
Release Notes for Platform Analytics

Platform Analytics
Version 8.0.2
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What's new in Platform Analytics 8.0.2

Platform Analytics reporting server

Platform Analytics 8.0.2 now uses the Platform Analytics reporting server running Tableau Server 6.1.1 as the ROLAP (Relational Online Analytics Processing) tool.

Tableau Server is a ROLAP analytic tool for business intelligence that provides browser-based reports. Platform Analytics uses Platform Analytics reporting server to generate reports and allow other users to view these reports using a web browser.

The recommended resolution for viewing reports is 1280*1024 or above.

The Platform Analytics reporting server provides the following default workbooks to allow you to analyze your clusters and FLEXnet licenses:

Workbook name	Description
Workload Statistics	Reports information about all jobs in any state that are sampled from all active LSF clusters. This allows you to perform a detailed analysis of current LSF workload at any time period.
Workload Accounting	Reports job information from LSF job finish events. This allows you to perform a detailed analysis of completed LSF jobs in all clusters.
License Usage	Reports FlexNet Server license usage on any license server or across multiple license servers. This allows you to analyze the usage, consumption, and utilization of licenses by users and hosts.
Hardware	Reports the hardware utilization at any time period.
Cluster Capacity	Reports the usage of all slots in LSF and the workload being run. This allows you to identify IDLE, DOWN, CLOSED, and RUNNING capacity.
Workload Accounting (Daily) and Hardware (Daily)	Data is aggregated daily for better workbook performance.
Resource Memory Requested Vs Used	Reports wasted memory usage information by comparing required and used memories.

Oracle database

Platform Analytics 8.0.2 now supports the use of Oracle database for data storage and analysis.

Platform Application Center integration

Platform Analytics 8.0.2 is integrated with Platform Application Center. Platform Application Center provides access to all the Platform Analytics reports. Platform Application Center also provides additional functions such as batch report generation and report subscription.

Add-on data set that works with LSF 8.0.1

With an add-on data set, you will have an enhanced framework of dataloaders to reduce memory usage and shorten the data sampling time of loaders.

Important:

For add-on data solution to work, you need to install LSF 8.0.1 Aug-2011 Qpk and build183436.

Support for latest versions of third party products

Platform Analytics 8.0.2 now supports the following versions of third party products:

- Oracle 11g Enterprise Edition Release 1 and 2
- Oracle JDBC driver 10.2.0.3

Attention:

You must specifically use the 10.2.0.3 version of the Oracle JDBC driver, because other versions do not work correctly with Platform Analytics.

-
- Flexera FLEXnet Manager v12 and v14
 - Flexera FLEXnet Server (FLEXlm) v11.x

my.platform.com and Platform Analytics Knowledge Center

my.platform.com—Your one-stop-shop for information, forums, e-support, documentation and release information. my.platform.com provides a single source of information and access to new products and releases from Platform Computing.

On the Platform LSF Family product page of my.platform.com, you can download software, patches, updates and documentation. See what's new in Platform Analytics Version 8.0.2, check the system requirements for Platform Analytics, or browse and search the latest documentation updates through the Platform Analytics Knowledge Center. The Platform Analytics Knowledge Center is your entry point for all Platform Analytics and third party documentation.

What's changed in Platform Analytics 8.0.2

Platform Analytics 8.0.2 includes the following changes:

Enhanced Reports

Updates to existing workbooks to use the new enriched data stream from LSF 8.0.1.

- Workload Accounting Workbook - handles parallel jobs and allows you to analyze the slot usage, memory usage, and swap usage based on all execution hosts of parallel jobs
- Workload Statistics Workbook - analyzes real time workload information of LSF running jobs.
- Cluster Capacity Workbook - analyzes slot usage of the LSF clusters by handling short time running and parallel jobs.

Supporting database

Platform Analytics 8.0.2 supports Oracle apart from the Vertica database. Vertica has better performance, ease of maintenance and high availability. Platform recommends the use of the Vertica database for data storage and analysis for this release.

Performance and scalability

Platform Analytics includes the following performance and scalability enhancements:

- Provides enhanced framework of dataloaders to reduce memory usage and shorten data sampling time of loaders.
- Provides daily level workbooks for Workload Accounting and Hardware Usage.
- Provides add-on data collection for new finish events, job runtime data, and job pending reason data in LSF 8.x.

