



Web-to-Host 6.9.4 SP2

Administrator Guide

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Product Overview

OnWeb Web-to-Host is a server-based Web application that publishes your existing legacy applications in intranet, extranet, and Internet environments. It includes host display, printer, and file transfer features that enable end users to work productively with host-based information in a familiar Windows or Web browser environment. Web-to-Host provides access to a broad range of host types, including IBM mainframe, IBM AS/400, DIGITAL VAX, UNIX, and HP systems.

System administrators can use the Session Configuration Manager tool to easily configure client sessions that can be published to end users.

Features

Designed for use in an intranet environment, the Pro component offers a rich feature set and consists of ActiveX controls that give users access to mission-critical host applications and data. Pro provides these client session types:

- Mainframe Display, Mainframe Printer
- AS/400 Display, AS/400 Printer, AS/400 File Transfer
- UNIX Display
- HP Display

Pro client sessions include these advanced features and options:

- Mainframe file transfer (can include SimXfer tables)
- AS/400 file transfer
- AS/400 batch file transfers
- Macros
- Hotspots
- User profile enhancements
- Restricted user support
- An MSI packaging utility for automatically installing Pro components
- A distribution utility
- A download and install service
- VBA-type scripting
- Customizable menus and toolbars
- End-user keyboard mapping
- Administrator keyboard mapping
- Tracing

Hotspots, a word or set of characters on the host screen, activate a function when clicked. Using the **Hotspots Configuration** dialog box, you can enable/disable, show/hide, create, and modify both default and user-created hotspots. Default hotspots are host commands displayed on-screen. User created hotspots are custom macros you assign to selected on-screen text. You can also use hotspots and macros to log on to and run host applications automatically. Any protected text on your host screen can be turned into a hotspot. In mainframe displays, you can also configure hotspots for non-protected text.

Pro AS/400 File Transfer moves files and data between the host and the PC using either the menu bar or toolbar options of the AS/400 display. A customized toolbar button activates a pre-configured FTX file and starts the AS/400 FTX application. A new AS/400 emulation type has been added to the Session Configuration Manager. It opens the AS/400 FTX application and loads an existing FTX configuration on the client. Your users can customize the file transfer session, configuring options such as the data format

for sending and receiving, file locations, application behavior both during and upon completion of the transfer, security settings, and host connection.

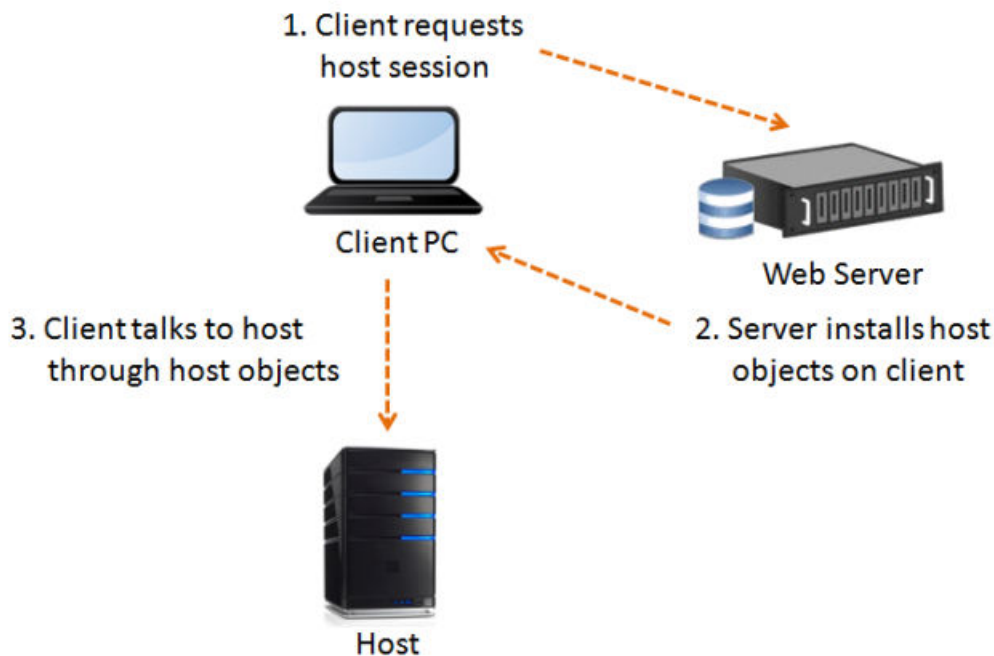
With enhanced user profiles, user configuration files (.cph) are no longer deleted automatically when changes are made in the HTML files for configurable options. For more information, see [User Profile Configuration](#).

Pro ActiveX components are downloaded to the client once, during the first login. A new download service is first installed on the client workstation. Once the service is installed on the client, all users (including restricted users) can work with the Pro ActiveX controls. The service handles all installs, upgrades, and downloads of Pro ActiveX components.

The Web-to-Host Distribution Packager enables you to bundle multiple Web-to-Host configuration and data files into a single, easily distributed package. Users can run sessions that include a complete work environment with components such as pre-defined scripts, macros, hotspots, custom toolbars, background images, icons, screen/font colors, AS/400 File Transfer and Batch File Transfer profiles. The Web-to-Host Distribution Packager helps you provide standardized functionality and a single look and feel for all users. For more information, see the online Help.

Architecture

The figure below shows how Web-to-Host works once the system administrator has created the host sessions and published them to users. The following sections describe how this architecture is applied to each of the component types.



The ActiveX objects are downloaded to the client the first time a user opens a session. When you install updates on the server, they are downloaded automatically to the client the next time a user opens a session. This architecture enables the client to communicate directly with the host, as shown in the figure above.

Security

Web-to-Host maintains persistent client-to-host sessions. It is important that users be aware of session persistence in relation to information security, especially when sessions are configured to run inside a browser window. In this mode, only one session is visible on the screen at a time, though other sessions could be running in the background.

Users who have access to sensitive information on host systems should consider running each session in a separate window to keep all concurrent sessions visible on the screen. Users can also ensure that all connections are severed by closing their browser when they leave their work area. For details on configuring sessions to run in a separate window, see [Start options](#).

Web-to-Host supports:

- SSL (Secure Socket Layer) for IBM mainframe, AS/400, and UNIX hosts.
- SSH (Secure Shell) for Pro UNIX display.
- Kerberos authentication for AS/400.

With this security support, users can securely access applications and transfer data between their desktops and mainframe, AS/400, and UNIX systems, encrypting the session data stream to a host capable of supporting these protocols.

