

# Monitoring Queues

Gold

With monitoring the queue, you can define alert and warning thresholds for queue connectivity issues and backlog of records in a queue. Additionally, you can monitor a subscribe or share queue by setting thresholds, that when surpassed, will warn or alert.

## Prerequisites

- ⚠ First, you will need to [install DataSync for ServiceNow](#) and [run the Perspectium Finish Install scripts](#).
- ⚠ You will also need to [set your initial Perspectium & Replicator properties](#).
- ⚠ You will also need to [set up a queue](#).

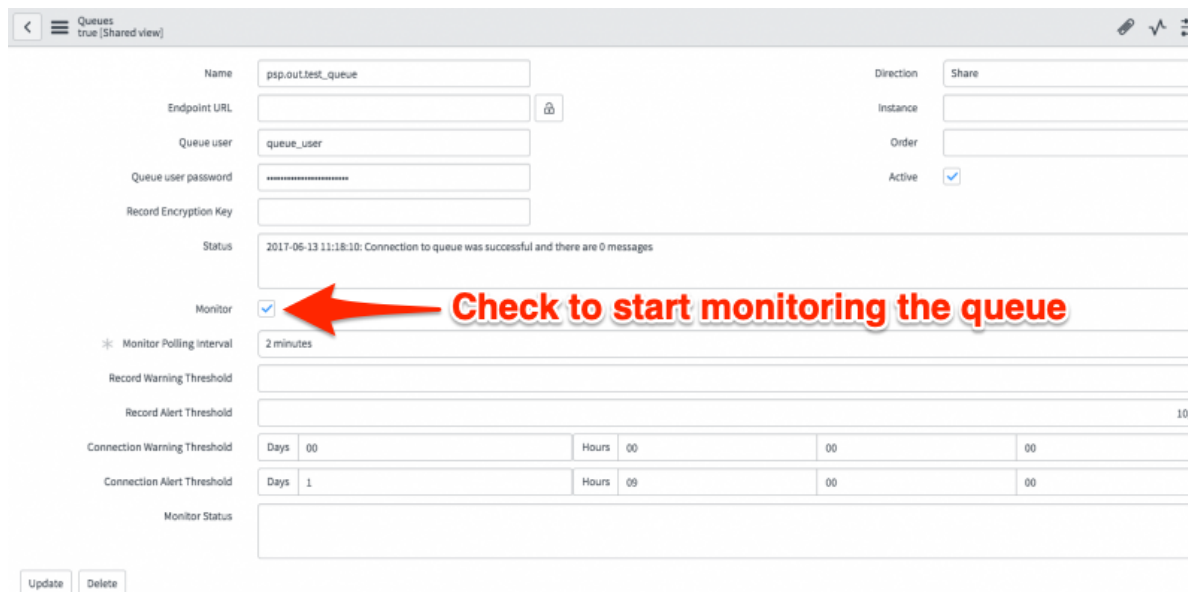
## Procedure

To create add monitoring to a queue, follow these steps:

1

### Select the Monitor option

To start, select the monitor checkbox on the queue's form view. This will display the other queue monitoring fields.

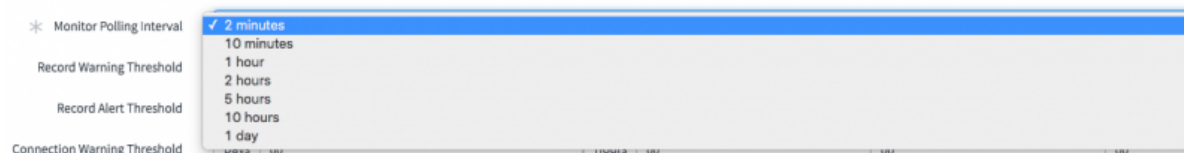


The screenshot shows the 'Queues' form view in ServiceNow. The 'Monitor' checkbox is checked, and a red arrow points to it with the text 'Check to start monitoring the queue'. The form includes fields for Name, Endpoint URL, Queue user, Queue user password, Record Encryption Key, Direction, Instance, Order, and Active. The Status field shows a message: '2017-06-13 11:18:10: Connection to queue was successful and there are 0 messages'. Below the Monitor checkbox, there are fields for Monitor Polling Interval, Record Warning Threshold, Record Alert Threshold, Connection Warning Threshold, and Connection Alert Threshold. The Monitor Status field is also present.

2

### Select the Monitor Polling Interval

Selecting the monitor checkbox will display the monitor fields and it will also require you to select a monitor polling interval before saving the form. This option is the repeated interval that the background job run at checking to see if the thresholds were passed.



