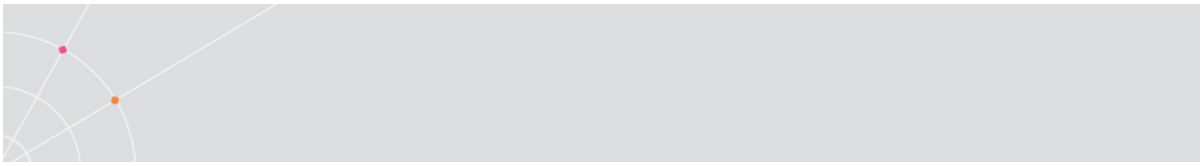


Ericom Blaze™

Enhanced Compression and
Acceleration of Microsoft Remote
Desktop Protocol (RDP)

Administrator's Manual

Version 9.1



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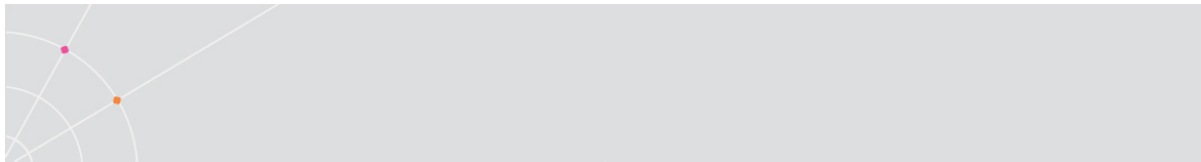
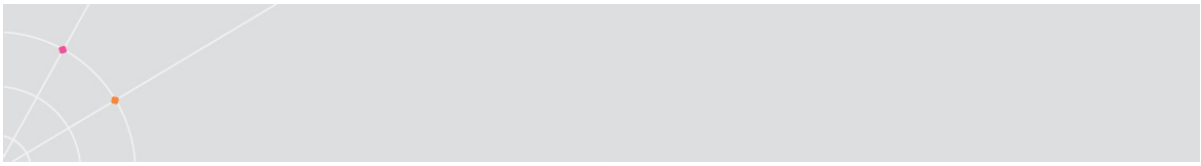
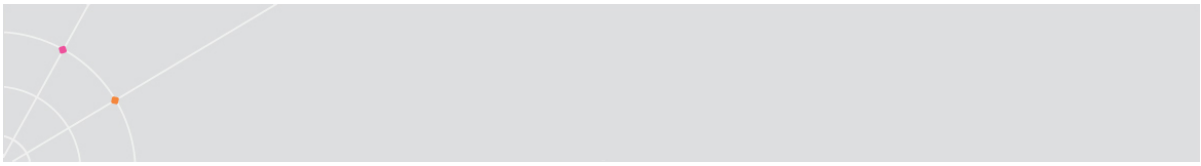


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ABOUT THIS DOCUMENT

This document provides instructions on how to install and use Ericom Blaze to accelerate and compress Microsoft Remote Desktop Protocol (RDP) communication. Follow the instructions in this document and start enjoying the benefits of Ericom Blaze within minutes!

This guide includes the following information:

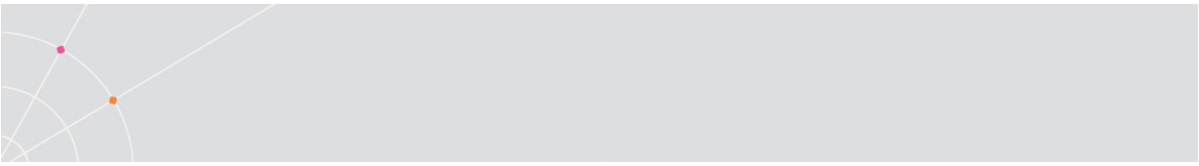
- Overview of Ericom Blaze
- Preparation and installation procedures
- Usage instructions
- Troubleshooting and FAQ

This manual assumes that the reader has knowledge of the following:

- Enabling RDP on Windows operating systems
- Firewall configuration
- Web server administration

Important terminology used in this document:

- RDP – Remote Desktop Protocol. A remote display protocol developed by Microsoft. RDP is a standard component of Microsoft Windows.
- RDP Host – a Windows system that can be remotely accessed using Microsoft RDP, such as a Terminal Server (RDS Session Host) or Windows workstation with remote access enabled.
- HTML5 – a new update to the HTML specification. Extends HTML with new features and functionality for communication, display, etc.
- WebSocket – a bi-directional, full-duplex communication mechanism introduced in the HTML5 specification.
- SSL – Secure Sockets Layer is a cryptographic protocol that provides communications security over the Internet.



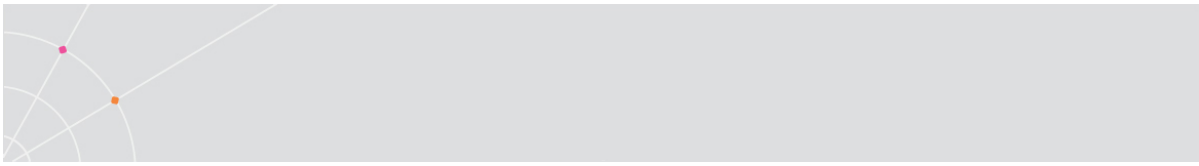
1. OVERVIEW

Ericom Blaze provides end-users with an enhanced remote computing experience on most Wide Area Networks (WAN), such as Satellite, Broadband, and branch offices. This is achieved by accelerating and compressing the Microsoft Remote Desktop Protocol (RDP). The results are higher frame rates, improved response times, and smoother screen updates. Ericom Blaze performs the following operations:

- Introspects the RDP communication, identifying and compressing *graphical* elements such as bitmaps. The quality / compression ratio is configurable to provide the optimal user experience.
- Identifies key elements, such as the Taskbar and Start Menu, and compresses them at a high quality level regardless of general quality settings. This provides a visually high quality remote computing experience.
- Compresses the entire RDP transmission using a high-performance bulk compression formula.
- Performs packet shaping to optimize network utilization and to speed up transmission of data packets.
- Intelligently renders frames so that screens are displayed as single units rather than as a sequence of blocks.