Recommended system requirements

Important:

Do not use a virtual machine (VM) for any of the following hosts. All Platform Analytics hosts should run on physical, standalone machines.

Database host

Supported databases

Platform Analytics supports the Vertica database versions 4.1 or later.

The following are the supported versions of Oracle:

- Oracle 9i Enterprise Edition
- Oracle 10g, 11g Enterprise Edition

Supported operating systems

The following are the supported operating systems for the Vertica database host running in a production cluster:

- Red Hat Enterprise Linux 4, 5, 64-bit
- SUSE Linux Enterprise Server 10 and 11, 64-bit
- CentOS 4 and 5, 64-bit (Use the Red Hat Enterprise Linux 5, 64-bit RPM)
- Debian 5.0, 64-bit

The following are the supported operating systems for the Vertica database host for non-production (testing) purposes only:

- Red Hat Enterprise Linux 4 and 5, 32-bit
- SUSE Linux Enterprise Server 10 and 11, 32-bit
- Fedora Core 10 and 11, 32-bit
- Fedora Core 10 and 11, 64-bit

Recommended hardware requirements

The following table describes the recommended hardware requirements for the database host, depending on the size of your cluster. The specific hardware recommendations for each database host are the same.

Cluster size	Number of hosts	RAM	CPU	Local hard disk	Network
Medium (100 - 1000 hosts)	3	16 GB	4 × 2.4GHz (not a VM)	10000 RPM SATA/SCSI/SAS/SSD RAID 01 or 10 300 GB	Gigabit Ethernet

Cluster size	Number of hosts	RAM	CPU	Local hard disk	Network
Large (more than 1000 hosts)	more than 3	32 GB	8 x 2.4GHz (not a VM)	10000 RPM SATA/SCSI/SAS/SSD RAID 01 or 10 1 TB	Gigabit Ethernet

Platform Analytics server host

Supported operating systems

The following table describes the supported operating systems for the Platform Analytics server host:

Platform and hardware	Operating systems
Linux x86 64-bit (AMD64, EM64T) - see note above	Red Hat Enterprise Linux 4, 5, and 6 SUSE Linux Enterprise Server 9, 10, and 11
Windows x86 64-bit (AMD64, EM64T)	Windows 2003 (all) Windows 2008 (all)

Recommended hardware requirements

If you are not using asynchronous data loading mode, the following hardware configuration should be sufficient.

RAM	CPU	Local hard disk	Network
4 GB	4 x 2.4 GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet

If you are using asynchronous data loading mode, the following table describes the recommended hardware requirements for the Platform Analytics server host, depending on the size of your cluster:

Cluster size	RAM	CPU	Local hard disk	Network
Medium (100 - 1000 hosts)	4 GB	4 x 2.4GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet
Large (more than 1000 hosts)	8 GB	4 x 2.4GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet

Note:

Using an NFS disk mount instead of a local hard disk is not recommended.

Tip:

If you select a host that also meets the Tableau Server system requirements, you can also select the Platform Analytics server host to be the Platform Analytics reporting server host.

Platform Analytics reporting server host

The following table describes the system requirements for the Tableau Server host.

Operating system	RAM	CPU	Services	User accounts
Windows Server 2003 (SP2 or higher)	2GB	Dual-core (not a VM)	Do not run Internet Information Services (IIS) to avoid conflicts with the web server port 80.	This requirement is good for a limited number of hosts, for example 100 hosts.
Windows Server 2008				Access to a user account that the service can use (optional).
Windows Server 2008 R2				
Windows XP (SP2 or higher)				

Tip:

If the Platform Analytics server host also meets the Tableau Server system requirements, you can select the Platform Analytics server host to also be the Platform Analytics reporting server host.

The following table describes the optimal hardware configuration of the Platform Analytics reporting server, depending on the size of your cluster.

Cluster size	RAM	CPU	Local hard disk	Network
Medium (100 - 1000 hosts)	4 GB	4 x 2.4GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet
Large (more than 1000 hosts)	8 GB	4 x 2.4GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet

Platform Analytics node hosts

The following table describes the supported operating systems for the Platform Analytics node installed in a cluster running Platform LSF versions 7.0 or later. Contact Platform Computing if you require support for other operating systems.