Finding information

Web-to-Host product documentation includes:

- This Administrator Guide, which explains how to install, uninstall, configure, and deploy the product.
- The Readme file, which contains information about new features, late-breaking changes, and known issues.

The **Help** page of the Session Configuration Manager contains links to the Readme file and this Administrator Guide.

- Context-sensitive Help for the Session Configuration Manager, a tool for configuring Pro client sessions.
 - User guide for Pro client. This Help for end users explains how to configure and run features and options in the client session.

Server Installation

Installing Web-to-Host Server on a Windows platform



Note: Web-to-Host Server can be deployed only on a 64-bit Windows platform.

1. Either activate Internet Information Server (IIS), or install any other Web Server.
2. Install Web-to-Host Server under the root directory of an installed Web server.
3. Run the Session Configuration Manager to create and configure (or migrate) session profiles.
4. Publish session profiles to clients.

Web-to-Host files are installed in a `w2hlegacy` directory (created during installation) that must reside under the root, or in the subfolder of the root directory of the installed Web server.

Installing Web-to-Host Server on a non-Windows platform

1. Install Web-to-Host Server to any place on any machine. Web-to-Host files are installed in a `w2hlegacy` directory (created during installation).
2. Install or run a Web server on the target non-Windows platform.
3. Copy the `w2hlegacy` directory to any location under the root directory of the Web server running on the target non-Windows platform.
4. Run the **Session Configuration Manager** to create and configure (or migrate) session profiles.
5. Publish session profiles to clients.

Installing

Web-to-Host Server setup exists in four variants, shown below in increasing features set order:

`Web-to-HostSetup.msi` - standard setup.

`Web-to-HostSetup-RDE.msi` - RDE-enabled setup.

`Web-to-HostSetup-Citrix.msi` - Citrix-enabled setup.

`Web-to-HostSetup-Eval.msi` - fully featured 30 day evaluation setup.

Installing on a Web server running Windows

Using Setup

1. Run one of the appropriate MSIs listed above.
This installs a default instance of Web-to-Host Server (see the next section about installing multiple instances).
2. Click **Next** in the **Welcome** dialog.
3. Read the End-User License Agreement, select the option to accept it, then click **Next**.
4. Specify the Web Server Root directory (this can be the root publishing directory of your Web server or any subdirectory under the Web root), then click **OK**.
5. To install to a subdirectory, select **Enable subdirectory support**, then type the path in the box provided.
6. The setup program creates a new `w2hlegacy` directory in either the specified Web Server Root directory or in its subfolder, which is specified by the path under **Enable subdirectory support**.

7. When setup finishes, click **Finish** button to exit.

Using the command line

Web-to-Host Server Setup allows you to install up to five instances side-by-side using command line options in addition to the default instance. In addition, for any instance of Web-to-Host Server, both the Web Root directory and Web Root subdirectory can be specified on the command line.

Installing a default instance

To install a default instance, run the following command. Square brackets [] enclose optional attributes and angle brackets <> enclose parameter values.

```
msiexec /i <full_path_to_msi> [INSTALLDIR=<Web_Root_directory_path>]  
[ENABLE_WEB_SUBDIR=1 WEB_SUBDIR=<Web_Root_directory_path>]
```

Values containing spaces must be enclosed in quotation marks ("). For example:

```
INSTALLDIR="C:\Program Files\wwwroot"
```

Example:

```
msiexec /i C:\temp\Web-to-HostSetup.msi INSTALLDIR=C:\inetpub\wwwroot  
ENABLE_WEB_SUBDIR=1 WEB_SUBDIR=w2hServer
```

Installing a non-default instance

You can use the Web-to-Host Server Setup multi-instance functionality to install up to five instances of the same Web-to-Host Server version on the same machine.

The difference between the instances is up to you. For example, you might want different fixes to be applied to different instances, or you might want to install particular instances outside the Web Root directory as templates to be used later on a variety of other operating systems on other machines.

To install a non-default instance, two mandatory command line options are necessary in addition to the optional ones on the command line above. The pipe sign (|) denotes mutually exclusive values:

```
msiexec /i <full_path_to_msi> MSINewInstance=1 TRANSFORMS=":_<1|2|3|4|5>"  
[INSTALLDIR=<Web_Root_directory_path>] [ENABLE_WEB_SUBDIR=1  
WEB_SUBDIR=<Web_Root_directory_path>]
```

Here, TRANSFORMS must have one of the values " :_1", " :_2" and so on, which can be arbitrarily picked from the five values allowed.

Values containing spaces must be enclosed in quotation marks ("). For example:

```
WEB_SUBDIR="w2h Server"
```

Example:

```
msiexec /i C:\temp\Web-to-HostSetup.msi MSINewInstance=1 TRANSFORMS=":_5"  
INSTALLDIR=C:\inetpub\wwwroot ENABLE_WEB_SUBDIR=1 WEB_SUBDIR="w2h Server"
```

Any attempt to install the same instance twice would cause an error message.

Installing by copying

1. According to the instructions in the sections above, install a Web-to-Host Server instance - default or otherwise - in the instance parent folder on a Windows machine, regardless of the Web server on that machine.
2. Install and activate a Web server on the target machine, which can run any operating system - Windows or otherwise.
3. On the target machine, prepare the Web-to-Host Server location.

If you decide to set up Web-to-Host Server in the `Web Root` subdirectory, create the subdirectory.

4. Copy the `w2hlegacy` folder from the instance parent folder on the Windows machine to the Web-to-Host Server location on the target machine.

Session Configuration Manager

After installing Web-to-Host on your Web server, the next task is to use the Session Configuration Manager to create, edit, and migrate client profiles.

1. To run the Session Configuration Manager for Web-to-Host Server instance, which is installed by running a `.msi` file, from the Windows **Start** menu, select **All Programs > Micro Focus > Micro Focus OnWeb 6.9.4**.
2. To run the Session Configuration Manager for the Web-to-Host Server instance installed by copying, navigate to the following address with your browser: <http://<Web-to-Host-Server-location>/w2hlegacy/config/hostwizard/>.

For example:

<http://localhost/w2h6.9.4/w2hlegacy/config/hostwizard/>

Uninstalling

When removing Web-to-Host Server, you should also uninstall the Web-to-Host Pro Client from any client machines it might have been installed on. See [Client uninstall](#).

Uninstalling Web-to-Host Server instance installed by `.msi`

1. Select **Control Panel > Programs and Features**.
2. Select **Micro Focus OnWeb Web-to-Host Server 6.9.4 SP2**, then click **Uninstall**.