Ericom Blaze works with any x86 or x64 based host system that supports RDP, including Windows Terminal Servers, remote physical systems and VDI based desktops. Ericom Blaze consists of the following components:

- **Ericom Access Server**
This component is installed on the RDP server/host to compress and accelerate RDP. The following platforms are supported:
 - Windows 2008 – 32 bit and x64
 - Windows 2008 R2, 2012, 2012 R2, 2016, 2019
 - Windows 7 SP1, 8.1, and 10 (x64 and 32-bit where applicable)
 - Windows 10 SAC 1709 1803
- **Ericom Blaze Client**
This client component connects to Access Servers using accelerated RDP and can also connect to any standard RDP host. The following platforms are supported:
 - Windows: **7, 8, 10 LTSB, 2008, 2008R2, 2012R2 and 2016 LTSB, 2019** (x64 and 32-bit where applicable)
 - Windows **10 LTSB/SAC 1803/1809**



- Linux Ubuntu: **16.04** [XFCE, Unity, LDXE: openbox, GNOME: classic] **and 18.04** [XFCE, LDXE: openbox, GNOME: shell]Apple
- MacOS **10.11, 10.12, 10.13** Intel-based
- **Ericom Blaze Mobile Client**
This client component connects to Access Servers using accelerated Blaze and can also connect to any standard RDP host. Please refer to **AccessToGo Manual** for full details and supported operating system versions.

Starting in 8.5, Ericom Blaze will maintain forward and backward compatibility, such that AccessServer can now be newer than the Blaze client (i.e., AS 8.newer can work with Blaze 8.older).

Getting Started in 5 Minutes

Ericom Blaze is a feature-rich and easy-to-use application. The manual covers all available features in detail to help customers best configure the application to fit their environment.

The basic installation will take approximately five minutes and will make a Windows RDP host (server or workstation) accessible from any device running a Blaze client (including mobile devices running AccessToGo).

- 1) Download the *Ericom Access Server 3.0* MSI installer from the Ericom website
- 2) Run the MSI installer and click *Next* through all the dialog boxes and then *Finish* at the last one
- 3) Configure (or disable) the Windows Firewall for use with Blaze.
 - a. Go to the Windows *Control Panel* and open *Windows Firewall*
 - b. Click "Allow Program or Feature ..."
 - c. Click "Allow another program ..."
 - d. Click *Browse* and navigate to <drive>:\Program Files (x86)\Ericom Software\Ericom Access Server\AccessServer32.exe
 - e. Click *Add* and then *OK*
- 4) Download the *Ericom Blaze Client* MSI installer from the Ericom website
 - a. If you are connecting from a mobile device, download the AccessToGo app onto the device.
- 5) Enter the parameters of the Access Server into the Blaze Client (or AccessToGo) and press the *Connect* button to start the connection.



2. ERICOM ACCESS SERVER

Ericom Access Server provides AccessNow HTML5 access and Blaze RDP compression and acceleration features. All features are enabled during the trial period, and each feature is unlocked using an activation key after the trial period ends. The host may be any Windows system that has RDP access enabled, such as a Windows Terminal Server or a Windows workstation. The Access Server uses a customizable port – by default this is port number 8080. Port 3399 is also enabled for backward compatibility with installations using older versions of Blaze.

NOTE Ericom Access Server 3.x is not backward compatible with previous versions of Blaze Client 2.x. If you are using an earlier version of Blaze, upgrade all Blaze client and server components to matching version.

The Access Server may be installed on the RDP host or on a dedicated system to serve as a proxy (sometimes referred to as a “jump” server. It is recommended to install the Access Server on the RDP host directly. Some features such as file transfer may only be available when the Access Server is installed on the RDP host itself. The Access Server has a small footprint and will have minimal impact on the RDP host’s performance and scalability.

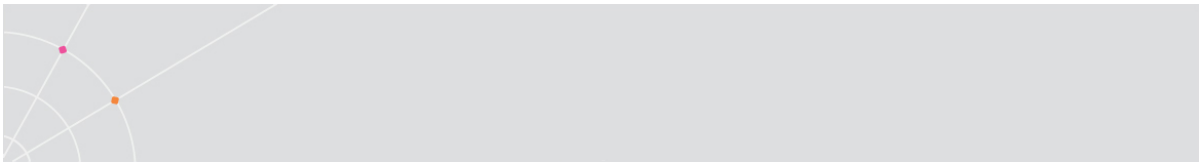
Ericom Access Server Requirements

- Windows operating system (7/2008 and higher)
- Incoming RDP connections enabled on the Host OS (e.g. Terminal Server)
- 80 MB of free Hard-Disk space
- MMX and SSE2 capable CPU
- Firewalls are configured for Access Server traffic 8080 (or 3399) port

The Access Server should be installed on *each* server/host that requires accelerated or HTML5 access. Terminal Servers only require one installation to accelerate all user sessions. Each workstation / desktop (physical or virtual) requires an installation. It is possible to include Access Server as part of an image that will be deployed using Microsoft® Sysprep or Symantec® Ghost.

