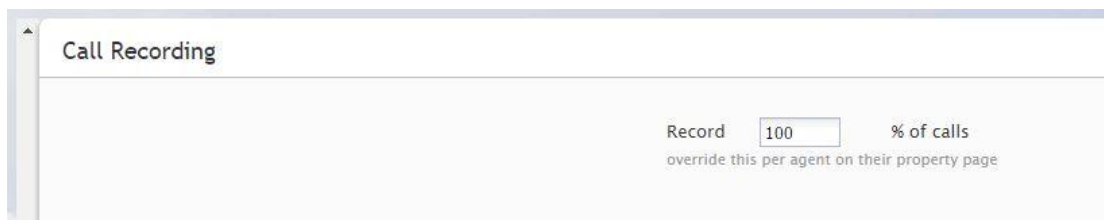
Quality Management > Call Recording

By default, calls are not recorded. To set a percentage, enter the desired value in the **Record** field.

Note that you can set percentage of recorded calls individually for each user. These user-level settings will override the contact center setting for the corresponding users. See section *Users* for more information.

Also note that you can set percentage of recorded service calls individually for specific services. These service-level settings will also override the contact level setting for the corresponding services. See section *Services and Campaigns* for more information.

Stored recordings of service calls can be automatically exported out of the system on regular intervals. For more information, see section *Services and Campaigns*.

14.3   Screen Recording

ServicePattern can capture videos of agents' desktop screens during their working sessions and store them for subsequent viewing. Such videos can be used for quality management and training purposes. The system can be configured to record complete agents' working sessions or only the times when they handle interactions. For more information about viewing, see section *Interaction Records* of the *ServicePattern Reporting Reference Guide*.

Note that before you can use screen recording capability, it must be enabled for your contact center at the service provider level. Even if this capability is enabled, the space allocated for storage of screen recordings may be limited by the service provider. It is recommended that you use the options below to enable screen recording only for your planned quality management and/or training tasks (i.e., recording sessions of individually selected agents and interactions specific to a selected service) and disable them as soon as those tasks are completed.

To configure screen recording settings, select **Screen Recording** from the **Quality Management** menu.

Quality Management > Screen Recording

The **Screen Recording** screen properties are described in the following table:

| Screen Recording screen properties	
Property	**Description**
Record complete login sessions of all agents	Select this checkbox if you intend to record all login sessions of all agents of your contact center. Because the space allocated for storage of screen recordings may be limited, you should consult your service provider before enabling this option.

Screen Recording screen properties	
Property	Description
Login sessions of all agents of these teams	The system will perform screen recording of complete login sessions of all members of the teams you select here.
Login sessions of these agents	The system will perform screen recording of complete login sessions of the individual agents you select here.
Interactions associated with these services	Screen recording will be performed only when agents handle interactions associated with the services you select here. The recordings will include after-call work phase of interaction handling.
	You can select services of any media types. For emails recording will be performed only when emails are actively handled at the agent desktop and not when they are saved as drafts in agents' personal queues.

14.4   Encryption

Recordings and transcripts of all your contact center interactions can be encrypted the whole time they are stored in the system. When you export any encrypted items out of the system, they are decrypted for export. For more information about keys used for encryption, see section *Encryption Key Management*.

Before you can use the encryption capability, it must be enabled for your contact center at the service provider level.

To enable encryption, select **Encryption** from the **Quality Management** menu and check the items that you intend to store encrypted. Note that encryption of call recordings is configured for each service separately. For more information, see section *General Service Configuration*.
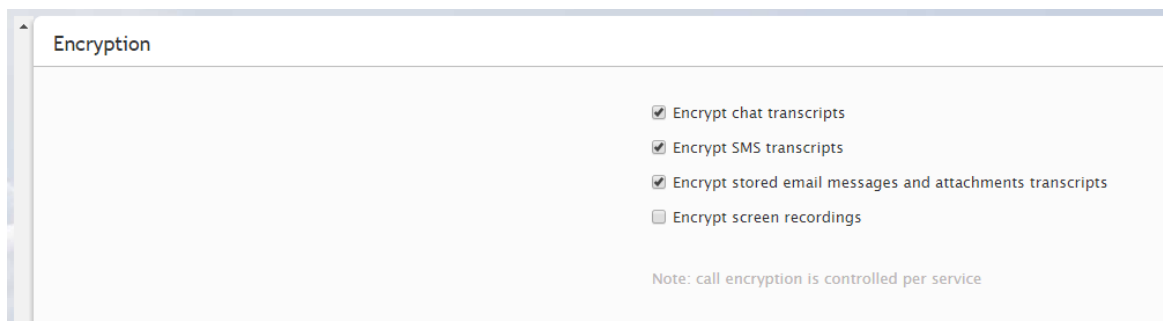
Quality Management > Encryption

