

MSS

Management and Security Server Metering Console

12.8.4

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1. Management and Security Server - Metering Console

The Metering Server is a component of Host Access Management and Security Server (MSS) that enables you to view the activity of users who open sessions and connect to your hosts.

1.1 Automatic installation

The Metering Server is installed automatically with MSS. During installation, the Metering Server is added to the Administrative Console and is ready to be configured.

Settings must be configured in three places:

- Administrative Console
- Metering Console
- the client to be metered

You can view usage activity in reports when Metering is configured and users begin to access metered sessions.

1.2 Roles of the Metering Administrator

The Metering Administrator serves two primary roles:

- **Configure Metering:** Configure License pools to meter usage for a particular product, enforce license restrictions, and limit connections.
- **Run Reports:** Choose from six report options to filter usage and view host connection activity.

Note

During installation, the Metering Console password is set to be the same as the MSS Administrative Console. You can set separate passwords to restrict the ability to Configure Metering or Run Reports.

To change either password, see [Change Passwords](#).

See [Initial Setup](#) to get started.


2. Initial Setup

Before you can view a Usage Metering report, the data must be made available to Management and Security Server from the metered client.

Configuration is required in three areas:

1. Administrative Console

Open Configure Settings - Metering. If your server is not listed, click +Add Server. For assistance, open Help on that panel.

 **Note**

To configure metering for high availability, you must configure at least three servers in a cluster. See Clustering for more information.

2. Metering Console

On the Configure Settings - Metering panel, click the link to your Metering Server. Then, use the Metering Console to

- configure License Pools and Server Settings for the clients to be metered.
- view and filter Reports (after the users begin to access sessions).

3. The client to be metered

In your emulator product, enable Metering in the client sessions you want to meter.

Check the documentation for the product you want to meter because the setup procedure varies by product.

3. Configure Metering

3.1 Configure Metering

When you log in to the Metering Console, the menu opens to Configure Metering - License Pool Settings. The table displays the metering servers that were added either by the automated installer or from the Metering panel in the Administrative Console.

Use the Configure Metering settings to change or refine the way each server records the metering data for each product. Once your users begin to access metered sessions, you can view the usage activity in reports.

More information

- [License Pool Settings](#)
- [Configure License Pool](#)
- [Server Settings](#)

3.2 License Pool Settings

A license pool comprises the licenses for a given product name, type, and VPA number. The Usage Metering Reports are organized by license pools.

A license pool is added automatically the first time a metered client requests a license from that pool, and the current license pools are listed here. You may need to scroll right to see the details.

Use the column chooser  to adjust the display.

Click a product name in the list to see the settings for that license pool. (Or, click Edit in the license pool table.)

Click + Add to add a license pool.

3.3 Configure License Pool

After you click a product in the list of License Pool Setting, you'll see the Configure License Pool page for that product, which you can edit. Save the settings to meter this license pool.

- [Metered product](#)
- [License enforcement](#)
- [Connection limit](#)

3.3.1 Metered product

Note

When editing a license pool, the Product, Product type, and VPA number are pre-populated as static entries. To modify those entries, click Cancel, and then click + Add to create a new license pool.

- **Product.** Select the name of the product to be metered, such as Host Access for the Cloud.

Note

To meter a product (either Reflection or InfoConnect) for NonStop Add-On, version 16.2 or higher of the NonStop Add-On product is required. From the Product list, select `<your product>` (with NonStop Add-On).

- **Product type.** Select the product type: Production, Evaluation, or Pre-release.
- **Volume Purchase Agreement (VPA) Number.** Your Volume Purchase Agreement (VPA) documents the number of purchased licenses for a specific product. Enter the VPA number. All zeros (or 0000001) in this field indicate that a VPA number has not been entered.
- **Number of licenses.** Enter the number of licenses purchased for this product. This number is used for License enforcement. If left blank, the field in the License Pool Settings table will also be blank.
- **Major version.** The version displays as 1 by default. Click to enter the major version in the VPA for this metered product. This number displays in Reports. For example, enter 16 for Reflection Desktop or 2 for Host Access for the Cloud.

3.3.2 License enforcement

Select Non-concurrent usage or Concurrent usage, depending on whether you want to enforce license restrictions.

- **Non-concurrent usage** – does not enforce the license limit

The Metering Server still records the number of users and devices that use this license pool at the same time, but no limits are applied. The numbers are tallied in the Concurrent Usage report.

However, a license must be purchased for each user or device that ever runs the product in this license pool. The administrator is responsible for monitoring the usage to prevent violations.

See [Run Reports](#) for monitoring options.

- **Concurrent usage** – enables license enforcement

This setting relates the number of simultaneous users or devices using this license pool to the Number of licenses entered earlier.

To enforce the license limit:

- Check Limit the number of concurrent users to number of licenses for this product. When the maximum number of licenses are in use, the next user who tries to use this product is denied access until a license becomes available.
- Send violation notices to administrators when the number of concurrent users exceeds the number of licenses. Enter the appropriate email addresses, separated by commas.