Bind Service to All Network Interfaces

In a virtual network environment - it is recommended to bind the Access Server to use *all* virtual network interfaces, rather than just one virtual NIC. Always ensure that the network interface(s) that Access Server is using is accessible by the desired group of end-users.



Host Firewall Configuration

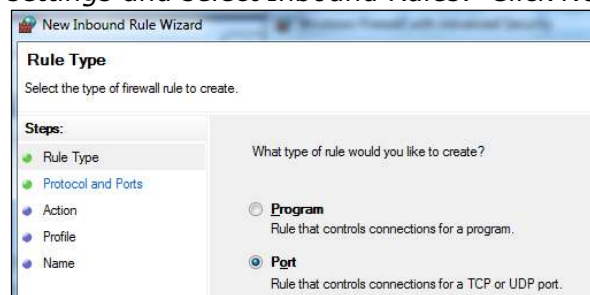
Make sure to allow traffic communication from the end-user device to the Ericom Access Server host. Firewall configuration may be necessary.

On Windows operating systems, ensure that the Windows Firewall is configured to allow traffic to the Access Server port (by default 8080). This port value may be changed using the Access Server Configuration utility.

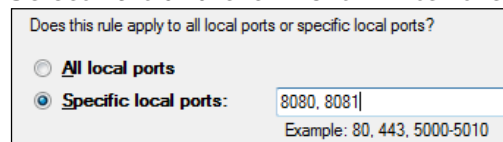
NOTE Disable the Windows Firewall temporarily to troubleshoot any connectivity issues. If the connection is only successful with the firewall disabled, then there may be a rule that is blocking the Access Server port.

To add a rule to allow the Ericom port, perform the following (instructions based on Windows 7/2008 Server)

- Go to Control Panel and then Windows Firewall. Select *Advanced settings* and select *Inbound Rules*. Click *New Rule*.



- Select *Port* and click *Next*. Enter the specific port: *8080*

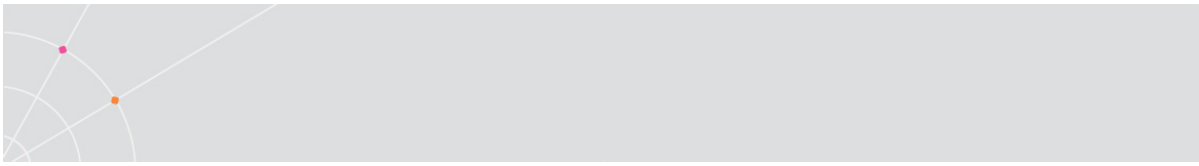


- Click *Next* and select *Allow the connection*
- Click *Next* and select the networks to apply the rule (Select *All*)
- Click *Next* and give the rule a name (*Ericom*) and click *Finish*.

Port Forwarding Configuration

When configuring a firewall for port forwarding to a Blaze enabled host, make sure that it is directed to the Access Server port (default: 8080). Do not forward to 3389 (default RDP port).

If a custom port is being used, configure the firewall to forward to the port value configured under the Communication page.



NLA support

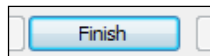
Blaze client supports NLA under three conditions:

- Acceleration is enabled
- Username and password are typed into the appropriate fields
- The checkbox for Always ask for credentials is unchecked

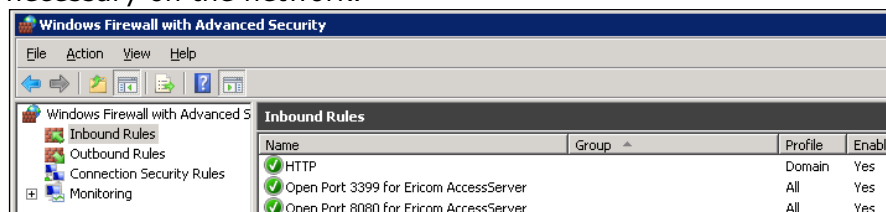
Blaze client in non-accelerated mode does not support NLA.

Installing Ericom Access Server

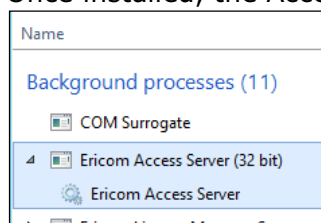
- Run *EricomAccessServer.msi* and follow the instructions of the installation wizard.
- Review and accept the License Agreement.
- Click *Install* (if prompted, accept the security elevation request). Click *Finish* at the last screen to complete the installation



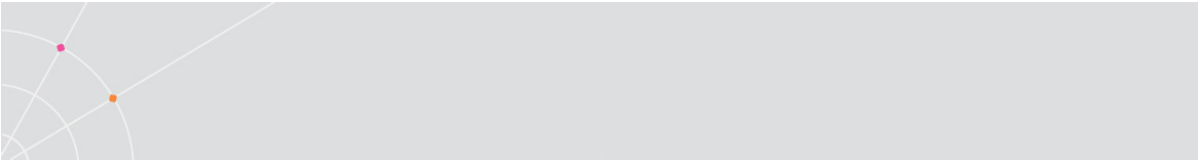
- Verify that the Access Server port is available and accessible to the host system. Access Server will automatically add the necessary rules to Windows firewall, however additional firewall configuration may be necessary on the network.



- Once installed, the Access Server will run as a service on the system.



- The service is configured to run automatically on system startup.
- If the service is stopped or is unable to listen on its default ports (8080), the client will not be able to connect to that



host. Verify that there are no other applications using the same port.

