MSS

Management and Security Server Terminal ID Manager Guide

12.8.4

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1. Terminal ID Manager Guide

Terminal ID Manager is a Management and Security Server Add-on product that provides IDs to client applications at runtime. This capability enables you to conserve terminal ID resources and significantly reduce operating expenses.

Specifically, you can:

- pool terminal IDs
- monitor ID usage
- manage inactivity timeout values for specific users

This comprehensive guide contains the procedures to install, enable, and configure Terminal ID Manager.

1.1 Setting up Terminal ID Manager

The Terminal ID Manager must be installed, activated, and then configured before you can assign IDs to emulator sessions.

That is, at a high level, you must

1. Install the Terminal ID Manager Add-on product.

2. Activate the server.

3. Create a database.

4. Configure settings in the Terminal ID Manager Console.

5. Configure sessions to use Terminal ID Manager.

6. Assign those session to users or groups.

Follow the detailed steps in these sections:

- Installation
- Initial Setup
- Server Settings
- Monitor IDs
- Configure Sessions to use Terminal ID Manager

2. Installation

2.1 Installation

The Terminal ID Manager must be installed, activated, and then configured before you can assign IDs to emulator sessions.

Use the Management and Security Server (MSS) automated installer to install Terminal ID Manager either on the same machine or a different machine from where MSS is installed.

- Check the requirements
- Run the MSS automated installer

2.2 Check the Requirements

Before you install Terminal ID Manager, check to be sure the system requirements and prerequisites are met.

2.2.1 System requirements and prerequisites

Verify that

- Management and Security Server is installed (on the same or a different machine).
- The Terminal ID Manager Add-On activation file is available.
- Your emulator is supported.

2.2.2 Supported emulators and session types

Support for Terminal ID Manager is available in Host Access for the Cloud and Reflection for the Web for these web-based session types:

- IBM 3270, IBM 3270 Printer
- IBM 5250, IBM 5250 Printer
- ALC, Airlines Printer
- T27, T27 Printer
- UTS

Some Windows-based sessions also support Terminal ID Manager. Refer to your product's documentation.

2.3 Run the MSS Automated Installer

For maximum flexibility and performance, you may want to install the Terminal ID Manager Add-On on a separate machine from the one used by the Administrative Server (where Management and Security Server is installed).

Use the MSS automated installer to place the activation file in the required location.

Follow the steps for installing Terminal ID Manager either on a *separate* or the *same* machine:

2.3.1 To install Terminal ID Manager on a *separate* machine

1. Run the Management and Security Server (MSS) automated installer on a different machine from where MSS was initially installed.

   > ✏ **Note**
   >
   > The Terminal ID Manager activation file must also be on the separate machine.
   >
   > For ease of installation, place the activation file, `activation.terminal_id_manager-12.8.<n>.jaw`, in the same directory as the automated installer.
   >
   > When you run the installer, the activation file will be placed in the required location.
   >
   > Name
   >
   > 📄 activation.mss_framework-12.8.n.jaw
   > 📄 activation.terminal_id_manager-12.8.n.jaw
   > MSS mss-12.8.n.nnn-prod-wx64.exe

2. In the early installation panel, select only the Administrative Server. (Leave the Security Proxy unchecked on the separate machine.)

3. When the Initial Configuration Utility panel displays, enable only the Terminal ID Manager service.

🔧 Management and Security Server Initial Configuration Utility — ☐ ✕

MSS Micro Focus Host Access Management and Security Server

Management and Security Server services

Select the services to enable within the Management and Security Server. Operation of the Terminal ID Manager may require a separate add-on component.

☐ Administrative Server
☑ Terminal ID Manager

4. Check to be sure that the Terminal ID Manager activation file (activation.terminal_id_manager-12.8.n.jaw) is installed on the separate machine in this location:

   `C:\Program Files\Micro Focus\MSS\server\web\webapps\tidm\WEB-INF\lib\modules`

   If the activation file is not present, copy it from your download location to the `...\tidm\WEB-INF\lib\modules` directory on the separate machine.

5. When you return to the automated installer, select the option to Start the server components now.

6. Continue with the initial setup.

2.3.2 To install Terminal ID Manager on the *same* machine

If you installed Management and Security Server without selecting Terminal ID Manager, you can run the automated installer again to update the installation to include Terminal ID Manager on the same machine.

