



NEW RELIC APM PRO POWER-PACK INSTALLATION

*INSTALLATION AND CONFIGURATION OF THE
NEW RELIC PRO POWER-PACK*

***USE WITH NEW RELIC PRO/ENTERPRISE
SUBSCRIPTION ONLY!***

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Pack: New Relic APM Pro version 0.9.3
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CHAPTER 1

NEW RELIC OVERVIEW

OVERVIEW

New Relic is an on-line subscription service that captures data and information about web-based applications. Users of the service can measure performance of their applications which helps determine potential service delivery issues. The class of tools New Relic falls under is called **Application Performance Management (APM)**.

New Relic works by installing one or more software agents on each application server in a given environment. The agent harvests data pertaining to the local application and then sends it back to New Relic's on-line system. The data is then presented to subscribers in the form of charts and graphs, which allows users to visualize the performance and health of their application.

New Relic works at the OS and application layers by inserting a tracking agent directly within the application language. Web based applications such as PHP, Python, Ruby, and Java are fully supported. When a web resource or page is requested by a client browser, the application server (such as Apache) loads the server-side programming compiler which includes the agent module provided by New Relic. Metrics for number of page transaction, database queries and connections, browser transactions, geographic information are just some of the metrics New Relic reports against.

SUBSCRIPTION SERVICE TYPES

New Relic provides three different subscriptions types.

Subscription Type	Cost	Support	Data Retention	API
Lite	Free	24 Hour Data	24 Hour	V1
Pro	\$149.00/mo. host	Unlimited	Gold Support	V2
Enterprise	Bulk Pricing	Unlimited	Dedicated Acct Mgr.	V2

Lite (free) subscriptions all begin life as a Pro account, however after 14 days, access to the V2 API is disabled and metrics are no longer available through the API. Because of this it's recommended that all Lite customers use the **New Relic APM Lite Power-Pack**.

Pro and Enterprise are the same functional account types and may use the **New Relic APM Pro Power-Pack**.

NEW RELIC API'S

New Relic has two different API's; these are known as API version 1 and API version 2. Both API's are web-based and leverage REST principles for accessing data. Integrating products such as ScienceLogic talk directly to these API's to retrieve data.

The differences between API v1 and API v2 are moderately significant; however both are restricted by the type of subscription account the user has. Although both API's are available to all subscribers, all metrics functionality is disabled to lite (free) customers except for the API v1 Application Summary metrics, also known as the Thresholds page.

This has led to a substantial amount of confusion among customers because New Relic does not necessarily announce this limitation. And because all a lite accounts begin life as a pro account, subscribers may be able to deploy the ScienceLogic **New Relic APM Pro Power-Pack** within the initial 14 day trial window and see detailed data.

After the 14 day trial has expired, New Relic will revoke access to the portion of the API which provides metric data. This will cause metric collection in ScienceLogic to fail and the system will eventually stop trying. After the trial period the only metric data which is available can be obtained from the API v1.

It's highly recommended that all lite subscribers use the **New Relic APM Lite Power-Pack** to avoid this confusion after the trial period has expired.



