



Pulse Help

Pulse 8.5.1

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How do I generate real-time reports using Pulse?

Pulse is a Genesys Administrator Extension (GAX) plug-in application that enables at-a-glance views of real-time contact center statistics within the GAX graphical user interface. On the Pulse dashboard, widgets display user-defined Donut, Grid, Key Performance Indicator (KPI), or List charts of statistics for objects. You can view and select additional details and options by expanding a widget. Once maximized, you can choose a Stacked Bar, Grouped Bar, Grid or Line Chart view. You can also sort the data, select which objects to include, and edit the widget.

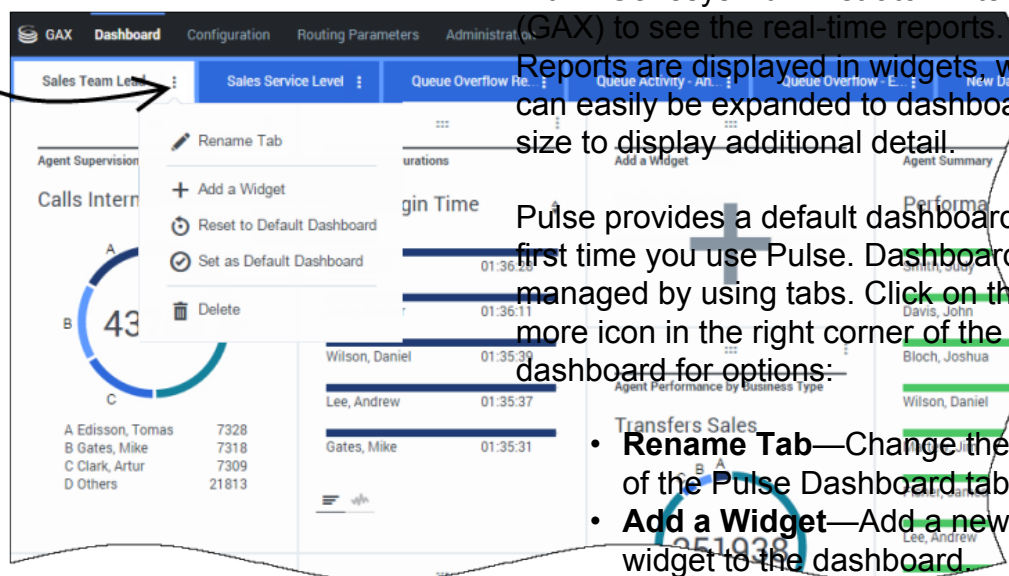
Important



You require the appropriate user privileges to perform actions.

How do I access Pulse real-time reports?

more icon



You can open the **Pulse** dashboard within Genesys Administrator Extension (GAX) to see the real-time reports.

Reports are displayed in widgets, which can easily be expanded to dashboard size to display additional detail.

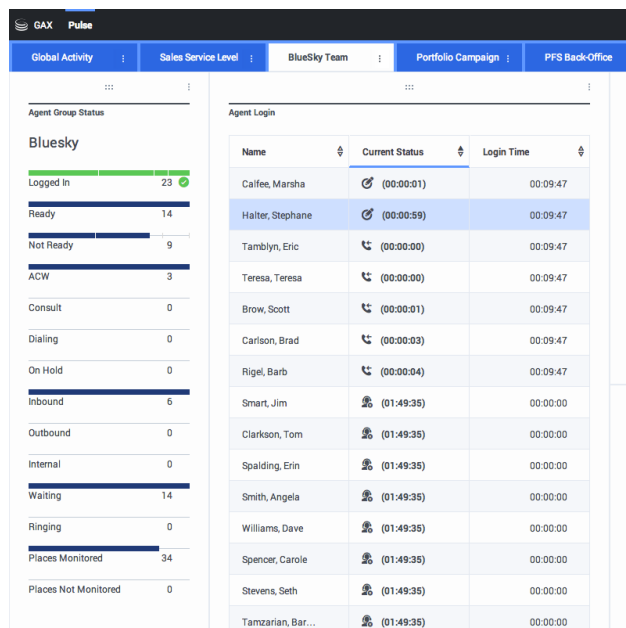
Pulse provides a default dashboard the first time you use Pulse. Dashboards are managed by using tabs. Click on the more icon in the right corner of the dashboard for options:

- **Rename Tab**—Change the name of the Pulse Dashboard tab.
- **Add a Widget**—Add a new widget to the dashboard

- **Reset to Default Dashboard**—Deletes all widgets and resets to the default dashboard.
- **Set as Default Dashboard**—Set the dashboard to be the default. Available to users with full privileges.
- **Delete**—Deletes the dashboard.

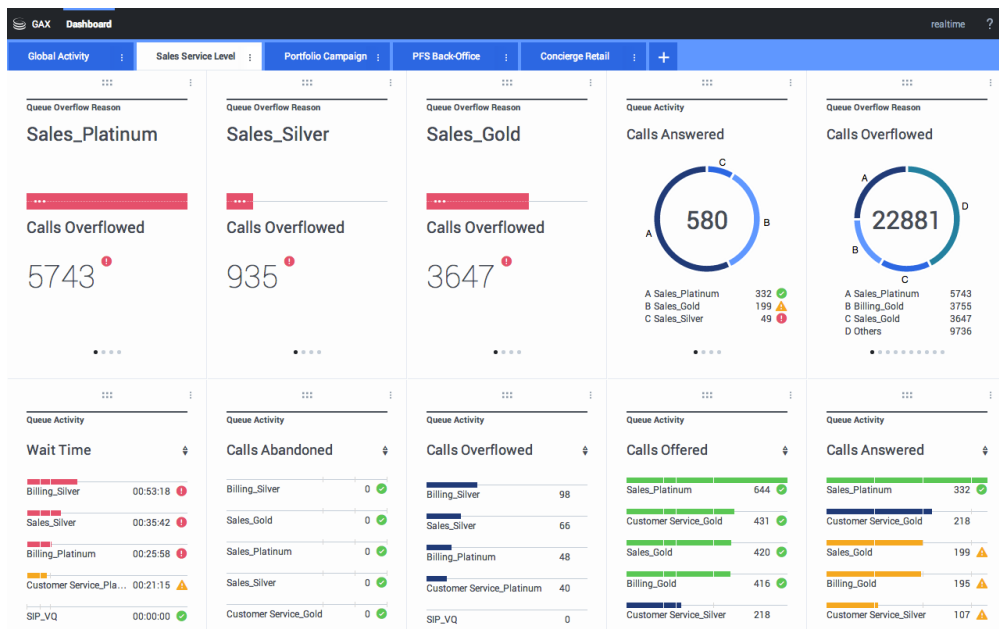
Pulse Dashboard Examples

[+] Sales team lead dashboard

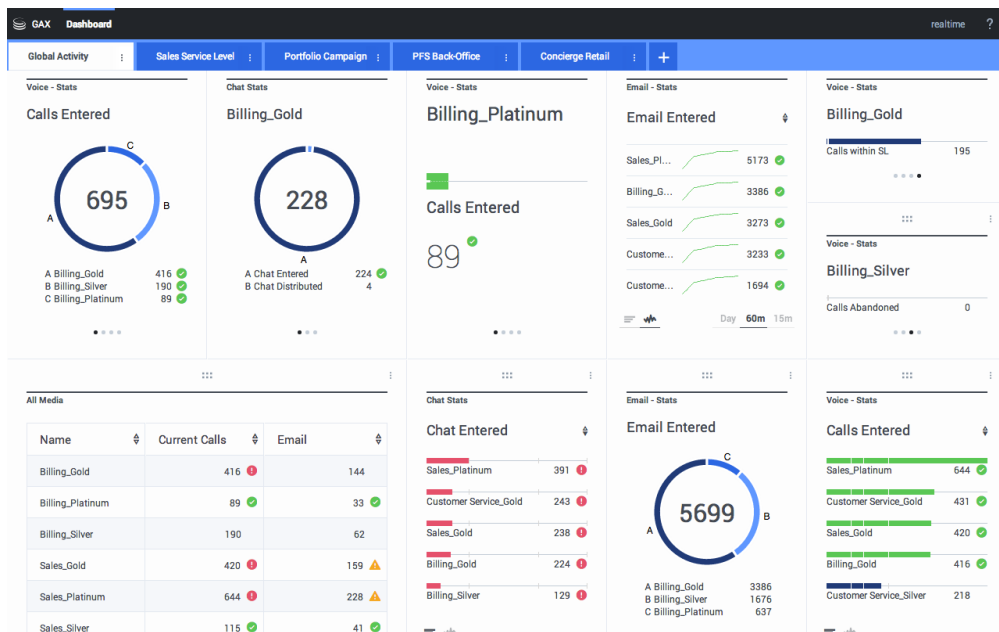


[+] Sales service level dashboard for a supervisor

How do I generate real-time reports using Pulse?

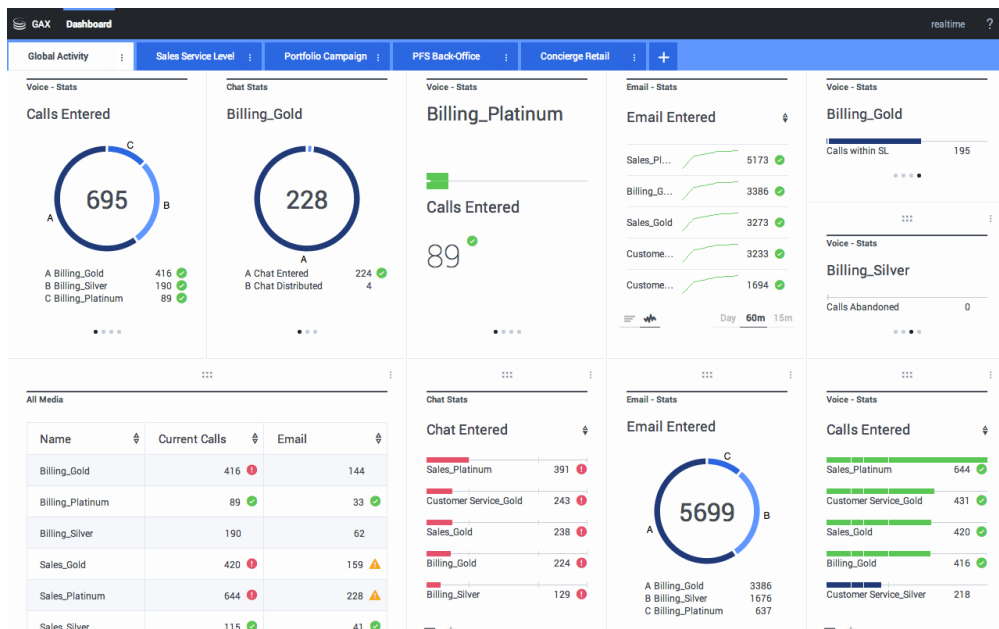


[+] Multi-channel dashboard for a supervisor

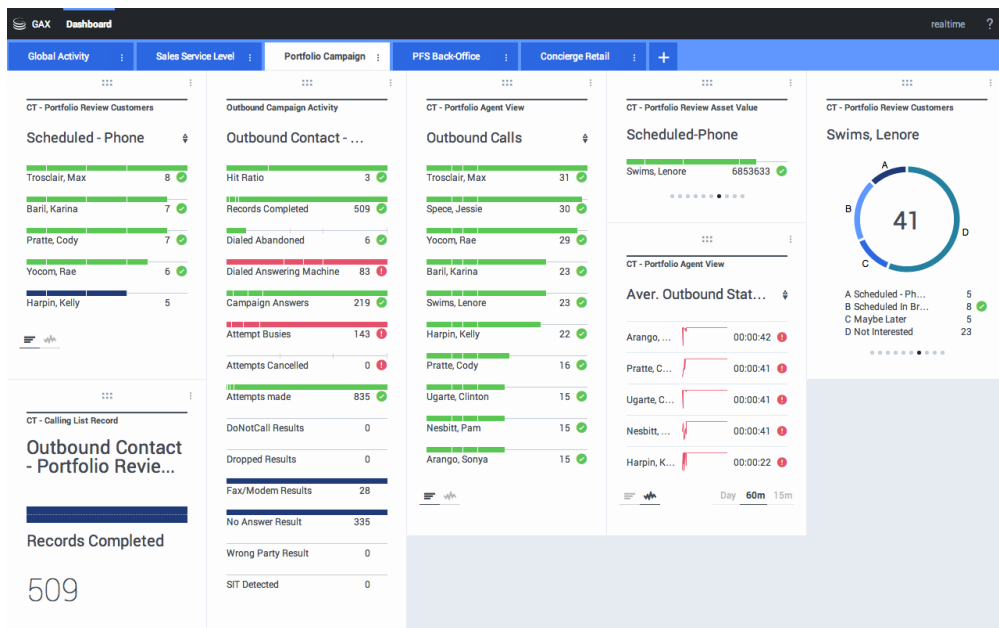


[+] User-defined dashboard for a supervisor

How do I generate real-time reports using Pulse?