- On Windows XP, a system restart (reboot) may be required after installing the Ericom Access Server.

Access Server can be automatically and silently installed using a management application such as Microsoft System Center.

- To perform a silent install run: `msiexec /I "EricomAccessServer.msi" /q`
- **EricomAccessServer.msi** represents a valid path to the .msi file
- On Windows 7, 8, Windows Server 2008, 2012, and higher this command may need to be performed with elevated Administrator credentials.
- Run MSIEEXEC without any parameters to view the help dialog.

NOTE Access Server may not be compatible with certain systems where the hostname contains non-English characters.

Using Ericom Access Server

To modify Access Server settings: Go to *Start | Programs | Ericom Software | Access Server Configuration*. On systems that do not have a Start menu, the GUI may be launched using the command line:

`<drive>:\Program Files (x86)\Ericom Software\Ericom Access Server\ServerConfiguration.hta`

NOTE Access Server is used by **both** the AccessNow HTML5 and Blaze RDP Acceleration products.

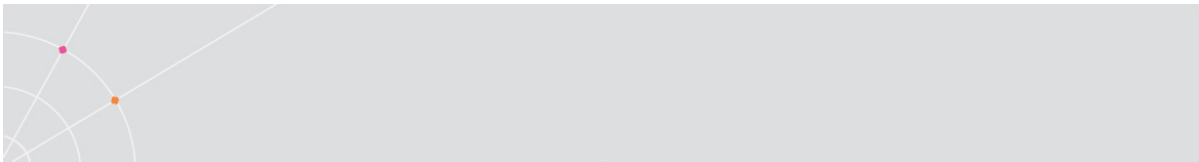
Access Server Configuration

The *Server Configuration* console presents a series of tabs that allow the administrator to configure various settings for the server service. The Configuration console only works on systems with Microsoft Internet Explorer 7 or later (the console will not launch on systems with IE6 installed).

HINT When installing Access Server on a Terminal Server, it is recommended to hide the Server Configuration application from end users to prevent unexpected changes to the configuration settings.

General

This page provides functions to restart and stop the Access Server service. For certain configuration changes, a service restart is required. This page also displays the number of active Blaze sessions to this system.



STOP When the Access Server service is restarted, all AccessNow and Blaze sessions on the server will be disconnected.

Access Server service state:	Running
Access Server status:	Active
Number of sessions:	0
Started at:	09/23/13 08:40:00
<input type="button" value="Start Server"/>	
<input type="button" value="Stop Server"/>	

Licensing Information

This page displays licensing information for AccessNow and Blaze. The *Connected to licensing server* field indicates the license server that is currently in use.

NOTE In a production VDI or Terminal Server environment, the licensing server must be **centralized** on a robust system. See the section on Central Server Configuration for additional details.

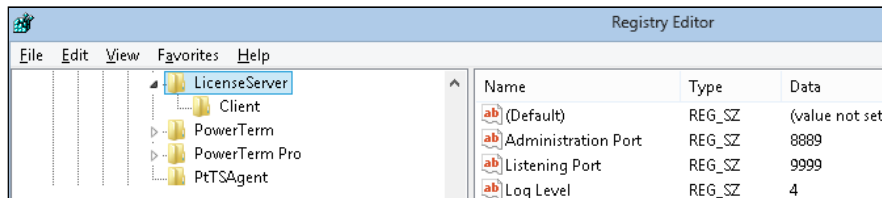
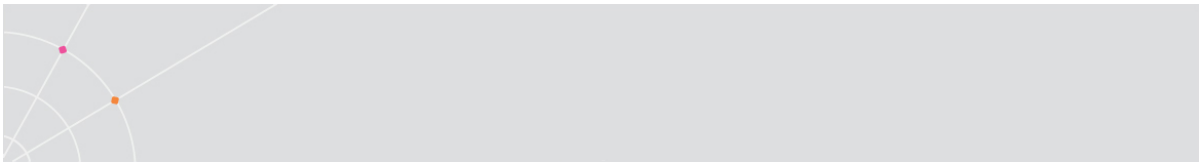
By default, Access Server uses DNS lookup to locate the Licensing Server. The DNS entries used are *ericom-license-server.<domain-name>* or *_ericom-license-server._tcp.<domain-name>*. If the DNS entries do not exist, the Access Server attempts to connect to a Licensing Server that is running on the same computer as itself.

The other option is to explicitly specify the address of the Licensing Server in the *Access Server Configuration* under: *Licensing server address*. After changing the Licensing Server address, restart the Access Server service using the *General* tab.

If no valid license is found, Access Server will continue to run if the grace period has not expired. Once the grace period expires, Access Server will not allow user sessions. A "grace period" lasts up to 10 days within a 30 day period.

Changing the License Server Port

The license server communicates over port 8888 by default. If there is another application on the same system already listening on port 8888, the license server port value may be changed in the Registry. Use the Registry Editor and navigate to HKLM | SOFTWARE | (WOW6432Node) | Ericom Software | LicenseServer | *ListeningPort*



In the example above, the port has been changed to 9999. Once the value is set, restart the *Ericom Licensing Server* service. For each Access Server that will be connecting to the central license server on a custom port, the custom port value must be specified after the address with a colon. For example:

☐ Use DNS lookup
☒ Licensing server address:

Licensing Activation

Click on: *Licensing | Activation* to enter the serial number and activation key into the product's configuration.