Uninstalling Web-to-Host Server instance installed by copying

Remove the `w2hlegacy` folder from the Web-to-Host Server location on the target machine

Creating and Migrating Client Profiles

After installing Web-to-Host on your Web server, the next task is to create or migrate client profiles. You may also want to edit client profiles to configure new options, such as security, distribution packages, Pro toolbars and menus, and Pro watermarks.

This chapter explains how to use the Session Configuration Manager to create, edit, and migrate client profiles and how to deploy client profiles to your users.

Migrating client profiles from a previous version

After updating Web-to-Host by installing a new version or upgrade, you must migrate all session profiles created in the previous version by running the Session Configuration Manager in server mode. If you do not update the session profiles, Pro client sessions do not open. An error message appears, prompting you to contact your system administrator.

For details on running the Session Configuration Manager in server mode, see [Creating client profiles](#).

Migrating profiles after upgrading

1. Run the Session Configuration Manager on the server by typing the following in the address bar of your browser:

```
http://<webserver_name>/<subdirectory>/w2hlegacy/config/hostwizard
```

2. Click the **Convert** tab.
3. Load sessions by clicking **Load Session**.
4. Click **Convert**.

This ensures that your Web-to-Host installation incorporates the most recent version numbers in the session HTML files. Once new software is downloaded to the client workstations, the version numbers on client workstations and session files must match. If new parameters exist in the current product version that were not defined in the migrated profile, Web-to-Host uses the default values.

When the user opens a migrated profile, the browser displays a standard security dialog box asking if the user wants to install and run software from Rocket Software. Administrators should tell their users to click **Yes**.

Running the Conversion Utility

1. Click the **Convert** tab.
2. Click **Load Sessions** to load Web-to-Host HTML sessions from previous versions.
3. Click **Convert**.

A result is shown for each file. If the conversion is successful, the converted file is added to a .zip file which is downloaded to your computer.

4. At the end of the conversion process, a .zip file containing the converted sessions will be downloaded to your computer.

Creating client profiles

This section describes how to use the Session Configuration Manager to create a new Web-to-Host client session for your users. The Session Configuration Manager utility saves your client configuration settings in an HTML file that invokes a named Web-to-Host client session.

To run the Session Configuration Manager for Web-to-Host Server instance installed by running a `.msi`, from the Windows **Start** menu, select **All Programs > Micro Focus > Micro Focus OnWeb 6.9.4**.

To run the Session Configuration Manager for a Web-to-Host Server instance installed by copying, navigate to the following address with your browser: <http://<Web-to-Host-Server-location>/w2hlegacy/config/hostwizard/>.

For example:

<http://localhost/w2h6.9.4/w2hlegacy/config/hostwizard/>

Creating or editing a client profile

To use the Session Configuration Manager to create or edit client profiles:

1. Run the Session Configuration Manager on the server or on your local workstation.
2. Optional: For general instructions on using the Session Configuration Manager, click the **Help** icon at the top right of the screen. This menu also contains links to the *Readme* file and this *Administrator Guide*.
3. Click the **Create** tab, then do one of the following as needed:
 - Create a new session. Select the session type, then click **Create**.
 - Edit an existing session. Under **Open an Existing Session**, click **Open**, then specify the full path of the HTML session configuration file to edit. The **Browse** utility defaults to the location of the last saved configuration file.

The tabs for the selected host type appear.

4. Optional: Click each tab, click **?** at each section, then print the help pages for each tab.
5. Configure the settings on each page as needed:
 - For details on each field, see the online help. For details on configuring client start options, concurrent sessions, and multiple language support, see [Configuring client profiles](#).
 - The Session Configuration Manager displays an asterisk next to required settings, and provides many default settings. You need to enter only a few unique settings to make your connections work correctly. However, you should check each page to be sure you select the appropriate options for your needs.
6. To save the profile, click **Create** at the bottom of the Session Configuration Manager.

Web-to-Host generates the HTML file and instructs the browser to download the file to your computer.

The browser prompts you for the download location.

7. Specify an appropriate folder in which to save the profile.

You must save the profile in a Web-published folder. Otherwise, client sessions do not receive automatic updates from the Web server.

Configuring client profiles

This section describes some of the common options you can configure when creating or editing client profiles in the Session Configuration Manager. For a list of options related to each technology, see the Session Configuration Manager Help .

Start options

The following options are located on the **Session Options** page when creating or editing client profiles in the Session Configuration Manager:

Run in a Separate Window

This option applies to Pro display profiles.

The **Run in a Separate Window** option opens the client session in a separate browser window.

You can also use this option to configure a Pro display profile to launch multiple standalone sessions using the same configured connection. For details, see [Multiple sessions](#).

The default is **Clear**. The host session runs inside the browser.

Server URL

With this option, you have the ability to run sessions from a web server other than the default Web-to-Host server. The URL you enter indicates the location of the alternate Web-to-Host server.

Enable Local Start

This option allows users to run host sessions when the web server is unavailable. With this option, whenever the user opens a client profile stored on the web server, Web-to-Host copies that profile to the client workstation. The profile resides on the web server as an HTML file that is named after the client session:

```
%LOCALAPPDATA%\Micro Focus\Rumba\LocalStart
```

It is best to run client profiles from the server to ensure that users have the most up-to-date configuration and software.

When running local start profiles, help files are only available if, during configuration, the administrator selected **Install User Guide locally**. Auto macro files and keyboard map files configured by the administrator are cached on the client workstation when the session is downloaded from the server, so these local copies are accessible to the client session when the originating server is down. By default, the **Enable Local Start** option is not selected.

Multiple sessions

Users can run concurrent Web-to-Host sessions and switch between session windows to perform tasks. How users initiate multiple sessions and navigate between them depends on how you configure the session profiles. There are three scenarios:

- Multiple sessions running in separate browser windows

By default, users must open multiple instances of the browser to start multiple client sessions. Users can run concurrent host sessions and switch between sessions by clicking each browser window in turn.

- Multiple sessions running outside the browser

Administrators can configure Pro display profiles to run in a separate window outside the browser (see [Start options](#)). The user must open a new instance of the browser to launch another host connection but, once the new session is connected to the host, the browser can be closed without losing the connection.

- Multiple Pro standalone sessions

Administrators can configure a Pro display profile to launch multiple standalone sessions using the same configured connection. For example, a user can run two or more MyRumbaHost sessions, each in its own window.

