

# Application Performance Management

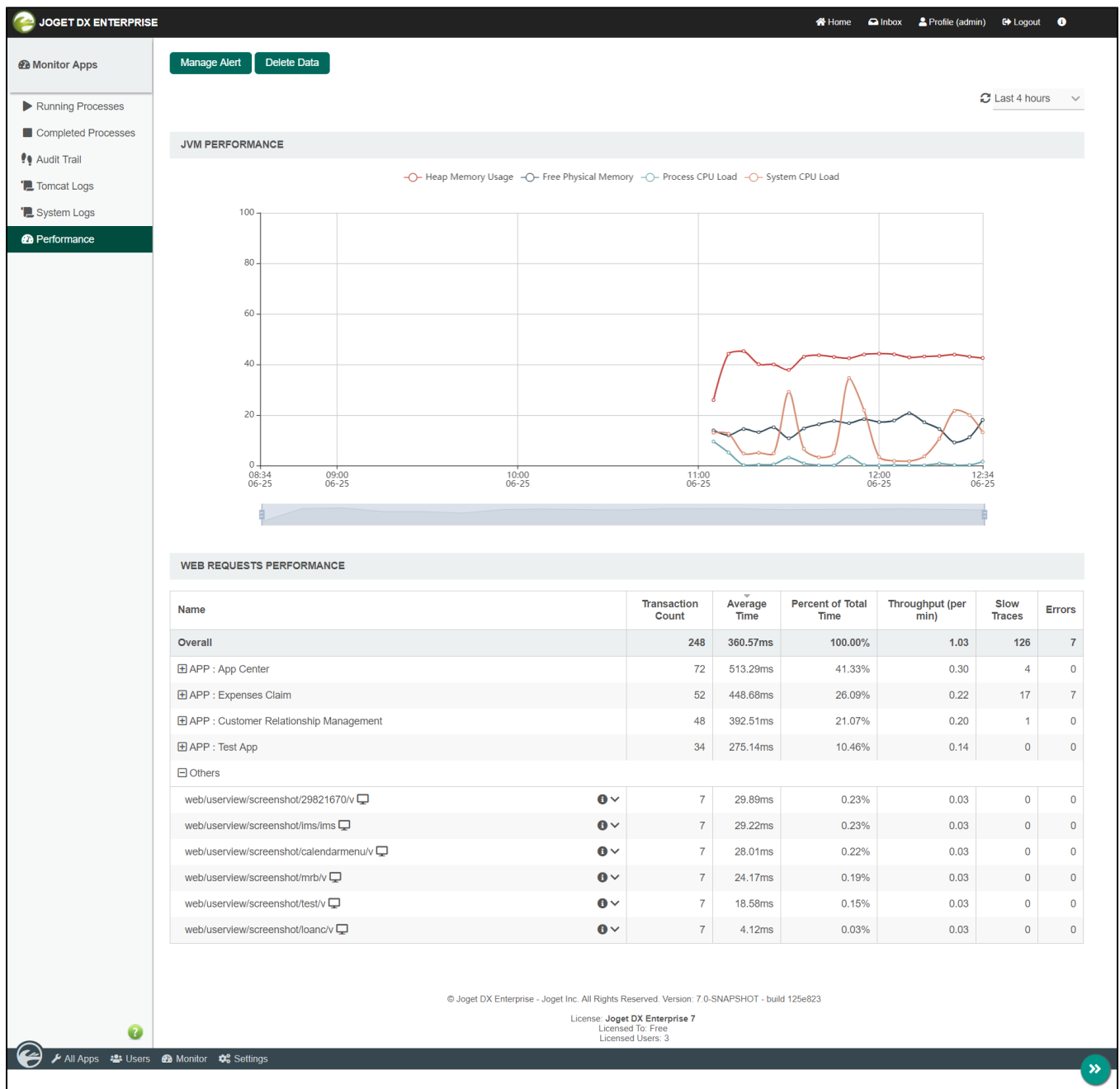
New Feature
This is a new feature in <b>Joget DX Enterprise Edition</b>

- [Introduction](#)
- [How do I access the System APM?](#)
- [How do I access to the APM in my App?](#)
- [Web Request Performance](#)
  - [Download Slow / Error Trace](#)
- [Application Performance Management \(APM\) properties](#)
  - [Manage Alert](#)

## Introduction

**Application Performance Management** (APM) is a built-in feature that automatically monitors system and application performance. The monitoring is done at runtime, and alerts can be configured for various metrics including errors so that email notifications are sent when thresholds are exceeded.