To activate an installation from an evaluation, select the desired *Client type* and then send the "key to send to Ericom", along with the serial number, to [Ericom](#) for processing. An activation key will be returned. Once the activation key is entered, click on the *Activate License* button. The Access Server does not have to be restarted for the license to take effect.

To extend an evaluation, send the "key to send to Ericom" to an Ericom sales representative for processing. A standard two week extension key will be returned once the request is approved.

General | **Licensing** | Performance | Communication | Acceleration | Security | Logging | Advanced

Information | **Activation**

Client type:
AccessNow_VMWareView
Blaze

License Description:
License Status: Valid
License Type: Concurrent Users
Counting Mode: Permanent
Expiration Date: Never Expires
Number of Licenses: 10
Used Licenses: 0

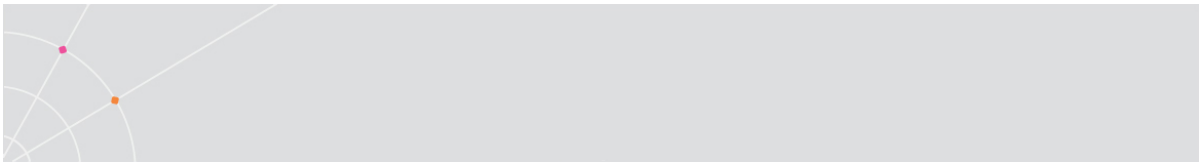
If you have received a serial number from Ericom, please enter it into the field below before clicking the "Email to Ericom" button.

Serial Number:
Key to send to Ericom:
Key received from Ericom:

Copy the key received from Ericom Software into the form and click the "Activate License" button to activate the software license.

Performance

This page displays current Server performance statistics.



General	Licensing	Performance	Communication	Acceleration	Security	Logging	Advanced
Server to Client communication							
Number of sessions: 0							
Average compression ratio: 69 %							
Total data received from host: 5 MB							
Total data sent to client: 1 MB							
<small>Real-time cumulative performance information for all sessions since Blaze Server was started. Counters are reset when the Blaze Server service is restarted. Display is automatically updated approximately once every 10 seconds.</small>							

Communication

This page provides functions to change the Access Server listening port and the address of the host running RDP.

When using a listening port other than the default (8080), the port number must be explicitly specified in the *Access Server* address or the *Blaze Client Computer* field (e.g., rdpdemo.ericom.com:22).

AccessNow web client: Ericom AccessNow Server:

Blaze Client:

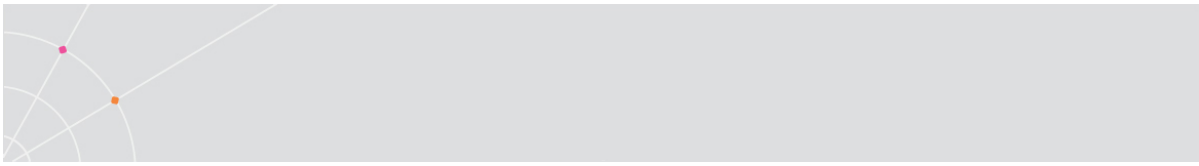
Computer:	<input type="text" value="rdpdemo.ericom.com:22"/>
-----------	--

The RDP host address is used when the destination system is not the system running Access Server. In this scenario, the Access Server is acting as a *gateway proxy* between the end user and the destination host system. This type of configuration is not recommended as it may adversely impact AccessNow and Blaze performance.

Changes to both settings require a service restart (under General tab).

General	Licensing	Performance	Communication	Acceleration	Security	Logging	Advanced
Access Server port number: <input type="text" value="8080"/> <input type="button" value="Restore Default (8080)"/>							
Changing this setting will take effect only after the Access Server service is restarted.							
<small>Specifies the TCP/IP port on which the Access Server service listens for incoming connections. Do not use a port number which is already in use by some other service or application on the computer. If you do, Access Server service will not start.</small>							
Important: Access Server Clients automatically connect to port 8080 when using accelerated RDP. If a different port value is selected, that value must be explicitly specified in the Clients' host address field.							
RDP host address: <input type="text" value="localhost"/>							
Changing this setting will take effect only after the Access Server service is restarted.							

When running Access server on a machine with multiple network cards, change the RDP host address from *localhost* to the IP or DNS address of the network card that has RDP access to the system.

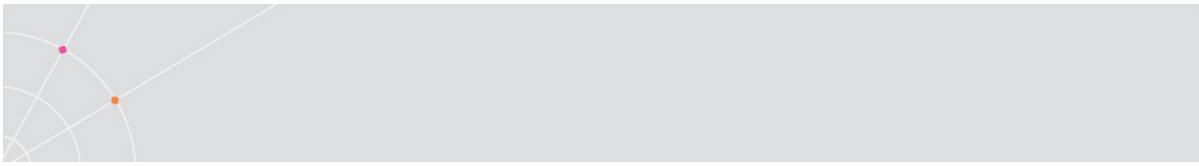


Acceleration

This page provides functions to force the Acceleration/Quality level and disable dynamic compression. When the *Override client acceleration / quality settings* checkbox is checked, all sessions will use the configured setting, and all client settings will be ignored. When checking or unchecking this setting, the service must be restarted for the change to go into effect. When the setting is enabled, changing the acceleration level does not require a service restart, but active users must reconnect to use the new setting.

Dynamic Compression identifies small graphical objects on the screen (such as toolbar icons, taskbar icons, Start Menu icons, etc.) and compress them using *High* quality when the Blaze Quality setting is *Low*; and at *Best* quality when the Blaze Quality setting is higher than Low. All other graphical objects are compressed at the chosen quality. This provides the visual impression of a high quality remote desktop session. By default, this feature is enabled. To disable, uncheck the “Use dynamic compression” box.