With this configuration, a new session opens in a separate window outside the browser whenever the user accesses a session URL through the browser window. After launching one or more session windows, users can close the browser without losing the host connection.

Configuring multiple Pro standalone sessions:

1. Create or edit the Pro session profile in the Session Configuration Manager, then click the **Session Options** tab.
2. Check **Run in a Separate Window** and **Allow Multiple Standalone Sessions**.

When you enable these two options, users can launch a new session window using any method that requests the session URL. For example, if your Web site includes a Pro display session called `Display.html`, users can open multiple sessions by:

- **Clicking a link on a Web page**

If the Web page includes a link to `http://<yoursite>/Display.html`, users can click this link to launch a new session window.

- **Refreshing the browser with the session URL listed in the address bar**

When the browser's address bar contains the session URL, users can click **Refresh** (or **Reload**) on the browser toolbar to launch a new session.

- **Typing the address in the address bar**

If users have browsed to another location after opening the session, they can enter the session URL in the address bar to launch another session window.

- **Recalling the address from history**

If users cannot remember the URL, they can open the browser's history list, then select the session URL to launch a new session window.

Users can switch between sessions by clicking each of the windows in turn or by using the taskbar. If the browser closes, the session windows remain open.

International client sessions

When using the Session Configuration Manager to create or edit client profiles, configure the following multi-lingual options to meet the language needs of your users:

You can set these options to use different languages if necessary. For example, you can set the user interface to English and set the keyboard map and host character set to German.

Host Character Set

This option sets the host language (also known as the codepage). When configuring Pro and Java AS/400 and mainframe display or printer profiles, the option appears on the **Connection** page.

To specify the **Host Character Set**, select the language character set (or codepage) for the client session. If the host uses a non-English (United States) language, select the language used by the host.

The host character set includes commonly used marks, accents, letters, and symbols of a specific language. For example, if the host language is French, the host character set must also be French to

ensure that French special characters are transmitted to the host correctly and that the characters received from the host display in the client session correctly.

The default setting is English (United States) - 37.

Keyboard mapping options

These options set the country or custom keyboard map for Pro display sessions.

Web-to-Host supplies numerous country keyboard maps to accommodate the special characters and symbols used in various languages. You can deploy country keyboard maps in several ways. For example, you can:

- Standardize all the sessions on one country keyboard.
- Base the keyboard map on the client workstation's regional settings.
- Enable the user to specify their own keyboard mappings.

When using the Session Configuration Manager to configure Pro AS/400, mainframe, UNIX, and HP display profiles, the following options appear on the **Keyboard Map** page:

Keyboard Map

You can select a standard country keyboard map or specify a custom keyboard map (.map file) for the client session. For information on how to do this, see the Help. The default keyboard map is **U.S.A.**

Custom Keyboard Map

The default is blank.



Note: To enable users to specify their own Pro keyboard map files, which override the administrator-specified keyboard map, see the Session Configuration Manager Help on the **Client Options** page when configuring Pro display profiles.

Client Locale

This option sets the language of the Web-to-Host client user interface for display and printer sessions.

When using the Session Configuration Manager to create or edit any profile, this option appears on the **Client Options** page.

For Pro sessions, the Client Locale specifies the language for the Web-to-Host client user interface, which consists of the session window (including tool tips and the status bar), dialog and message boxes, error messages, and Help.

The default value is English.

Multiple language scenarios


When running client sessions, users may need to view applications on an international host, require a different country keyboard map, or require the Web-to-Host client user interface in another language. This can be done by configuring the **Host Character Set**, **Keyboard Mapping**, and **Client Locale** options.

Different companies have different international language environments and require different display and/or printer configurations. As such, it is impossible to provide a single procedure. This section lists possible multi-language scenarios to help you determine how to best configure the options for your international language environment.

In the following table, the first column lists the multi-lingual option, the second lists language scenarios, and the third lists the suggested Web-to-Host settings.



Note: There are multiple keyboard listings because Web-to-Host provides several keyboard mapping options. For information on individual settings, see the Help associated with the page in the Session Configuration Manager.

Option	If	Then
Host language	The host uses a language (codepage) other than English (United States).	In the Host Character Set option, select the language of the host.
Keyboard	All clients are localized on one language.	In the Keyboard Map option, select the country keyboard map or specify the full path of the Custom Keyboard Map file.
	Clients are localized on different languages as indicated by different regional settings (Control page) on the client workstations.	Select Use Client Regional Settings from the Keyboard Map option Keyboard Locale (default).
	Users need or want control over their own keyboard maps.	Each client uses the keyboard map based on its regional settings. Enable end-user keyboard mapping. User-created keyboard maps override any country keyboard map specified in the Keyboard Map option.
Client user interface	The client user interface uses a language other than English and you want Web-to-Host to use the same language.	Select the appropriate language from the Client Locale option.  Note: Web-to-Host supports English, French, and German.

The following are some other multi-language environments and suggested configurations:

- Clients connect to a host using the German language (codepage) and their regional settings are set to German. In this scenario, you would set the client host character set, country keyboard map, and client user interface language to German.
- Clients connect to a host using the English (United States) language (codepage), but their regional settings are set to French (Canadian). In this scenario, you would set the client host character set to English (United States), but the country keyboard map and client user interface language to French (Canadian).
- Clients connect to a host using the English (United States) language (codepage), but some client regional settings are set to French (Canadian) and others to German. In this scenario, you would want to set the client host character set to English (United States), deploy a country keyboard map based on the client regional settings, and set the language of the client user interface to either French or German.
- Clients connect to a host using the Spanish language (codepage) and their localization settings are set to Spanish. In this scenario, you would set the Web-to-Host host character set and the country keyboard map to Spanish. However, because Web-to-Host does not provide a Spanish client user interface, the client user interface language must be set to English, French, or German.

Defining password level caching policy

Password level caching is involved with the AS/400 display or AS/400 file transfer.

On AS/400 hosts, password protection capabilities can be set to different levels, such as short or long passwords. Client applications connecting to a AS/400 host must first query the password level set on the host. This slows down overall system performance, increasing both connection time and network traffic.

To save time, Web-to-Host caches password-level data, by default. The first time the password level is queried, the data is saved on the client PC. Afterwards, to avoid performance degradation, the cached password level value is used for each connection.

Cached data is host specific. Once the password level has been cached for a particular host, it is used by all sessions connecting to that host.

The following changes should be performed on the Java Script parts of the HTML session configuration files:

AS/400 Printer Pro Client

Comment out the old `HostPwdLevel` property setting.

