Reflection for the Web
Evaluation Guide

12.3 SP1 Update 2

Contents

Evaluating Reflection for the Web 12.3 SP1 Update 2

This Evaluation Guide provides a step-by-step guide to evaluating Reflection for the Web version 12.3 SP1 Update 2. Use this guide along with the Reflection for the Web 12.3 SP1 Update 2 Installation Guide.

You might recall that beginning with version 12.3, Reflection for the Web is a standalone client that requires the **Host Access Management and Security Server** and its Administrative Server. (Previous versions used the *Administrative WebStation*.)

Reflection for the Web 12.3 SP1 includes Management and Security Server version 12.5.2.

In this guide:

1 Introduction

Reflection for the Web is a separate web application that requires **Host Access Management and Security Server** to create, configure, and manage secure web-based sessions to a variety of hosts.

Reflection for the Web 12.3 SP1 Update 2 includes **Management and Security Server 12.5.2** and is compatible with 12.5.0 or higher.

Reflection for the Web 12.3 SP1 Update 2

Reflection for the Web provides user access to web-based terminal emulation sessions that connect to host applications located inside or outside of the firewall. Applets are downloaded to each user's workstation as needed and are cached locally for faster performance. Sessions are centrally managed and secured using Host Access Management and Security Server.

Briefly, here's how Reflection for the Web works:

1. An administrator installs **Reflection for the Web** on a web server and either installs or uses an existing installation of **Management and Security Server**.
2. The administrator uses the **Administrative Console** (in Management and Security Server) to create, configure, and secure terminal emulation sessions. Optional security settings can be configured on a per-session basis.
3. A user clicks a link to start a terminal session
4. The Reflection for the Web emulation applet is downloaded to the user's workstation and is cached locally.
5. The user connects to and communicates with the host system using the downloaded emulation applet.
6. When the session is closed (**Save/Exit**), settings are sent to the Management and Security Server.

What's New

Reflection for the Web 12.3 SP1 Update 2 introduces these features.

- OpenJDK, which replaces Oracle, on the server side
- Management and Security Server version 12.5.2
- Apache Tomcat version 9.0.12
- Elliptic curve algorithms

For detailed descriptions, see the Release Notes.

Before you begin

This guide is written for the administrator who wishes to evaluate the features available with Reflection for the Web version 12.3 SP1 Update 2.

NOTE: If you are upgrading from version 12.1 earlier, you need to first upgrade to version 12.2. Refer to Knowledge Base artcle 7022345 for details.

Follow the steps in the Evaluation Scenario to create and configure secure web-based terminal emulation sessions that can be deployed to end-users.

You may want to refer to these resources while evaluating Reflection for the Web:

- Technical Resources
- Installation Guide
- Reference Guide

2 Evaluation Scenario

An administrator is in charge of setting up Reflection for the Web 12.3 SP1 Update 2 to deploy secure sessions to mainframe applications via the web.

The administrator's evaluation would include the following procedures from this guide:

- Step 1. Obtain and install the evaluation software
- Step 2. Using the Administrative Console
- Step 3. Create a session to a mainframe host
- Step 4. Configure the session settings
- Step 5. Assign and Deploy the session.
- Step 6. Consider other security options
- Step 7. Evaluate optional features

Step 1. Obtain and install the evaluation software

For this evaluation, you will use an automated Windows installer to install Reflection for the Web on a Windows 64-bit platform.

To expedite preliminary testing, a simple configuration is presented with all components installed on a single machine. For production, however, components can be installed on different machines.

System Requirements

The administrator's workstation must meet the minimum system requirements:

- Windows 64-bit machine
- Java Virtual Machine 8 or higher, capable of running Java applications
- Any web browser using JRE 8 or later

  The automated installer installs JRE 1.8.0_192.
- No previous installation of Reflection for the Web on the machine

Workstations running the Reflection for the Web client require:

- Windows 32-bit or higher
- a web browser using JRE 8 or later that can run trusted applets

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NOTE: With **Java 9**, only Internet Explorer 11 (64-bit) is supported with Reflection for the Web 12.3 SP1 Update 2. Further configuration is required for Java 1.9 or higher. Refer to the Installation Guide for details.