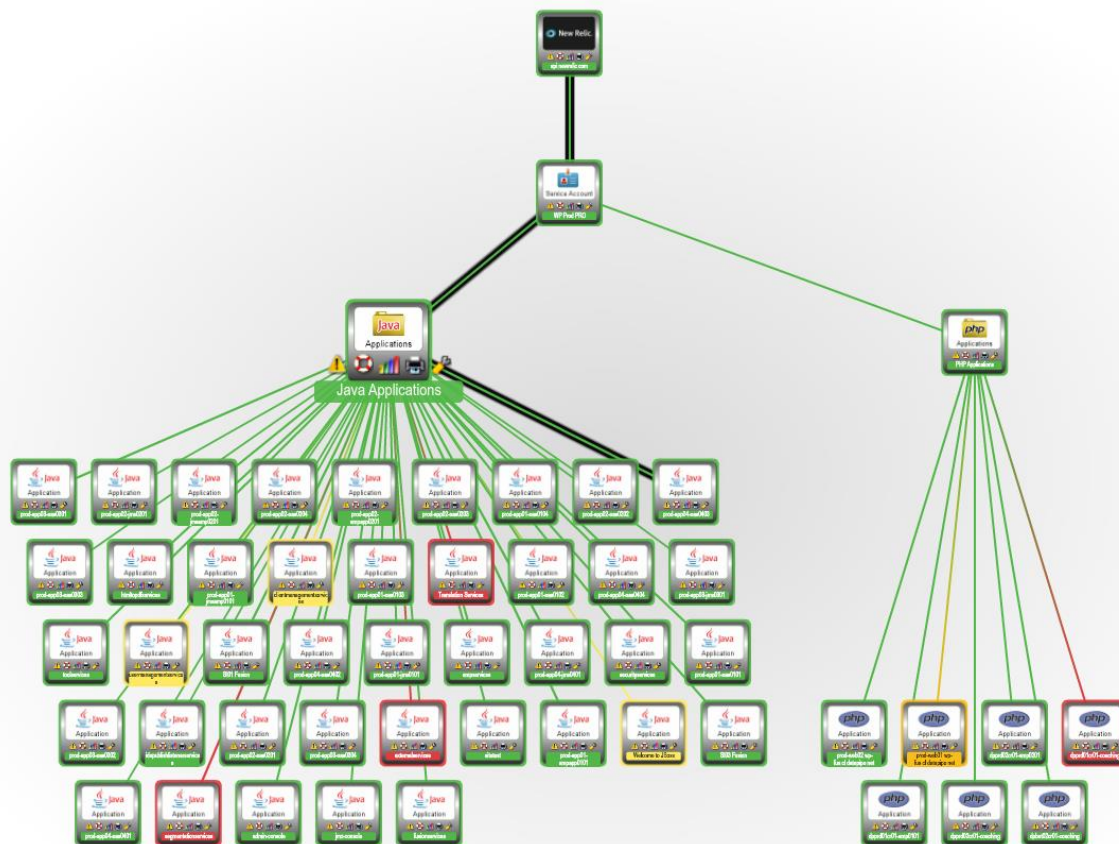
POWER-PACK SOLUTION

The Power-Pack for New Relic is designed to provide integration and visibility of your applications within the ScienceLogic management system. Customers can provide multi-tenant visibility of managed end-points while leveraging all the powerful operational tools ScienceLogic provides.



New Relic Applications are modeled as distinct "devices", based on their application type. For instance a Java application will appear as Java "device" (right) in ScienceLogic. Each class of application will be modeled in a container device of that class of application, for instance Java Applications device represented as a folder (left). The same principal applies to PHP, .NET and other application types.





Above: Example of discovered New Relic Pro subscription with Java and PHP applications.

CHAPTER 2

INSTALLING THE POWER-PACK

OVERVIEW

In this chapter we will install the New Relic APM Pro Power-Pack and then configure the credential for manual alignment of data collection.

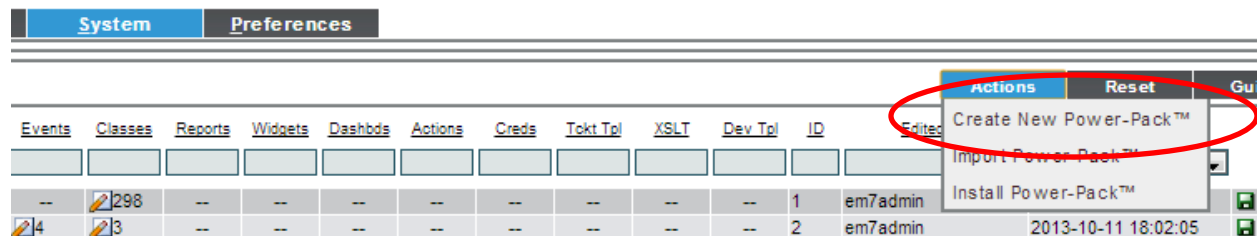
Requirements

A valid user name and password for New Relic

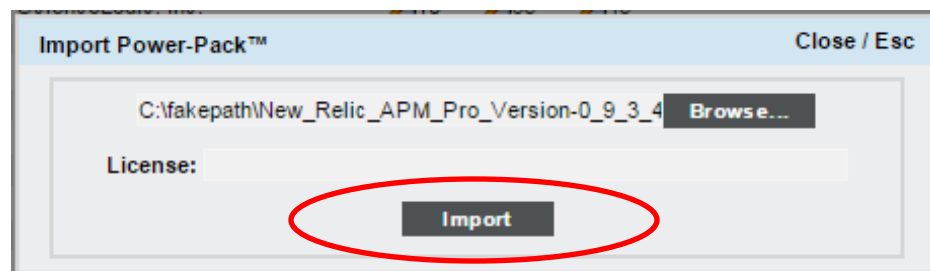
A valid admin user name and password for ScienceLogic

INSTALLATION

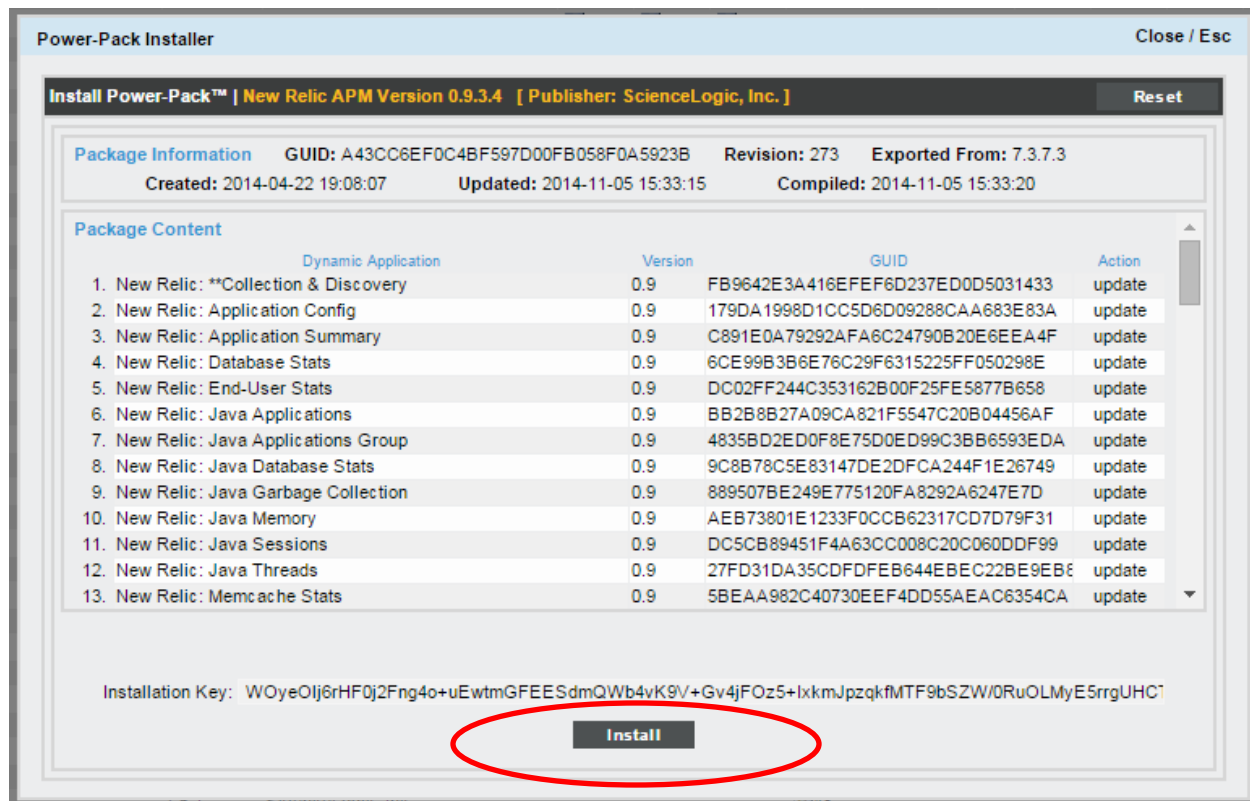
Obtain the latest copy of the New Relic APM Pro Power-Pack. In this document we will be using version 0.9.3.4 of the Power-Pack. Using normal Power-Pack installation procedures, got the System tab, select Manage\Power-Packs, and then select the Action button, and select "Import Power-Pack".