General	Licensing	Performance	Communication	Acceleration	Security	Logging	Advanced
<input type="checkbox"/> <u>Override client acceleration / quality settings</u>							
Acceleration / Quality: <u>Very Fast / Good Quality (recommended)</u> ▼							
<small>Enable in order to ignore the performance / image quality settings requested by the Ericom Access Server Clients. Instead, use the specified performance / image quality settings for all incoming accelerated connections.</small>							
<input checked="" type="checkbox"/> <u>Use dynamic compression</u>							
<small>Dynamic compression improves perceived display quality by utilizing lower compression settings for specific screen elements. Small but important screen elements, such as window titlebars and the Start Menu, use a higher quality setting, which is computed dynamically from the general image quality setting. Dynamic compression utilizes High quality when image quality is set to Low; and Best quality when the image quality setting is higher than Low.</small>							
<small>Changing this setting may take effect only after the Access Server service is restarted.</small>							



Security

This page configures the Access Server security settings.

General | Licensing | Performance | Communication | Acceleration | **Security** | Logging | Advanced

Ericom Access Server supports strong SSL encryption

Encrypt Access Server communication:

By default Ericom Access Server uses the same security settings as Microsoft RDP - if RDP is encrypted then Access Server will be encrypted. If RDP is not encrypted then Access Server will not be encrypted either. Set to **Always** for Ericom Access Server to always encrypt regardless of the RDP settings.

Data transmitted from the clients to the server, including user credentials, is always encrypted regardless of Access Server and RDP security settings.

For best performance and lowest load on the server set the RDP Security Level to Low (for 2003/XP also set the Security Layer to RDP Security Layer). This setting can be changed using the RDS (TS) Session Host Configuration or using Local Computer / Group Policies. After performing this change, modify setting above to **Always** if encryption is required.

SSL Certificate

Friendly Name:

SAN: DNS Name: [REDACTED]

Thumbprint: [REDACTED]

Issued By: [REDACTED] Issued To: [REDACTED]

Valid From: 2013/09/11 08:47:16 Valid To: 2014/09/11 08:47:16

Change Certificate

To change the above certificate, enter a new certificate's thumbprint below (eg: [REDACTED]).

Certificate Thumbprint:

Note: this change will only take effect after you click apply AND restart Access Server.

Ericom Access provides integrated *128-bit SSL* encryption. For better performance, set the host's RDP Security Encryption level to Low and change the *Encrypt Blaze communication* to *Always*. Using this configuration, Ericom SSL encryption will be used instead of the RDP encryption. See the *Ericom Optimization* chapter in this document for more details.

To use a custom or trusted certificate, enter the thumbprint ID into the *Certificate Thumbprint* field and click the *Apply* button. The certificate's properties will be displayed in the GUI, represented by the black boxes in the image above. Restart the service to apply the changes.

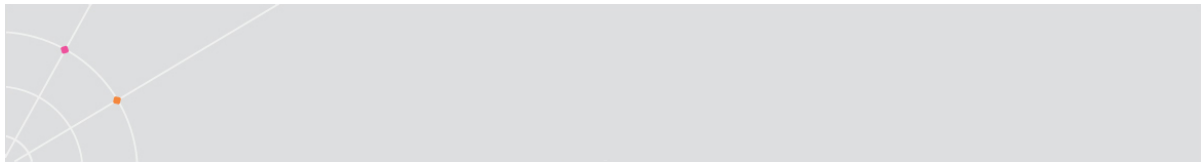
NOTE When installing a trusted certificate, the DNS address of the Access Server must match the certificate name. If a wildcard certificate is being used, the domain must match. For example, if the certificate is for *.acme.com the server name must end with acme.com.

Logging

This page provides functions to enable/disable certain logging features. Ericom Support may request a debugging log for diagnostic purposes. The debugging log is enabled here.

Advanced (For Administrator Use Only)

This page provides access to advanced Ericom Access Server settings that are stored in the system's Registry.



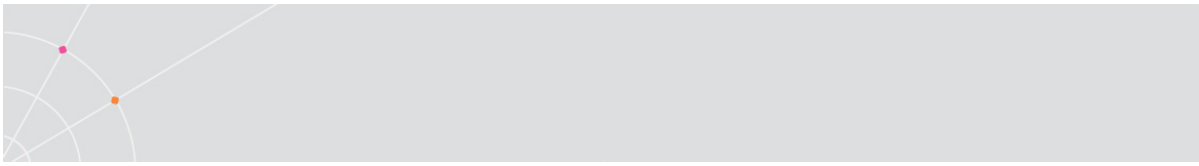
Export Settings – exports the Access Server Registry key to the user's home folder (i.e., My Documents).

Import Settings – imports previously saved Registry settings.

Advanced Configuration – Launches regedit.exe and opens the Access Server registry keys. By default, only settings that are changed from the default value are saved into the Registry.