## How do I access the System APM?



- Steps
1. Log in as an administrator
  2. Open up the [Administrator Bar](#)
  3. Click on **Monitor**
  4. Click on **Performance**

How do I access to the APM in my App?

JOGET DX ENTERPRISE

HomeInboxProfile (admin)Logout

Design App:  
Expenses Claim

Version 1Published

Forms & UI

Processes

Properties & Export

Performance

Logs

All Apps

Last 4 hours

WEB REQUESTS PERFORMANCE

Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	177	249.18ms	100.00%	0.74	5	0
Expenses Claims App						
/da	1	3,076.60ms	6.98%	0.00	1	0
/new_claim	3	1,746.77ms	11.88%	0.01	1	0
/myin	16	1,532.07ms	55.58%	0.07	3	0
/	1	286.28ms	0.65%	0.00	0	0
/index	2	241.71ms	1.10%	0.01	0	0
/setupCategory	19	111.62ms	4.81%	0.08	0	0
/offline	28	110.51ms	7.02%	0.12	0	0
/pwaoffline	28	105.39ms	6.60%	0.12	0	0
/_/serviceworker	25	39.10ms	2.22%	0.10	0	0
/manifest	27	28.73ms	1.76%	0.11	0	0
/_/cacheUrls	27	21.69ms	1.33%	0.11	0	0