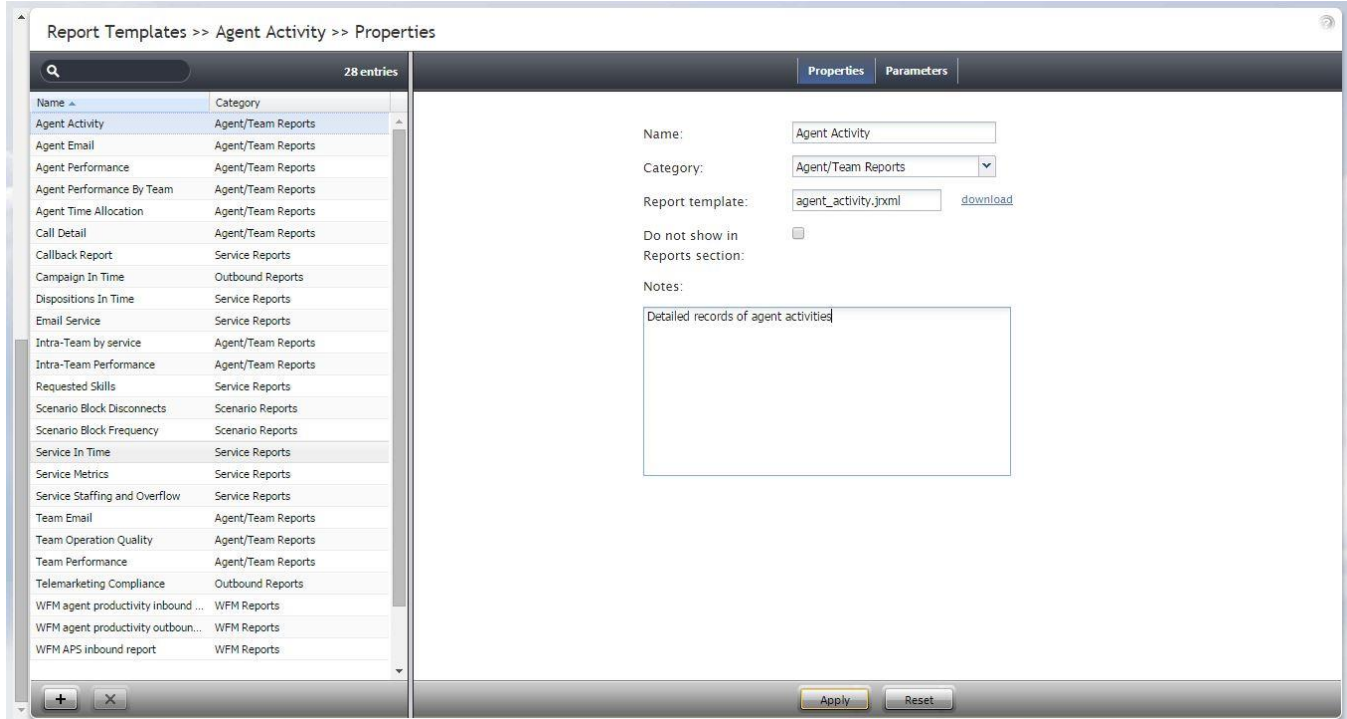# 15 Reporting

15.1 Report Templates

ServicePattern provides a number of reports for evaluation of performance of agents and agent teams as well as assessment of efficiency of contact center services and scenarios. These reports are developed using the JasperReports reporting tools. They can be generated and viewed directly in the Contact Center Administrator application. For detailed information about the metrics provided in these reports, see *ServicePattern Reporting Reference Guide*.