Locate the Power-Pack file, and then select the Import button.



Click "Install" to begin the import process.



Once the Power-Pack is installed, proceed to the next section to configure the credential.

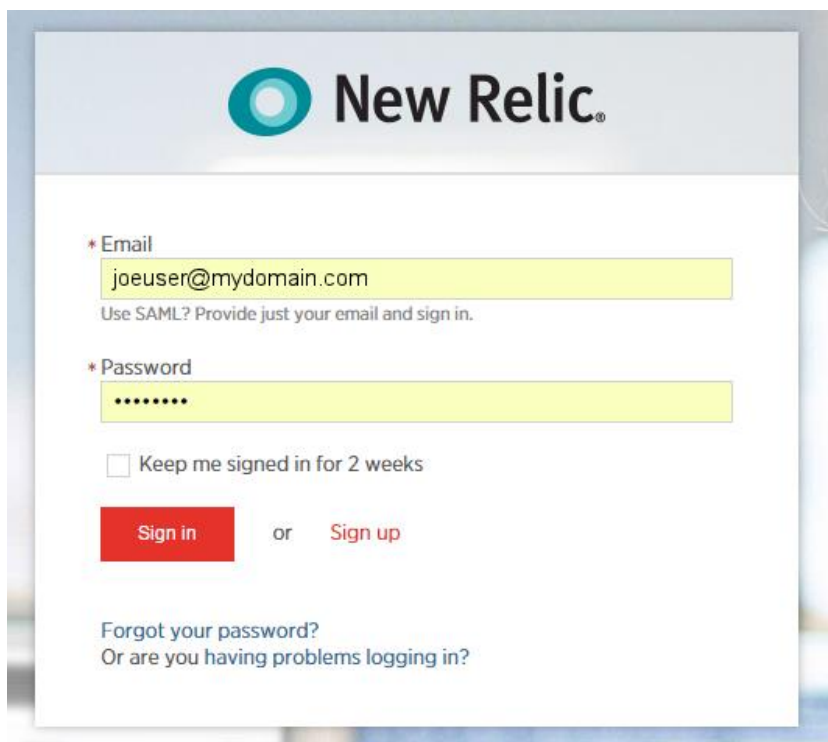
CHAPTER 3

KEYS AND CREDENTIALS

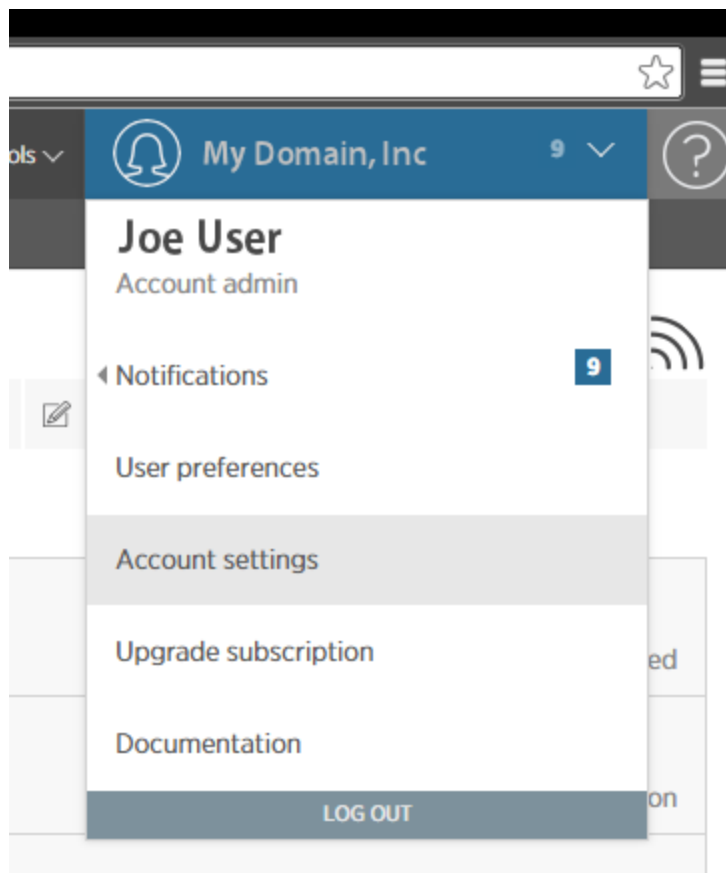
NEW RELIC KEY

To integrate ScienceLogic with New Relic, you must activate the New Relic API access and get your API key from your account settings. The New Relic API key is needed in the ScienceLogic credential.