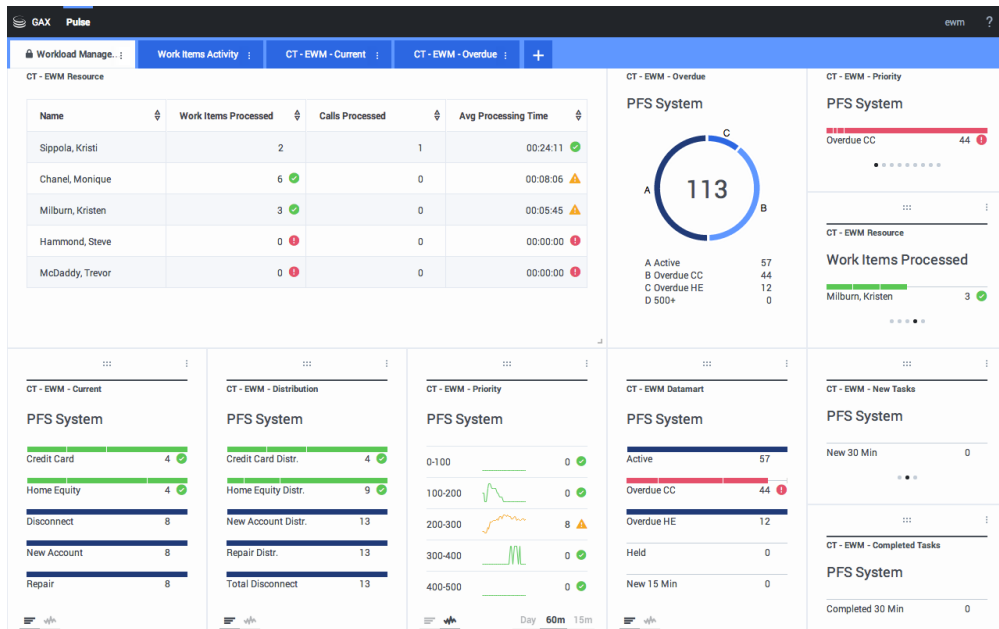


[+] Outbound campaign dashboard for a supervisor



[+] Back-office dashboard for a supervisor

How do I generate real-time reports using Pulse?



How do I use the report widgets on my dashboard?

Pulse widgets display Donut, Grid, Key Performance Indicator (KPI), Line, or List charts of key statistics for objects on your dashboard.

You can add new widgets to your dashboard.

You can perform the following actions on a widget:

- Clone
- Delete
- Edit
- Expand

How do I download report data?

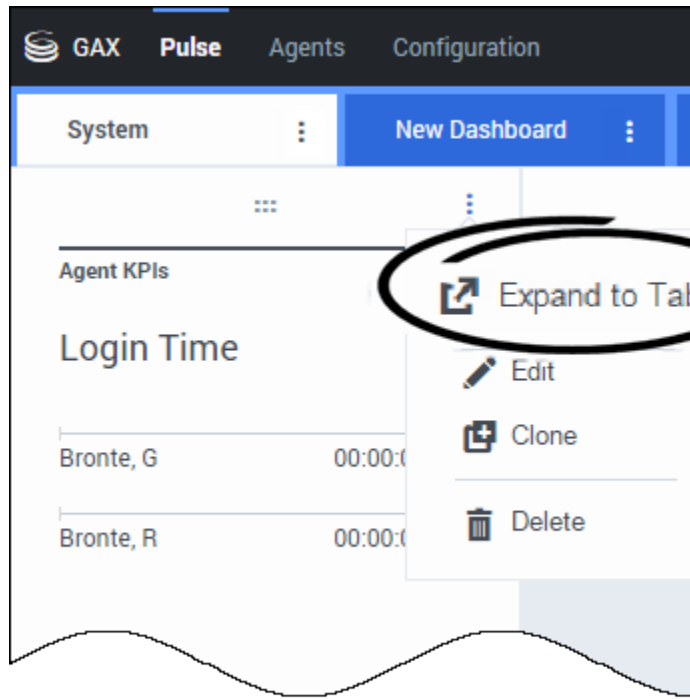
You can save the report data from an expanded widget as a CSV file. Click the more icon in the top right corner of an expanded widget and select **Download widget**.

How can I expand a report to fill the dashboard?

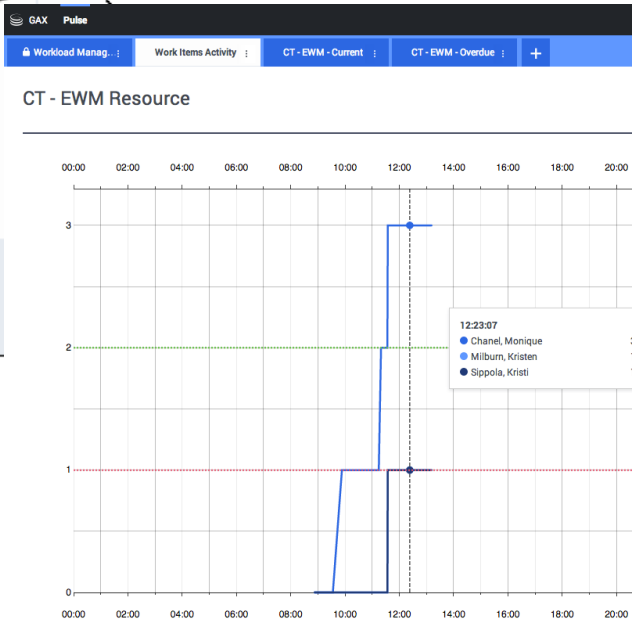
Click on the more icon in the top right corner of a widget and select **Expand to Tab** to see a detailed view of your report.

There are four chart types available in the expanded widget:

[+] Line

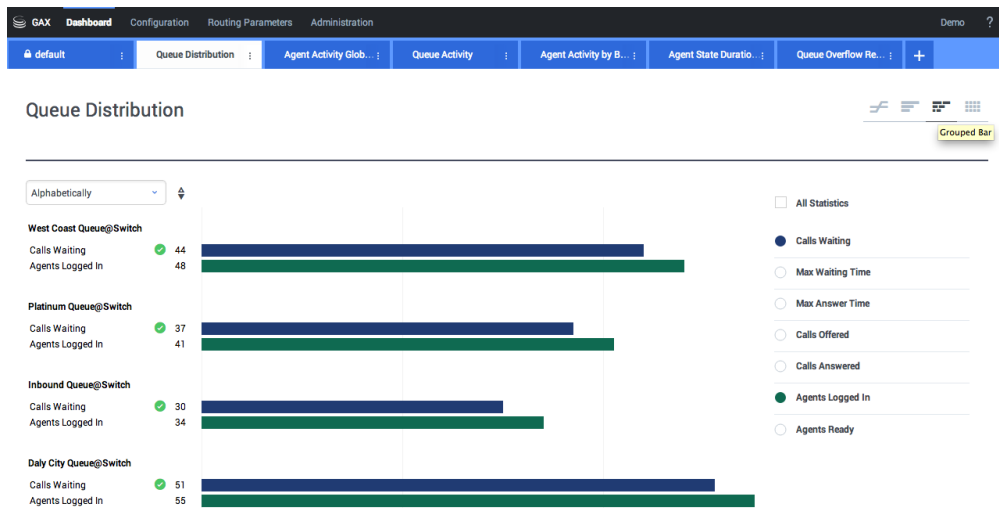


[+] Grouped Bar

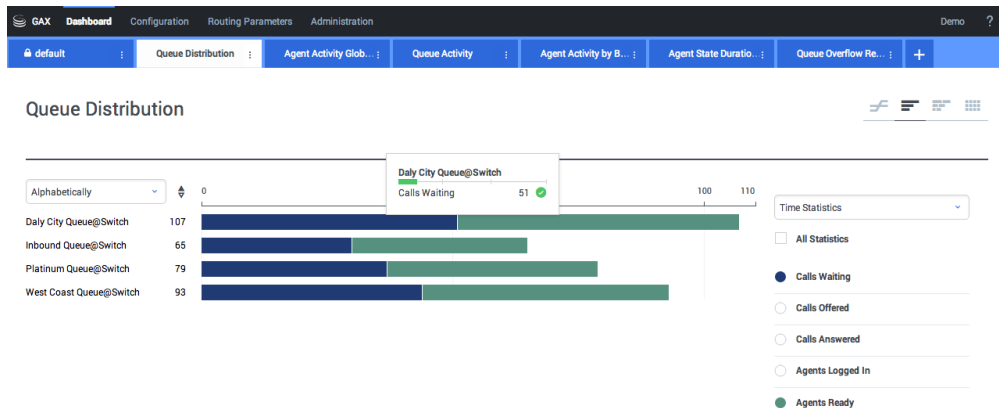


Time	Chanel, Monique	Milburn, Kristen	Sippola, Kristi
00:00 - 09:00	0	0	0
09:00 - 10:00	0	0	1
10:00 - 11:00	0	0	1
11:00 - 12:00	0	0	1
12:00 - 13:00	3	0	0
13:00 - 14:00	3	0	0
14:00 - 15:00	3	0	0
15:00 - 16:00	3	0	0
16:00 - 17:00	3	0	0
17:00 - 18:00	3	0	0
18:00 - 19:00	3	0	0
19:00 - 20:00	3	0	0

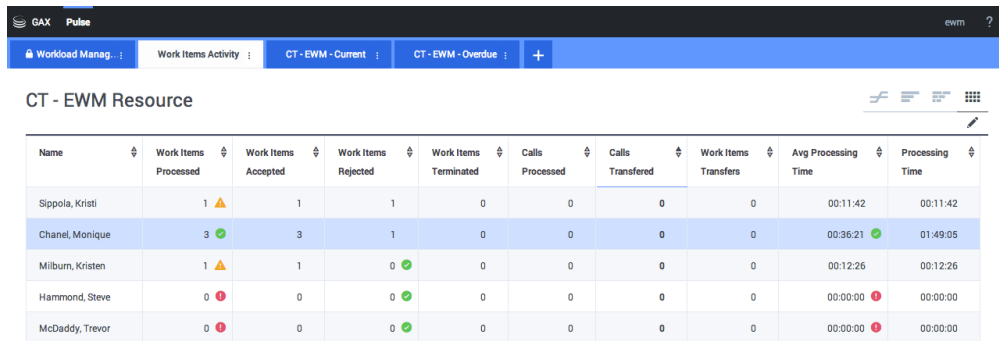
How do I generate real-time reports using Pulse?



[+] Stacked Bar



[+] Grid



The screenshot shows the Pulse application interface. At the top, there's a header with 'GAX Pulse' and a user profile 'ewm'. Below the header is a navigation bar with tabs: 'Workload Manag...', 'Work Items Activity', 'CT - EWM - Current', and 'CT - EWM - Overdue'. The 'CT - EWM - Current' tab is selected. Below the navigation bar, the title 'CT - EWM Resource' is displayed. To the right of the title are icons for filtering, sorting, and column management. Below the title is a table with 11 columns: Name, Work Items Processed, Work Items Accepted, Work Items Rejected, Work Items Terminated, Calls Processed, Calls Transferred, Work Items Transfers, Avg Processing Time, and Processing Time. The table contains 6 rows of data for different resources.