1. Run the automated installer to install Terminal ID Manager.

   > ✎ **Note**
   >
   > The Terminal ID Manager activation file must also be installed on this machine.
   >
   > For ease of installation, place the activation file, `activation.terminal_id_manager-12.8.n.jaw`, in the same directory as the automated installer.
   >
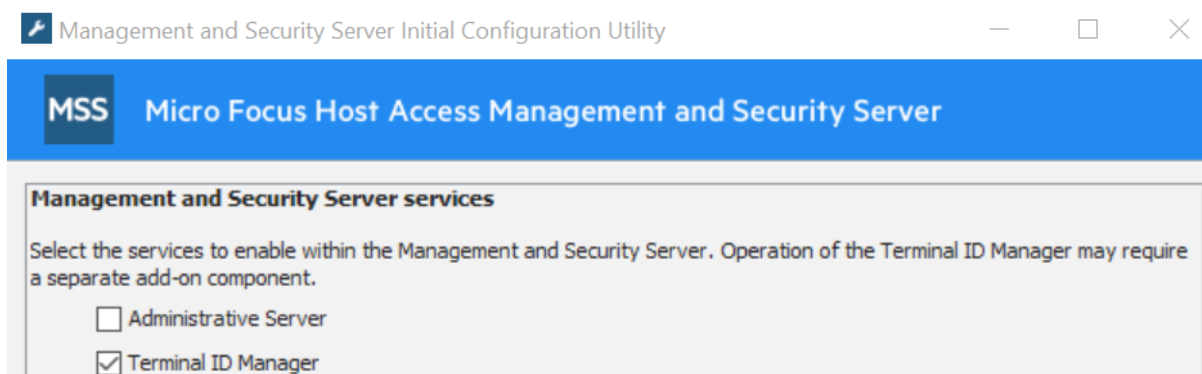   > When you run the installer, the activation file will be placed in the required location.

2. On the early installation panel, check that the Terminal ID Manager will be enabled.

3. When the automated installer completes, select the option to Start the server components now.

4. Verify that the Terminal ID Manager activation file is installed:

   - In the Administrative Console, open About > Activated Products.
   - In the Product column, look for Terminal ID Management Add-On.
     - If present, the activation file is installed on this machine.
     - If not present, click Activate New, and upload the activation file from your download location.

5. Continue with the Initial Setup.

3. Initial Setup

3.1 Initial Setup

After Terminal ID Manager is installed, both the Administrative Server and the Terminal ID Manager server need to be configured. Continue with the Initial Setup:

- Enable Terminal ID Manager
- Set up the Database
- Open the Terminal ID Manager Console

3.2 Enable Terminal ID Manager

On the machine where Management and Security Server is installed, open the Administrative Console to Configure Settings - Terminal ID Manager.

> ✏ **Note**
>
> To access the Terminal ID Manager configuration panel in the MSS Administrative Console, you must install the Terminal ID Manager activation file on this same machine (where MSS is installed) -- even if you installed Terminal ID Manager on a different machine.

1. Check Enable Terminal ID Manager, and enter the server information.

   If you do not see the Enable check box, the Terminal ID Manager activation file is not installed.

   To install:

   - In the Administrative Console, open About > Activated Products.
   - Click Activate New, and upload `activation.terminal_id_manager-12.8.n.jaw` from your download location.

2. Check Use HTTPS to encrypt the data between the Terminal ID Manager and the browser, as well as the connections between Terminal ID Manager and a client (Host Access for the Cloud or Reflection for the Web). You may see a warning if the certificate is not recognized.

3. Enter the name and port of the server where Terminal ID Manager was installed. During an automated installation, the default port is 80 for HTTP and 443 for HTTPS.

4. Note the Servlet context. The default is `tidm`.

5. Click the Server URL, and log on to the Terminal ID Manager Console.

   Note the red server status: `Server database not yet configured`. Once the database is configured, the status changes to green: `Server database available`.

6. Next step: Set up the Database.

3.3 Set Up the Database

On the machine where Terminal ID Manager is installed, follow these steps.

1. Stop the servlet runner. (On Windows, the service name is Micro Focus MSS Server.)

   You must stop the servlet runner to populate or modify the Terminal ID Management database with your operational pool and ID definitions.

2. Edit the SQL file that will add your data definitions to the Terminal ID Management database:

   - Open `<install location>\MSS\utilities\idmutils\template_scripts` .

   Locate the sample database script: `populate_idm_db_template.sql` , and open it in a text editor.

   The sample file includes basic examples of the various ID attributes and pool types that you are likely to need.

   - After you identify your organizational needs, including the users and sessions that you plan to manage, use the instructions in the `populate_idm_db_template.sql` file to create an SQL file for your site.

   - Save your edited file in the root of the idmutils folder with a name such as populate_idm_db.sql.