Compatibility Requirements

Reflection for the Web version 12.3 SP1 Update 2 includes **Management and Security Server 12.5.2** and is compatible with MSS 12.5.0 and higher.

While the two products are installed independently, the Reflection for the Web automated installer provides the option to both products -- Reflection for the Web and a compatible version of Management and Security Server. Follow the prompts during installation.

For information about installing or using **Management and Security Server**, refer to the MSS product documentation.

Obtain the evaluation software

1. Log in as administrator to the Windows machine that you are using for your evaluation.
2. For this evaluation, open the Reflection for the Web product information page, and click **Download your free trial**. From the list, click **Reflection for the Web Enterprise Edition**.
3. Enter the requested information, accept the Terms of Use, and click **Try now**. You will receive an email message with a download link.
4. Open the email message from Micro Focus and click the **Download** link.
5. For this evaluation scenario, click the line for **Reflection for the Web - Windows 64-bit**, and then click Download.
6. Save and install the product evaluation file: `rweb-12.3.<nnn>-eval-wx64.exe`
7. Run the self-extracting file.

Install the Reflection for the Web evaluation software

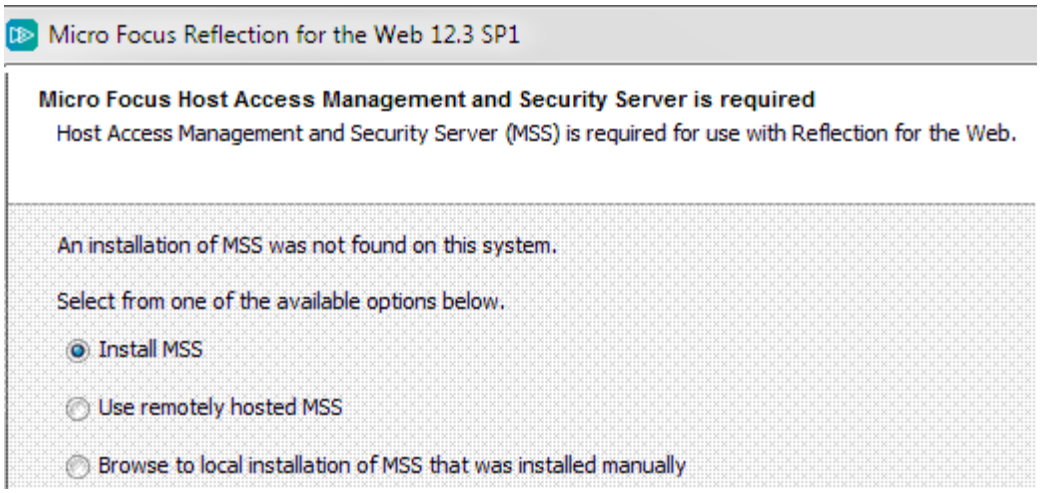
For simplicity while evaluating, install all of the components onto the same computer.

In production, however, the administrator would likely install the server components (Administrative Server, Security Proxy Server, Metering Server, and Terminal ID Management Server) on different servers by running the installer on each machine.

1. In your download location, open the install_automated folder. In addition to the product executable, you will see an **mss** folder and an activation file.

   The Reflection for the Web automated installer installs both Reflection for the Web 12.3 SP1 and Management and Security Server version 12.4 SP1 (using the files in the `mss` folder).
2. Double-click `rweb-12.3.<nnn>-eval-wx64.exe` to start the installation.
3. When the automated installer does not detect an installation of the required Management and Security Server, it presents options.

   Choose **Install MSS** and continue. For assistance along the way, see the Reflection for the Web Installation Guide.



Note: The other options are for an existing installation of Management and Security Server in another location.