Name	Work Items Processed	Work Items Accepted	Work Items Rejected	Work Items Terminated	Calls Processed	Calls Transferred	Work Items Transfers	Avg Processing Time	Processing Time
Sippola, Kristi	1	1	1	0	0	0	0	00:11:42	00:11:42
Chanel, Monique	3	3	1	0	0	0	0	00:36:21	01:49:05
Milburn, Kristen	1	1	0	0	0	0	0	00:12:26	00:12:26
Hammond, Steve	0	0	0	0	0	0	0	00:00:00	00:00:00
McDaddy, Trevor	0	0	0	0	0	0	0	00:00:00	00:00:00

This expanded report opens within a new tab, so you won't impact your initial dashboard. You can rename your new tab by clicking on the more icon in the top right corner of the tab and select **Rename Tab**. From here, you can use sort options, define objects, and define statistics. Click the pencil icon to change the number of columns for the Grid.

How do I give users permission to customize their dashboard?

Your Pulse users might want to save any changes they make to their dashboards. You can enable this by granting them the proper permissions.

Allowing users to customize Pulse dashboards

Add the Person object

On the **Configuration Manager** page, under **Accounts**, go to **Persons** and find the User that you want to edit. On the **Permissions** tab, **Add the Person object** for this user. Once the Person object appears in the Permissions list, add both **Read** and **Update** permissions for this user.

Select these boxes

Don't forget to **Save** the permission before closing the window.

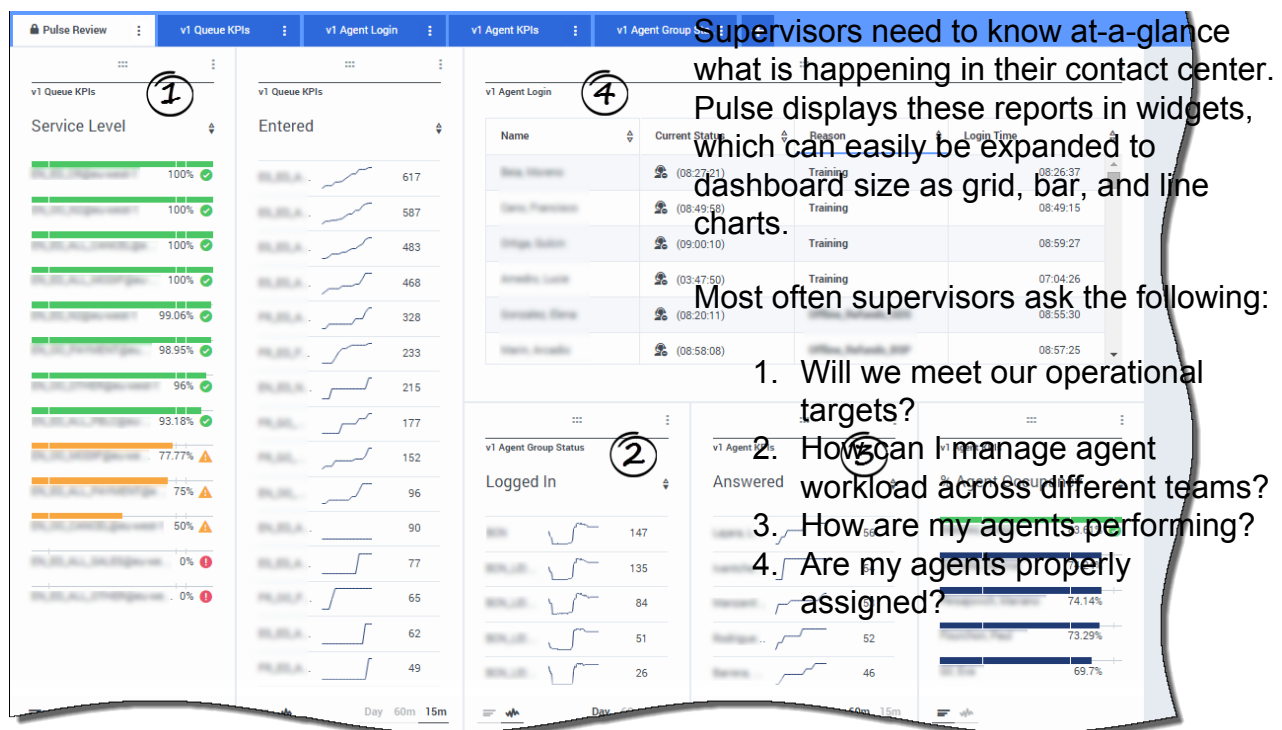
Do this for each user you want to enable.

Name	Tenant	Read	Update
Adam.Apple@company.com	Environment	<input type="checkbox"/>	<input type="checkbox"/>
Supervisors-TeamA	Environment	<input type="checkbox"/>	<input type="checkbox"/>
RPS Users	Environment	<input type="checkbox"/>	<input type="checkbox"/>
Managers-TeamA	Environment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DEVOPS Supervisors	Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
DEVOPS Pulse Only	Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>

What reports do I want to see?

You can include the popular real-time reports in your default dashboard, so you can quickly start monitoring your contact center. First you need to decide what you want to know about your contact center.

What do I want to see in my Pulse dashboard?



Will we meet our operational targets?

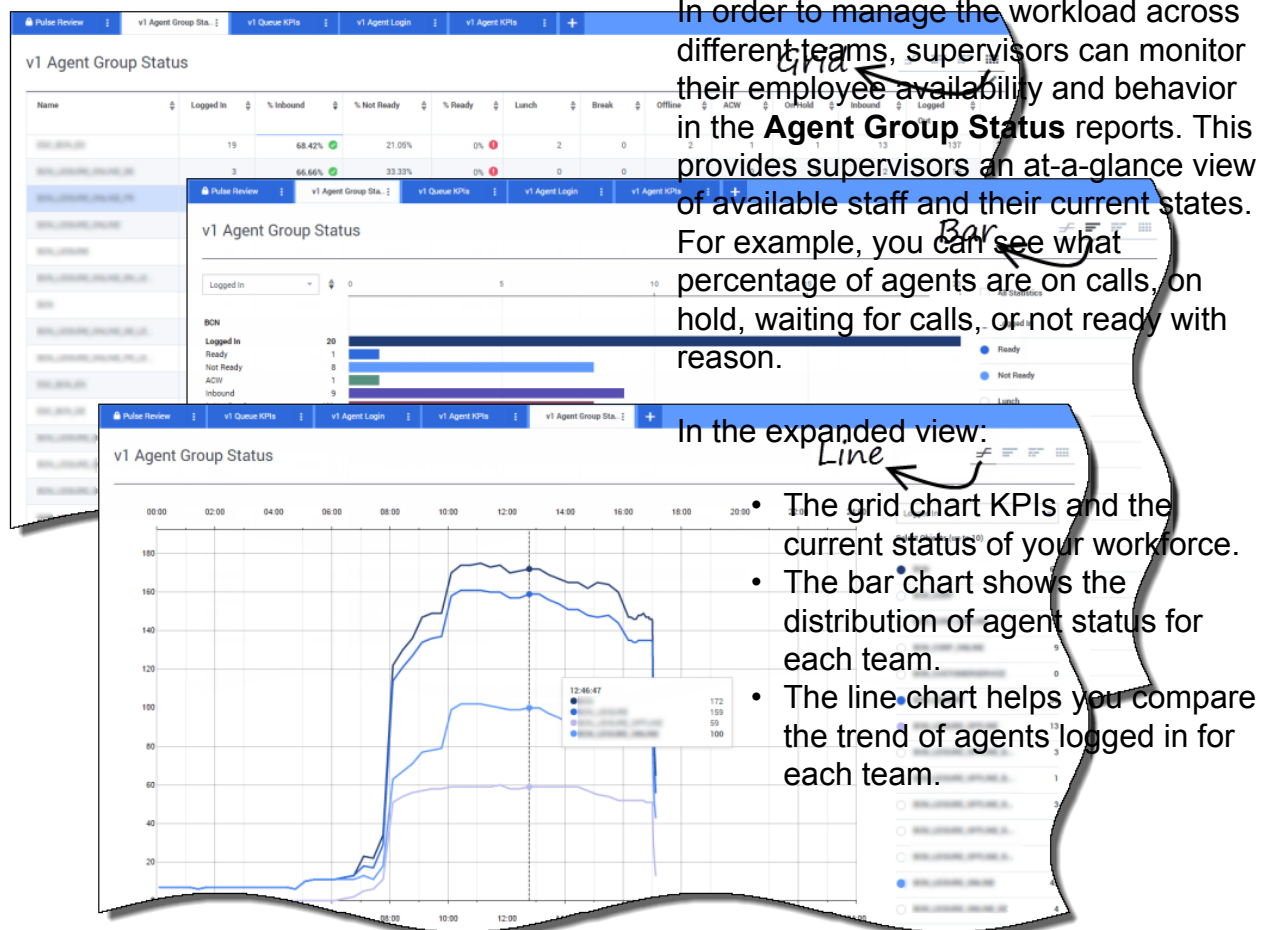


What reports do I want to see?

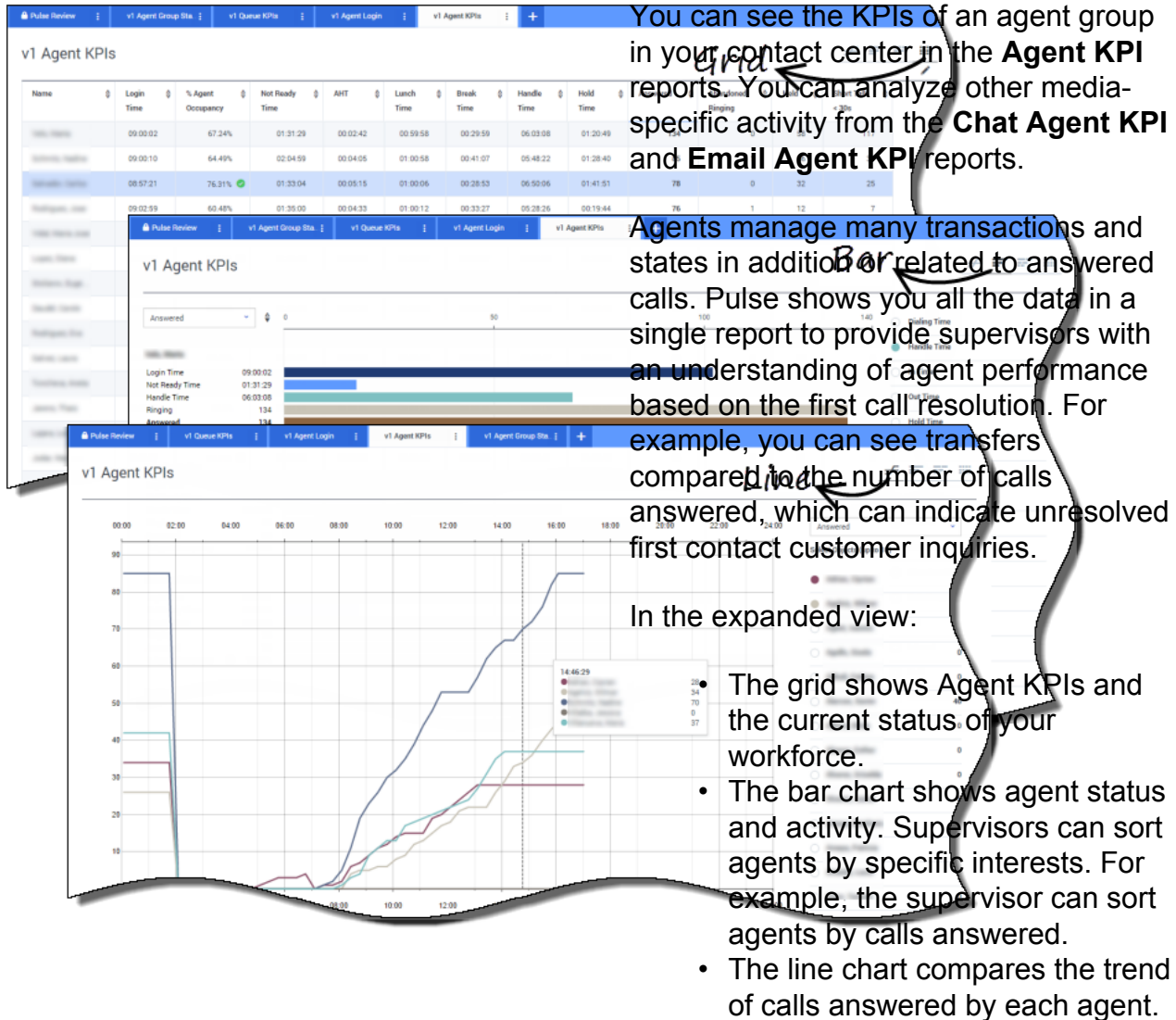
other KPIs to measure the call distribution performance.