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Steps

1. Log in as an administrator

2. Hover on an app until a pencil icon is displayed

3. Click on the pencil icon to access the **Design App**

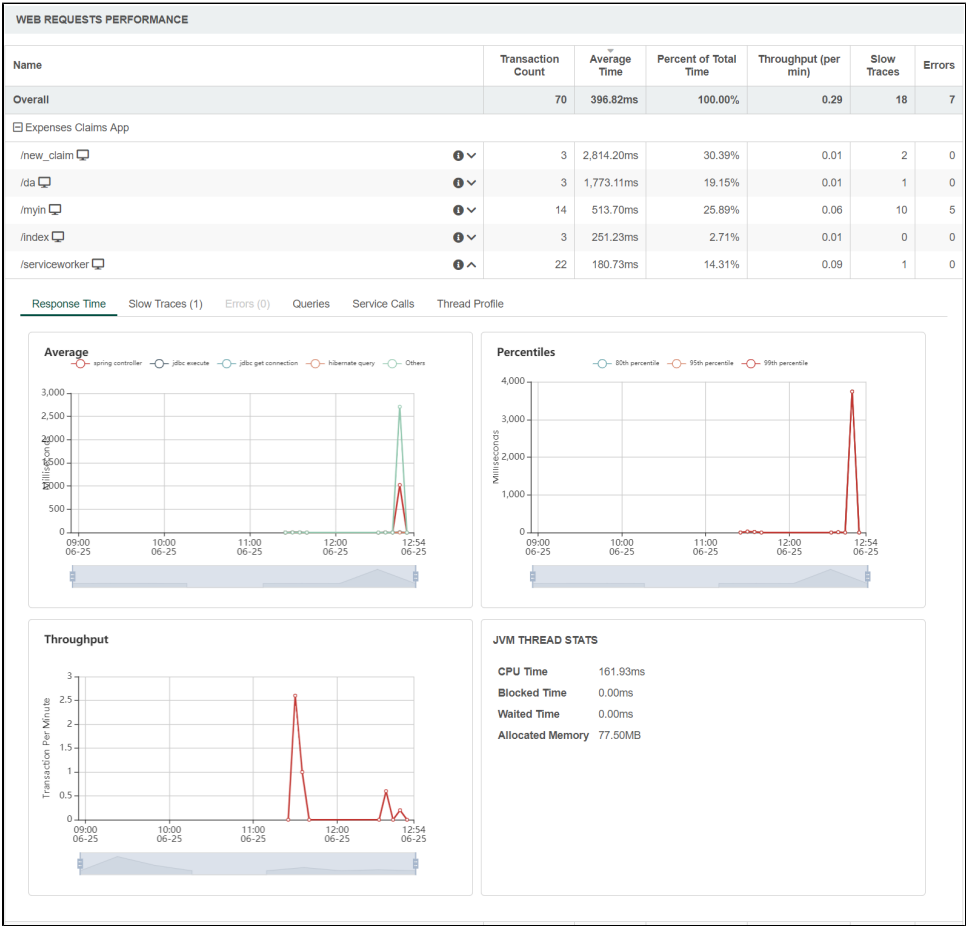
4. Click on **Performance**

5. This will display performance information related only to the current App.

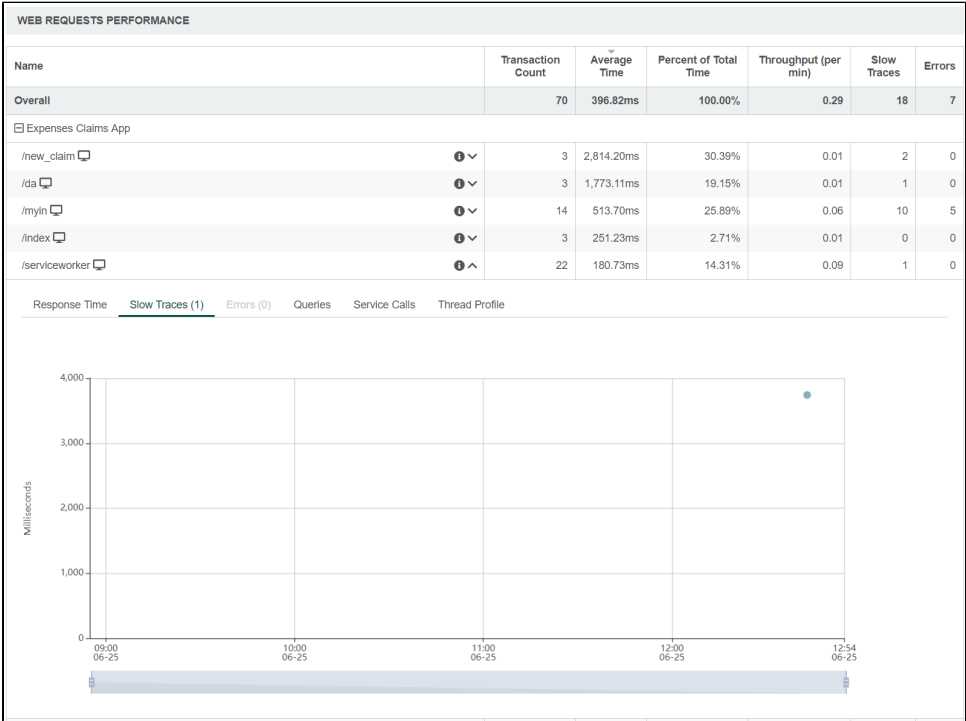
Web Request Performance

Features

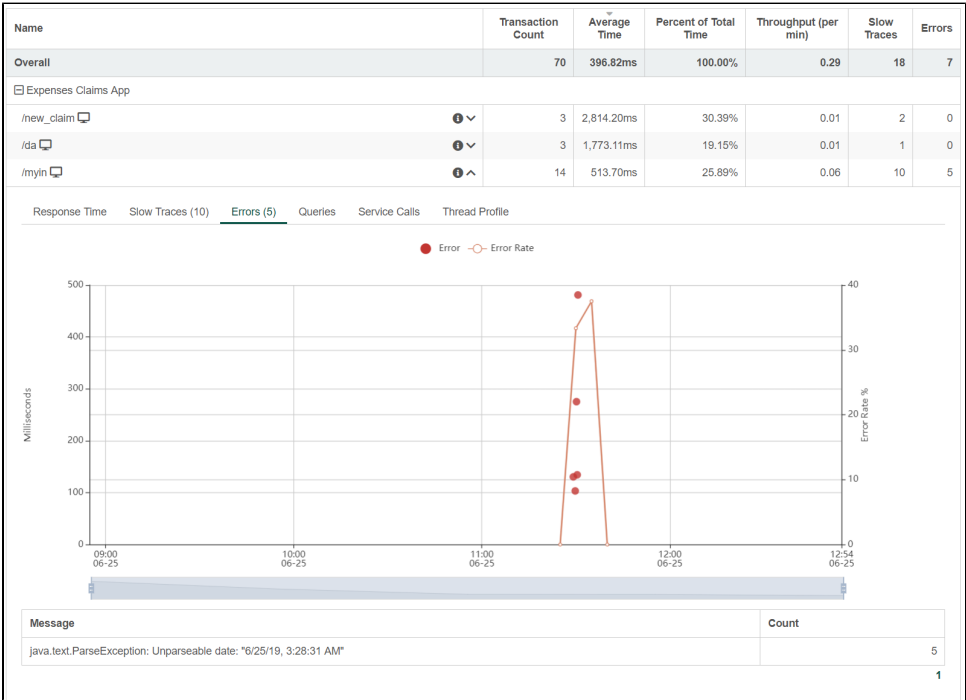
Response Time



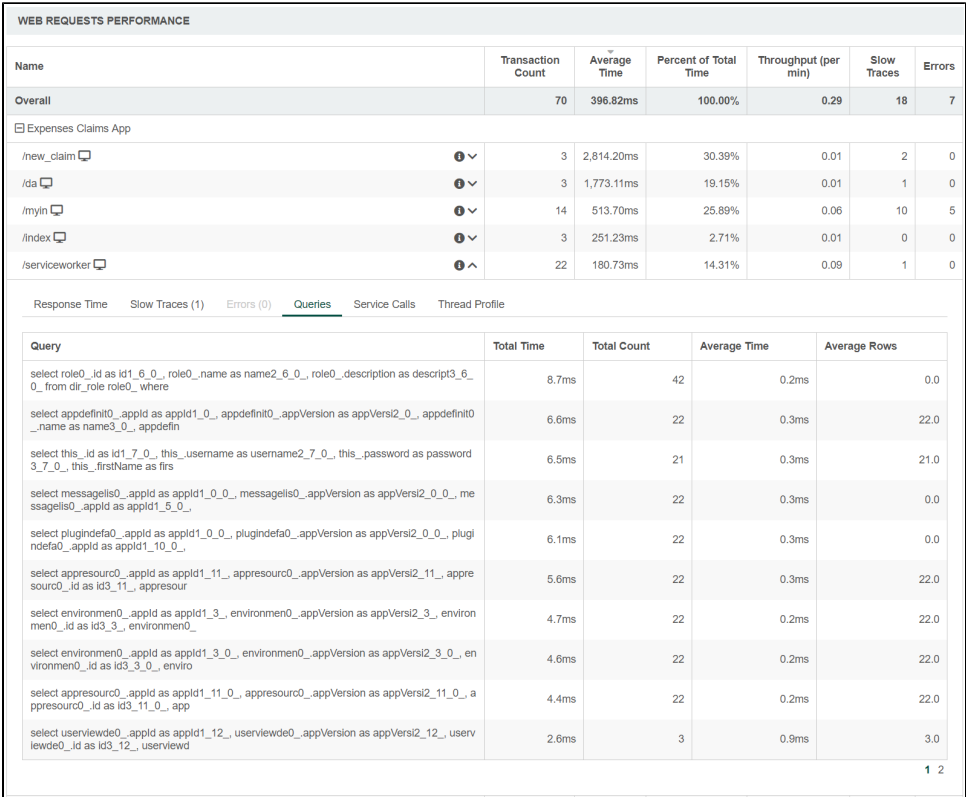
Slow Traces



Errors



Queries



Service Calls

WEB REQUESTS PERFORMANCE

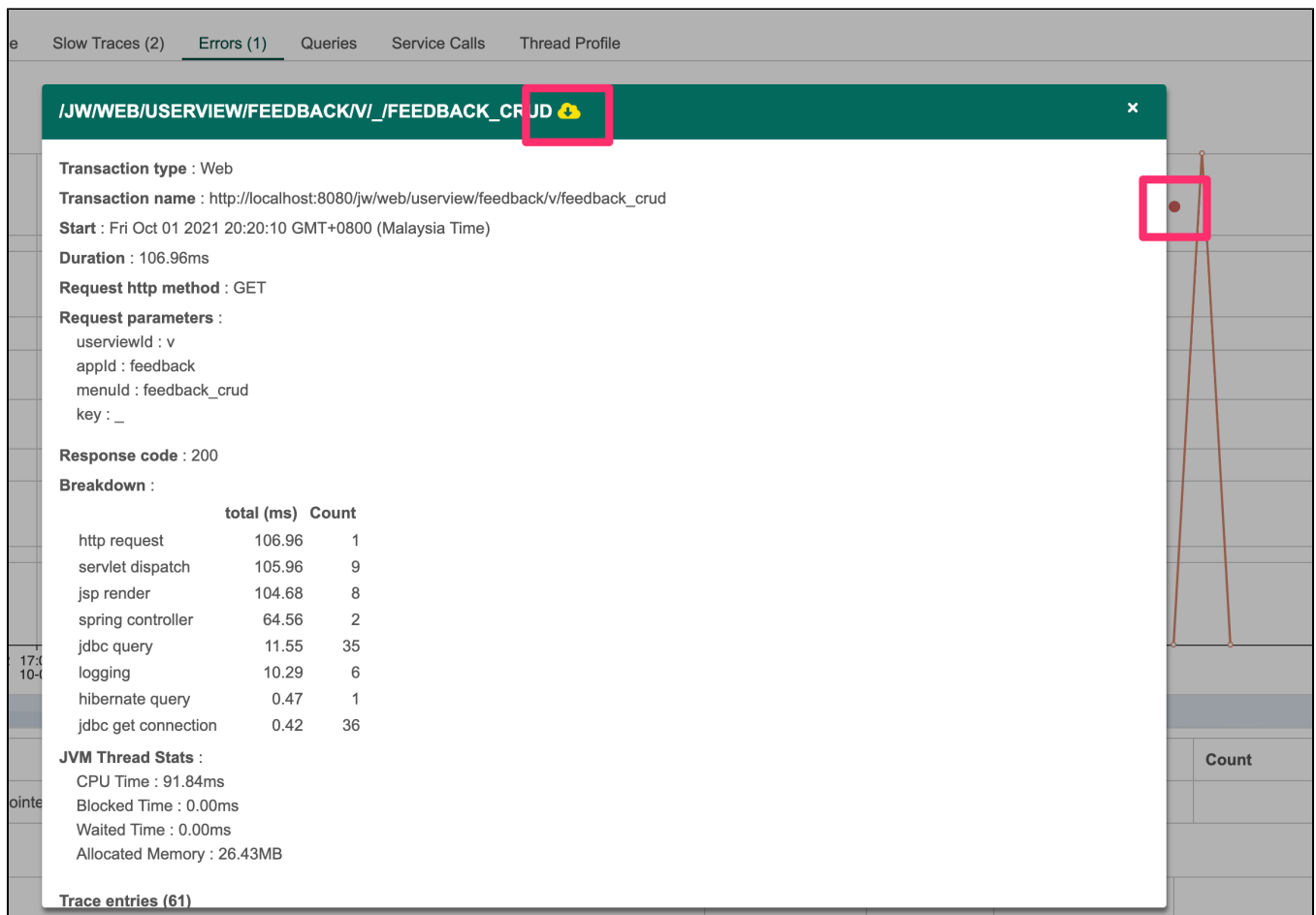
Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	22	319.52ms	100.00%	0.09	1	0
Data						
/80F093084A3645A283B576CFDADB4D2C	2	1,978.23ms	56.28%	0.01	1	0
Response Time   Slow Traces (1)   Errors (0)   Queries   Service Calls   Thread Profile						