If these pre-defined reports do not completely cover the reporting needs of your contact center, you can create custom reports. A detailed description of the historical data that is collected and stored in the of the ServicePattern Reporting Database, that you would need to create such reports, can be found in *ServicePattern Reporting Database Specification*.

Any SQL-based reporting application can be used to create, generate, and view custom reports. However, using the JasperReports application to create your custom reports would enable you to:

- re-use the pre-defined report templates making modifications where necessary, and

- generate and view such reports directly in the Contact Center Administrator application in the same way that you generate and view the pre-defined reports.

To work with the pre-defined and JasperReports-based custom report templates, select the **Report Templates** option from the **Reporting** menu.

Reporting > Report Templates

The pre-defined as well as previously uploaded custom report templates will appear in the list view. Click the button with the "+" sign to define and upload a new report template.
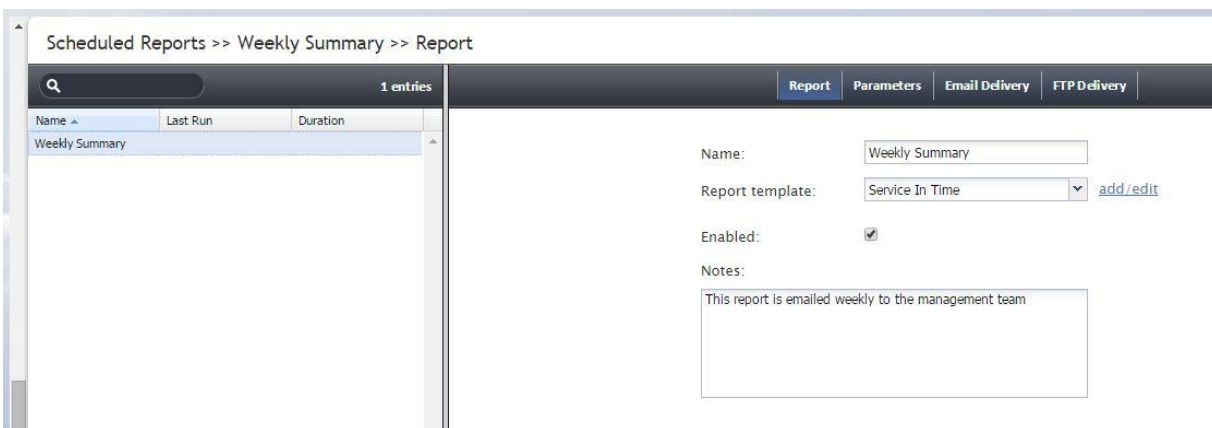
The **Report Templates** screen properties are described in the following table:

Report Templates screen properties	
Property	**Description**
Report tab	
Name	Assign a name to this report template. This parameter is mandatory.
Category	Select the report category. This parameter is mandatory. If your custom report does not logically fit in any of the available categories, you can define a new category by selecting the **Manage categories** option.
Report template	When you define a new template, click **upload** to upload the report template file. This file must be generated by the JasperReports software and have the *.jrxml* extension. If you wish to create a new custom report via modification of an existing template, you can export the desired template by selecting it from the list and clicking **download**.
Don not show in Reports section	Indication of whether this report shall appear in the menu of reports available for generation and viewing in the Contact Center Administrator application. You can select this option if the given report is only intended for scheduled generation and distribution. See section *Scheduled Reports* for more information.
Notes	Use this field to provide additional information about this report, e.g., its main purpose and intended audience.
Parameters tab	
Report Parameters	List of parameters that must be specified for generation of this report. Read-only.

15.2   Scheduled Reports

ServicePattern supports automatic generation of reports and their delivery to specified destinations as email attachments and/or via FTP.

To define report generation schedules and specify the delivery methods and destinations, select the **Scheduled Reports** option from the **Reporting** menu.