4. The line chart shows the Service Level trend within the current day.

How can I manage agent workload across different teams?



How are my agents performing?



Are my agents properly assigned?

You need to make sure that all aspects of your business are covered. You can see your individual agent properties, status, and the media they manage in the **Agent Login** report. With this report, supervisors can ensure the agents are logged in where they should be and managing the media for which they are responsible.

In the examples:

- The first grid shows the reason why agents in a specific group are not ready.
- The second grid shows the properties related to the call currently handled by agents. It includes 4 KVPs: Service Type, Service Sub Type, Customer Segment and Business Result.

Name	Current Status	Time in Status	Reason	Login Time	Employeeid
John Doe	(08:33:06)	08:33:06	Training	08:32:38	123456789
Jane Smith	(08:55:43)	08:55:43	Training	08:55:15	987654321
Mike Johnson	(09:05:55)	09:05:55	Training	09:05:27	567890123
Sarah Brown	(08:25:56)	08:25:56	Off Duty, Not Ready, etc	09:01:30	345678901
David Wilson	(09:03:53)	09:03:53	Off Duty, Not Ready, etc	09:03:26	234567890

Name	Current Status	Login Time	Employeeid	ANI	DID	Market	Service
John Doe	(00:08:33)	06:53:24	123456789	Restricted	123456789	ES	Investigation Dept.
Jane Smith	(00:01:45)	09:14:39	987654321	Restricted	987654321	ES	Investigation Dept.
Mike Johnson	(00:01:12)	09:05:29	567890123	Restricted	567890123	ES	Investigation Dept.
Sarah Brown	(00:02:29)	08:51:46	345678901	Restricted	345678901	ES	Investigation Dept.
David Wilson	(00:02:15)	08:58:57	234567890	Restricted	234567890	ES	Investigation Dept.
John Doe	(00:02:07)	09:04:44	123456789	Restricted	123456789	ES	Investigation Dept.
Jane Smith	(00:03:15)	08:58:30	987654321	Restricted	987654321	ES	Investigation Dept.
Mike Johnson	(00:11:23)	09:02:19	567890123	Restricted	567890123	ES	Investigation Dept.
Sarah Brown	(00:00:16)	09:03:54	345678901	Restricted	345678901	ES	Investigation Dept.
David Wilson	(00:01:09)	07:20:06	234567890	Restricted	234567890	ES	Investigation Dept.
John Doe	(00:00:02)	07:04:44	123456789	Restricted	123456789	ES	Investigation Dept.
Jane Smith	(00:02:20)	08:02:09	987654321	Restricted	987654321	ES	Investigation Dept.
Mike Johnson	(00:01:00)	06:57:35	567890123	Restricted	567890123	ES	Investigation Dept.
Sarah Brown	(00:01:36)	09:02:11	345678901	Restricted	345678901	ES	Investigation Dept.
David Wilson	(00:03:04)	06:53:04	234567890	Restricted	234567890	ES	Investigation Dept.

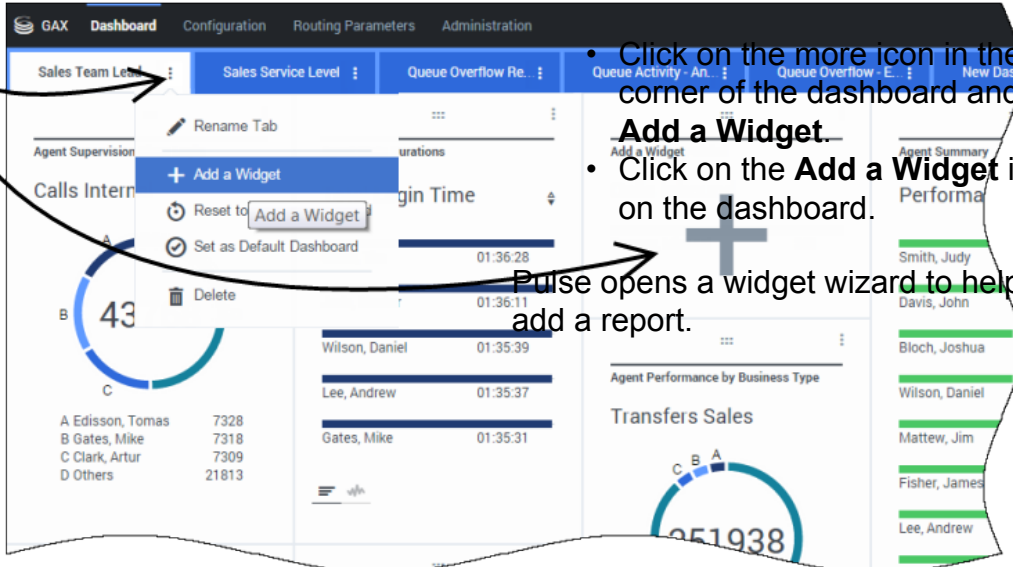
How do I add reports to my dashboard?

It's easy to add a new report within a Pulse widget. Pulse provides a basic set of predefined templates, complete with statistics that are typical for reporting activities handled by Genesys solutions. Any users with the appropriate privileges can create or modify widgets and templates.

How do I add reports to a dashboard?

add a widget

There are two ways you can add a report to your dashboard:



The screenshot shows the Pulse dashboard interface. At the top, there are tabs for 'GAX', 'Dashboard', 'Configuration', 'Routing Parameters', and 'Administration'. Below the tabs, there are several widgets. On the left, there is a 'Sales Team Level' widget with a pie chart and a table of data. In the center, there is a 'Calls Intern' widget with a pie chart and a table of data. On the right, there is a 'Queue Activity' widget with a table of data. A large blue plus sign icon is overlaid on the dashboard, indicating the 'Add a Widget' button. A hand-drawn arrow points from the text 'add a widget' to this icon. Another hand-drawn arrow points from the text 'Pulse opens a widget wizard to help you add a report.' to the 'Add a Widget' button in the 'Calls Intern' widget.

- Click on the more icon in the right corner of the dashboard and click **Add a Widget**.
- Click on the **Add a Widget** icon on the dashboard.

Pulse opens a widget wizard to help you add a report.


How do I use the widget wizard?

Add a Widget

Choose a Widget Template


Agent Group Status

Presents the current number of agents in the various states.




Agent Login

Presents an agent's properties




Campaign Activity

Monitor the activity associated






Agent Add

Presents reports with KPIs of agent group in a contact center.



To create a Pulse template, you must add or configure:

- One or more object types to measure.
- One or more statistics.
- One widget type with specific display options.

+ New Template  Edit  Clone  Delete

Next **Cancel**

How do I choose which objects to measure?

Add a Widget

Select the objects that you want to see in your report.

Select Objects for Agent KPIs

Agent

☒ By Individual Object

☐ By Group

Selected Objects *

, PersonQ

Doe, John

Doe, Jane

Parker, Charlie

Miller, Gleen

Employee ID

☒

PersonQ

☒

Doe, John

☒

Doe, Jane

☒

Parker, Charlie

☒

Miller, Gleen

Miller

Gleen

Important

Avoid creating widgets that contain a large number of Objects. Restrict the number to a maximum of 100 objects.

Previous

Next

Cancel

How do I choose statistics?

Add a Widget

Statistics

☒ All Statistics

☒ Login Time

☒ Ready Time

☒ Not Ready

☒ Not Ready Time

☒ Lunch Time

☒ Break Time

☒ ACW Time

☒ In Handle Time

UpDown

Login Time

The total time that monitored agents were logged in. This stat type does not include logged-in time when the switch is disconnected from Stat Server. Applied to GroupAgents and GroupPlaces, this stat type calculates the total login time for all the agents belonging to the specified group.

Alias

Login_Time

Notification Mode

Time-Based

Statistic Type

Total_Login_Time

Display Format

Time

Notification Frequency, seconds

60

Filter

VoiceCall

Choose the statistics that you want to include in your widget. You must add at least one non-string statistic.

Pulse displays statistic details when you select a statistic. You can modify a statistic definition within Pulse when you create, clone, or edit a template.

Pulse statistics are described in detail in the templates.xls file.

Previous

Next

Cancel

What display options should I use?

Add a Widget

Display Options

Widget Title *

Agent KPIs

Widget Type

List Widget

Size

☒ 1x2 ☐ 1x3 ☐ 1x4

Widget refresh rate

60 seconds

Headline Type

☒ Statistics ☐ Objects

Widget Preview

Agent KPIs

Login Time

Parker, Charlie

Miller, Gleen

Doe, Jane

Doe, John

, PersonQ

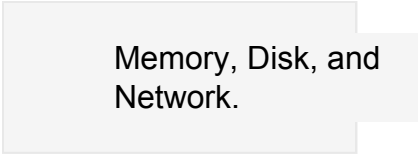
You need to define the default display settings for your widget. Users can change these options on their own dashboard.

- Provide a name for report title.
- Select the Widget Type to display.
- Select the Widget refresh rate.
- Select options associated with the visualization (for example, alerts and size).
- Optional: For templates configured to use changes-based statistics (CurrentStatus and ExtendedCurrentStatus), set **enable quick updates**. See [Deploying RabbitMQ for Quick Widget Updates](#).
- If needed, select the **Alerts for statistic** and define the alert values (from 1 to 3).

Important



Confirm your environment can handle the number of widgets and refresh rate you plan to use. A shorter refresh rate increases demands on the CPU,

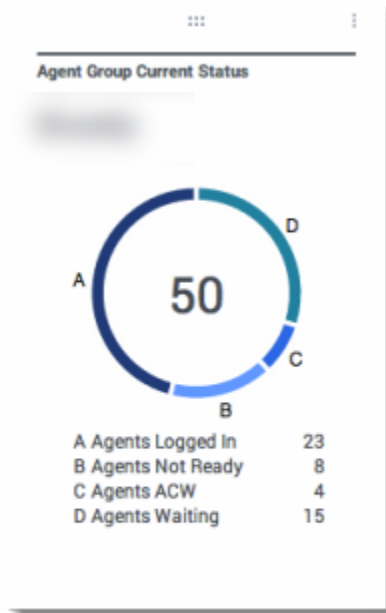


Memory, Disk, and
Network.

How do I choose a Widget type?

The widgets on the Pulse dashboard display charts that provide an at-a-glance view of what is happening in your contact center. The best way to choose a widget type is to preview the widget when you add a new widget. This allows you to see which widget type best displays what you want to see in your report.

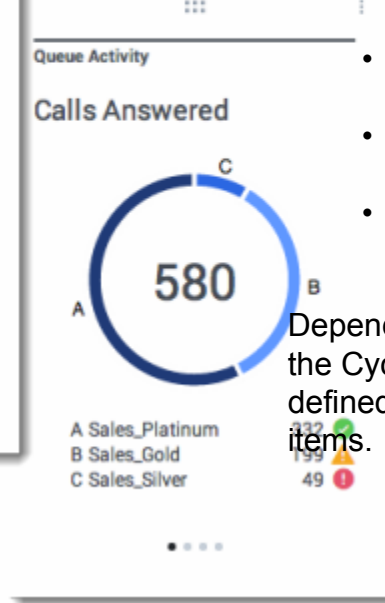
What do I see in a Donut widget?



A Donut chart shows a proportional representation of the parts of a whole sample, similar to a pie chart.

