



## Entuity<sup>®</sup> 14.0 Migration Guide



*Entuity empowers service providers, systems integrators, and enterprises with network control and predictability foundational to meeting any of today's complex IT infrastructure challenges. Entuity provides a succinct suite of the most important functionality for network management – inventory, fault, and performance management – but presented in an easy to use, quick to deploy format.*

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# 1 Entuity 14.0 Migration Overview

This migration guide covers issues for users migrating from earlier versions of the Entuity software to Entuity 14.0 GA (General Availability).

You can find detailed install instructions in the *Entuity Getting Started Guide*.



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Before you upgrade to Entuity 14.0 you are strongly recommended to back up your current installation; the Entuity 14.0 upgrade process does not include a rollback facility.

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## Migration Prerequisites

Before installing Entuity 14.0 you should read its accompanying:

- *Known Issues* note which details the release contents and instructions on how to install the image.
- *Release Notes* which identifies for you new, changed and removed functionality.

You can find detailed install and configure instructions in the *Entuity Getting Started Guide*. The *Getting Started Guide* and *Release Notes* are available at the root of the supplied Entuity installation CD or ISO image.

When migrating from Entuity 13.0 you should also read the Entuity 13.5 *Release Notes* and *Migration Guide*.

## Entuity 14.0 Licenses

You must obtain from your Entuity representative an Entuity 14.0 license; licenses valid with earlier versions of Entuity are not valid with Entuity 14.0.

## System Requirements and Shipped Software

Entuity 14.0 server is only certified for use with the 64-bit English edition variants of, Red Hat Enterprise Linux ES version 6, Oracle Linux 6, Windows Server 2008 R2 and Windows Server 2008 SP2.

### Changes to Shipped Third Party Software Versions

Product	Entuity 13.5	Entuity 14.0
Apache Tomcat	6.0.26	6.0.36
JRE shipped with the Entuity Client	1.7.0_15	1.7.0_45
MySQL Database	5.1.36	5.6.14

Table 1 Third Party Software Versions

## Cache and Memory Usage

Entuity 14.0 includes a newer version of the MySQL database and enhanced management of polled data, for example weighted rollups of fault and discard data. Entuity 14.0 cache requirements are higher and the cache defaults are appropriately adjusted. Depending on the number of managed ports there may be a modest increase in memory consumed by `DsKernelStatic`.

Database changes also require a change in the default memory assigned to `eosserver`, the process which manages communication between Component Viewer and the Entuity database.

Setting	Entuity 13.5	Entuity 14.0
Number of Sample Caches	3	4
Streams per Cache	150000	200000
eosserver	192m	256m

Table 2 Entuity 14.0 Resource Defaults

The new Entuity 14.0 defaults do not override any previously amended cache settings. If you had adjusted your cache settings, and if a server manages more than 50000 ports then you probably have, you should consider an additional 50% increment of the assigned cache resources.

Through sections in `entuity_home\etc\entuity.cfg` you can amend cache and `eosserver` settings:

```
[eosserver]
javaMemory=256m

[DataStream]
CacheStreams=200000
NumSampleCaches=4
```

## Entuity 14.0 Migration Path

The certified migration paths to Entuity 14.0 are from:

- Entuity 13.5 Patch 1
- Entuity 13.0 Patch 3.

You can check the Entuity Support site for the latest patches.




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If you are upgrading to Entuity 14.0 from a version of Entuity that is different to the certified migration path please contact Entuity Support for guidance.

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## Checking Patch Level

To check the current patch level of an Entuity server:

- 1) Login into the Entuity server.
- 2) Click **Help > About Entuity**.

Entuity displays server details, including release version and patch details, for example:

```
Entuity 13.0 Patch (P02)
```

## Migrating to Entuity 14.0

Installing Entuity 14.0 is the same process whether migrating from Entuity 13.0 or Entuity 13.5. You do not have to install Entuity 13.5 to migrate to Entuity 14.0. Ensure you:

- Are migrating a server on the migration path.
- Read *Chapter 2 - Entuity 14.0 Migration*.
- Have an Entuity 14.0 license.

To migrate to Entuity 14.0:

- 1) Confirm the server is patched to the appropriate level (see *Checking Patch Level*).