Reporting > Scheduled Reports

The **Scheduled Reports** screen properties are described in the following table:

Scheduled Reports screen properties	
Property	**Description**
Report tab	
Name	Assign a name to this report generation schedule. This parameter is mandatory.
Report template	Select the type of report that will be generated. For more information see *ServicePattern Reporting Reference Guide*.
	ServicePattern provides two reports for use with the scheduling functions of the Aspect Workforce Management application. Names of these reports begin with *WFM*. For complete specifications of these reports, please refer to the Aspect Workforce Management documentation. These reports should be scheduled for selected agent teams with the *Time frame* parameter set to *Today*, and the *Recurrence* parameter set to *Hourly*. See the description of the *Parameters* tab below for more information.
Enabled	Select this checkbox to enable report generation and delivery according to the specified schedule.
Notes	Use this field to provide additional information about this report generation schedule, e.g., intended audience.
Parameters tab	
Recurrence	Select the recurrence pattern. Each pattern has a specific set of parameters that are explained below.
	Hourly recurrence is typically used for periodic automated data feed into systems that process statistical data, such as workforce management applications. Note that an hourly report runs when data aggregated for the full previous hour becomes available; thus hourly reports will always be generated with some delay.
Run at	This setting is available for all but the *Hourly* recurrence pattern. It specifies the time of day when the given report will be generated.
Repeat every	This setting is available only for the *Hourly* and *Daily* recurrence patterns and should normally be used with the *Time frame* parameter set to *Today*. It specifies how often the given report will be generated. For the *Hourly* recurrence, it is set for continuous updates with the period of one hour, a half-hour, or 15 minutes. For the *Daily* recurrence, it is used to generate reports with the desired frequency between the times specified by settings *Run at* and *Repeat until*.
	To generate the given report once, select *Run once*.
Repeat until	This setting is available only for the *Daily* recurrence pattern. It specifies until what time periodic updates for the given report shall be generated. It should normally be used with the *Time frame* parameter set to *Today*.
Days of the week	These checkbox settings are available only for the *Weekly* recurrence pattern. Use them to specify the day(s) of the week when the given report will be generated.
Run on	This setting is available only for the *Monthly* recurrence pattern. Use it to specify the day of the month when the given report will be generated.

Scheduled Reports screen properties	
Property	**Description**
Time frame	Select the desired reporting time frame. For example, if it is your practice to start your day with reviewing results of the previous day, select the *Yesterday* time frame, set recurrence to *Daily*, set *Run at* to *3:00 AM*, and set *Repeat every* to *Run once*.
	To request a report for a specific time interval within a day, select a day time frame (*Today* and *Yesterday*) and use the *From* and *To* fields to specify the desired interval. This may be convenient if you need to get separate reports for different contact center shifts. To get a report for a shift that begins before, and ends after, midnight, select time frame *Yesterday*, and set the desired start time in the *From* field and the desired end time in the *To* field (you will see *+1 day* next to the hours as an indicator that is an overnight shift).
	To request a multi-day report of an arbitrary duration, set the time frame to *Last N days* and specify the desired number of days. Note that this option lets you obtain a weekly report on any 7-day cycle, as opposed to a calendar week.
Time interval	This setting is available only for a subset of the reports that compare metrics over time, i.e., over a number of subintervals within the specified *Time frame*. (E.g., a daily Disposition in Time report can be requested with an hourly or 30-minute breakdown.) Use this setting to select the desired subinterval length.
Teams	For team-based report template, you can select the team(s) that will be included in the generated reports.
Services	For service-based report template, you can select the service(s) that will be included in the generated reports.
Email Delivery tab	
Deliver report via email	Select this checkbox if the reports generated according to this schedule shall be delivered as email attachments.
Sender display name	Specify the name that will appear in the *From* field of the emails with report attachments.
Sender email address	Specify the email address that will appear in the *From* field of the emails with report attachments.
Subject	Specify the text that will appear in the *Subject* field of the emails with report attachments.
Message	Specify the text that will appear in the body of the emails with report attachments.
Format	Select the format of the report attachment.
Recipients	Click **edit** to select one or more email recipients. Note that a report recipient must be registered as a user in the contact center configuration and must have an email address specified in his profile. See section *Users* for more information.
FTP Delivery tab	
Deliver report via FTP/SFTP	Select this checkbox if the reports generated according to this schedule shall be delivered via a file transfer protocol.
Format	Select the format of the report file.
Transport Protocol	Select the type of the transfer protocol to be used for report file delivery.
FTP URL with file name	Specify the address of the FTP site and file name.
FTP username	Specify the FTP username.
FTP password	Specify the FTP password.