AS/400 Display Pro Client

- Comment out the old `HostPwdLevel` property setting.
- Add the `this.ResolvePwdLevelPolicy` property setting to the `stAS400DisplayProps()` function:

Property setting	Description
<code>this.ResolvePwdLevelPolicy = 0</code>	Query and cache the password level value once and use it from now on. Default value.
<code>this.ResolvePwdLevelPolicy = 1</code>	Always query and cache the password level value on each connection.
<code>this.ResolvePwdLevelPolicy = 2</code>	Never query the host for the password level value and use the lowest password level value on each connection.

Example:

```
function stAS400DisplayProps()
{
    this.SetMinFontSize = false;
    this.FontPointSize = 0;
    this.TypeAhead = true;
    this.AutoReset = false;
    this.StartupModelType = 2;
    // HostPwdLevel is now deprecated. It should be cleared from old
sessions.
    //this.HostPwdLevel = false;
    this.SuppressDialogs = false;
    this.ResolvePwdLevelPolicy = 2;    // (0=Once, 1=Always, 2=Never)
}
```

Publishing client profiles to users

You can use any usual Web publishing method to publish session profiles created by running the Session Configuration Manager in server mode to users. For example, you can:

- Provide the URLs of the session profiles for users to enter in the address bar of their browsers.
- Create an HTML page containing links to the sessions and organize these links by host type or other useful groupings.

Web-to-Host Client Installation

This chapter describes procedures that users must follow when installing, updating, or removing Web-to-Host files on the client workstation. If Rumba+ is also installed on the client workstation, users should follow the procedures described in [Coexistence: Pro and Rumba+](#) instead, to ensure successful coexistence with Web-to-Host.

System requirements

This section describes the minimum system requirements and configurations required for client workstations to run Web-to-Host components.

Client operating system

Web-to-Host supports these client operating systems:

- 64-bit Windows 10 and 11

Client browser

Web-to-Host supports:

- Google Chrome
- Internet Explorer 11
- Microsoft Edge
- Mozilla Firefox

Preparing to install the software

The following software needs to be installed on both client and server machines.

Server

- Web-to-Host Server

Client

Install the software in the following order:

1. .NET Framework 4.8 (if not already installed): Requires administrator rights.
2. `NMServiceManager.msi` taken from the server machine in `\w2hlegacy\pro`, if Google Chrome, Microsoft Edge, or Mozilla Firefox are to be used. With Internet Explorer 11, this service is installed when the first session is launched. Requires administrator rights.

Client install and upgrade

This section describes how users install and update Web-to-Host when the client does not also have Rumba+ installed. Users must follow these procedures the first time they open a Web-to-Host session, and repeat these procedures each time Web-to-Host is updated.

Installing Pro

Web-to-Host Pro components can be installed automatically using either the MSI Packager or the Service Manager.

The MSI Packager provides complete local start capabilities. You create custom installations that can be deployed on restricted-user systems. You can add all of the Pro emulation types, SimXfer tables for AS/400 file transfer, RSS Client security, a VBA-type script engine, localized client Help, and distribution packages. For more information on MSI Packager, see the online *MSI Packager User Guide* supplied with the product.

Service Manager is installed on client workstations by a user with administrator rights. Once the Service Manager has been installed, it downloads and installs all Pro components regardless of user rights. The rest of this section describes installation using this component.



Note: Web-to-Host Pro 6.9.4 SP2 is compatible with Rumba+ version 10.2 SP2 only. All other Web-to-Host components work with all versions of Rumba+. For details on co-existence restrictions for the Pro component and Rumba+ , see [Coexistence: Pro and Rumba+](#) on page 20.

Install procedure with Internet Explorer 11

1. From the browser, run the session HTML created by the Session Configuration Manager. As Web-to-Host downloads and installs, a progress dialog is displayed.
2. Depending on your browser security settings, the **Security Warning** dialog box may appear asking if you want to install the Service Manager. Click **Yes** to run the install. Once the Service Manager is installed, all necessary Pro ActiveX controls are installed and the session opens.



Note: There may be instances where a message appears in the browser window telling you to restart the computer. If it appears, click **OK**. After restarting, open Internet Explorer, click the extension you want to connect to, then proceed with your host session.

Install procedure with Google Chrome, Microsoft Edge, or Mozilla Firefox

1. On the client machine, run `nmservicemgr.msi`, located on the server machine in `\w2hlegacy\pro`.
2. From the browser, run the HTML session created by the Session Configuration Manager.

As Web-to-Host downloads and installs, a progress dialog is displayed.

Silent Install procedure

As mentioned above, the standard Web-to-Host Pro installation displays a progress dialog while downloading and installing. However, it is possible to run a silent installation. That is, an install and download with no progress dialog displayed. To do this:

1. Navigate to `\w2hlegacy\config\productcfg.xml`. This file contains component descriptions and version numbers.
2. In the `<product_info>` section, change the `silent_install` property to `true`. By default it is set to `false`. After editing, `silent_install` should be:

```
<silent_install value="true"/>.
```

3. After making the necessary change to `productcfg.xml`, follow the standard installation procedure.

Uninstalling the Pro client

1. From the Windows Control Panel, go to **Programs and Features**, select **Micro Focus OnWeb Web-to-Host Pro Client 6.9.4 SP2**, then click **Uninstall**.

2. Click **OK** in the Web-to-Host Pro Client **Uninstall** message box.

Coexistence: Pro and Rumba+

Rumba+, a traditional desktop host emulation application that runs on Windows clients, and Web-to-Host Pro have shared executable files. Consequently, certain conditions must be met for both products to coexist on the same client workstation.

Web-to-Host Pro 6.9.4 SP2 is compatible with Rumba+ 10.2 SP2.

Coexistence with Rumba+

On the client workstation, the Rumba+ version must be 10.2 SP2. The language and the installation location of Rumba+ and Web-to-Host Pro client are defined by the product, which is installed first.

If an incompatible version of either Rumba+ or Web-to-Host is installed, an error message appears.

Setting a custom install path

When Web-to-Host installation comes first, and its installation location must be customized, use the MSI Packager tool located in `\utils\MSIPackager`. For more information on MSI Packager, see the Help supplied with the tool.

Upgrading Pro and Rumba+

When you install a new Web-to-Host version or Service Pack, the new Pro software automatically downloads to the client workstation when the user opens a Pro session. The start-up program compares the Pro and Rumba+ desktop versions. If the versions are not compatible, the user receives a message.