If it is not patched to the approved level you must apply any missing patches and then run `configure`.

- 2) Stop the Entuity server and take a backup.
- 3) Install Entuity 14.0 and include the new license.
- 4) Run `configure`.
- 5) Restart the Entuity server.

## 2 Entuity 14.0 Migration



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Before you upgrade to Entuity 14.0 you are strongly recommended to back up your current installation; the Entuity 14.0 upgrade process does not include a rollback facility.

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### Embedded Events Management System

Entuity 14.0 includes:

- New and renamed events. These event changes are automatically applied when you run `configure`.
- A new Event Project with amended incident definitions. Incidents are defined through an Event Project which you deploy through the Event Administration page; incident updates are not automatically applied when you run `configure`.

A deployed project replaces the previously deployed project it does not attempt to merge the differences between the 2 projects. Neither does deployment delete the previous project, it remains available for reference or even redeployment.

When you have customized your Event Project and want to accept the latest project updates shipped with Entuity 14.0 you can:

- Deploy the new project and reapply your event project customizations.
- Apply the Entuity 14.0 updates to your existing project.

The updates included to the Entuity 14.0 Event Projects are:

- Service State Problem updated to include the new Service State Degraded and Service Status Off events. (See *Service State Problem Incident*.)
- Renaming of Device and Memory incidents to be consistent with the renaming of its associated events.

#### Service State Problem Incident

Incident ID: 919

Incident Ageout: 36000 seconds

Event Name	Raising Event IDs	Number Required
Service Down	919	1
Service State Degraded	918	1
Service State Unknown	921	1

Event Name	Closing Event IDs	Number Required
Service Status Off	917	1
Service Up	920	1

## Device CPU and Memory Events and Incidents

Entuity 14.0 introduces dual thresholds, a feature which allows you to set two separate thresholds against a polled value which when crossed raise separate events, for example the first threshold indicates high utilization, the second a critical level of utilization. In Entuity 14.0 dual thresholds are available against device CPU and memory utilization data:

- The existing events are renamed to better reflect their purpose and new events introduced.
- The associated incidents are renamed.

Entuity 13.5	Entuity 14.0
Device CPU High	Device Average CPU Utilization High
-	Device Average CPU Utilization Critical
Device CPU High Cleared	Device Average CPU Utilization Cleared
Device Memory Low	Device Average Memory Usage High
-	Device Average Memory Usage Critical
Device Memory Low Cleared	Device Average Memory Usage Cleared

Table 3 New and Renamed Device Events

### Device Average CPU Utilization High Incident

Incident ID: 655414

Incident Ageout: 600 seconds

Event Name	Raising Event IDs	Number Required
Device Average CPU Utilization Critical	655460	1
Device Average CPU Utilization High	655415	1

Event Name	Closing Event IDs	Number Required
Device Average CPU Utilization Cleared	655414	1

### Device Average Memory Usage High Incident

Incident ID: 655416

Incident Ageout: 600 seconds

Event Name	Raising Event IDs	Number Required
Device Average Memory Usage Critical	655461	1
Device Average Memory Usage High	655417	1



Event Name	Closing Event IDs	Number Required
Device Average Memory Usage High Cleared	655416	1

## New Weighted Rollups for Fault and Discard Data

In Entuity 14.0 the hourly and daily rolled up fault and discard data is weighted, taking into account the underlying packet rate at the time of the data sample. For example previously a 5 minute sample which reported 1 inbound packet and a 100% fault (i.e. the 1 packet was at fault), would have had the same influence on the hourly rollup as a sample with 1000 packets and 100 faults a fault rate of 10%.

Consider a simplified example of taking 2 5 minute samples and making an hourly rollup (an hourly rollup would usually have 12 5 minute samples):

Sample 1: 1 packet, 1 fault = 100% fault

Sample 2: 1000 packets, 100 faults, = 10% fault

Old method:

$100\% + 10\% / 2$  (number of samples) = 55%

Entuity 14.0 method:

$(1+1000) 101$  faults /  $(1 + 1000) 1001$  packets \* 100 = 10.089%

It can be seen that, using the old method, low packet rates can significantly skew the results of the rollups. Entuity retains:

- 5 minute polled data for 8 days.
- 1 hourly rolled up data for 210 days.
- Daily rolled up data for 210 days.