Keep Alive Settings

Blaze Setting	Description	Usage	Default
session keepalive seconds:i:	The interval (in seconds) where the client sends a keepalive message to RDP host.	Prevents firewalls from dropping an idle session. If configured, the RDP session never reaches an idle state. Used by AccessPad, Blaze, and AccessToGo.	0
tcp keepalive time ms:i:	The time that TCP socket is idle, on which it starts sending keepalive messages.	Allows Blaze to quickly identify a socket disconnection. Used by AccessPad, Blaze, and AccessToGo.	10000
tcp keepalive interval ms:i:	The interval between TCP keepalive messages. If five of them fail, the socket is disconnected.	Allows Blaze to quickly identify socket disconnection. Used by AccessPad, Blaze, and AccessToGo.	1000
session heartbeat seconds:i:	The interval in seconds where the client sends heartbeats.	AccessServer uses the heartbeat to identify a client disconnect and offset any third-party idle settings. Works with load balancers and secure gateways. Used by AccessPad, Blaze, AccessNow, and AccessToGo. (Requires AccessServer 7.3 or higher)	3



session heartbeat probes:i:	The number of missing heartbeats where the server considers the client as disconnected.	AccessServer uses this setting to determine when to classify a connection as Disconnected. Used by AccessPad, Blaze, AccessNow, and AccessToGo. (Requires AccessServer 7.3 or higher)	5
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Extended Session Scripting

This product extends Windows built-in scripting capabilities on the RDP host. This mechanism adds an additional layer of functionality to run certain commands when sessions start or end, and when they are connected or disconnected.

Post-Startup Login script (_login)

Create a file named *_login* with the appropriate extension, for example a script file called *_login.vbs* or an executable called *_login.exe*, and place this in a folder named *scripts* under the Access Server installation folder. If this folder does not exist, create it. This script will execute when a new session starts, after the TS/RDS session processes the *Startup* folder.

Pre-Startup Login script (__login)

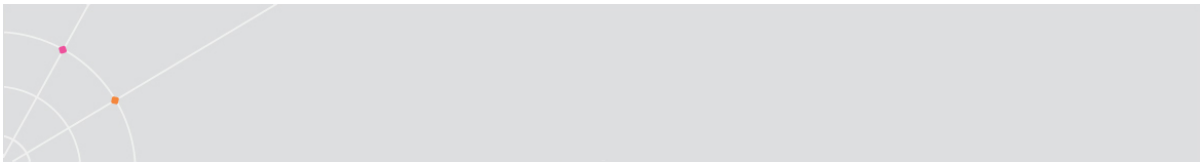
Similar to *_login*, *__login* is executed at session startup, but it is executed before the TS/RDS session processes the *Startup* folder.

Session connection script (_connect)

Create a file named *_connect* with the appropriate extension, and place this in a folder called *scripts* under the Access Server installation folder. If this folder does not exist, create it. This script will execute upon connection into an existing TS/RDS session.

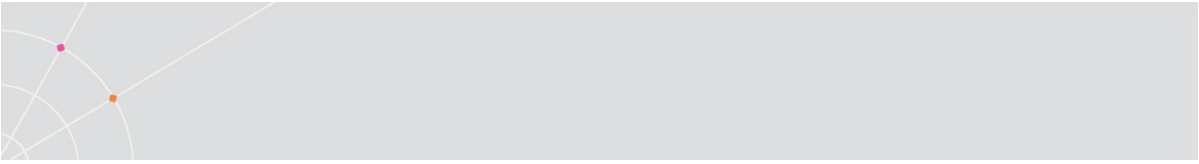
Session disconnection script (_disconnect)

Create a file named *_disconnect* with the appropriate extension, and place this in a folder called *scripts* under the Access Server installation folder. If this folder does not exist, create it. This script will execute upon disconnection from a TS/RDS session.



Sample VB Script to create a new file

```
Set objFileToWrite =  
CreateObject("Scripting.FileSystemObject").OpenTextFile  
("newfile.txt",2,true)  
objFileToWrite.WriteLine("hello world")  
objFileToWrite.Close
```



3. LICENSING OVERVIEW

Evaluation (Demo) Period

Each Access Server installation includes a Licensing Server that is installed on the same device. By default, the license server includes an evaluation period of 30 days. During this period, the Licensing Server allows up to 50 Concurrent User licenses. The evaluation period can be extended by contacting an Ericom sales representative.

Licensing Modes

The Ericom License Server service manages licensing for Ericom AccessNow and Blaze. Any connection made with an Ericom Blaze Client or AccessNow HTML5 requires an Ericom license. A single licensing server can manage licensing for multiple Ericom Access Servers.

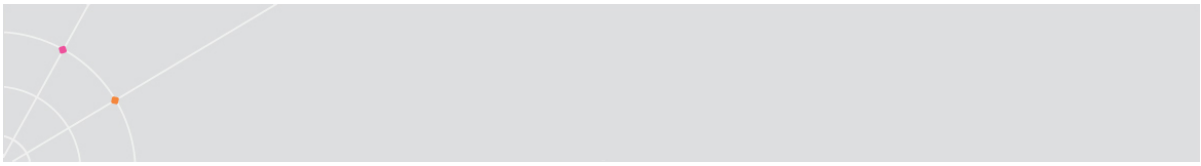
There are two modes of licensing:

Concurrent User – Ericom licenses are counted based on the number of active users that are currently connected to all the Access Servers utilizing the same Licensing Server. In this licensing mode:

- There is no licensing limit on the number of Ericom sessions that the same user can open concurrently on a single client device. Only one license will be consumed regardless of the number of sessions the user opens on the device.
- The same user opening Blaze sessions concurrently from several devices will consume the same number of licenses as the number of devices used.
- Several users using the same device (i.e. using Fast User Switching) will take the same number of licenses as the number of users that have active Blaze sessions

Named User – Ericom licenses are counted based on the number of names registered that *have ever* connected to any Access Servers utilizing the same Licensing Server. In this licensing mode:

- A license is allocated for a name when it is first used by any user
- The license is automatically released after a period of 14 days during which the name has not been used for running Blaze Clients at all. A license allocated to a name cannot be released prior to the end of the 14 day period
- The Access Server must be installed on the RDP host (as the TSagent is also required for this method). If the Access Server is used as a Gateway, then only the Concurrent license will be available.