15.3   Reporting Settings

The reporting settings control various general aspects of collection and retrieval of reporting data. For settings related to specific reports, see section *Report Templates.*

To view and edit reporting settings, select **Reporting Settings** from the **Reporting** menu.

Reporting > Reporting Settings

The **Reporting Settings** screen properties are described in the following table:

Reporting Settings screen properties	
Property	**Description**
Reset time for daily statistics	Sets the time when the statistical day in your contact center begins, i.e., the moment when all statistics accumulated for a day will be stored for historical reporting and reset to zero values. Most of the cumulative real-time metrics are calculated since the reset time. For more information, see *Appendix* to the *ServicePattern Supervisor Guide.*
	If possible, select the time when all services of your contact center are normally closed. For 24/7 operations, select the time when you expect the least amount of service interaction traffic.
Historical Reporting Database	Provides information that you need in order to access your Reporting Database directly, e.g., if you intend to use a third-party reporting tool for custom reporting or ad-hoc queries. These settings are initially configured at the service provider level. The **Database server** hostname, the **Database name**, and the **Username** cannot be changed. You can change the **Password**, and then use the username with this new password for direct access to the database. Note that the access is read-only.

16 Security

16.1   Security Policy

Your system can be configured to automatically lock out a user account after a number of unsuccessful login attempts. An account locked-out in this manner can be subsequently unlocked either manually or automatically after a configured timeout.

You can also configure the system to force your users to change their passwords after a specified number of days, prevent them from submitting previously used passwords, and automatically disable inactive accounts.

Note that your service provider may also impose some password complexity rules, such as minimum password length, mandatory use of various character groups, and exclusion of weak passwords (e.g., usernames). If any such rules are imposed, you cannot change them. Get description of these rules from your service provider and inform your personnel about them.

To configure security policy settings, select the **Security Policy** option from the **Security** menu.

Security > Security Policy

The **Security Policy** screen properties are described in the following table:

| Security Policy screen properties	
Property	**Description**
Enable lockouts	Indicates whether the account lockout option is enabled. To comply with the PCI DSS security standard, this option shall be enabled.
Maximum login attempts	Number of consecutive unsuccessful login attempts after which the account will be locked out. To comply with the PCI DSS security standard, set this parameter to at least 6 attempts.
Reset attempt count after	The amount of time after which the counter of unsuccessful login attempts will be reset.

Security Policy screen properties	
Property	**Description**
Lockout duration	The amount of time after which a locked-out account will be unlocked automatically. To disable auto-unlocking set this parameter to "0" – in this case locked-out accounts can only be unlocked manually. See section *Users* for more information.
	To comply with the PCI DSS security standard, set this parameter to at least 30 minutes.
Password history	This section allows you to prevent the user from submitting a new password that is the same as any of the specified number of previous passwords that he used.
	To comply with the PCI DSS security standard, select the checkbox and set the number to 4 (or greater).
Expiration policy	This section allows you to specify (1) how often users will be required to change their passwords and (2) after how many days inactive user accounts will be disabled.
	To comply with the PCI DSS security standard, set both parameters to no more than 90 days.

16.2   Encryption Key Management

ServicePattern supports optional encryption for various data elements that may contain sensitive information about your customers. This includes voice and screen recordings, chat and SMS transcripts, and email texts and attachments. For more information about enabling encryption for these data elements, see section *Encryption*. Custom fields of calling lists and activity forms can also be encrypted. For more information, see section *Lists* of this document and section *Field* of the *ServicePattern Form Builder Reference Guide* respectively.