Sign in to the New Relic user interface at: <https://rpm.newrelic.com/>



In the top right menu, click on your company name, then select the Account Setting item.



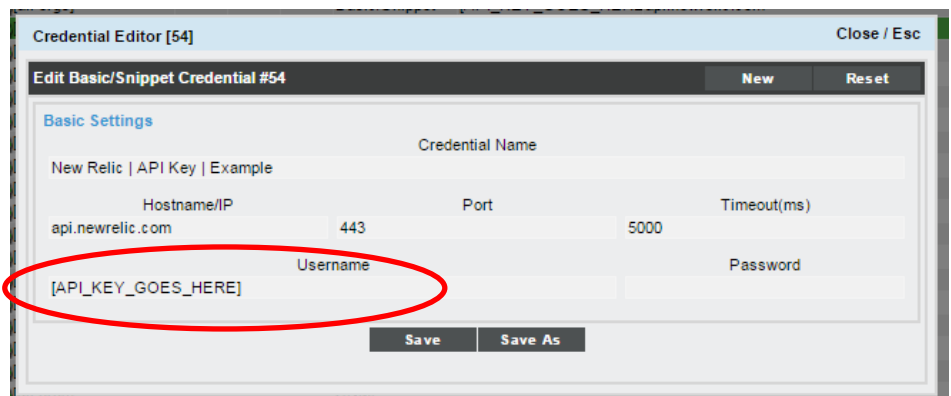
On the right of your screen, under account information, you will see a License Key, copy the entire string.

License key

aba0e6c9119679999f8f2def6eabdc7e93f9b1680

CREDENTIAL

With the Power-Pack installed, we can now configure our credential. Navigate to the System tab, select Manage\Credentials. Locate the **"New Relic | API Key | Example"** credential and then click on the wrench to edit it.



In the "Username" field of the credential, enter the New Relic API Key that you identified above. Make sure you "Save As" and provide a new Credential Name.

Note: Each credential is bound to a specific New Relic account. Use the "Save As" button to duplicate credentials.

CHAPTER 4

SETTING UP A DEVICE

DISCOVER ROOT DEVICE

In this chapter we will create a pingable device for the New Relic API service itself. The New Relic APM power-pack includes a “Ping Device” device class that can be manually aligned to any pingable device. Once a device is discovered we will manually change the device class. The advantage of using ping or physical device is that you can also monitor the New Relic API service, such as port 443.

First, create a new discovery session. Resolve the New Relic API server IP address by issuing a ping command on the EM7 command line interface:

```
[root@em7 ~]# ping api.newrelic.com
```

```
64 bytes from rpm.newrelic.com (204.93.223.152): icmp_seq=1 ttl=241 time=39.1 ms
```

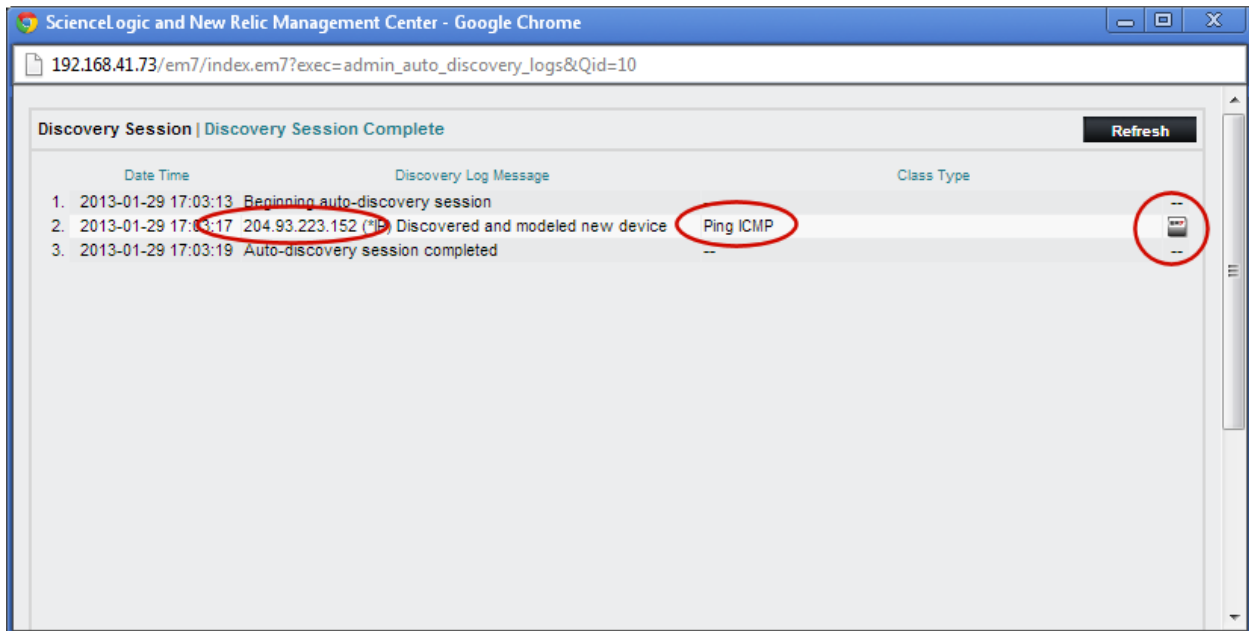
Create a new Discovery session, and then enter the IP address of the New Relic API server into the IP Address List field. Select “Discover Non-SNMP” setting, and then click on the Save button.