The screenshot shows the 'Monitor Polling Interval' dropdown menu. The options are: 2 minutes (selected), 10 minutes, 1 hour, 2 hours, 5 hours, 10 hours, and 1 day.

## Select your thresholds

You can select record thresholds, connection thresholds or both.

### Record Thresholds

Setting the records thresholds will warn or alert if the number of messages in the queue pass that threshold. Note that if both warning and alert thresholds are passed, the system will only send out an alert, not both an alert and a warning.

### Connection Thresholds

Setting the connection thresholds will warn or alert if your instance cannot properly connect to the queue for the provided duration. Not that if both warning and alert duration thresholds are passed, the system will only send out an alert, not both an alert and a warning.

## View Alerts and Warnings

### Monitor Status

Monitor status will hold the contents of the alert or warning. See the two statuses below for examples.

Monitor Status ALERT: psp.out.testing\_queue has 10054 records, passing the threshold of 10000.

Monitor Status ALERT: psp.out.testing\_queue2 has not been able to connect for over 10 Minutes.




### Dashboard View

You can view the monitor status on the DataSync homepage.

Queue	Direction	URL	Status	Monitor	Connection Threshold	Records Threshold	Monitor Status
psp.out.good.url	Share	http://75.80.117.97:80/	2017-06-15 16:42:13: Connection to queue was successful and there are 0 messages	true	1 Day 9 Hours	10000	ALERT: psp.out.good.url has 10054 records, passing the threshold of 10000.
psp.servicenow.replicator.test	Share	http://75.80.117.97:80/	2017-06-15 16:42:13: Queue does not exist on http://75.80.117.97:80/	false			
fake.queue.name	Share	http://75.80.117.97:80/	2017-06-15 16:42:14: Unauthorized access to queue on http://75.80.117.97:80/. Please check your queue, credentials and the URL.	true	10 Minutes		ALERT: fake.queue.name has not been able to connect for over 10 Minutes.
psp.out.servicenow.dev10464	Subscribe	http://75.80.117.97:80/	2017-06-15 16:42:14: Connection to queue was successful and there are 0 messages	false			

### Alert & Notification

This utility will create a log error in the Perspectium Logs (**u\_psp\_log\_message**) on the instance as well as an Alert (**u\_psp\_alerts**) on the instance. The alert will look similar to the following:

**Alert - ALERT0210053**




Number

Name

Value

Timestamp

Priority

Situation

You can then use the [Error Notifications](#) module that we include in the Update Set to fire off a notification corresponding to this alert. You can additionally apply filters onto this alert table to only capture those with Name = "**Perspectium Queue Monitor**", or whichever alerts you would like notifications from. You could similarly build a custom notification record based off of the Alerts table.