Platform and hardware	Operating systems
Linux x86 64-bit (AMD64, EM64T)	Red Hat Enterprise Linux 4, 5, and 6, 6.1 SUSE Linux Enterprise Server 9, 10, and 11

Recommended hardware requirements

The following table describes the optimal hardware configuration of the Platform Analytics node depending on the size of the clusters in which the node resides.

Cluster size	RAM	CPU	Local hard disk	Network
Medium (100 - 1000 hosts)	4 GB	2 × 2.4GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet
Large (more than 1000 hosts)	8 GB	4 × 2.4GHz (not a VM)	7200 RPM SATA/SCSI/SAS 50 GB	Gigabit Ethernet

Supported web browsers

- Internet Explorer 7, 8, and 9 on Windows
- Firefox 3, 4, 5, 6, and 7 on Windows

Adobe Flash version 8 or later is required to access report charts.

Supported LSF family

LSF

- Platform LSF 7 Update 2 or higher
- Platform LSF 8
- Platform LSF 8.0.1
- Required for Add-on Data Set—Platform LSF 8.0.1 with Aug-2011 Qpk and Build 183436.

PAC

Platform Analytics supports Platform Application Center 8.0.2

Supported OEMs

Vertica

Platform Analytics supports Vertica 5.0.4

Recommended system requirements

Tableau

Platform Analytics supports Tableau 6.1.1

Scalability

The following table describes the maximum scale of clusters that Platform Analytics supports depending on the Vertica database:

Data type	Scalability factor	Value
LSF data	Number of hosts	20 000
	Number of finished jobs per day	4 000 000
FLEXnet server data	Number of license features	2 000
	Number of license servers	450
FLEXnet Manager data	Number of license events per day	3 000 000

Running on the maximum scale of clusters as mentioned above, Platform Analytics 8.0.2 has shown that the overall performance is 2 to 3 times faster than previous 7.x product releases.

Known issues and limitations

Platform Analytics known issues and limitations

Data loaders on clusters running Platform LSF versions 7.0.4 or later do not obtain any job data if lsb.stream is not enabled

By default, Platform LSF versions 7.0.4 or later do not enable the `lsb.stream` file to export job event data. Platform Analytics requires this feature to be enabled from the LSF side.

To resolve this issue, enable the `lsb.stream` file to export job event data.

1. Edit the `lsb.params` file.
 - UNIX: `$LSF_ENVDIR/lsbatch/cluster_name/configdir/lsb.params`
 - Windows: `%LSF_ENVDIR%\lsbatch\cluster_name\configdir\lsb.params`
2. In the `lsb.params` file, edit the Parameters section to enable the exporting of Platform LSF job event data to the `lsb.stream` file.

Add the following lines to the Parameters section:

```
# Enable streaming of lsbatch system events
ENABLE_EVENT_STREAM=y
# Determines the location of the lsb.stream file. This parameter is optional.
# The default location is: $LSB_SHAREDIR/{clustname}/logdir/stream.
# EVENT_STREAM_FILE=LSF_TOP/work/cluster_name/logdir/stream/lsb.stream
# Determines the maximum size of the lsb.stream file. This parameter is optional.
# The default size is 1024MB.
# MAX_EVENT_STREAM_SIZE=1024
```

3. Reconfigure `mbatchd` to apply these changes.

badmin mbdrestart

4. To verify that these changes are in effect, verify that the `lsb.stream` files exists.

By default, `lsb.stream` is located at the following directories:

- UNIX: `$LSB_SHAREDIR/cluster_name/logdir/stream`
- Windows: `%LSB_SHAREDIR%\cluster_name\logdir\stream`

If you defined the `EVENT_STREAM_FILE` parameter in `lsb.params`, check the specified file path for the `lsb.stream` file.

FLEXnet events data loader does not support mapped network drives on Windows

In the FLEXnet events data loader properties file (`flexneteventloader.properties`), if you defined the `LicenseLogFile` parameter to point to a Windows UNC file path or to a mapped network drive, the data loader log file shows a "not a valid file" or "does not exist" error for "FlexlmEventParser.java".

The FLEXnet events data loader (`flexneteventloader`) does not support mapped network drives and has limited support for UNC file paths.

To work around this issue, use a slash (/) to define a UNC file path or a local Windows file path rather than a backslash (\). For a mapped network drive, use the UNC file path instead of the mapped network file path.