4 The installer proceeds to install Management and Security Server first. Continue through the installation dialogs, accepting the defaults.

   Once the MSS installation process is finished, you can continue with the Reflection for the Web installation.

5 For this first-time installation, select **Run Initial Configuration Utility** to configure the installed MSS components.

   - Click **Next** and proceed through the utility, accepting the defaults.
   - Enter your VPA and organization information, if known. You may leave these fields blank for now.
   - For the administrative password, enter `admin`.
   - When prompted, click **Done**.

6 On the **Install and Start Services** page, keep the **Start server components now** checked, and click **Next**.

7 On the **Installation Complete** page, note the link under **Administrative Server**, which is the Server URL. You can open it now; however, the Reflection for the Web installation still needs to be completed.

8 Click **Finish**. Focus returns to the Reflection for the Web installation.

   Click **Next** to continue.

9 When you are prompted to restart the MSS Server, click **Next**.

   When installation is complete, click **Finish**.

Step 2. Using the Administrative Console

Reflection for the Web is accessed through Management and Security Server's Administrative Console. The **Administrative Console** is a centralized site that contains administrative tools and is the interface for the Administrative Server. From this central location, you can create, secure, deploy, and monitor terminal emulation sessions.

Open the Administrative Console

The Administrative Console is password-protected to allow for remote administration and access by multiple administrators. If you clicked the **Server** URL after Management and Security Server was installed, the **Administrative Console** is already open.

On Windows, open the Administrative Console from **Start** > **Micro Focus Host Access Management and Security Server** > **Administrative Server** or **Administrative Server** (via Java-based links list).

Note: The Start menu does not display *Reflection for the Web*.

- **Administrative Server** directly opens the Administrative Console after you log in.
- **Administrative Server (via Java-based links list)** opens your list of links after you log in. Click **Administrative Console** in the bottom right.

The Administrative Console opens to the **Manage Sessions** panel.

Navigating the Administrative Console

The **Administrative Console** replaced the *Administrative WebStation* as the management interface beginning in Reflection for the Web 12.3 Update 1 (Management and Security Server 12.4 Update 1).

If you are upgrading from Reflection for the Web 12.3 or earlier, you will notice these navigation changes when creating, managing, and securing sessions.

- **Manage Sessions** replaces *Session Manager*
- **Manage Packages** replaces *Package Manager*
- **Assign Access** replaces *Access Mapper*
- **Configure Settings** replaces *Settings* and *Security Setup*
- **Run Reports** replaces *Reports*

Click ? on any page for context-sensitive Help.

Step 3. Create a session to a mainframe host

Use **Manage Sessions** to create the terminal sessions you want to deploy to end users. After the session is added, launch it and configure the settings.

Add a terminal session

1. On the **Manage Sessions** panel, click **+Add**.
2. Select your **Product** -- **Reflection for the Web**.

3 Select the **Session type**. For this evaluation, use **IBM 3270.**

4 Enter a unique **Session name** that does not exceed 64 characters, such as `eval3270`.

5 Open the **Comments** option to enter a comment about this session. Comments are internal notes for the administrator that can be displayed in the summary list.

6 If you want to evaluate the session's **Appearance**, use of **FTP**, or the **Advanced Settings**, refer to the MSS product Help, Configure a Reflection for the Web Session.

7 Click **Launch**. The session opens in a separate window.

If you want to test the connection to the mainframe, enter the name of your host computer and click **OK**. Otherwise, click **Cancel**. You do not need to be connected to configure the session.

Now you are ready to configure the emulation settings for the end-users' terminal session.

Step 4. Configure the session settings

You do not need to be connected to the host to configure settings.

Note: When you log on as an **administrator** and launch a session from the Administrative Console, all of the menu options are visible and enabled. The end users, however, are able to access only the menu options filtered by the End user menu level selected in the **Profiler**, described below.