   At this same level, you'll see two execute files:

   ```
   execute_idm_sql.bat (for Windows)
   execute_idm_sql.sh. (for UNIX)
   ```

3. Using a text editor, open the `execute_idm_sql` file for your system and follow the instructions to update the path for the MSSData folder.

4. Continue with the instructions in the `execute_idm_sql` file.

   Using elevated permissions, execute the command to run the statements of the SQL file you edited (in step 2) to populate the Terminal ID Management database.

Platform	Steps
Windows	**a.** Open a command window as administrator.(If the cmd window is not run with administrator rights, then the batch file commands may fail because of insufficient access rights.)
	b. Run the `execute_idm_sql.bat` file with the SQL file you saved above (step 2). For example: `C:\>execute_idm_sql.bat` `populate_idm_db.sql`
UNIX	**a.** Open a shell prompt and execute the script using the root account. If the `execute_idm_sql.sh` file does not have execute permissions, set the permission: `chmod 755 execute_idm_sql.sh` (If the shell prompt is not run with root authority, then the script commands may fail because of insufficient access rights.)
	b. Run the shell script with the SQL file you created above (step 2). For example: `$./execute_idm_sql.sh populate_idm_db.sql`

5. Start the Micro Focus MSS Server service.

6. Next step: Open the Terminal ID Manager Console.

3.4 Open the Terminal ID Manager Console

3.4 Open the Terminal ID Manager Console

Use the Terminal ID Manager Console to configure Server Settings and to Monitor ID pools.

1. Open the Terminal ID Manager Console using any of these options:

- In the Administrative Console, click Configure Settings - Terminal ID Manager, and click the Server URL.

- Open the Terminal ID Manager Server URL directly in a browser.

- From the Windows Start menu, click Terminal ID Management Administration.

2. Log on. Enter the password that was set during installation.

The console opens to the Server Settings panel.

3. Next step: Configure Server Settings in the Terminal ID Manager Console.

4. Server Settings

4.1 Server Settings

The Server Settings panel opens when you log on to the Terminal ID Manager Console.

Use this panel to configure your preferences for monitoring your terminal IDs.

- Server status
- Server management
- Server ID management
- Logging and tracing
- Change administrative password

4.2 Basic Server Settings

Settings are available from the Server Settings panel.

4.2.1 Server status

Note the Server database status in the top colored band, and what it means:

- Server database available (green)

  The Enable client requests box is checked, and Terminal ID Manager server is ready to be configured or used in sessions.

- Server database not yet configured (red)

  The server database has not yet been populated with data.

> 🔥 **Tip**
>
> If you see this message, follow the steps to Set up the Database.

- Server database unavailable (red)

  The server database is not functioning or cannot be accessed.

  To troubleshoot, check the Terminal ID Manager log files, idevent.log and trace.log, located in /idm/log. You may need to review how you Set up the Database.

- Client requests disabled (orange)

  ✔ The Enable client requests box is cleared, and the database is available.

4.2.2 Change administrative password

The Terminal ID Manager server Administrator password permits access to the Terminal ID Manager Console where the server settings are configured.

To change the current password (set during installation), enter the new password, and then enter it again to confirm it. Characters appear as dots.

4.2.3 Server management

Enable client requests

Check this box if you want to process Terminal ID Manager requests from the client whenever the database is available.

Click Apply. If the database is available, the status changes to green: Server database available.

4.2.4 Server ID management

Review the server default values and change, as needed.

- Heartbeat interval

  Set the frequency (in minutes) that a client is expected to send a regular heartbeat message to the server. The message conveys that the ID is still in use by the client.

  This value applies to all pools unless the value is explicitly overridden for an individual pool in the Pools configuration.

- Communication timeout interval

  Set the number of minutes that must elapse without communication with an allocated session for an ID to be classified as timed out.

  This value applies to all pools unless the value is explicitly overridden for an individual pool in the Pools configuration.

- Reclaim timed-out IDs automatically

  Specify the number of minutes before automatically reclaiming an ID that has been flagged as timed-out.

4.2.5 Logging and tracing

Select the log levels as needed. Keep in mind that performance may be affected when more information is logged.

Log	Description	Levels
audit.log	The audit.log records administrator actions, such as changing settings.	• Log errors and informational messages • Log errors • Disable logging
idevent.log	The idevent.log file contains details about ID event activity, such as clients requesting IDs.	• Log errors and informational messages • Log errors • Disable logging
trace.log	The trace.log is frequently used when analyzing server problems. The trace.log file is located in the log folder within the MSSData folder. Your Technical Support representative may request that this setting be changed to include debug information.	• Log errors, informational and debug messages • Log errors and informational messages • Log errors and warnings

5. Monitor IDs

5.1 Monitor IDs

The Monitor IDs panel displays a summary of terminal ID Pools and Association Sets.