User Profile Configuration

There are two types of Pro configuration settings in Web-to-Host:

- Administrator settings - created by Web-to-Host administrators using the Session Configuration Manager and deployed to the users as HTML session files.
- User settings - stored in a local configuration file (.cph). If the administrator has enabled editing specific options in the Session Configuration Manager, users create their own customized local configurations settings for options, such as interface color, toolbars, menus, keyboard map or logon script.

In some previous versions of Web-to-Host, when the administrator made changes to Pro HTML session files, all user changes were reset (deleted).

Web-to-Host 6.9.4 SP2 provides a mechanism that preserves user changes. The SCM Wizard changes do not automatically delete the user's .cph file. Settings which only the user can set are not deleted when you, the administrator, change the HTML session files. This means users do not lose their customized environment with its colors, toolbars, and keyboard mappings.

This chapter lists the conditions that determine which configuration file takes precedence, if both an HTML session files and a user .cph file exist. It also explains how the configuration file is handled when included within a distribution package.

Rules defining Pro behavior

This section lists the rules for determining the settings implemented - default settings in HTML session files or user customized .cph settings.

No user configuration (.cph) file exists

The first time the user opens a session no user .cph file exists. Consequently, the user receives the options defined in the Session Configuration Manager.

Existing user configuration (.cph) file

When a user .cph file exists, the following rules apply:

- If a .cph file exists, but no particular option is enabled, the user receives the default options set in the Session Configuration Manager. This is because you have not given the user permission to modify options. For example, if a user .cph file exists but you did not select **Enable Edit Options**, the user cannot create a customized configuration with features, such as word wrap or type ahead. The user is required to use the values set in the HTML session file.
- If a .cph file exists and a particular option is enabled, the user can customize the configuration. For example, if **Enable Edit Options** is selected, the user can create a personalized environment that allows features, such as word wrap, type ahead, and keyboard auto reset. In this case, if you make changes to the HTML session file including those features which the user has customized, the user .cph file is not deleted and the customized environment remains in effect.

To enforce the use of the default HTML settings, you should disable the relevant option, for example, **Enable Edit Options**. Then the HTML settings override user settings for those options only. All other user configurations remain in effect.

User configuration files in a distribution package

As an administrator you can create a user `.cph` file from the session's HTML configuration and include it in a distribution package. This means the user starts with a customized, pre-configured session. It also means that you can provide the user with more configurable client options than you can assign using the Session Configuration Manager.

You can enable a particular client option, modify its settings using the option dialog, insert the session configuration file into a distribution package, then optionally disable the option (depending on whether you want to allow further user editing).

For example, selecting **Enable Edit Options** in the Session Configuration Manager allows you to open the **Edit Options** dialog box within a session and choose clipboard and parsing options that are not part of the Session Configuration Manager. The additional settings are added to the user `.cph` file. Then you can associate the session `.cph` file to a distribution package. If you want to maintain standardization, you can disable edit options.

In all cases, if you modify the distribution package, the new user configuration replaces the user's previous file, deleting all user settings.

User Data File Locations

Web-to-Host stores user data on the client in a location specified by the user's environment. This location is determined by several environmental variables, such as the client operating system and browser, and whether roaming user profiles are enabled.

Roaming profile support for Pro sessions

While normal Windows profiles store user environment settings on the client workstation, roaming user profiles store this information on their server. When a user logs on to the server, the roaming profile is downloaded to the client workstation. When the user logs off the server, the roaming profile (along with any changes) is uploaded back to the server. This scenario enables the user to work on different client workstations while using the same environment settings.

Web-to-Host supports roaming user profiles for Pro sessions. Users with roaming profiles can access their custom settings (such as keyboard maps and macros) when running Pro sessions on various workstations.

Default paths for user data files

This section lists the user data file locations for Pro client workstations with a default Windows installation and using Internet Explorer.

If Rumba+ has been previously installed on the client workstation, Web-to-Host stores user data files in the same location. If not, these locations are read from the Windows registry.

Roaming path:

```
C:\Users\<user_name>\AppData\Roaming\Micro Focus\Rumba
```

Local path:

```
C:\Users\<user_name>\AppData\Local\Micro Focus\Rumba
```

You can use the MSI Packager to modify default user data file locations. For more information on the MSI Packager see the online help supplied with the utility.

Creating a Trace

The Trace utility is a diagnostic tool for troubleshooting host communications and connectivity problems. With this utility you can trace activity within host software or other standardized components linked to OnWeb Web-to-Host. This section describes how to use the Trace utility to get a binary trace that can be sent to Rocket Software for additional help troubleshooting your problems.

Pro uses the **Rumba+ Desktop Trace** utility that comes with Rumba+ as standard. If Rumba+ is installed, use its trace utility.

If Rumba+ is not installed, you can download the Trace utility from the server hosting Web-to-Host. Type the following URL into the address bar of any Web browser.

`http://<servername>/w2hlegacy/utills/installrumbatrace.msi`



Important: Before starting the procedure, close all applications. If you are using Rumba+, ensure it is closed.

To take a correct binary trace:

1. If Rumba+ is installed, select **Start > All Programs > Micro Focus Rumba+ Desktop > Rumba+ Desktop Tools > Rumba+ Desktop Trace**. Otherwise, select **Start > All Programs > RUMBA Trace > RUMBA Trace**.
2. On the menu bar, select **Options > Configuration**.
3. On the **API Selection** page, click **Select All**. After all entries have been selected, click **Reset All**.
4. On the **Output** page, in the **Formatted Output** section, select **Display**.
5. In the **Binary Output** section select **Binary File**. The box next to the option becomes available.
6. Enter the full path for the binary file being created (or browse to it). or example, you might assign the file the call log number, `c368758.bin`. All file names should end with the extension `.bin`.
7. Click **OK**.
8. Minimize the **Rumba+ Desktop Trace** window that appears.
9. Run the Rumba+ application that is causing the problem as you normally would, starting from the connection (for example, Rumba+ display, or printer). Let the program run until the problem appears (error message, session hanging, or any other problem).
10. Log off and disconnect from the host.
11. Maximize the **Rumba+ Desktop Trace** window, then select **File > Exit**.
12. Send the `.bin` file you created by email to Micro Focus Technical Support.

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16. LICENSE VERIFICATION. Rocket Software has the right to verify Customer's compliance with licenses to the Licensed Software.