		Total Time	Total Count	Average Time		
GET https://gist.sample.com/mshaftr/2646763/raw/8b0dbb93521f5d6889502305335104218454c2bf/states_titlecase.json		752.4ms	2	376.2ms		
GET https://gist.sample.com/user/c5d8364bf9b2420bb29/raw/2bf258763cddd704f8ff3ea9a3e81d25e2c6f6/cities.json		438.8ms	2	219.4ms		
GET http://api.openweathermap.org/data/2.5/weather		181.9ms	4	45.5ms		
1						

Thread Profile

WEB REQUESTS PERFORMANCE						
Name	Transaction Count	Average Time	Percent of Total Time	Throughput (per min)	Slow Traces	Errors
Overall	70	396.82ms	100.00%	0.29	18	7
Expenses Claims App						
/new_claim	3	2,814.20ms	30.39%	0.01	2	0
/da	3	1,773.11ms	19.15%	0.01	1	0
/myin	14	513.70ms	25.89%	0.06	10	5
/index	3	251.23ms	2.71%	0.01	0	0
/serviceworker	22	180.73ms	14.31%	0.09	1	0
Response Time   Slow Traces (1)   Errors (0)   Queries   Service Calls   Thread Profile						
<div>100.0% java.lang.Thread.run(Thread.java:834)</div> <div>75.0% org.joget.commons.util.AnalyzerAspect.analyzeRequests(AnalyzerAspect.java:49)</div> <div>50.0% org.joget.apps.app.service.AppDevUtil.gitInit(AppDevUtil.java:172)</div> <div>25.0% org.eclipse.jgit.api.InitCommand.call(InitCommand.java:85)</div> <div>25.0% org.eclipse.jgit.api.InitCommand.call(InitCommand.java:123)</div> <div>25.0% org.joget.apps.app.service.AppDevUtil.gitInit(AppDevUtil.java:170)</div> <div>25.0% org.joget.commons.util.AnalyzerAspect.analyzeRequests(AnalyzerAspect.java:55)</div> <div>RUNNABLE</div>						




Download Slow / Error Trace

For further analysis, the slow / error trace can be downloaded by clicking on the bubble on the chart itself. Then, click on the download link to download.