Note

Details for your email server are entered in Configure Metering - Server Settings > Email notification options

3.3.3 Connection limit

When metering **Host Access for the Cloud** or **Reflection for the Web**, you can limit the number of simultaneous connections that each user has to the product.

- **Limit number of connections that one user can make.** When checked, each user can use only the set number of licenses at one time.
- **Enter a positive integer for the number of connections allowed.** The default is 1.

 **Note**

To limit connections, you must also check Record client host connections in Server Settings > Metered client.

4. Server Settings

4.1 Server Settings

During the automated installation (with MSS), the Metering Server is added to the Administrative Console (Configure Settings - Metering).

Use this panel to change the Metering Server settings – passwords, how metering data is gathered and maintained, and options for email notification and reports.

- [Change passwords](#)
- [Metering data](#)
- [Metered client](#)
- [Email notification options](#)
- [Reports](#)

4.2 Change Passwords

During installation, the Metering Console password is set to be the same as the administrator password for Management and Security Server.

If you entered a specific password, that one is applied. If not, the default password is `admin`.

Note

The RESET PASSWORD button in the MSS Administrative Console (Configure Settings - Metering) resets the Metering administrator password to the MSS Administrative Console password.

Use this Metering Console - Server Settings dialog to change the administrator password for the Metering Console.

You can set a separate password to restrict the ability to only view Metering reports.

Note

A password is required. Passwords can be changed, but not removed.

4.2.1 Change administrator password

This administrator password permits access to the entire Metering Console -- Configure Metering *and* Run Reports.

Enter the current password. Enter and confirm the new password. (Characters are redacted.)

Note

If you delete all metering data (after backing it up), the Metering administrator password is reset to the default of `admin`.

4.2.2 Change Reports Viewer password

Set the Reports Viewer password to permit access to *only* Run Reports, *not* Configure Metering.

Using this password, another user could open Run Reports - Usage Metering from the MSS Administrative Console.

Enter the current password. Enter and confirm the new password. (Characters are redacted.)

More information

- [Change the MSS Administrative Console password](#)

4.3 Metering Data

Specify how long to keep the metering database before it is deleted.

Number of days to keep metering data

The Metering Server automatically deletes the metering data after the number of days entered here. The default is 180 days.

Tip

For auditing purposes, we recommend that you keep copies of your old database in long-term storage.

More information

- [Metered client](#)
- [Server Settings](#)

4.4 Metered Client

Record client host connections

When checked, the names or IP addresses of the hosts to which users connect are written to the metering database. Such tracking makes it possible to compile host connection reports and to limit connections.

Host connection tracking is not available for Reflection X, Web-based AS/400 data transfer, or FTP sessions.

The Record client host connections setting is required (must be checked) to be able to:

- generate a Host Connections report.
- enforce a Connection limit (Host Access for the Cloud or Reflection for the Web).

Note

Recording host connections can result in extremely large data files if you have a busy metering server.

Heartbeat frequency (minutes)

Specify how often the client sends a heartbeat signal to the metering server to communicate that it is running. If a heartbeat is not received in five heartbeat periods, the server assumes that the client application has terminated abnormally and stops recording the connection.

For instance, when the frequency is set to 6 minutes (the default), and no heartbeat is sent, the server would stop recording the connection after 30 minutes (5 missed heartbeats x 6 minutes between heartbeats).

Note

When a client application is terminated normally, the server stops recording the connection immediately.

More information

- [Email notification options](#)
- [Server Settings](#)

4.5 Email Notification Options


When enforcing Concurrent usage, you can notify administrators by email when license limits have been exceeded.

On this panel:

1. Check Enable, and then specify an SMTP server name used to send mail.
2. Enter the Email account name that will appear on the "From" line of the message.

To specify or change email recipients, open the license pool that need to be enforced:

1. Go to Configure Metering and click the license pool that needs to be enforced.
2. Under License enforcement, click Concurrent usage.
3. Enter the email addresses of the administrators who are to receive the violation notices.

 **Note**

The email addresses may have been entered when you configured the license pool.

4.6 Reports

Display user names in lowercase in reports is checked by default.

Doing so avoids duplicate metering counts for the same user, whose user name might be entered in mixed case.

More information

- [Server Settings](#)
- [Run Reports](#)

5. Run Reports

5.1 Run Reports

The Metering Server sends data to a metering database, and the metering reports provide summary views of the information you specify.

Reports are organized by license pools. A metering license pool is created automatically when a user first logs on using the associated license. Usage numbers identify the number of licenses checked out when the report was run.

Hint

Run a test report to see how the metered information is displayed. To change the information that is reported, return to Configure License Pool.

Usage and host connection data can differ. For example, a user who opens a metered session but does not connect to a host is shown in usage reports but not in host connection reports.

Note


You can view reports directly from the metering reports URL:

```
http://[metering server:port]/[metering server context].
```

5.1.1 Available reports

- Current Activity
- Concurrent Usage
- Usage by Attribute
- Usage by User or Machine
- All Usage Activity
- Host Connections

5.1.2 In each report

The data for each report is displayed in a table. Use the column chooser  to add or remove data types from the default view.