The screenshot shows the 'Discovery Session Editor | Editing Session [10]' window. The interface is divided into several panels:

- IP and Credentials:** The 'IP Address Discovery List' contains the IP address '204.93.223.152', which is circled in red. Below it are fields for 'Upload File' and 'Browse for file...'. The 'SNMP Credentials' list includes '_Cisco_CUCM_Lab', '_EM7 Default V2', '_EM7 Default V3', '_LifeSize: Endpoint SNMP', '_SNMP Public V1', and '_SNMP Public V2'. The 'Other Credentials' list includes '_Basic/Snippet', '_Cloudkick - Example', '_Dell iDRAC wsman', '_Dell iDRAC WSMAN', '_Dell iDRAC WSMAN - Support', and '_EMC - Example'.
- Detection and Scanning:** This panel contains settings for 'Initial Scan Level', 'Scan Throttle', 'Port Scan All IPs', and 'Port Scan Timeout', all set to '[System Default (recommended)]'. Below these is the 'Detection Method & Port' section, which lists various protocols and ports, including 'UDP: 161 SNMP', 'TCP: 1 - tcpmux', 'TCP: 2 - compressnet', 'TCP: 3 - compressnet', 'TCP: 5 - rje', 'TCP: 7 - echo', 'TCP: 9 - discard', 'TCP: 11 - systat', 'TCP: 13 - daytime', 'TCP: 17 - qotd', and 'TCP: 18 - msp'.
- Basic Settings:** This panel contains the 'Discover Non-SNMP' checkbox, which is checked and circled in red. Other settings include 'Duplication Protection' (checked), 'Collection Server PID: 1', 'Organization' (set to '_[em7_ccordray]'), and 'Add Devices to Device Group(s)' (set to 'Please create a device group first'). At the bottom, there is an 'Apply Device Template' section with a 'Choose a Template' dropdown.

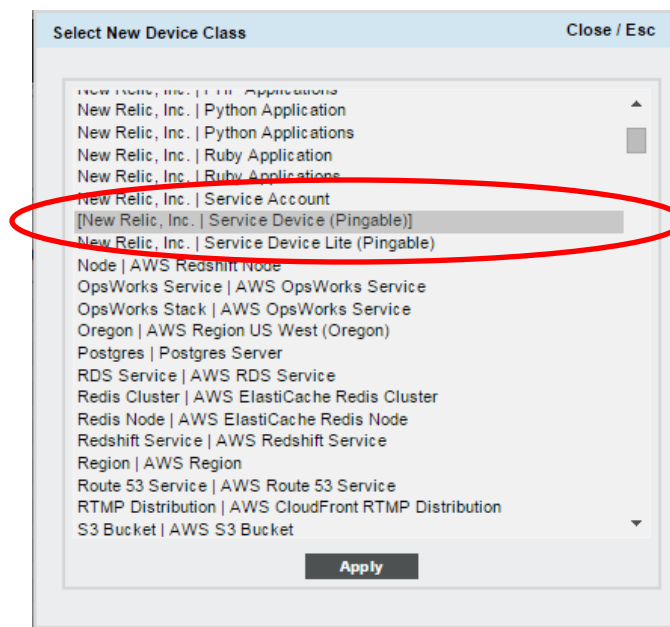
At the bottom of the window, there is a 'Save' button and a 'Log All' checkbox.

Run the discovery session by clicking on the lightning bolt icon. EM7 will find the device and model it as a "Ping ICMP" device class.



From the discovery results window, navigate to the new device by clicking on the device icon. By default the device will have a standard "Ping Device" icon and device class. You may change this to a New Relic device class for better identification.

Click on the "toolbox" icon next to the device class, then select the "New Relic | Ping Device" device class, which is located at the top of the list under "NON-SNMP-CLASSES". Click the Apply button to save changes.



Once complete your pingable will be identified as a New Relic device.

Monitors	
Relationships	Tickets
Redirects	Notes
Managed Type	Physical Device
Category	Cloud.Service
Sub-Class	Service Device (Pingable)
Uptime	0 days, 00:00:00
Collection Time	2014-11-21 11:07:00
Group / Collector	CUG em7_ao

 New Relic
    
api.newrelic.com

Organization
Asset

You may also wish to change the device name to either the FQDN or another name that illustrate your service account. In this cause we renamed the device the api.newrelic.com.