Before you can use the encryption capability, it must be enabled for your contact center at the service provider level. When this capability is enabled, a data encryption key will be generated automatically by the system. You can manually generate a new encryption key at any time.

To generate a new data encryption key, select the **Encryption Key Management** option from the **Security** menu and click the **Generate a new encryption key** button.
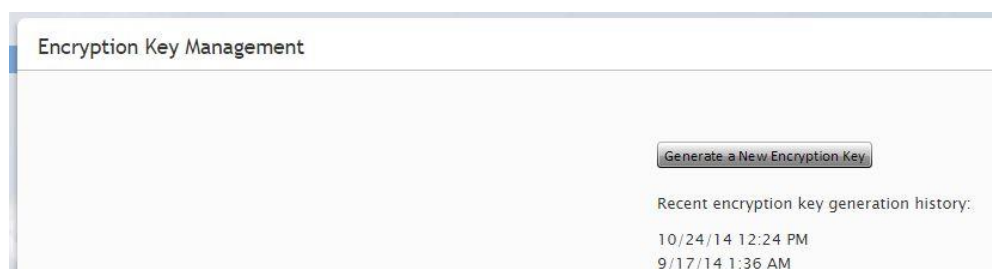
Security > Encryption Key Management

Old encryption keys are stored in the system; they are used to decrypt the data that was encrypted using those keys. You can view the date and time of generation of the current and previous keys.

Note that in compliance with various data security standards, data encryption keys themselves are encrypted with a key encryption key (KEK), which is stored separately.

When you export any encrypted items out of the system, they are decrypted for export.

16.3   Audit Log

ServicePattern keeps track of all changes applied to the contact center configuration by all users. You can view information about these changes using the audit log function. The audit log also includes information about every attempt to log into the Contact Center Administrator application as well as every instance of access to voice and screen recordings.

Note, that in order to view the audit log you must be assigned a role that has the *View Audit Log* privilege. By default, only the *Service Administrator* and *System Administrator* roles have such a privilege.

To view the log, select **Audit Log** option from the **Security** menu. The upper area of the application pane will display various filter options that you can use to define your search criteria.

Security > Audit Log

The **Audit Log** screen filtering section properties are described in the following table:

Audit Log filters	
Property	**Description**
From/To	Returns records about the operations that happened within the specified time interval. Leave the **To** field blank if you want to get all records till the present moment.
Who	Returns records about the operations performed by the specified user.
What	Returns records about the operations applied to the resource with the specified name. This filter should normally be used in combination with filter *Type*.
Operation	Returns records about the operations of a particular type (add, delete, update, etc.).
Type	Returns records about the operations with the resources of a particular type (service, user, etc.)
Screen	Returns records about the operations with resource properties that are defined in a particular screen. When you select the resource type using filter *Type* above, this option will display only the screens that are used to edit properties of the resources of the selected type.

Clicking **Reset** will set all the filter options to their default values. The default search returns log records about all operations applied to your contact center configuration in the last seven days.

Once the filter options are specified, click the **Filter** button to obtain the log records that meet your search criteria. The log records will be listed in the reverse chronological order. You can collapse the filter options temporarily to provide more room for viewing the results of the search.

The **Audit Log** screen properties are described in the following table:

Audit Log fields	
Property	**Description**
When	Time stamp of the corresponding operation.
Who	Username of the person who performed the operation.
Screen	Name of the screen containing the specific resource property that the operation was applied to.
Type	Type of resource that the operation was applied to.
Item	Name or other unique identifier of the resource that the operation was applied to.
Operation	Type of the operation.
Summary	Provides details of the operation, i.e., the specific properties that were affected and, where applicable, the new values that were applied. If all summary information does not fit in the visible area of the table cell, you can mouse-over or click on that cell and view the entire *Summary* content in a pop-up window.

You can change the order in which log records are sorted using the drop-down menu that appears when you mouse-over the corresponding column header. The same menu also allows you to disable display of any column if you need to make more room to view content of other columns.