More information

- [Server Settings](#)
- [Configure License Pool](#)

5.2 Current Activity

This report may be of most interest under concurrent licensing. For each product being metered, view:

- Current Usage: the number of users currently logged on.
- Peak usage since last checkpoint: the highest number of licenses in use at one time during the current checkpoint period.

A checkpoint is sent to the metering database every 60 minutes.

- Time of Peak Usage: when the peak usage occurred.

Note


If you see “No data to report,” you may need to complete the Initial Setup.

5.3 Concurrent Usage

Concurrent usage data is aggregated into checkpoint periods. A checkpoint is sent to the metering database every 60 minutes.

For each product being metered, view:

- Checkpoint: the time when the usage data was aggregated.
- Peak Usage: the number of licenses being used concurrently at that time.
- Time of Peak Usage: when the peak usage occurred.
- Highest Product Version: highest version of the product being run during the report period.


 **Note**

If you see “No data to report,” you may need to complete the Initial Setup.

5.4 Usage by Attribute

Check one or more attributes to be counted and displayed.

- Username
- IP address
- Machine name
- MAC address
- NetBIOS name

 **Note**

MAC address and NetBIOS name are available only for Windows-based sessions.

For example, when Username is selected, the Product Usage Count shows the number of unique usernames that used the product at least once during the report time period.

Usage Details. When **Include details on where metered products are used** is checked, you can expand the Usage Details section to show the specific instances of the selected attributes.

For example, if users A, B, and C used Reflection Desktop during the reporting period, the summary report would show a Username count of 3, and the details would show separate lines for user A, user B, and user C.

 **Note**


If you see “No data to report,” you may need to complete the Initial Setup.

5.5 Usage by User or Machine

This report shows the usage data for one specific username or machine. Select the attribute:

- Username
- IP address
- Machine name
- MAC address
- NetBIOS name

5.5.1 Viewable data

Use the column chooser  to select the data you want to view:

- Date: The day and time the product was requested.
- Elapsed Time: The amount of time the product was in use. If the session had not been closed, the field shows "Unavailable."
- Begin Status: Shows whether the client successfully ran the product.

Veto occurs when session enforcement is On, and the metering license number is exceeded.

Unavailable may occur if metering of the session started before the desired report period.

Note

If a connection cannot be made for a reason other than license enforcement, the metering server reports a successful session checkout followed immediately by a session release.

The table shows a Begin Status of "Success," and End Status of "Success," and a very short elapsed time.

- End Status: Shows whether the session was successfully closed or timed out.

Timeout occurs when the client holds a license, but stops communicating (disconnects) with the metering server

Veto occurs either when a metering license is requested but the concurrent license count is exceeded, and/or when a session (connection) checkout is requested but the per-user connection limit is exceeded. In either case, the request is denied.

Unavailable occurs when the session has not been closed, or if metering of the session ends outside the desired report period.

- Version: Product version number for which the license was issued.
- Username: Username to which the license was issued.
- IP Address: IP address to which the license was issued.


You can use the `*` symbol as a wild card to limit results to a particular IP addresses subnet. The `*` must be placed at the end of the address.

For example, these entries are valid:

```
192.168.123.*
192.168.*.*
192.*.*.*
```

But `192.168.*.123` is not valid.

- Machine Name: Workstation name to which the license was issued.
- MAC Address: MAC address to which the license was issued. Available only for Windows-based sessions.
- NetBIOS Name: NetBIOS name to which the license was issued. Available only for Windows-based sessions.


 **Note**

If you see “No data to report,” you may need to complete the Initial Setup.

5.6 All Usage Activity

Data is shown for each instance of a product being run during the report period. The report shows the name of the metering server (with VPA number) and the data for each license pool used during the report period.

Enter the desired reporting period, and use the column chooser to select the data you want to view. The details are the same as the Viewable data described in the Usage by User or Machine report.

 **Note**

If you see “No data to report,” you may need to complete the Initial Setup.

5.7 Host Connections

The connection reports show actual connections to hosts. The reports for host connections by attribute, by specific user or machine, and connections to a specific host show only sessions that have been opened and closed.

Note

To generate data for the Host Connections report, the Record client host connections setting must be checked in Configure Metering - Server Settings > Metered client.

The **All host connection activity** report shows all opened connections whether they have been closed or not.

- Host connection by attribute

Select an attribute to show the users or machines that completed connections to any host.

Data can be shown by Username, or by the machine attribute – IP address, Machine name, MAC address, or NetBIOS name. (The MAC address and NetBios name are available only for Windows-based sessions.)

- Host connections by specific user or machine

Specify a user or machine to limit the data in the previous report.

You can use the * symbol as a wild card in IP addresses to limit results to a particular subnet. See the example in [Usage by User or Machine](#).

Connection Details (date and time) are available for this report by checking **Include details on where metered products are used**.

- Host connections to specific host

Specify a host, and select the type of connections you want to view – by Username or machine attribute.

Connection Details (date and time) are available for this report by checking **Include details on where metered products are used**.

- All host connection activity

This report shows all of the host connections that were opened during the report period.

Connection Details (date and time) are available for this report by checking **Include details on where metered products are used**.

Note

If you see “No data to report,” you may need to complete the Initial Setup.

6. Legal Notice

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