## Application Performance Management (APM) properties



Manage Alert	<p>Set up an email Performance Alert notification.</p> <div><b>Note</b> This is only available in the System (APM) under the <b>Monitor &gt; Performance</b> menu.</div>
Delete Data	<p>A prompt will be displayed to confirm the deletion of performance data.</p> <div><b>Note</b> This is only available in the System (APM) under the <b>Monitor &gt; Performance</b> menu.</div>
	<ul style="list-style-type: none"><li>• Last 30 minutes</li><li>• Last 60 minutes</li><li>• Last 2 hours</li><li>• Last 4 hours</li><li>• Last 8 hours</li><li>• Last 24 hours</li><li>• Last 2 days</li><li>• Last 7 days</li><li>• Last 30 days</li></ul>

# Performance Alert

## Manage Alert

PERFORMANCE ALERT

Manage Alert

SMTP

Name	Time Period (mins)	Threshold	
No data available.			

Add Alert

Name	Description
Add Alert	Setup an alert

## Add Alert



PERFORMANCE ALERT

Manage Alert

SMTP

Add Alert

Metric \* ?

Threshold \* ?

Lower Bound Threshold? ?

☐


Time Period (mins) \* ?

Severity \*

Email Notification \* ?

Save

Cancel

Name	Description
Metric	<div>The metric that this alert monitors.</div> <div><u>Available Metrics:</u><ul style="list-style-type: none"><li>Error Count</li><li>Error Rate (%)</li><li>Heap Memory Usage (MB)</li><li>Free Physical Memory (MB)</li><li>Process CPU Load</li><li>System CPU Load</li></ul></div>
Threshold	If the metric value over the given time period is greater than or equal to this threshold, then alert will be triggered
Lower Bound Threshold?	Alert if the metric value is less than or equal to the threshold, instead of alerting if it is greater than or equal to the threshold.
Time Period (mins)	The time period over which the metric is calculated.
Minimum Transaction Count	<div>Time periods with very few transactions have much less meaningful metrics, so this can be used to suppress alerts from being generated unless the time period has a minimum transaction count.</div> <div><div> <b>Note</b></div><div>This field will be displayed if <b>Error Rate (%)</b> is selected in the <b>Metric</b> field.</div></div>
Severity	<ul style="list-style-type: none"><li>Critical</li><li>High</li><li>Medium</li><li>Low</li></ul>
Email Notification	A comma-separated list of email addresses.

SMTP



If no SMTP settings are configured here, this tool will read the SMTP configuration in the "General Settings".

You may configure common SMTP settings in "General Settings > SMTP Settings" for your future convenience.

## PERFORMANCE ALERT



Manage Alert **SMTP**


### Configure SMTP






Host *	<input type="text"/>
Port *	<input type="text"/>
Security	<input type="text" value="▼"/>
Username *	<input type="text"/>
Password *	<input type="password" value="....."/>
Form Email Address *	<input type="text"/>
Form Display Name	<input type="text"/>

Send Test Email

Save

Name	Description
Host	Email Server SMTP Host <div> Example <a href="mailto:smtp@gmail.com">smtp@gmail.com</a></div>
Port	Email Server SMTP Port <div> Typically, port <b>465</b> for <b>SSL</b> security option and <b>587</b> for <b>TLS</b></div>
Security	<ul style="list-style-type: none"><li>• None</li><li>• TLS</li><li>• SSL</li></ul>
Username	Email Server Account Username <div> On Google email account, use your full email address.</div>

Password	Email Server Account Password <div> Password submitted will be encrypted for security reason.</div>
From Email Address	sender email address <div> Example no-reply@your-company-name.com</div>
From Display Name	sender display name <div> Example Info No Reply</div>



#### Quick Test

Hit on the "Send Test Email" button to quickly validate and test out your email settings.