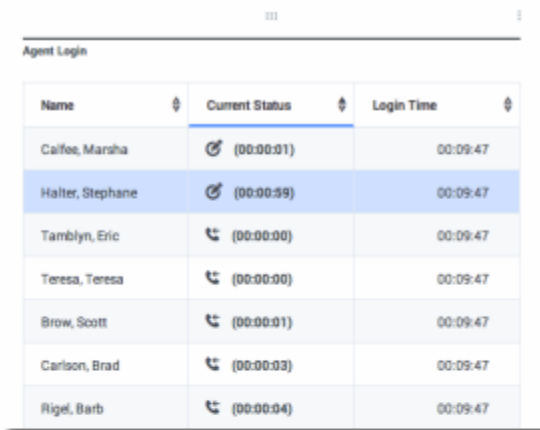
The Donut widget displays either:

- one statistic for four specific objects
- one statistic for three top objects and a sum the remaining objects
- one object with the values of four defined statistics



Depending on the reference selected in the Cycle By option, a carousel can be defined to display additional several items.

What do I see in a Grid widget?



The screenshot shows a Grid widget titled "Agent Login". It displays a table with three columns: "Name", "Current Status", and "Login Time". The table lists eight agents, with the second row highlighted in blue. Each status cell contains a status icon and a timer.

Name	Current Status	Login Time
Calfee, Marsha	(00:00:01)	00:09:47
Halter, Stephanie	(00:00:59)	00:09:47
Tamblyn, Eric	(00:00:00)	00:09:47
Teresa, Teresa	(00:00:00)	00:09:47
Brow, Scott	(00:00:01)	00:09:47
Carlson, Brad	(00:00:03)	00:09:47
Rigel, Barb	(00:00:04)	00:09:47

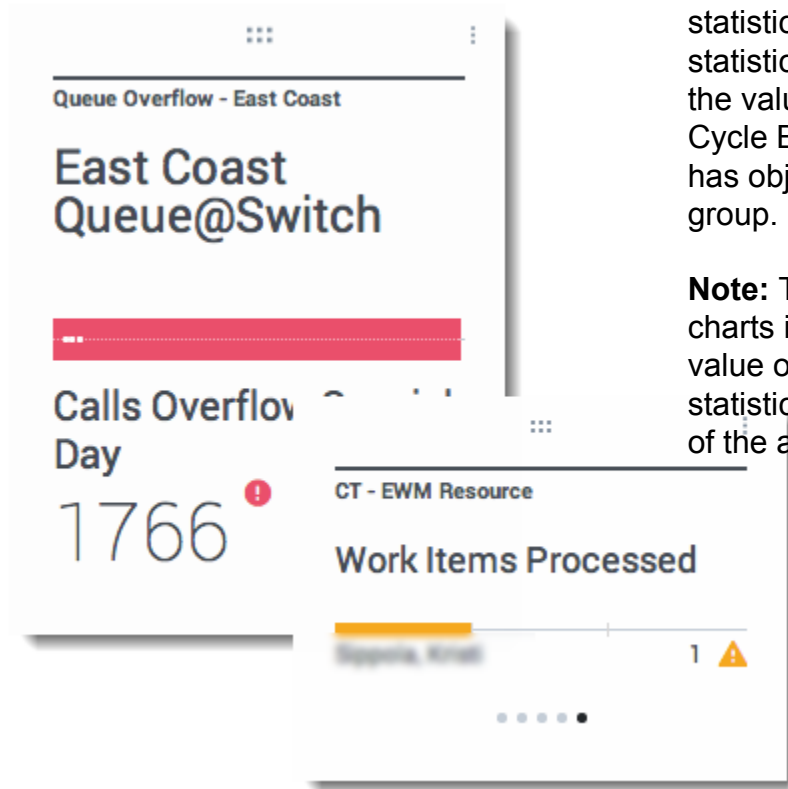
The Grid widget displays a list of items and their related statistics.



The screenshot shows a Grid widget titled "CT - ERM Resource". It displays a table with four columns: "Name", "Work Items Processed", "Calls Processed", and "Avg Processing Time". The table lists five resources, with performance metrics and status indicators (icons) for each.

Name	Work Items Processed	Calls Processed	Avg Processing Time
Sippola, Kristi	1	0	00:11:42
Chanel, Monique	3	0	00:36:21
Milburn, Kristen	1	0	00:12:26
Hammond, Steve	0	0	00:00:00
McDaddy, Trevor	0	0	00:00:00

What do I see in a KPI widget?

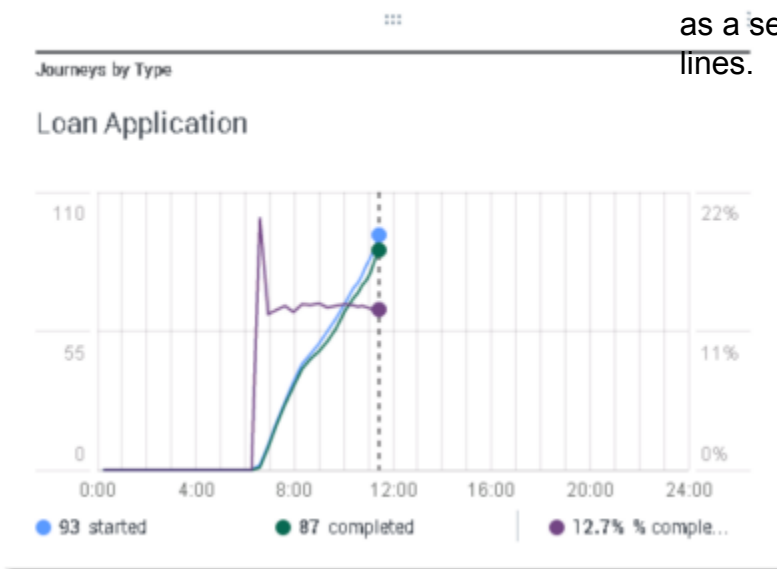


The KPI Widget displays either one statistic for several objects or several statistics for one object, depending on the value of the Cycle By option. The Cycle By option is available if the widget has objects selected individually, not by group.

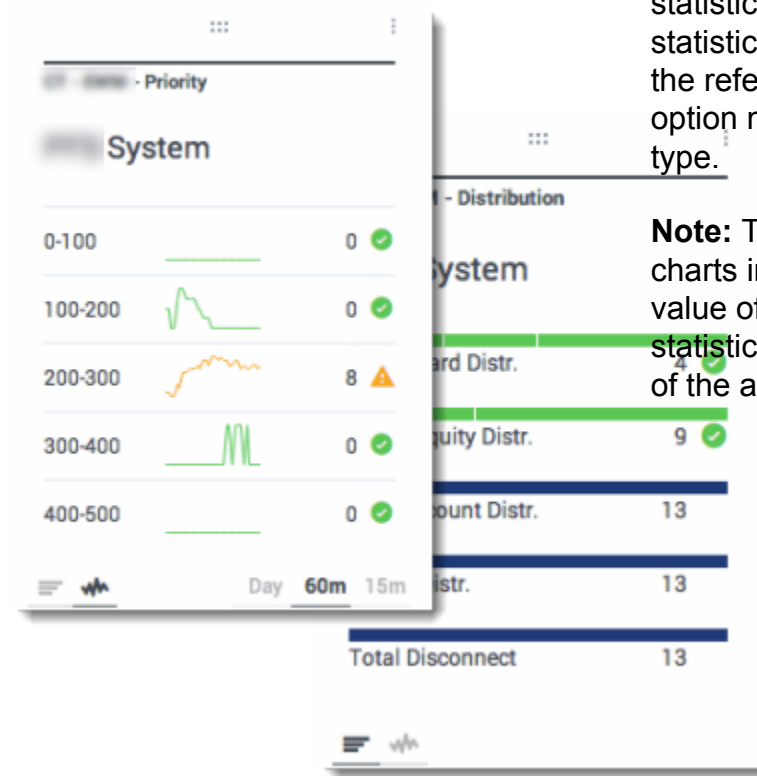
Note: The maximum value for the bar charts in KPI widgets is the maximum value of all the objects selected for the statistic in this widget or maximum value of the alert configured for this widget.

What do I see in a Line Chart widget?

The Line Chart widget displays statistics as a series of data points connected by lines.



What do I see in a List widget?



The List widget displays either one statistic for many objects or many statistics for one object. Depending on the reference selected, the Headline type option might be available for this widget type.

Note: The maximum value for the bar charts in List widgets is the maximum value of all the objects selected for the statistic in this widget or maximum value of the alert configured for this widget.

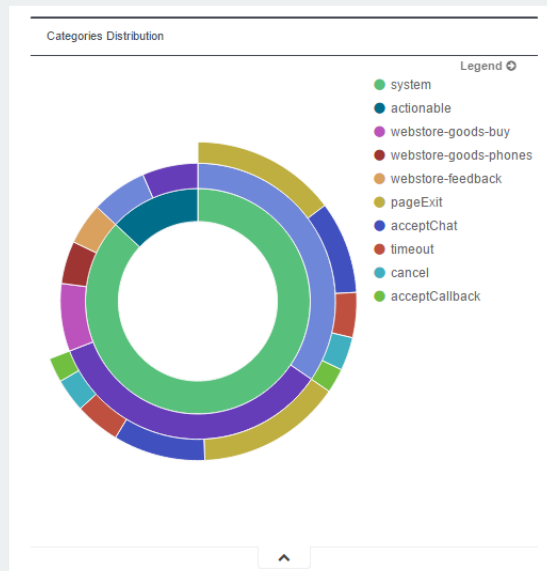
How do I display external content?

You can use an IFRAME widget to show content from an external URL on your Pulse dashboard. You may want to adapt your external content before you try to display what you want within Pulse. Pulse doesn't actually change anything within iFrame, but will provide scrollbars if the content is larger than the available area.

Using IFRAME widgets to display external content

GAX **Dashboard** Configuration Routing Parameters Administration
Add a new widget and select the IFRAME template.

New Dashboard (:) GWE Dashboard : +



Categories Distribution

Legend

- system
- actionable
- webstore-goods-buy
- webstore-goods-phones
- webstore-feedback
- pageExit
- acceptChat
- timeout
- cancel
- acceptCallback

For an IFRAME widget, you need a web address for the **Dashboard Widget URL**. You may want to use a second web address for the **Maximized Widget URL** content, because widgets expanded to the size of the dashboard can display much more detail in charts than a regular dashboard widget can.

[+] IFRAME Widget Options

The available display options for IFRAME widgets include the following:

- **Widget Title**—The title appears at the top of your widget. Use this to identify the content of the widget.
- **Size**—The width and height ratio of your widget.
- **Allow resize**—Allow users to resize the widget.
- **Widget refresh rate**—The amount of time, in seconds, Pulse waits to update the widget content.

- **Dashboard Widget URL**—The web address of the content you want to display in your widget.
- **Automatic refresh**—Allows Pulse to automatically refresh the content as defined in the widget refresh rate.
- **Maximized Widget URL**—The web address of the content you want to display in your expanded widget.
- **Automatic refresh**—Allows Pulse to automatically refresh the content as defined in the widget refresh rate.

Tip

Here is an example of an IFRAME html page including instructions within a README file:



- IFRAME example (ZIP).

How can I use templates to simplify widget creation?

Did you know that you can create and use Pulse templates to simplify widget creation? Any users with the appropriate privileges can create or modify templates. You can then create various widgets using your template.

The easiest way to create a template is to clone and edit an existing template within Pulse. Pulse provides a basic set of predefined templates, complete with statistics that are typical for reporting activities handled by Genesys solutions. Any users with the appropriate privileges can create or modify the available templates.