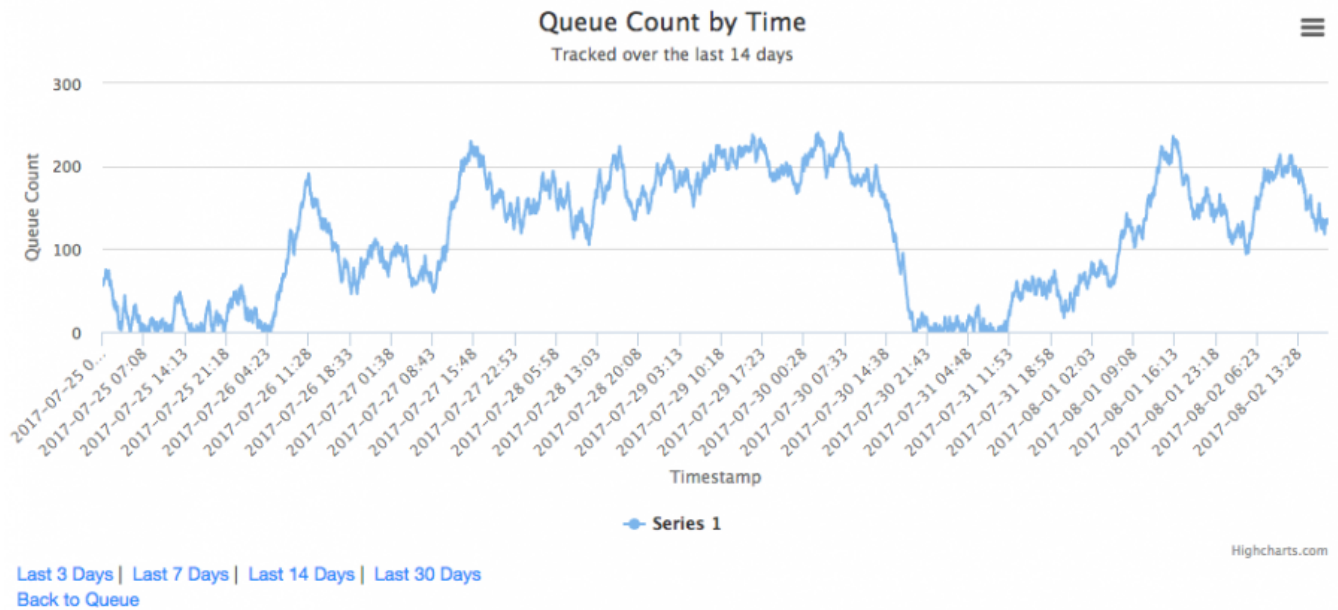
## Queue History

Starting in [v3.25.0](#) users can also track the history of their queues. This can be done by simply checking this **Track History** option under the monitor section.

Monitor	<input checked="" type="checkbox"/>								
* Monitor Polling Interval	<input type="text" value="2 minutes"/>								
Connection Warning Threshold	<table><tr><td>Days</td><td colspan="3"><input type="text" value="00"/></td></tr><tr><td>Hours</td><td><input type="text" value="00"/></td><td><input type="text" value="00"/></td><td><input type="text" value="00"/></td></tr></table>	Days	<input type="text" value="00"/>			Hours	<input type="text" value="00"/>	<input type="text" value="00"/>	<input type="text" value="00"/>
Days	<input type="text" value="00"/>								
Hours	<input type="text" value="00"/>	<input type="text" value="00"/>	<input type="text" value="00"/>						
Connection Alert Threshold	<table><tr><td>Days</td><td colspan="3"><input type="text" value="00"/></td></tr><tr><td>Hours</td><td><input type="text" value="00"/></td><td><input type="text" value="00"/></td><td><input type="text" value="00"/></td></tr></table>	Days	<input type="text" value="00"/>			Hours	<input type="text" value="00"/>	<input type="text" value="00"/>	<input type="text" value="00"/>
Days	<input type="text" value="00"/>								
Hours	<input type="text" value="00"/>	<input type="text" value="00"/>	<input type="text" value="00"/>						
Record Warning Threshold	<input type="text"/>								
Record Alert Threshold	<input type="text"/>								
Monitor Status	<input type="text"/>								
Track History	<input type="checkbox"/>								

This will store the counts of the data so you can view your queue count over time. If you then hit the **View History** UI Action you will see a chart similar to the one below.

## psp.out.servicenow.example Queue History



This chart will load the last 7 days of data by default. You can pull up the last 3, 7, 14, or 30 days as well using the links underneath the chart. Data by default is also deleted when it is over 35 days old. This can be changed by going to the table **u\_psp\_properties** and adjusting the value of the record with name **com.perspectium.queue\_history.days\_retained** from 35 to the number of days you would like.

As of [Gold Patch 1 Release](#), you can view the metrics of your queue in the **Queue History** (**u\_psp\_queue\_history**) table, as seen below:

Queues - psp.out.replicator.test_HA [Shared view*]			
Queue Histories			
Queue = psp.out.replicator.test_HA > Metric Name != NULL			
	Timestamp	Metric Name	Metric Value
	2020-06-09 13:40:41	messages_details.rate	0.0
	2020-06-09 13:40:41	disk_writes	22.0
	2020-06-09 13:40:41	backing_queue_status.avg_egress_rate	0.0
	2020-06-09 13:40:41	backing_queue_status.avg_ack_egress_rate	0.0
	2020-06-09 13:40:41	message_bytes_ready	101356.0
	2020-06-09 13:40:41	messages_unacknowledged_details.rate	0.0
	2020-06-09 13:40:41	messages_ready_details.rate	0.0
	2020-06-09 13:40:41	messages_ram	33.0
	2020-06-09 13:40:41	message_stats.disk_writes	22.0
	2020-06-09 13:40:41	vhost	/
	2020-06-09 13:40:41	disk_reads	11.0
	2020-06-09 13:40:41	messages	33.0
	2020-06-09 13:40:41	messages_ready_details.rate	0.0
	2020-06-09 13:40:41	backing_queue_status.delta	org.mozilla.javascript.NativeArray@206707
	2020-06-09 13:40:41	message_stats.publish	22.0

**NOTE:** This table is also available as a related list in the [Shared queue](#) form.

## Similar topics

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- [Alerts](#)
- [Situation Templates](#)
- [Query Properties](#)
- [Control and Configuration](#)
- [Start/Stop all scheduled bulk shares](#)

## Contact Perspective Support

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