Try some commonly used features

In this evaluation guide, some commonly used features are highlighted with detailed steps. If you wish to try others, refer to Help for more information.

- Profiling
- Display
- Keyboard Mapping
- Macro recording and editing
- Toolbar customization

Profiling

The Reflection for the Web Profiler can be used to restrict access to entire menus, dialog boxes, toolbars, or to specific items within them.

To experiment with these access levels, use the **Profiler** from within the session menu:

1 In the open session you just created, click **Administration** > **User Interface Profiler.**

2 Change the **Profile type** to see what is enabled or restricted on the **Menu profiling** tab. For instance, the **Basic**, Profiling type restricts **Administration**.

3 Then, on the **Dialog box profiling** and **Toolbar profiling** tabs, review the options that you can lock (or unlock) for this profile. Click **OK**.

Click **Help** for more information.

Display

To modify display features, in the terminal session, click **Setup**. Then click the menu item and follow the logical navigation, which varies among session types.

For example, to change foreground and background screen colors, click **Setup** > **Color**. Click **OK** or **Cancel** to return to the session.

Keyboard Mapping

To create a custom keyboard mapping, click **Setup** > **Keyboard**. Click the **Add** button and follow the directions in the dialog. Click Help for more details. Click **OK** or **Cancel** to return to the session.

Macro recording and editing

Reflection for the Web includes powerful macro recording and editing features that enable you to automate frequently performed tasks. The recorded macros and the macros you create use JavaScript as the automation language; if you already know JavaScript, the syntax of Reflection macros will be familiar.

Both administrators and end users (with permissions set by the Reflection for the Web profiler) can create macros. The macros that an administrator creates are delivered to all users when they access the terminal session, whereas the macros created by an end user are private to just that user.

To get started with macros, try recording a host logon macro:

1. In a terminal session, connect to your host computer, but do not log on yet.
2. From the **Macro** menu, select **Start Recording**.
3. Log on to the host as you usually do.
4. Once you are logged on to the host, click **Macro** > **Stop Recording**.
5. In the **Save Macro** dialog box, enter a name for the macro.
6. Configure other options (described in the online help), and then **click Save**.

   The macro is saved as follows:

   - If you record the macro while configuring the session in the Administrative Console, the macro will be saved to the Administrative Server after you save and exit the session.
   - If you record the macro while running the session as an end user, the macro is saved locally as soon as you click **Save** in the **Save Macro** dialog box.

In addition to recording macros, you can edit macros and also write your own macros. See Technical Note 2535 for more information.

Toolbar customization

Use the macro you created to log on to the host as described above:

1. In a launched session, click **Setup** > **Toolbar**. Drag the existing items to rearrange them.
2. Click the **Add** button. In the **Define Toolbar Item** dialog, add text (for example, `My Logon`).
3. Click **Select** to associate an **Action** with the new button.

   For example, in the Define Action dialog box, open the **Action Type** menu and select **Execute Command**.
4. Scroll through the commands and select **Run Macro**.

5. At the bottom of the dialog box, select your logon macro from the drop-down menu. Click **OK**.
6. When you return to the **Define Toolbar Item** dialog box, **Choose** an icon for your new toolbar button.
7. Click **OK** twice. Drag the icon to the toolbar. (You can rearrange the icons by dragging.)
8. Click **OK**. Your new button is included in the Custom toolbar items.

Save the session

When you are finished configuring the emulation features, save the session by clicking **File** > **Save and Exit** (and Save/Exit, if prompted). This session is then added to the **Manage Sessions** list in the Administrative Console, viewable by administrators.

Now that you created and configured a terminal session, you are ready to assign and deploy the session to end users. (End users cannot access a session until the session is assigned and deployed.)

Step 5. Assign and Deploy the session.

Use **Assign Access** to give authorized users access to specific sessions, which will then appear on their list of links.

To use **Assign Access**:

1. In the Administrative Console, click **Assign Access**.
2. If LDAP authorization is enabled, you can **Search** for a particular user or group.