Customer agrees to keep records sufficient to show Customer's compliance, including serial numbers; license keys; logs; records identifying machines on which Licensed Software is installed, accessed, or from which Licensed Software can be accessed; the number of different users accessing or authorized to access Licensed Software (if applicable); and licensing metrics, reports, and copies of Licensed Software. Rocket Software may require Customer to provide information about its deployment of Licensed Software, which may be in the form of a questionnaire. Customer will have a reasonable time to complete the questionnaire (or other form of request) and provide it to Rocket Software with an authorized Customer signatory certifying the accuracy of the information furnished. Upon 10 days prior written notice, Rocket Software or its designated representative may inspect Customer's records, systems and facilities, during Customer's normal business hours, to verify compliance with licenses to the Licensed Software. Customer agrees to cooperate with such verification. Information obtained will be used solely for compliance purposes and will otherwise be subject to the confidentiality provisions of this Agreement. If Customer has engaged in unlicensed installation, use of, or access to Licensed Software or infringed or misappropriated intellectual property rights in Licensed Software, or has otherwise breached this Agreement or an ALA (a "Non-Compliance"), without prejudice to Rocket Software' other rights or remedies, including, without limitation, injunctive relief, within thirty (30) days' notice of such Non-Compliance, Customer agrees to purchase sufficient licenses and or subscriptions and associated support and maintenance (12 months forward and any applicable back support and maintenance) to cure the Non-Compliance, by paying Rocket Software's current (as of the date of such additional purchase) list license fees and support and maintenance fees to Rocket Software, plus interest (compounded at 1.5% monthly or the maximum rate permitted by applicable law if lower) for such additional licenses from the commencement of the Non-Compliance until payment of the aforementioned fees, with interest payable even if an invoice was not issued at the time the Non-Compliance occurred. If Customer's Non-Compliance results in an underpayment of license fees of 5% or greater, Customer shall also reimburse Rocket Software for the reasonable cost of such audit in addition to other amounts due.

17. PRIVACY. Customer is solely responsible for, and assumes all liability with respect to, its own collection, processing, storage, and transfer of any user data, including personally identifiable information, personal health and financial information, and other forms of personal information (collectively, "**Personal Information**"). Customer is solely responsible for notifying its users of proper use of such data. Customer is solely responsible for assessing the Licensed Product or any related product or service for compliance with any industry requirements applicable to Customer. Each party must comply with its respective obligations under all applicable laws, regulations, and industry standards regarding data collection and data privacy that apply to use of Licensed Software. Personal information or customer data that Customer provides to Rocket Software for the purpose of receiving products or services will be handled in accordance with the Rocket Software Global Data Protection and Privacy Notice (<https://www.rocketsoftware.com/company/legal/privacy-policy>) and the privacy and data security provisions in the applicable ALA.

18. USE OF CUSTOMER INFORMATION. To the extent permitted by law, Customer expressly consents to the collection and use of information about Customer's purchase, installation and use of Licensed

Software and the computer systems on which it is installed or accessed as necessary to fulfill the Product Order and provide the Licensed Product, for security and licensing purposes and to improve Rocket Software products and services.

19. CUSTOMER FEEDBACK. Customer agrees that, should it provide Rocket Software with any feedback or suggestions regarding Licensed Products ("**Feedback**"), Rocket Software and its affiliates will be free to use all such Feedback, including (but not limited to) all intellectual property rights in and to such Feedback, in their discretion and for any purpose, without obligation of any kind to Customer.

20. CONFIDENTIAL INFORMATION. Information exchanged under or in connection with this Agreement, including all information pertaining to Pre-Release Software, will be treated as confidential if identified as confidential at time of disclosure, or if the circumstances of disclosure reasonably indicate such information should be treated as confidential. Confidential information may only be used for the purpose of fulfilling obligations or exercising rights under or in connection with this Agreement, and shared with employees, affiliates, agents or contractors with a need to know such information to support that purpose, who are contractually bound to protect its confidentiality. Confidential information will be protected using a reasonable degree of care to prevent unauthorized use or disclosure for three years from date of receipt. These obligations do not cover information that (i) was known or becomes known to the receiving party without a duty of confidentiality; (ii) is independently developed by the receiving party; (iii) becomes publicly available without breach of this Agreement; (iv) is disclosed with the disclosing party's prior written consent; or (v) where disclosure is required by law, a court or government agency. Should the receiving party be required to reveal confidential information under subpoena, court order or other operation of law, the receiving party will provide reasonable prior notice to the disclosing party and request a protective order, if available.

21. INDEMNIFICATION FOR INTELLECTUAL PROPERTY RIGHTS INFRINGEMENT. Rocket Software will defend and/or settle any claims against Customer that Licensed Products furnished under this Agreement infringe a third party's patent, copyright, or trade secret rights. existing under the laws of a country where Customer is using the Licensed Product ("IP Infringement Claim"), provided: (i) Customer promptly notifies Rocket Software in writing of the IP Infringement Claim; (ii) Rocket Software has sole control of the defense and all related settlement negotiations; and (iii) Customer reasonably cooperates with Rocket Software in the defense of the IP Infringement Claim.

Rocket Software will pay all damages, costs, and expenses finally awarded (or agreed to by settlement) for any such IP Infringement Claim. Rocket Software will pay all reasonable out-of-pocket costs incurred by Customer for cooperation in the defense of the IP Infringement Claim. If, however, Customer wants separate legal representation, Customer will be responsible for the costs and fees of its separate counsel.

Should any Licensed Products provided under this Agreement become or, in Rocket Software's opinion, likely become, the subject of an IP Infringement Claim, Rocket Software may replace or modify affected Licensed Product so as to make it non-infringing and materially equivalent, or procure for Customer the right to continue using it. If neither alternative is reasonably available, once Customer has returned or destroyed all copies of the affected Licensed Product, Rocket Software will refund to Customer the full amount paid for affected Licensed Product less straight line depreciation on a five-year basis from date of delivery.

Rocket Software is not responsible for unauthorized use of Licensed Products, and has no obligations under this Section (Indemnification for Intellectual Property Rights Infringement), to the extent infringement results from (i) compliance with Customer's designs or instructions, (ii) a modification not authorized in writing by an authorized Rocket Software signatory, (iii) use or combination with software, equipment, or data not provided by Rocket Software, (iv) non-licensed use; or (v) Third Party Software or Open Source Software.

22. MISCELLANEOUS.

a. Assignment. Rocket Software may assign this Agreement and any Product Orders to an affiliate or a third party in connection with an asset sale or divestiture. Customer may not assign or transfer this Agreement (or any Product Orders) or any of its rights or duties hereunder, including (but not limited to) by operation of law, without Rocket Software's prior written consent, which will not be unreasonably withheld, and payment of any applicable assignment or transfer fee. Any transaction or series of related transactions resulting in a change in the ownership of more than 50% of the voting

equity of Customer will be deemed an assignment for purposes of this provision. Any attempted assignment of this Agreement (or a Product Order) not in accordance with this section (Assignment) will be null and void.