Close	Properties	Thresholds	Collections	Monitors
Schedule	Logs	Toolbox	Interfaces	Relationships
Tickets	Redirects	Notes		
Device Name	api.newrelic.com	Managed Type	Physical Device	
IP Address / ID	50.31.164.158 3	Category	Cloud.Service	
Class	New Relic, Inc.	Sub-Class	Service Device (Pingable)	
Organization	System	Uptime	0 days, 00:00:00	
Collection Mode	Active	Collection Time	2014-11-21 11:07:00	
Description		Group / Collector	CUG em7_ao	
Device Hostname				

 New Relic
    
api.newrelic.com

Organization
Asset

Actions
Reset
Guide

Identification

Device Name: 

IP Address: 

Organization: 

Monitoring & Management

Device Class: New Relic, Inc. Service Device (Pingable) 

SNMP Read/Write:  

Availability Port:  

Latency Port:  

Avail+Latency Alert: 

User Maintenance:  

Collection:  

Coll. Type: 

Critical Ping: 

Dashboard: 

Event Mask: 

Save

Preferences

Auto-Clear Events ☒

Accept All Logs ☒

Daily Port Scans ☒

Auto-Update ☒

Scan All IP's ☐

Dynamic Discovery ☒

Preserve Hostname ☒

Disable Asset Update ☐

CHAPTER 5

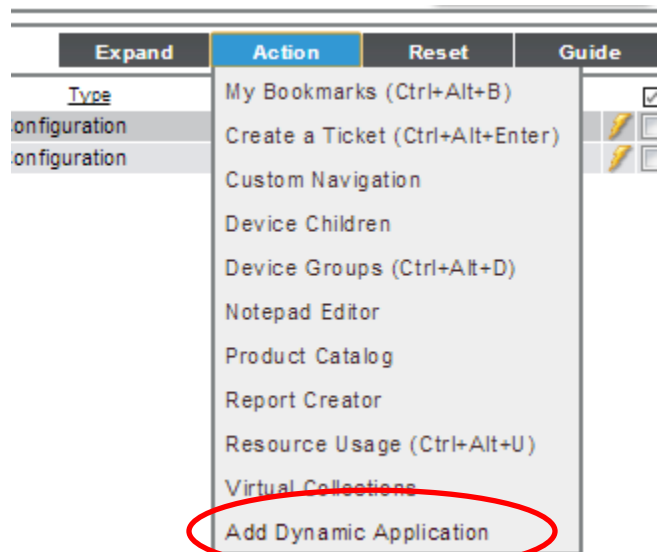
ALIGNING DCM DYNAMIC APPS

ALIGNING THE APP

With the device modeled, click on the device properties page, then select the Collections tab. Next, click on the Actions button, then select Add Dynamic Application.

In the Dynamic Application modal, type “New Relic” in the search box, then select the “**New Relic: *Collection & Discovery**” application. Next, select the credential you configured in the previous chapter.

Click “Save” to save your settings and you will be returned to the Collections page.

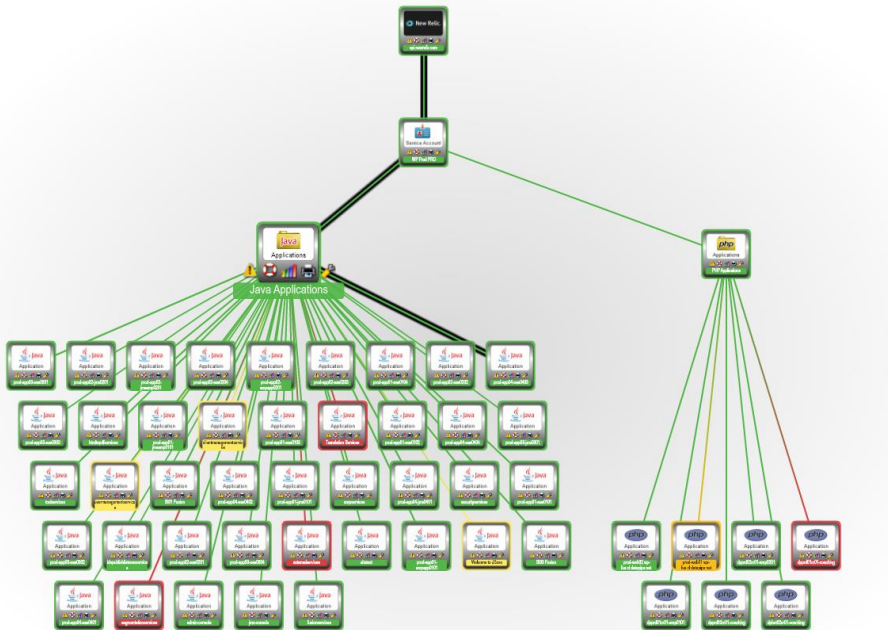


Note: ONLY align the below defined Dynamic Applications. All other applications will be automatically aligned for you!