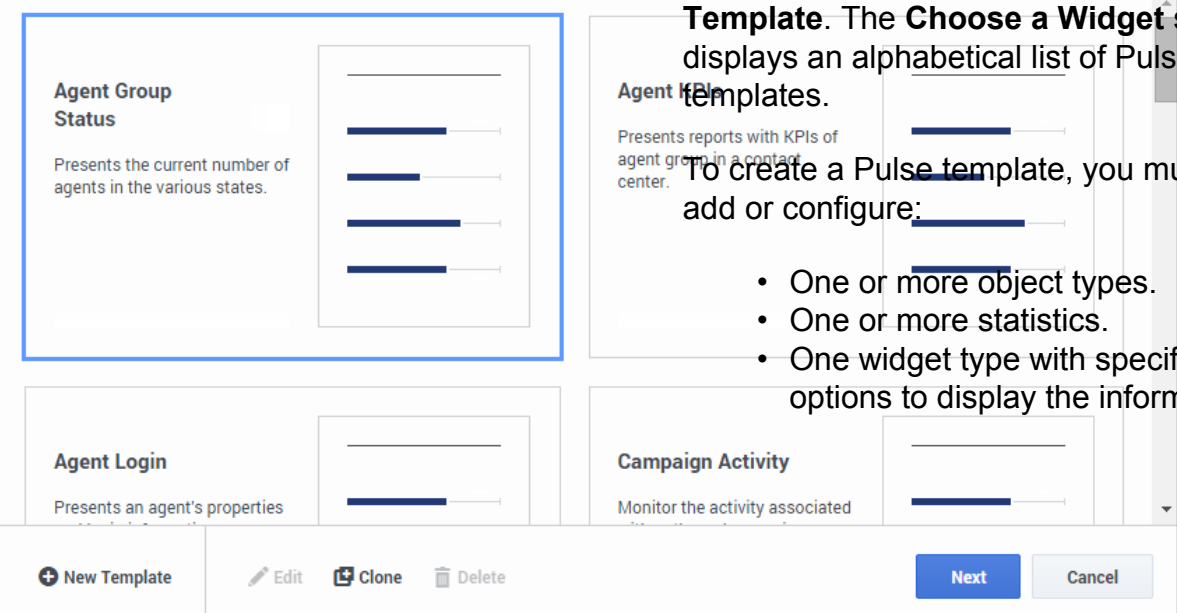
Important

You can edit only user-created templates. Pulse overwrites any changes made to predefined templates with the original predefined templates every time Pulse starts, unless you set the `install_templates` configuration option in the `[pulse]` section of the GAX Application object to `false`.

How do I Add, Clone, or Edit a template?

Add a Widget

Choose a Widget Template



The screenshot shows a 'Choose a Widget Template' interface. It features a grid of widget templates. The 'Agent Group Status' template is highlighted with a blue border. Other templates include 'Agent Login' and 'Campaign Activity'. At the bottom, there are buttons for 'New Template', 'Edit', 'Clone', 'Delete', 'Next', and 'Cancel'.

The template wizard guides you through the process of creating, changing, and deleting templates. To open the template wizard, click **Add Widget** and select **New Template**. The **Choose a Widget** screen displays an alphabetical list of Pulse templates.

To create a Pulse template, you must add or configure:

- One or more object types.
- One or more statistics.
- One widget type with specific options to display the information.

What template details do I need?

Clone a Template

Details

Template Name *

Agent KPIs

Description

Presents reports with KPIs of agent group in a contact center

Allowed Object Types *

- ☒ Agent
- ☐ Calling List
- ☐ Campaign Calling List
- ☐ DN
- ☒ Place
- ☐ Queue
- ☐ Routing Strategy
- ☐ Switch
- ☐ Work Bin

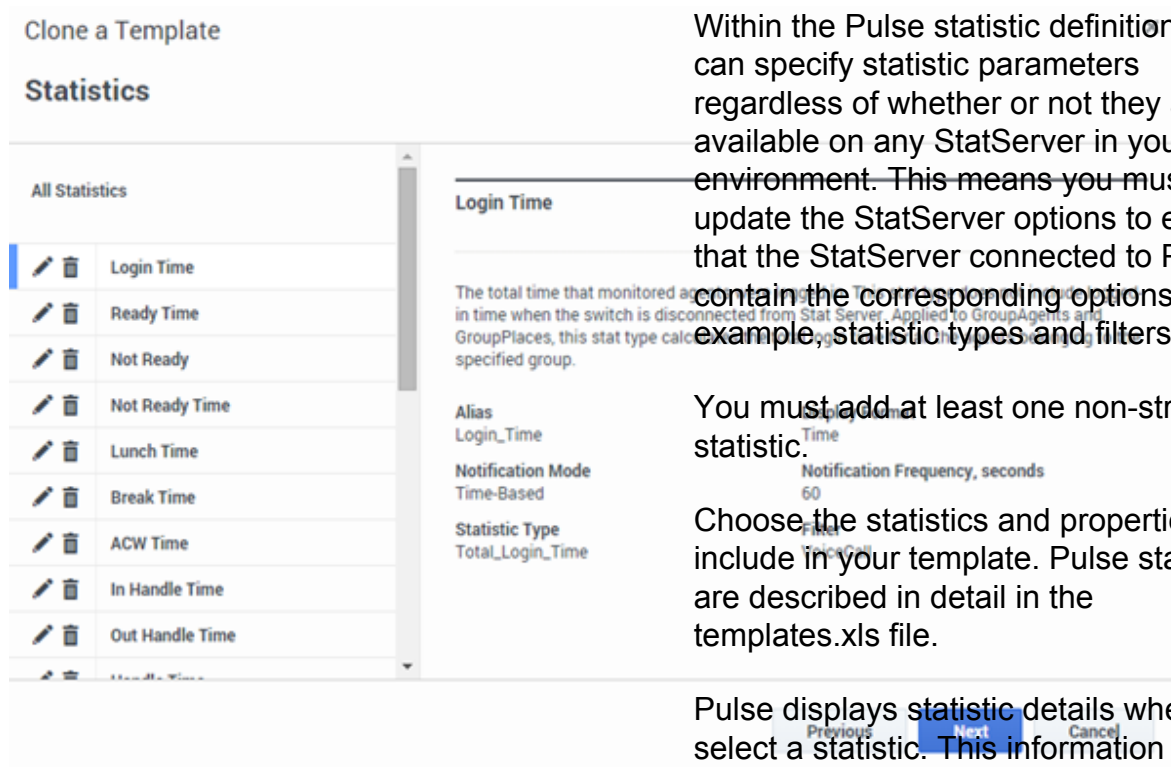
On the **Details** screen, you:

- Define the name of the new template
- Describe the scope of this template
- Select one or more object types from the selection based on what you might want to monitor.

Pulse allows you to select objects that are compatible with your template. For example:

- The **Agent KPI** template includes the **Agent**, **Agent Group**, **Place**, and **Place Group** objects.
- The **Agent Group Status** template includes the **Agent Group** and **Place Group** objects.

How do I select statistics?



Within the Pulse statistic definition, you can specify statistic parameters regardless of whether or not they are available on any StatServer in your environment. This means you must also update the StatServer options to ensure that the StatServer connected to Pulse contain the corresponding options (for example, statistic types and filters).

You must add at least one non-string statistic.

Choose the statistics and properties to include in your template. Pulse statistics are described in detail in the templates.xls file.

Pulse displays statistic details when you select a statistic. This information includes the components of the stat type definition and other parameters that form the request that Pulse sends to Stat Server. You can modify a statistic definition within Pulse when you create, clone, or edit a template.

How do I define the display options?

Clone a Template

Display Options

Widget Title *

Queue Distribution

Widget Type

List Widget

Size

☒ 1x2 ☐ 1x3 ☐ 1x4

Headline Type

☒ Statistics ☐ Objects

Headline Statistic *

Calls Waiting

Sort

Widget Preview

Queue Distribution

Calls Waiting

VQ_Waiting_for_agent@SIP_Switch 914

Billing_Gold@SIP_Switch 609

VQ_CallCenter@SIP_Switch 473

SIP_VQ@SIP_Switch

Billing_Platinum@SIP_Switch

Previous Finish Cancel

The final step before validating your template is to define what should be the default display of your widget on the main dashboard. This setting is the one displayed to Pulse users, but they can then modify the widget options on their own dashboard.

- Name the widget title
- Select the Widget Type to display.

Note: The maximum value for the bar charts in List and KPI widgets is the maximum value of all the objects selected for the statistic in this widget or maximum value of the alert configured for this widget.

- Select the Widget refresh rate.
- Select options associated with the visualization (for example, thresholds and size).
- Optional: For templates configured to use changes-based statistics (CurrentStatus and ExtendedCurrentStatus), set **enable quick updates**. See Deploying RabbitMQ for Quick Widget Updates.
- If needed, select the statistics for alerts and define the alert values (from 1 to 3).

Important



Confirm your environment can handle the number of widgets and refresh rate you plan to use. A shorter refresh rate increases demands on the CPU, Memory, Disk, and Network.

What are the statistic properties?

When you select a statistic within the template wizard, Pulse displays the values of the statistic properties. These statistic properties are described below.

Tip



You can modify a statistic definition while defining a template. Pulse statistics are described in detail in the templates.xls file.

Alias

The Alias must be a unique name that represents the technical name of the statistic. Use an ASCII letter for the first character.

Display Alias

The Display Alias is the name displayed on the report.

Description

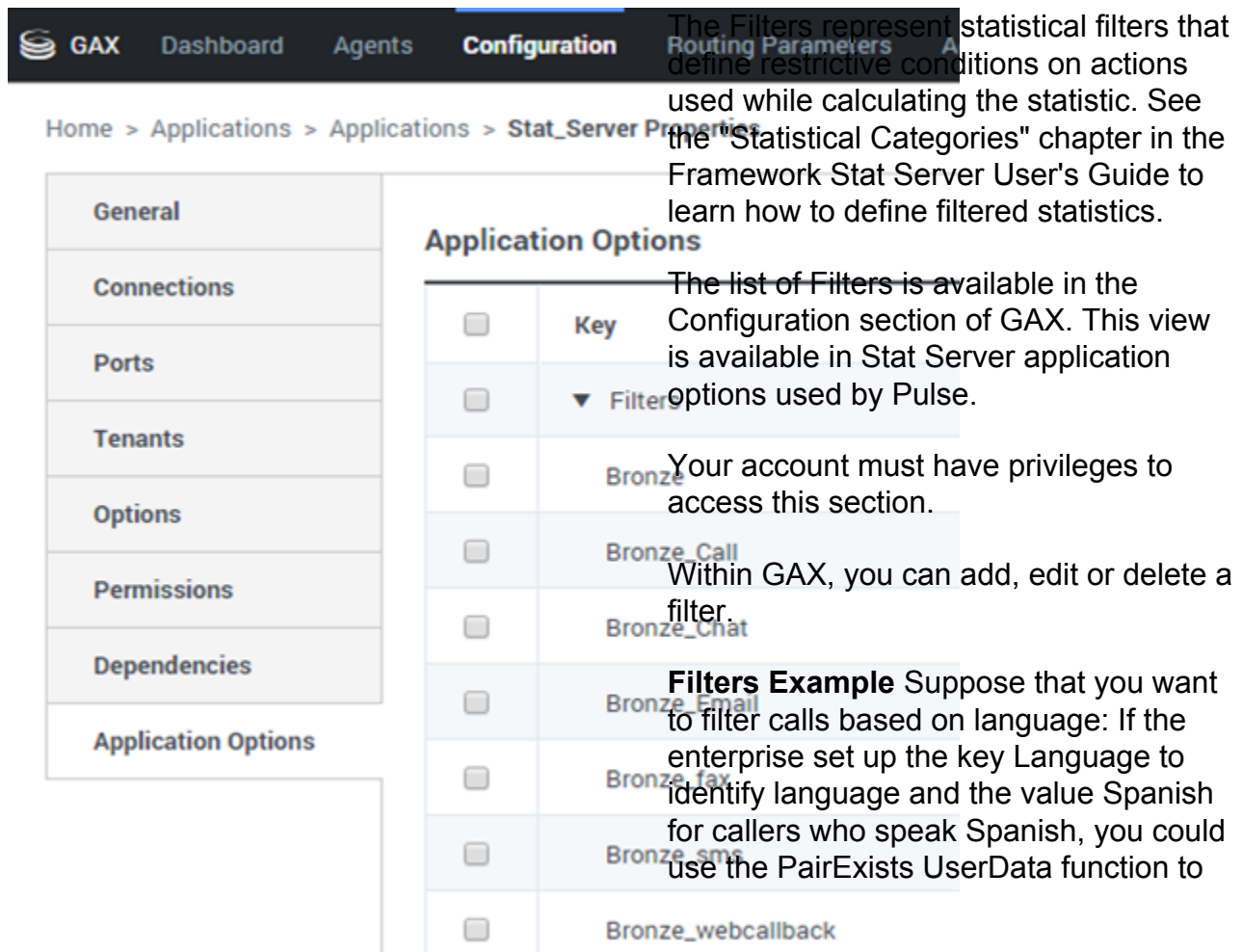
The Description provides the functional meaning of the statistic.