- b. Governing Law and Jurisdiction.** This Agreement and, subject to the Open Source Software and Third Party Software Section, licenses purchased under applicable Product Orders, as well as any claims or causes of action, whether in contract, tort or statute, based on, arising under or relating to this Agreement, will be governed and enforced as follows: If Customer's applicable place of business is located in North America, all matters arising out of or relating to this Agreement are governed by the laws of the state of Delaware, U.S.A. If Customer is located in the United Kingdom, Australia, Brazil, France, Germany, Italy, Japan, the Netherlands, New Zealand, Spain or Singapore, all matters arising out of or relating to this Agreement are governed by the laws of the country in which Licensee is located. In the rest of the world, the laws of England and Wales govern all matters arising out of or relating to this Agreement. The applicable law shall apply without regard to conflicts of law provisions, and without regard to the United Nations Convention on the International Sale of Goods. Any suit, action, or proceeding arising out of or relating to this Agreement shall be subject to the exclusive jurisdiction of the courts of the country determining the applicable law, except that the courts of the State of Delaware shall have exclusive jurisdiction in North America, and Rocket Software will be allowed to apply for injunctive relief in any jurisdiction. Each party agrees to be subject to the above-described jurisdiction and waives any right it may have to object to such venue, including objections based on personal jurisdiction or inconvenient forum. The prevailing party in any proceeding has the right to recover costs and reasonable attorneys' fees as awarded by the court or arbitrator.
- c. Export Control.** Rocket Software and Customer will comply with their respective responsibilities as exporters and importers under laws and regulations applicable to the export, import or other transfer of the software, services and technology provided by Rocket Software under this Agreement, including the export, import and sanctions laws of the United States and other applicable jurisdictions. If Customer exports, imports, or otherwise transfers any Licensed Products provided under or in connection with this Agreement (or any technical data related thereto), Customer is responsible for obtaining any required authorizations. Customer will not use Licensed Products for any purpose prohibited by applicable export laws, including nuclear, chemical, missile or biological weapons-related end uses. With respect to any Pre-Release Software provided to Customer, Customer represents and warrants that (i) it is a non-governmental entity, (ii) the Pre-Release Software will only be used for internal testing and evaluation, and will not be rented, leased, sold, sublicensed, assigned, or otherwise transferred, and that it will not transfer or export any product, process, or service that is the direct product of the Pre-Release Software, and (iii) it will only use the Pre-Release Software in the United States or the countries listed in Title 15, U.S. CFR Supplement No. 3 to Part 740 - License Exception ENC Favorable Treatment Countries. Customer agrees to indemnify and hold Rocket Software harmless from and against any damages, claims, losses, fines, settlements, attorneys' fees, legal fees and court costs and other expenses related to any such activities or any claims in connection with any breach of this Section.
- d. Survival.** Rights and obligations of the parties in the following Sections: Use Restrictions, Term, Termination, Disclaimer of Warranty, Limitation of Liability, Ownership, Open Source Software and Third Party Software, License Fees and Payment Terms, License Verification, Privacy, Use of Customer Information, Customer Feedback, Confidential Information, Indemnification for Intellectual Property Rights Infringement, and Miscellaneous will survive termination or expiration of this Agreement. Neither party will be liable for delays or non-performance beyond its reasonable control except for payment obligations.
- e. Notices.** All notices permitted or required under this Agreement will be in writing and delivered personally, by courier, telecopy, first class mail, electronic mail, or similar transmission to the other party. Notices to Rocket Software shall be addressed to: Legal Department, Rocket Software via email to legal@rocketsoftware.com. Notices to Customer may be sent via electronic mail to any email address set forth in the Product Order or to its address listed on the applicable Product Order, or at such other address as may be supplied in writing. The date of delivery or the date of mailing will be the date of notice.
- f. Resellers.** Rocket Software's obligations with respect to products or services supplied by Rocket Software and procured by Customer from an authorized Rocket Software reseller are limited to the

terms and conditions in this Agreement and the Documentation included with the Rocket Software supplied products and services. With purchases from a reseller, the applicable pricing and payment terms are as set out in the separate agreement between Customer and the reseller, and any terms in this Agreement related to Rocket Software pricing and payments shall not apply. Rocket Software is not responsible for the acts or omissions of the reseller, or for any other products or services that it supplies to Customer.

- g. Entire Agreement.** This Agreement and the applicable Product Order(s) and ALA(s) represent the entire understanding of the parties with respect to the subject matter of this Agreement and supersede any previous communications or agreements that may exist regarding the same subject matter.
- h. Order of Precedence.** Subject to the Product Orders section, any conflicting terms and conditions will be resolved according to the following order of precedence: the applicable Product Order, the applicable ALA, and this Agreement.
- i. Amendment.** No modification of this Agreement will be binding on the parties unless in writing signed by authorized representatives of Rocket Software and Customer.
- j. Waiver.** No waiver of any right under or in connection with this Agreement will be effective unless in writing, signed by authorized representatives of both parties. No waiver of any past or present right arising from any breach or failure to perform will be deemed to be a waiver of any future right arising under or in connection with this Agreement.
- k. Publicity.** For the term of this Agreement, Rocket Software may use Customer's name in press releases, product brochures, and other marketing materials to indicate they are Rocket's customer. Rocket will use Customer's trademarks, service marks, logos or branding, according to any branding guidelines which Customer makes available to Rocket Software. Licensee hereby agrees to serve as a reference for the Product(s) at times to be mutually agreed upon. Such references may, as mutually agreed upon, include activities such as (i) reference calls with or hosting of a site visit with mutually acceptable prospects; (ii) a published "News Release" announcing the successful partnership with Rocket no later than sixty (60) days from the date of this Agreement; (iii) mention of Licensee or Licensee logo on Rocket Software's website; (iv) the completion of a "Case Study;" or (v) sharing Licensee's "Success Story" which may include speaking at Rocket Software events. Both parties will agree to the content and timing of any announcement focused on their relationship prior to distribution.
- l. Severability.** If any provision in this Agreement or the applicable ALA(s) or Product Order(s) is held invalid or unenforceable, that provision will be construed, limited, modified or, if necessary, severed, to the extent necessary, to eliminate its invalidity or unenforceability, and the other provisions will remain unaffected.