For example,

- For a local log file (c: \logs\fl exl i cense. log), use the following to define a Windows file path:

```
Li censeLogFile=c: /logs/fl exl i cense. log
```
- For a mapped network drive (\f i l eserver\logs\fl exl i cense. log mapped to z: \logs\fl exl i cense. log), use the following to define a UNC file path instead of the mapped network file path:

```
Li censeLogFile=//f i l eserver/logs/fl exl i cense. log
```

Cannot install the Platform Analytics node

The Platform Analytics node installation will fail when the LSF_VERSION defined in the lsf.conf file is not the actual version.

To resolve this issue, before you install the Platform Analytics node, edit lsf.conf to change LSF_VERSION to an appropriate version. For example, if the actual LSF version is 7.x but if the LSF_VERSION in lsf.conf is set to "active", then before you install the node change the LSF_VERSION to 7.0. After installing the node change the LSF_VERSION back to "active".

Failure to switch between Vertica and Oracle database after the Platform Analytics installation

Platform Analytics does not support switching database from Oracle to Vertica after the Platform Analytics installation. If you want to change the database, then you have to uninstall Platform Analytics and re-install.

Unable to see memory value in the Resource usage report

When you submit a job to query resources that contains two or more -R "res_req", the data transformers gets only the first memory value.

The values in the report are still showing in MB even though resource usage limits are in GB or KB

In Platform Analytics memory usage is shown in MB by default. If you use LSF_UNIT_FOR_LIMITS in lsf.conf to specify a large unit in GB, Platform Analytics cannot identify the change (from MB to GB). For example, it displays as 100 MB if the value is 100 GB.

Selected dimension is shown as #Name in Excel

If the dimension name has a "-" prefix, then it is displayed as #Name in Excel. To avoid the error, manually set the name to text without hyphen ("-").

Third-party known issues and limitations

A message "Out of memory" displays after clicking on the Data tab

This error message is displayed when you try to view big data (>4GB). To avoid the error, you can either narrow down the data range or increase the memory size of the host.

Average data on the Cluster Usage table is not as accurate as the data on the Cluster Usage graph

Data shown in the table is not accurate in some of the roll-up levels as it considers the sampling points of data instead of whole date period.

For example, the following data shows sampling points of data for slots number with different slot status:

Sampling points for different slot status	10:00	10:10	10:20	10:30	10:40	10:50
RUN					1	1
DOWN	2	2	2	2	2	2

In the Cluster Usage table, average slots number for the RUN status rolled up to the hour 10 is $(1 + 1) / 2 = 1$. The graph data shows the correct value, which is $(1 + 1) / 6 = 0.33$

As a workaround, refer to the Cluster Usage graph for more accurate data.

The Projects dashboard of Workload Accounting workbook throws session busy error when sorting big data

In the Projects dashboard of Workload Accounting report, if you select big data and then try to sort, the reporting server may display the following error: 'Unexpected Server Error: Session busy, please try later.' For example, you will see this error if you select data more than 3 years and try to drill down to a specific year that has more than 20K projects and sort as project name.

To avoid the error, narrow down the data range or try to view using the Platform Analytics Designer.

A message "An error occurred generating images for export" displays while trying to export big data as an Image

This error message is displayed when you try to export big data to an image. To avoid this error, narrow down the data range or export big data to CSV or PDF.

Timeout when publishing or viewing the workbook

Tableau Server has several built in time limits for process times and query executions. These limits can keep long-running queries from monopolizing Tableau Server resources. Desired long-running tasks may be prematurely capped by these timeouts. Error messages will warn that these timeouts have been exceeded. They can be seen in Desktop, on Server and while using tabcmd. To avoid this error, follow the instructions as explained here: <http://www.tableausoftware.com/support/knowledge-base/timeout-error>

In the Workload Statistics workbook, Date Range is displayed as AGG (Date Range - Min) - Agg (Date Range - Max) or All-All

When there is no data selected, for Tableau 6.0.x, the Date Range will show as AGG(Date Range - Min) - AGG(Date Range - Max). For Tableau 6.1, the Date Range will show as All - All.

To avoid this error, select at least minimum data and try to generate report.

In graphs, colors are same for different measures and dimensions

Colors are automatically picked for different measures and dimensions and so there are chances of seeing same colors in the graphs. To avoid this issue, specify different colors using Platform Analytics Designer.

Get technical support

Get technical support

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