   Otherwise, note that “All users in the selected domain” will be given access to each session you assign. See Help for more information.
3. With the user or group selected, check the session you just created, `eval3270`, in the **Sessions** list.
4. Click **Apply**.
5. In the Administrative Console, click **Currently Assigned** to see that `eval3270` is assigned to All Users.
6. In the **Manage Sessions** list, click the session name to see the direct URL for the session.
7. Deploy the session using your usual procedures.

Step 6. Consider other security options

In addition to **Assign Access** (used in Step 5), Reflection for the Web provides several options to secure user access to your host applications.

Access Control

Reflection for the Web supports many types of authentication. Each type is described in the Help topic: **Configure Settings** > **Authentication & Authorization**.

Security Options

In the Administrative Console, click **Configure Settings** > **General Security**. You can set options for server access, passwords, smart card libraries, and cryptography settings. Click Help for information about the available options.

HTTPS and TLS

By default, Reflection for the Web enables web browsers to use the HTTP protocol to communicate between the client computer and the administrative server. Although HTTP is universally available to web browsers, it is not a secure protocol.

To secure the communication between the client and the web server, you can require web browsers to use the HTTPS protocol (which provides TLS/SSL encryption) when connecting to the Administrative Server. For more information, open the Administrative Console Help to **Technical References** > **Security Overview**.

Cryptography Settings

Reflection for the Web provides support for TLS 1.2. For more information, see the **Technical References** -- **Security Overview** and **Using the Security Proxy**. You can also search for other Help topics about using TLS.

Security Proxy Server (Optional)

The Security Proxy can be used to encrypt the data between the client and the Security Proxy. You can install the security proxy when you run the automated installer, and it can be installed on a different machine.

The Security Proxy is managed by Host Access Management and Security Server. For more information, see Using the Security Proxy Server.

Step 7. Evaluate optional features

As you continue to evaluate Reflection for the Web, try these optional features:

- Customization
- Usage Metering

Customization

Earlier, when you created and configured your terminal sessions, you were able to make some preliminary customization choices.

Advanced Administration

Reflection for the Web includes a well-documented API and some advanced tools that make it easy to customize terminal sessions—even if you do not have Java or HTML programming experience.

Open the Reflection for the Web Reference Guide for information about using scripts, HTML code, and applet parameters with Reflection.

The following example demonstrates how you can customize the behavior of a terminal session by changing the parameters for a specific attribute.

Example: Using the Applets Parameter tool

1. In the Administrative Console, click **Manage Sessions**.
2. Click the Reflection for the Web session you created earlier, such as `eval3270`.
3. Scroll to the **Advanced Settings** section, and click **Applet Parameters**.
4. Click **+Add**, and open the drop-down **Parameter** menu.
5. For this evaluation, click `splash`.
6. For the **Value**, enter `false`. Click **Add**. The parameter is added to the list of current parameters.

   NOTE: The Reference Guide includes this description of the **splash parameter**:

   This parameter determines whether the Reflection splash screen is displayed while Reflection is loading. The splash screen includes a progress indicator, so if the splash screen is not displayed, the progress indicator is not visible.

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7. Click **Save**. You are returned to the **Manage Sessions** panel.
8. To test the parameter, log in as a **User**, and launch the session.

Usage Metering

Usage metering can be used to audit and control access to both web-based and Windows-based sessions. You may want to install the metering component if your site needs to carefully balance network and server loads.

For more information, see the Metering help topic in the MSS Administrative Console.

After Metering is configured, you can run Reports to view current and historical activity.

3 Resources

For more information about **Reflection for the Web 12.3 SP1 Update 2**, see these resources.

- Technical Resources -- including Knowledge Base articles
- Documentation
- Installation Guide
- Reference Guide
- Management and Security Server Administrator Guide (online Help)

4 When you finish evaluating

After you evaluate Reflection for the Web 12.3 SP1 Update 2, please contact us if you have questions or are ready to buy.