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Entuity 14.0 cannot adjust historical rolled up data prior to its installation.

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## SNMP Trap Forwarding MIBs

The MIB files for `snmpforward` are updated to support the new events in Entuity 14.0. There are further changes to the supplied MIB files:

- `prosum.mib` is deleted.  
`entuity.nv.mib` replaces `prosum.mib`. It includes new events and so users should change to using it. It works with NetView. It does not include imports and, as NetView does not support unsigned 32, converts those values to integers.
- `entuity_ov.mib` works with OpenView 9.2. It includes imports and, as OpenView does not support unsigned 32, converts those values to integers.
- `entuityOEM.mib` is unchanged and is used with the Oracle Enterprise Management integration.
- `entuity.mib` is unchanged used with other products, e.g. Netcool, TelAlert, CA TNG.

You should apply the latest MIB files to your third party integrations.

## View Filter Enhancements Migration

IP Address Range and IP Address were options available when defining the source of a content filter rule (alongside, Device, Application, Port and VLAN). In Entuity 14.0:

- IP Address Range is an option available when defining a content filter with the Device, Application and Port source types.
- IP Address is a check box option available when defining an Event Filter.

### IP Address Range

When creating a view filter rule IP Range used to be an option available from Source. Unlike other filter rules which were OR'd a rule with the source set to IP Range was AND'd. This was a source of confusion.

Entuity 14.0 removes IP Range from Source and instead makes it a separate option available from the Edit Filter Rule dialog when Source is set to Device, Port or Application. This change makes the effect of IP Address Range on a view filter easier to understand but does not change how IP Address Range works.

Where a content filter had an IP Range rule, Entuity 14.0 would remove that rule but set the IP Address Range in all of the other rules within that filter. This ensures the behavior of the filter in Entuity 14.0 is the same as its behavior in earlier versions of Entuity.

### IP Address

Filters that had an IP Address rule are not migrated in Entuity 14.0 but instead you must amend their event filters to select the **Include events from devices that are not under management** check box. This check box is available from the Edit Event Filter dialog

In Entuity 14.0 the All Events filter is amended with the **Include events from devices that are not under management** check box selected.

By default when you create a new event filter the **Include events from devices that are not under management** check box is not checked.

## Services Migration

Entuity 14.0 delivers a new service model. Pre-existing services are migrated to the new configuration. System administrators familiar with the previous services model will notice:

- Services are created and managed through the web UI. Services are removed from Component Viewer.
- Services are now independent of views, previously a service belonged to a specific view. This changes service behavior:
  - For components to be included to a service they no longer have to included to the same view as the service.
  - Users must be assigned access to a service by the service belonging to an ACL view

to which they have access.

- You can create a service and include referenced copies of it to multiple views.
- Service icons are only used within the Service Dashboard. Explorer uses the standard state icons, rather than add in service icons as well, services are identified by prepending **Service:**.
- Services can include objects managed on other Entuity servers. Remote service objects in Explorer are only identified as such when the remote service is unavailable.
- Services must have an owner, Entuity prevents you from creating a service on a server without the owner being on that server. For example if NanaToure is a user account on the local server then you cannot assign a service created on a remote server to the NanaToure account unless an account with the same name also exists on that remote server. If you delete a user profile which owns services, system administrators can reassign service ownership.

### Branch Office Perspective Services

Previously the services used with the Branch Office Perspective were created through Component Viewer using the Create Branch Office context menu, which created the branch office service and its component folders.

For Entuity 14.0 Branch Office service and its component services must be created through the web UI, the Component Viewer option is removed. The Branch Office service and its 2 sub-services must be defined on the local Entuity server.

### Report Options and Sub-Services

When selecting a service to run a report against Entuity includes the full service hierarchy path in the drop-down list of available services. For example the CIO Perspective relies upon a service structure of 4 or even 5 levels. Previously each of these services would have been listed by their name, for example:

```
CIO
Data Core Center
Internet
Region:Ilkley Office
Region:Skipton Office
VM
```

The new format identifies the path, which also helps group services:

```
CIO
CIO/Data Core Center
CIO/Data Core Center/Region:Ilkley Office
CIO/Data Core Center/Region:Skipton Office
CIO/Internet
CIO/VM
```