First, note the server status. If the Server database is not available, refer to the Terminal ID Manager log files, `idevent.log` and `trace.log`, located in `<MSSData>/idm/log`. You may need to review how you Set up the Database.

- Options
- Pools
- Pool IDs
- Association Sets
- Set IDs

5.2 Monitor ID Settings

The Monitor IDs panel displays a summary of terminal ID Pools and Association Sets.

5.2.1 Options

Display Options

Either keep the default to show All IDs, or use the drop-down menu to filter the display by the current ID attributes. Choose from these options:

- All IDs: the default

- Allocated IDs: only those pools that contain IDs that have been allocated.

- Non-allocated IDs: only those pools that contain IDs that have not been allocated

- Timed Out IDs: only those pools that contain IDs that have timed out.

- Held IDs: only those pools that contain IDs that are in Hold status.

- Timed Out and Held IDs: only those pools that contain IDs that are in a simultaneous status of being timed out and held.

Actions

> ✏ **Note**
>
> The Refresh button applies to both tables, while the Hold and Release buttons apply only to a selected pool.

- Refresh all settings on this panel.

  Click Refresh to redisplay the settings for each Pool and Association Set, including changes made on the individual panels.

- Hold all IDs in a particular pool.

  To set an administrative Hold on all of the IDs in a pool, click any cell in the row, except the underlined name of the pool. (Clicking the Name opens the details page for that pool.)

  Then click Hold, OK, and Close.

  Result: Any available IDs put on hold will not be considered for allocation. If an ID is currently allocated, the client will be notified that the ID should be returned.

- Release any IDs that are being Held in a particular pool.

  To Release IDs, click the Selection Criteria entry next to the Name of the pool. Then click Release, OK, and Close.

  Result: All of the IDs that were put on Hold are released and available for allocation, unless previously allocated.

To manage the individual IDs, click the Name of the Pool or Association Set, which open a separate panel.

When you select items to Hold or Release, you will see a message to confirm the action.

5.2.2 Pools

The currently defined pools are listed in this table, along with their attributes. Use the Column Chooser ⊞ to customize the display.

- Name: the name for this pool, set in the database

- Selection Criteria: the ID attributes that must match request attributes from the client in order to have an ID allocated from this pool

- ID Totals: the number of IDs in the pool

- Allocated: the number of IDs in the pool that are currently allocated

- Free: the number of IDs in the pool that are not allocated, and available for client sessions (if not held)

- Held: the number of IDs in the pool that are in Hold status, and therefore currently unavailable for further allocation to client sessions

- Timed Out: the number of IDs in the pool that have exceeded the configured communication timeout interval

- Communication timeout interval: the number of minutes that must elapse without communication with an allocated session for an ID to be classified as timed out

    If no value is specified here, the server default, specified in Server Settings is used. See Communication timeout interval.

- Heartbeat interval: the number of minutes in which a client is expected to send a regular heartbeat message to the server, indicating that the ID is still in use by the client.

The value set in Server Settings applies to all pools unless the value is explicitly overridden for an individual pool during pool configuration.

In the list of pools, you can

- Click Download CSV to view this table's data in a spreadsheet.

- Click the Name of a pool to configure settings for the IDs in that pool.

5.2.3 Pool IDs

The Pool IDs panel opens when you click the Name of a pool on the Terminal ID Manager - Monitor IDs panel. This panel shows the current Pool Settings, the ID Summary, and the specific IDs in that pool.

- Pool Settings

  Each ID in this pool satisfies the Selection Criteria, which was set in the database, and summarized here. The Communication timeout and Heartbeat intervals are shown here for easy reference.

- ID Summary

  You can easily see how many licenses in this pool are Allocated, Free, Held, or Timed Out. Look in the table to identify which IDs have those attributes.

- IDs

  By default, All IDs are shown in the table. Use the Show menu and the Column Chooser to customize the display.

> ✏️ **Note**
>
> An attribute without a value is either currently not defined or not required for the IDs in that pool.