Display Format

The Display Format specifies whether values are shown as time or numbers, and, if numbers, the number of decimal places. Depending on the statistic you chose, the available formats in the drop-down list are time-based or numerical.

List of Values: Time, Integer, Number, Percent, String

Filters



The Filters represent statistical filters that define restrictive conditions on actions used while calculating the statistic. See the "Statistical Categories" chapter in the Framework Stat Server User's Guide to learn how to define filtered statistics.

The list of Filters is available in the Configuration section of GAX. This view is available in Stat Server application options used by Pulse.

Your account must have privileges to access this section.

Within GAX, you can add, edit or delete a filter.

Filters Example Suppose that you want to filter calls based on language: If the enterprise set up the key Language to identify language and the value Spanish for callers who speak Spanish, you could use the PairExists UserData function to

Application Options	
<input type="checkbox"/>	Key
<input type="checkbox"/>	▼ Filters
<input type="checkbox"/>	Bronze
<input type="checkbox"/>	Bronze_Call
<input type="checkbox"/>	Bronze_Chat
<input type="checkbox"/>	Bronze_Email
<input type="checkbox"/>	Bronze_fax
<input type="checkbox"/>	Bronze_sms
<input type="checkbox"/>	Bronze_webcallback

search for calls with attached data in the Language/Spanish key-value pair.

On the Options tab of the Stat Server Properties screen, you could add a SpanishLanguage option in the [Filters] section and specify filtering for calls with attached data containing the key "Language" and the value "Spanish".

The example would have SpanishLanguage in the Name field and PairExists("Language","Spanish") in the Value field.

Now, when an agent attaches the "Spanish/Language" key-value pair to calls from a desktop application, the calls are filtered out of statistical calculations.

Formula

Clone a Template

Statistics

All Statistics

		Current Calls	
		Entered	
		Abandoned	
		Cleared	
		Forwarded	
		Answered	
		Answered No Wait	
		Answered < 10s	

Up
 Down
 Add New

Description

Display Format *

Percent

☒ Formula

Formula

```

if ((Data.Outbound.Value + Data.Inbound.Value) != 0)
Result = 100 * Data.Outbound.Value / (Data.Outbound.Value +
Data.Inbound.Value);
else Result = 0;
          
```

Previous Next Cancel

From the statistic detail pane, you can create or customize statistics by creating a formula.

The formula uses a javascript-based syntax, which lets you calculate expressions with values given by other statistic and use functions provided by Genesys for more specific calculations. For example, you can calculate the ratio of the calls abandoned to the calls offered in your queue to measure the percentage of abandoned calls in your queue.

Pulse assumes the offered calls are defined by a statistic alias Offered and the abandoned calls are defined by a statistic alias Abandoned.

The formula must return a Result value to be valid and can access any statistics of the template with the following syntax:

```
Data.<Statistic-Alias>.Value
```

All formulas must contain an assignment for the `Result` variable (for example, `Result=`). The `Result` of the formula calculation is the final value of this variable.

For example, here is a formula using the function

```
G.GetAgentNonVoiceStatus():
```

```
Result =  
G.GetAgentNonVoiceStatus(Data.Current_Status.Value,  
email);
```

Insensitivity

Insensitivity describes a condition for Stat Server to send updates of statistical values to its clients. An increase in the value of this parameter usually decreases network traffic, but it also reduces reporting accuracy, because values are not updated as frequently. This setting is not visible in Stat Server configuration, but rather, clients pass its value to Stat Server along with each statistic request.

Insensitivity plays no role for reset-based statistics. For time-based or change-based notification mode, Stat Server only reports the recalculated value if the absolute value of the difference between the previous value and the recalculated value or its percentage ratio to the recalculated value is at least equal to the number specified by Insensitivity.

For example, if the result has a long integer data type—as is the case for statistics measuring time—Stat Server uses the absolute difference in values for comparison. Given an Insensitivity setting of 5 in this case, Stat Server sends the recalculated result to its client when the absolute value of the difference between the new and old result is at least 5 (seconds, usually).

Notification Mode

The Notification Mode determines when Stat Server sends updated statistical values. These are the valid options:

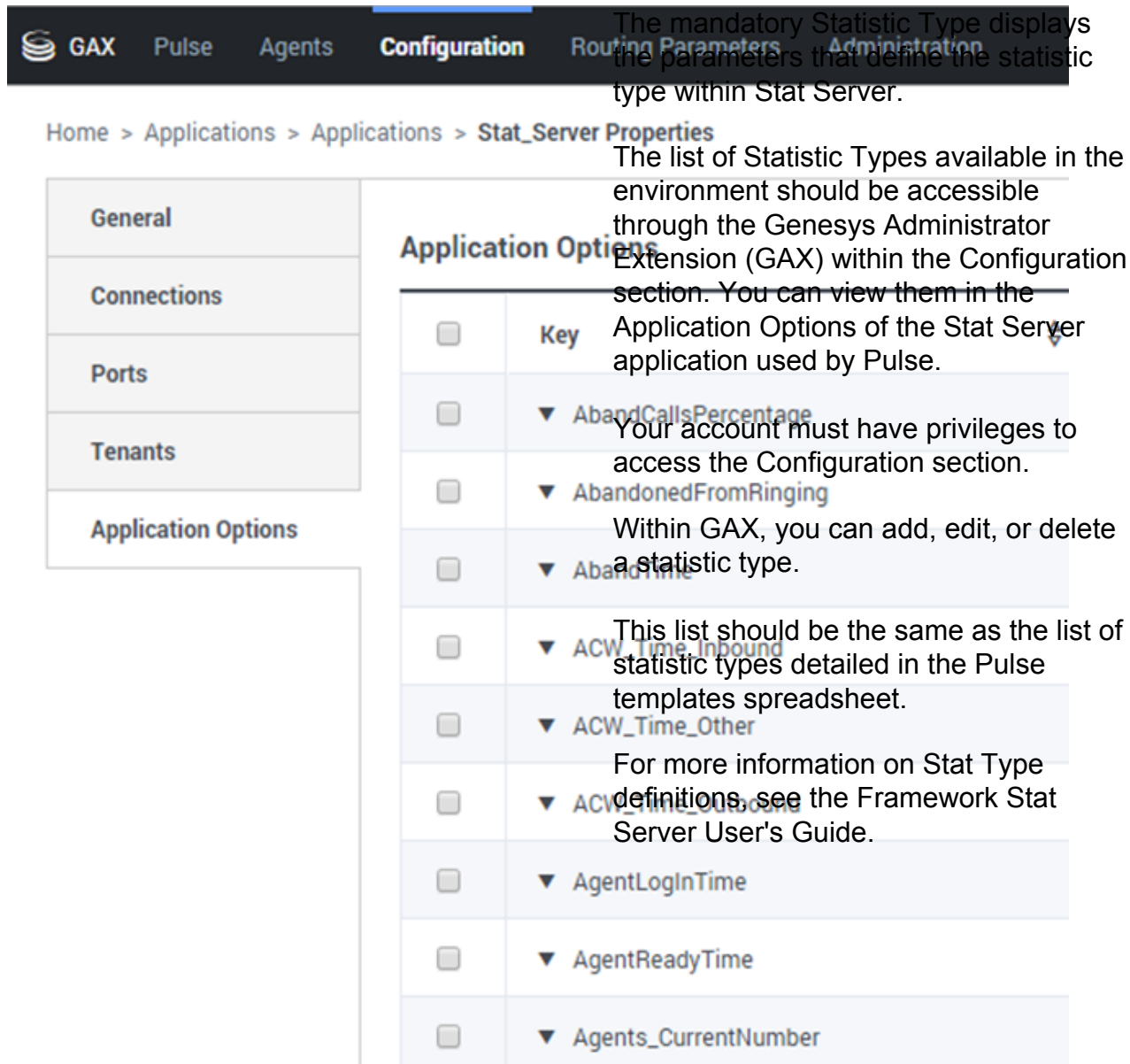
- **Time-Based**—Select this Notification Mode to instruct Stat Server to recalculate the statistic by the frequency displayed in Notification Frequency property. Stat Server sends a new value to Pulse only when the absolute difference from the last reported value exceeds the Insensitivity property.
 - **Change-Based**—Select this Notification Mode to instruct Stat Server to notify Pulse about changes immediately.
 - **No Notification**—Select this option to instruct Stat Server to not report updates. Updates are turned off in this case.
-

- **Reset-Based**—Select this Notification Mode to instruct Stat Server to report Pulse value right before setting it to zero (0). CurrentState statistics cannot be requested with Reset-Based notification mode.

Notification Frequency

Use Notification Frequency to set how often, in seconds, Stat Server recalculates the statistic and notifies Pulse if the statistic changes by more than the valued displayed in the Insensitivity field. This field is only used when a Time-Based Notification Mode is selected for the statistic.

Statistic Type



The screenshot shows the GAX Configuration page. The top navigation bar includes GAX, Pulse, Agents, Configuration (highlighted), Routing Parameters, and Administration. The breadcrumb trail is Home > Applications > Applications > Stat_Server Properties. On the left, a sidebar menu lists General, Connections, Ports, Tenants, and Application Options (selected). The main content area is titled 'Application Options' and contains a table with a checkbox column and a 'Key' column. The keys listed are AbandCallsPercentage, AbandonedFromRinging, AbandTime, ACW_Time_Inbound, ACW_Time_Other, ACW_Time_Outbound, AgentLoginTime, AgentReadyTime, and Agents_CurrentNumber. Each key has a dropdown arrow next to it.

The mandatory Statistic Type displays the parameters that define the statistic type within Stat Server.

The list of Statistic Types available in the environment should be accessible through the Genesys Administrator Extension (GAX) within the Configuration section. You can view them in the Application Options of the Stat Server application used by Pulse.

Your account must have privileges to access the Configuration section.

Within GAX, you can add, edit, or delete a statistic type.

This list should be the same as the list of statistic types detailed in the Pulse templates spreadsheet.

For more information on Stat Type definitions, see the Framework Stat Server User's Guide.

Time Profile

Use the Time Profile to define the Time Profile for the statistic and specify the interval over which historical aggregate values are calculated. All time profiles are defined as configuration options in the Time Profiles of the Stat Server Application object in Genesys Configuration. See the Framework Stat Server User's Guide for information about how to set up time profiles.

The list of Time Profiles available in the environment should be accessible in the GAX Configuration section. This view is available in Stat Server application options used by Pulse.

Your account must have privileges to access this section.

Within GAX, you can add, edit, or delete a Time Profile.

The Time Profile contains four main types:

- Growing
- Sliding
- Selection
- SinceLogin

	Key
<input type="checkbox"/>	OneDay, Growing
<input checked="" type="checkbox"/>	OneHour
<input checked="" type="checkbox"/>	OneHour, Growing
<input checked="" type="checkbox"/>	OneHourSlide, Sliding
<input checked="" type="checkbox"/>	OneMinute
<input checked="" type="checkbox"/>	OneMinute, Growing
<input checked="" type="checkbox"/>	SinceLogin
<input checked="" type="checkbox"/>	SinceLogin, SinceLogin


Time Profiles Examples

- Default, Growing—The Default time profile uses a Growing interval type and resets statistics to zero (0) every night at

midnight. The default value is set to 00:00.