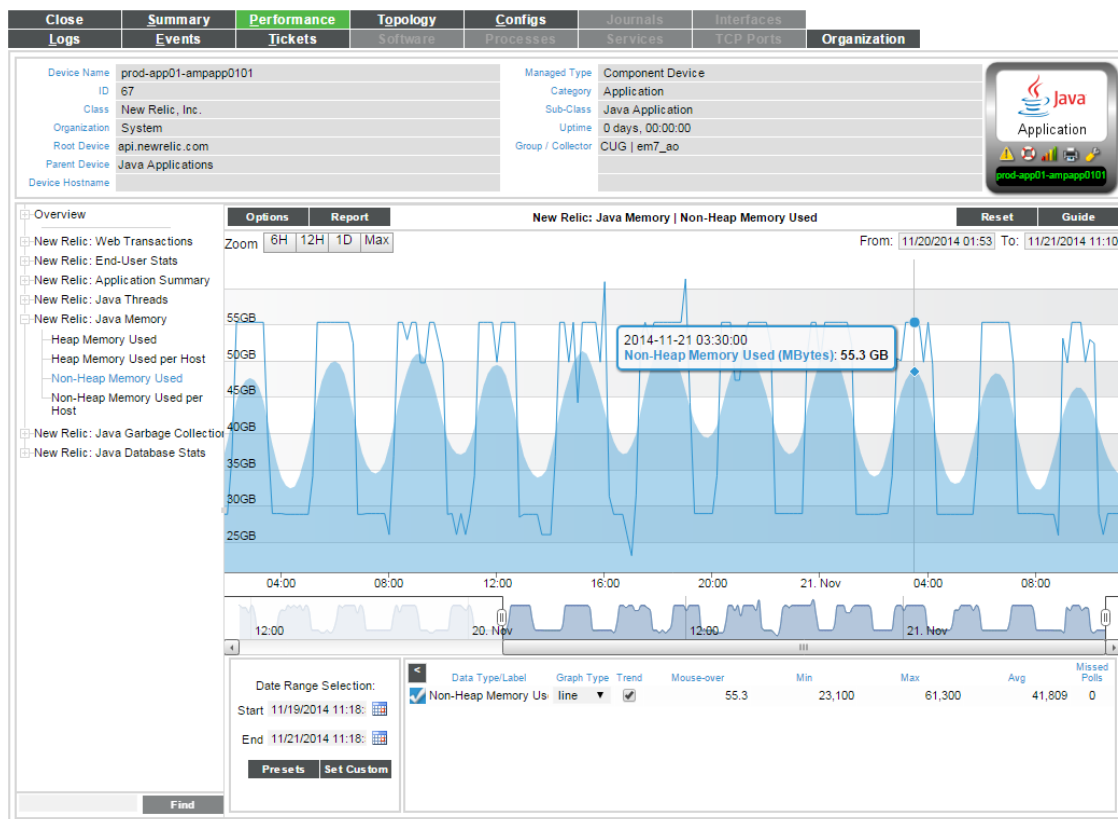
Manually Aligned Dynamic Applications

New Relic: **Collection & Discovery

All Dynamic Applications operating on a collection frequency of 5 minutes, as a result it will take about 10 minutes for all DCM devices to be modeled and discovered. Once complete, you may view the Component tree in the Views tab.



After a few minutes you should begin seeing performance data.



Java

Application

prod-app01-ampapp0101

Overview

New Relic: Web Transactions

New Relic: End-User Stats

New Relic: Application Summary

New Relic: Java Threads

New Relic: Java Memory

Heap Memory Used

Heap Memory Used per Host

Non-Heap Memory Used

Non-Heap Memory Used per Host

New Relic: Java Garbage Collection

New Relic: Java Database Stats

Options

Report

New Relic: Java Memory | Non-Heap Memory Used

Reset

Guide

Zoom

6H

12H

1D

Max

From:

11/20/2014 01:53

To:

11/21/2014 11:10

Date Range Selection:

Start

11/19/2014 11:18

End

11/21/2014 11:18

Presets

Set Custom

Data Type/Label

Non-Heap Memory Us

Graph Type

line

Trend

Mouse-over

Min

55.3

Max

61,300

Avg

41,809

Missed Pts

0

CHAPTER 6

ALERTS AND EVENTS

OVERVIEW

There are 36 different Events and matching Dynamic Application alerts included with the New Relic Pro Power-Pack. Each of these events relies on state-based data collected every 5 to 10 minutes by a corresponding configuration or performance dynamic application.

New Relic: Apdex Critical	Dynamic	Enabled	Yes	Critical
New Relic: Apdex Healthy	Dynamic	Enabled	Yes	Healthy
New Relic: Apdex Major	Dynamic	Enabled	Yes	Major
New Relic: Apdex Score Exceeded Critical Threshold Level	Dynamic	Enabled	Yes	Critical
New Relic: Apdex Score Exceeded Major Threshold Level	Dynamic	Enabled	Yes	Major
New Relic: Apdex Score Returned to Healthy from Critical	Dynamic	Enabled	Yes	Healthy
New Relic: Apdex Score Returned to Healthy from Major	Dynamic	Enabled	Yes	Healthy
New Relic: Application Busy Critical	Dynamic	Enabled	Yes	Critical
New Relic: Application Busy Healthy	Dynamic	Enabled	Yes	Healthy
New Relic: Application Busy Major	Dynamic	Enabled	Yes	Major
New Relic: Application Errors Above Threshold	Dynamic	Enabled	No	Minor
New Relic: Application Errors Above Threshold	Dynamic	Enabled	Yes	Minor
New Relic: Application Errors Returned Below Threshold	Dynamic	Enabled	No	Healthy
New Relic: Application Errors Returned Below Threshold	Dynamic	Enabled	Yes	Healthy
New Relic: Application Memory Returned Below Threshold	Dynamic	Enabled	Yes	Healthy
New Relic: Application Memory Usage Exceeded Threshold	Dynamic	Enabled	Yes	Minor
New Relic: Application Requests Per Minute Exceeded Threshold	Dynamic	Enabled	Yes	Minor
New Relic: Application Requests Per Minute Returned to Healthy	Dynamic	Enabled	Yes	Healthy
New Relic: Application Response Time Exceeded Threshold	Dynamic	Enabled	Yes	Minor
New Relic: Application Response Time Returned to Healthy	Dynamic	Enabled	Yes	Healthy
New Relic: Database Response Time Exceeded Threshold	Dynamic	Enabled	Yes	Minor
New Relic: Database Response Time Returned to Normal	Dynamic	Enabled	Yes	Healthy
New Relic: End User Apdex Dropped Below Threshold Level	Dynamic	Enabled	No	Major
New Relic: End User Apdex Returned to Healthy Level	Dynamic	Enabled	Yes	Healthy
New Relic: End-User Apdex Returned to Healthy Level	Dynamic	Enabled	No	Healthy
New Relic: End-User Apdex Fell Below Threshold Level	Dynamic	Enabled	Yes	Minor
New Relic: Error Rate Critical	Dynamic	Enabled	Yes	Critical
New Relic: Error Rate Exceeded Critical Threshold	Dynamic	Enabled	Yes	Critical
New Relic: Error Rate Exceeded Major Threshold	Dynamic	Enabled	Yes	Major
New Relic: Error Rate Healthy	Dynamic	Enabled	Yes	Healthy
New Relic: Error Rate Major	Dynamic	Enabled	Yes	Major
New Relic: Error Rate Returned to Normal Levels from Critical	Dynamic	Enabled	Yes	Healthy
New Relic: Error Rate Returned to Normal Levels from Major	Dynamic	Enabled	Yes	Healthy
New Relic: Response Time Critical	Dynamic	Enabled	Yes	Critical
New Relic: Response Time Healthy	Dynamic	Enabled	Yes	Healthy
New Relic: Response Time Major	Dynamic	Enabled	Yes	Major