ID	Description
Name	the name for this pool, set in the database
Session type	the type of session, such as 3270, UTS
Emulator type	Terminal or printer
Status	the status of the ID: Allocated, Free, Free but currently Held, Allocated but currently Held, Allocated and Timed Out, or Allocated and Timed Out and Held
Host port	the target host and port
Session name	the name of the client session that allocated the ID
User name	the user that is associated with the allocated session. The value for the user name is based on the user that is logged on to the operating system.
Client DN	the domain name of the client using the ID
Client IP	the IP address of the client using the ID
Association Set	If specified, this ID is a member of the Association Sets having this name
Allocated	a timestamp indicating when the ID was allocated
Heartbeat	a timestamp indicating the last communication from the client session
Timed out	a timestamp indicating when the ID went to a Timed Out status
Application	For UTS sessions, the application that the session will start after connecting

Actions

Use the control buttons to Hold, Release, or Reclaim one or more specific IDs.

- Hold: Set an administrative Hold on the selected IDs. The ID Status changes to Free/Hold or Allocated/Hold.

  Any available (Free) IDs that are put on Hold will not be considered for allocation. If an ID is currently allocated, the client will be notified (during the next client heartbeat) that the ID should be returned.

- Release: Release any of the selected IDs that are in Hold status. The ID Status changes to Free.

- Reclaim: This button displays if a pool is expanded to show IDs. When reclaimed, any selected ID that is allocated is changed to unallocated status.

5.2.4 Association Sets

An Association Set is a group of defined pools. The set provides a secondary grouping of IDs as another way to monitor IDs.

Each set of IDs mirrors an existing association between the device identifiers defined on the target hosts, in which groups of IDs operate together to provide a single emulation user a host-defined application functionality. For example, an association can facilitate routing of print output from a given emulation terminal to a specific emulation printer.

In the list of Association Sets, on the Terminal ID Manager - Monitor IDs panel, you can

- Click Download CSV to view this table's data in a spreadsheet.
- Click Show Set IDs (or the Name of a set) to configure settings for the Pool IDs in that set.

5.2.5 Set IDs

The Set IDs panel opens when you click the Name of an Association Set on the Terminal ID Manager - Monitor IDs panel. The Set IDs panel shows the ID Summary and the specific pool IDs in that set.

ID summary

At a glance, you can see how many licenses in this set are Allocated, Free, Held, or Timed Out. The Selection Criteria (defined in each pool) are not included.

Look in the table to identify which IDs have those attributes.

IDs

Each Pool in the set is listed with each of its IDs. By default, All IDs in the set are shown in the table. Use the Show menu and the Column Chooser to customize the display.

- Pool: the name of a pool in this set

- ID: name of an ID in a named Pool

- User Name: the user that is associated with the allocated session. The value for the user name is based on the user that is logged on to the operating system.

- Emulator Type: Terminal or Printer

- Status: the status of the ID: Allocated, Free, Free but currently Held, Allocated but currently Held, Allocated and Timed Out, or Allocated and Timed Out and Held

Actions

Use the control buttons to Hold, Release, or Reclaim one or more specific IDs.

- Hold: Set an administrative Hold on the selected IDs. The ID Status changes to Free/Hold.

- Any available (Free) IDs that are put on Hold will not be considered for allocation. If an ID is currently allocated, the client will be notified that the ID should be returned.

- Release: Release any of the selected IDs that are in Hold status. The ID Status changes to Free.

- Reclaim: This button displays if a pool is expanded to show IDs. When reclaimed, any selected ID that is allocated is changed to unallocated status.

> ⚠️ **Caution**
>
> Use the Reclaim option with caution. Reclaiming an ID that is still in use can lead to synchronization problems.

When you select items to Hold, Release, or Reclaim, you will see a message to confirm the action.

On the Terminal ID Manager - Monitor IDs panel, click Refresh to update the table with your changes.

6. Configure Sessions to use Terminal ID Manager

6.1 Configure Sessions to Use Terminal ID Manager

Once Terminal ID Manager is installed and configured, you can configure sessions to use it, and then assign the sessions to users or groups.

- Configure the sessions
- Assign the sessions

6.2 Configure and Assign the Sessions

You can configure sessions to use Terminal ID Manager, and then assign the sessions to users or groups.

6.2.1 Configure the session

1. In the MSS Administrative Console, open Manage Sessions.

2. Either Add a session or Edit an existing one. Refer to the Supported emulators and session types, if needed.

3. In the session, locate the Use Terminal ID Manager setting, which is specific to your emulator.

For instance, in a Host Access for the Cloud session:

- Click Connection.
- In the Device name menu, select Use Terminal ID Manager.
- Configure the settings, and click Test. Refer to Help, as needed.
- When done, click Save.

For other emulators, refer to your product documentation.

6.2.2 Assign the session

Remember to assign these sessions to specified users or groups.

To do so:

1. Return to the MSS Administrative Console.

2. Open Assign Sessions. Click Help, as needed.

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