- LastHour,Sliding—The LastHour time profile uses a Sliding interval type and tracks the last hour of activity with a sampling taken every 15 seconds. The default value is set to 3600:15.
 - SinceLogin,SinceLogin—SinceLogin resets statistics to zero (0) at the moment of agent login. Statistics continue to accumulate as long as the agent is logged into (any) DN. The SinceLogin interval type aggregates statistical data only for agent-object statistics.
 - Shifts,Growing—A time profile named Shifts resets statistics to zero when shifts change at 3:00 AM, 7:00 AM, 11:00 AM, 1:00 PM, 7:00 PM, and 1:00 AM. The default value is set to 3:00 +4:00, 13:00 +6:00.
-

Time Range

 **GAX**

Dashboard

Agents

Configuration

Pulse Parameters

Home > Applications > Applications > Stat_Server Properties

General

Connections

Ports

Tenants

Options

Permissions

Dependencies

Application Options

Application Options

☐ **Key**

☐ **TimeRange**

☐ **EWI_Announce_10**

☐ **Less_3sec**

☐ **Range0-10**

☐ **Range0-120**

☐ **Range0-15**

☐ **Range0-20**

☐ **Range0-30**

The Time Range specifies when to collect data for a limited set of statistics. See the Framework Stat Server User's Guide for information about how to set up time profiles.

The list of Time Ranges is available in the Configuration section of GAX. This view is available in the options of the Stat Server application used by the Pulse solution.

Your account needs to have privileges to access this section.

Within GAX, you can add, edit, or delete a time range.

Time Ranges apply to statistics in following categories:

- TotalNumberInTimeRange
- TotalNumberInTimeRangePercentag
- CurrentNumberInTimeRange
- CurrentNumberInTimeRangePercent
- ServiceFactor1
- TotalTimeInTimeRange

Time Range Example

Suppose that you want to calculate the total number of calls answered within 30 seconds. To do so, enter Range0-30 in the Name field, and 0-30 in the Value field.

In this example, a Pulse statistic that calculates the total number of calls is based on the time range "Range0-30". If one call is answered after being in a queue for 25 seconds, a second call after 40 seconds, and a third call after 10 seconds, Stat Server counts only the first and third calls.

How do I use Formulas to customize reports

If you decide that one of your reports needs a different or additional statistic, you can edit the report's template to make that happen. You can accomplish this by adding a formula to the report template that retrieves the statistic or key performance indicator (KPI) you want.

Since you cannot change the standard templates provided, if you want to change one of the standard reports, just create a clone of the template and make changes in the new template.

Who can create these statistics? If you can create and edit Pulse templates, you can use formulas.

Important



If you already know how to use the formulas, you can use the function library to help you create your formulas.

Where can I add my formula?

Clone a Template

Statistics

All Statistics

		Current Calls	
		Entered	
		Abandoned	
		Cleared	
		Forwarded	
		Answered	
		Answered No Wait	
		Answered < 10s	

Up Down Add New

Description

Display Format *

Time

☒ Formula

Formula

Save Cancel

Previous Next Cancel

From the statistic detail pane while editing a widget or template, you can create or customize statistics by creating a formula.

The formula uses a javascript-based syntax, which lets you calculate expressions with values given by other statistic and use functions provided by Genesys for more specific calculations. For example, you can calculate the ratio of the calls abandoned to the calls offered in your queue to measure the percentage of abandoned calls in your queue.

How can I display percentages in my reports?

Clone a Template

Statistics

All Statistics

		Current Calls	
		Entered	
		Abandoned	
		Cleared	
		Forwarded	
		Answered	
		Answered No Wait	
		Answered < 10s	

Up Down Add New

Let's say you want to display percentages based on two metrics. Just copy the following example using the statistics you want.

In this example, we want to retrieve the percentage of outbound calls out of the total of both inbound and outbound calls. The formula can access any statistic within a template with the following syntax: `Data.Statistic-Alias.Value`. The formula must return a valid Result value.

In the following formula, we assume the outbound calls are defined by a statistic alias Outbound and the inbound calls are Inbound.

Formula: Calculate a Percentage

```
if ((Data.Outbound.Value + Data.Inbound.Value) != 0)
Result = 100 * Data.Outbound.Value / (Data.Outbound.Value + Data.Inbound.Value);
else Result = 0;
```

```
if ((Data.Outbound.Value +
Data.Inbound.Value) != 0)
Result = 100 *
Data.Outbound.Value /
(Data.Outbound.Value +
Data.Inbound.Value);
else Result = 0;
```


How can I display Agent Status KPIs?

Agent Login With Formula
Let's say you want to display KPIs for agent status. Just use the `Current_Status` statistic.

Name	Current Agent State	Current Status
Agente, Kristi	Desingate	LoggedOut (1556:12:1...
Chanel, Monique...	En Pause	NotReadyForNextCall ...
McQuady, Tere...	Desingate	LoggedOut (2232:12:3...
Lel...	Desingate	LoggedOut (2232:12:3...

[+] How the `Current_Status` statistic is defined.

The `Current_Status` statistic is defined by Stat Server options properties. The statistic type `ExtendedCurrentStatus` returns a specific object that can be further analyzed to provide only the Duration of the object.

```
[ExtendedCurrentStatus]
Category=CurrentState
MainMask=*
Objects=Agent
Subject=DNAction
```

You can use formulas to find the information you need:

[+] Show agent time in current state

You can display the agent status duration using the `Current Status` statistic.

Formula: Get Status Duration

```
Result =  
G.GetStatusDuration(Data.Current_Status.Value);
```

[+] Show the Reason Code selected by the agent

You can display the reason code for the agent status.

Formula: Get Reason Code

```
Result =  
G.GetReasonCodes(Data.Current_Status.Value);
```

If you want to display more user data in addition to the Reason Code, you need to enable the Additional Data property (User Data) of the statistic and apply a formula to filter only the Reason Code from the resulting Current_Status, which contains both the User Data and Reason code.

Formula: Filter only Reason Code

```
var res =  
G.GetReasonCodes(Data.Current_Status.Value);  
var x =  
res.split(';');  
Result = "";  
for (var i = 0; i <  
x.length; i++) {  
    var s = x[i];  
    if  
    (s.indexOf("Break")  
> -1 ||  
  
s.indexOf("Offline")  
> -1 ||  
  
s.indexOf("Training")  
> -1 ) { Result =  
s; break; }  
}
```

[+] Show current agent state by media type

You can display the current agent state by media type.

Formula - Get agent state by media type

```
Result =
G.GetAgentStatusPerMedia(Data.Current_Status.Value,
'email');
```

How can I display interaction properties?

Let's say you want to display interaction properties including flow segmentation, ANI, and DNIS. You can use formulas to find the information you need:

[+] Show the customer segment of the interaction

You can display the customer segment defined by the CustomerSegment key-value pair of the interaction by using the following formula.

Formula: Get Customer Segment

Name	Login Time	Functional Status	Time in Status	ANI	DNIS	Customer Segment
Nguyen, John	16:01:42	Inbound	00:12:10	5115	8007	Gold
Williams, Kristin	00:45:35	Inbound	00:00:00			
McCarthy, Trevor	00:00:00	Logged Out	248			
Hammann, Steve	00:00:00	Logged Out	248			
Smith, Anthony	00:00:00	Logged Out	248			

```
Result =
G.GetSegment(Data.Current_St.
```

[+] Show the ANI of the customer

You can display the ANI of the customer by using the following formula.

Formula: Get ANI

```
[Result =  
G.GetANI(Data.Current_Status.Value);
```

[+] Show the DNIS of the customer

You can display the DNIS of the customer by using the following formula.

Formula: Get DNIS

```
Result =  
G.GetDNIS(Data.Current_Status.Value);
```

Template Function Library

Once you know how to use formulas, you can use this function library as reference for additional customization.

Below is a function library for Pulse standard templates as automatically generated from Pulse release 8.5.102.02.

GetAgentNonVoiceStatus(state, media) → {string}

Get agent's status name for the media other than Voice.

Parameters:

Name	Type	Description
state	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic).
media	string	Media name.

Returns:

Status name, if **state** and **media** are available, *empty string* if information about given media is not available in the given current state, *null* if **state** is null or not an agent state, or **media** is null, not specified or empty.

Type = string

GetAgentVoiceStatus(state) → {string}

Get agent's status name for the Voice media.

Parameters:

Name	Type	Description
state	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

Status name, if **state** is available, *null* if **state** is null or not an agent state.

Type = string

GetANI(state, switchID) → {string}

Get a first available ANI attribute in the given agent state.

Parameters:

Name	Type	Argument	Description
state	AgentCurrentState		Current state of the agent (typically, Value of the appropriate statistic).
switchID	string	<optional>	Optional switch name to limit the search.

Returns:

ANI value, if found, *empty string* if not found, *null* if **state** is null or not an agent state.

Type = string

GetBusinessResult(state)

Get "Business Result" user data value.

Parameters:

Name	Type	Description
state	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

Business Result value, if available, *empty string*, if required user data is not available, *null* if **state** is null or not an agent state.

GetCustomerSegment(state)

Get "CustomerSegment" user data value.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

CustomerSegment value, if available, *empty string*, if required user data is not available, *null* if **state** is null or not an agent state.

GetDNIS(state, switchID) → {string}

Get a first available DNIS attribute in the given agent state.

Parameters:

Name	Type	Argument	Description
<code>state</code>	<code>AgentCurrentState</code>		Current state of the agent (typically, Value of the appropriate statistic).
<code>switchID</code>	<code>string</code>	<optional>	Optional switch name to limit the search.

Returns:

DNIS value, if found, *empty string* if not found, *null* if **state** is null or not an agent state.

Type = string

GetEmployeeId(state) → {string}

Get agent's Employee ID designated in the given agent state.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic)

Returns:

Agent's Employee ID, if available, *empty string* if not available (typically, when agent is logged out), *null* if **state** is null or not an agent state.

Type = string

GetExtension(state) → {string}

Get agent's Extension designated in the given agent state.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic)

Returns:

Agent's Extension, if available, *empty string* if not available (typically, when agent is logged out), *null* if **state** is null or not an agent state.

Type = string

GetLoginId(state) → {string}

Get agent's Login ID designated in the given agent state.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic)

Returns:

Agent's Login ID, if available, *empty string* if not available (typically, when agent is logged out), *null* if **state** is null or not an agent state.

Type = string

GetPlace(state) → {string}

Get agent's place designated in the given agent state.

Parameters:

Name	Type	Description
<code>state</code>	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

Agent's Place name, if available, *empty string* if not available (typically, when agent is logged out), *null* if **state** is null or not an agent state.

Type = string

GetPosition(state) → {string}

Get agent's ACD Position designated in the given agent state.

Parameters:

Name	Type	Description
<code>state</code>	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic)

Returns:

Agent's ACD Position, if available, *empty string* if not available (typically, when agent is logged out), *null* if **state** is null or not an agent state.

Type = string

GetReasonCodes(state) → {string}

Get reason codes corresponding to the current status of the agent from all media types. Reason codes can be obtained only for the following agent statuses: LoggedIn, AfterCallWork, NotReadyForNextCall, WaitForNextCall.

Parameters:

Name	Type	Description
state	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

Reason codes, splitted by '; ', if available, *empty string* if reason code is not available, *null* if **state** is null or not an agent state.

Type = string

GetServiceSubType(state)

Get "ServiceSubType" user data value.

Parameters:

Name	Type	Description
state	AgentCurrentState	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

ServiceSubType value, if available, *empty string*, if required user data is not available, *null* if **state** is null or not an agent state.

GetServiceType(state)

Get "ServiceType" user data value.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic).

Returns:

ServiceType value, if available, *empty string*, if required user data is not available, *null* if **state** is null or not an agent state.

GetStatusDuration(state) → {Number}

Get duration of the current status of the agent.

Parameters:

Name	Description
<code>state</code>	Current state of the agent, agent group, DN or campaign (typically, Value of the appropriate statistic).

Returns:

Duration, in seconds, if **state** is available, *null* if **state** is null.

Type = Number

GetSwitches(state, sep)

Get list of switches where agent is logged in.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic).
<code>sep</code>	<code>string</code>	Separator to use. Default is <code>';</code> .

Returns:

List of switches, if available, *empty string*, if agent is completely logged out, *null* if **state** is null or not an agent state.

GetUserDataValue(state, key)

Get value of the first found user data with given key.

Parameters:

Name	Type	Description
<code>state</code>	<code>AgentCurrentState</code>	Current state of the agent (typically, Value of the appropriate statistic).
<code>key</code>	<code>string</code>	User data key

Returns:

User data value, if available, *empty string*, if required user data is not available, *null* if **state** is null or not an agent state or **key** is null.