CHAPTER 7

DASHBOARDS AND METRICS

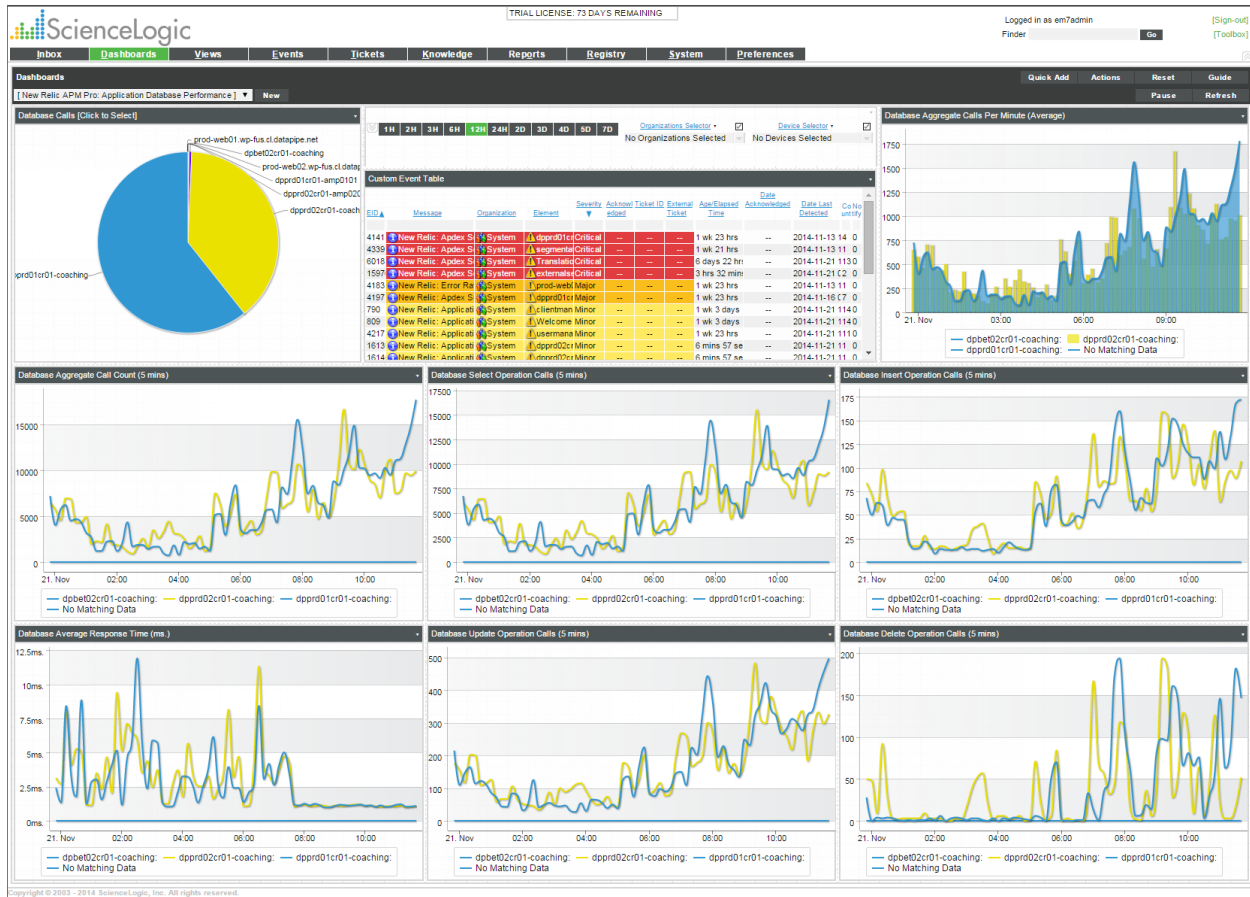
OVERVIEW

There are several example dashboards are packaged with the New Relic Pro Power-Pack. The below example is a Java Application Performance dashboard that provides a cross-application view of performance against the top 25 Java Applications.



Some post-install configuration may be needed for the event widget because of limitations in the import process maintaining event definitions.

There is also a Database Performance dashboard for applications database metrics (Requires New Relic agent)



There is also an Application Summary dashboard.