Central Server Configuration

The Access Server can be configured to use a remote Licensing Server so that a single pool of licenses may be shared among multiple Access Servers.

For example, a 10 user license would be activated once on a central server. All Access Servers on the network would then be directed to use the pool of licenses on the central server. Ericom recommends that in an environment with more than two RDP hosts (Remote Desktop Servers, Terminal Servers, VDI, etc.) that a dedicated server be made available to host the licenses to prevent disruptions and conflicts. Guidelines for the central license server are as follows:

- The central license server must be hosted on a server that is highly available so that it can distribute licenses.
- In a VDI environment, do not install the license server on a cloned desktop or the gold image template. It should be installed on a static machine that does not experience system changes.
- In a TS/RDS environment with two or more servers, avoid installing the license server on the Terminal Server if possible.
- Minimize the amount of reboots and disruptions on the server. Apply updates only during off-peak times.

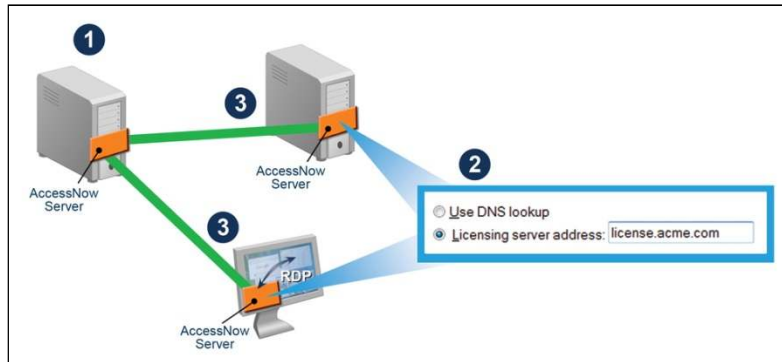
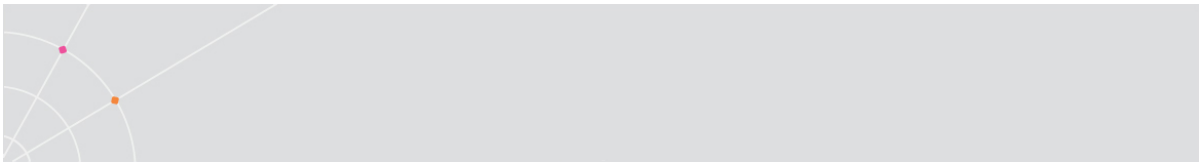
When no valid license is found, Access Server will continue to run if the grace period has not expired. Once the grace period expires, Access Server will not allow user sessions. A "grace period" lasts up to 10 days within a 30 day period. When there is an issue with the license server, it should be rectified before the grace period expires.

Implementation

Step 1: Install Access Server on the desired system and activate it (using the *Licensing | Activation* tab). Although Access Server will be running, the main role of this installation is to create a central license server. Enable the incoming port 8888 on the Windows firewall of this system. Verify that this port is available over the network between the central license server and the any Access Servers that will connect to it.

Step 2: Configure all Access Servers to use the central license server address for licensing. There are two methods to configure the address of the central license server, see the next section for details.

Step 3: Once the Access Server service starts, it will connect to the configured central license server to obtain a license when an Ericom AccessNow or Blaze session is established.



There are three methods to use a central license server:

Use DNS Lookup

Use DNS lookup

When using this setting, Access Server will always attempt to find a centralized Licensing Server before using the local one that was installed along with it. If a central license server is found and used, the local one will be ignored. When the Ericom Access Server service starts, it looks for the central licensing server address (IP or DNS name) in the following order.

1) **DNS-SRV** Entry

Access Server will look for the Licensing Server address in a DNS-SRV entry: *_ericom-license-server._tcp.<domain>*

For example, *_ericom-license-server._tcp.ericom.local*

2) **DNS** Entry

If the DNS-SRV record does not exist, Access Server will look for the

Licensing Server address in a DNS entry: *ericom-license-server.<domain>*

For example, *ericom-license-server.ericom.local*

3) **Localhost**

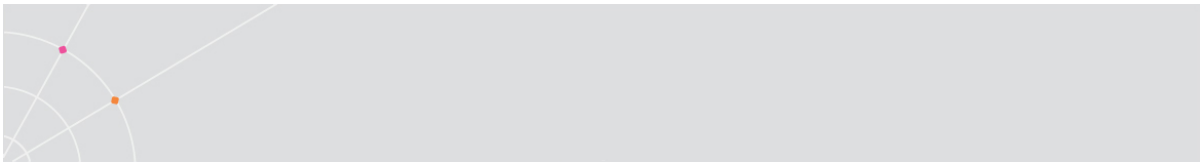
If the DNS entry does not exist, the locally installed Licensing Server will be used (i.e. localhost will be used as the address of the Licensing Server).

Manual Entry

Licensing server address

The administrator may also explicitly specify the license server that will be used at the Licensing page in the Access Server Configuration application.

☒ Licensing server address:



Use with PowerTerm™ WebConnect

When the Ericom PowerTerm™ WebConnect broker is used, all licenses are obtained from the *broker*. Access Server licensing is ignored; expiration messages will not apply to brokered connections.

4. ERICOM BLAZE CLIENT FOR WINDOWS

The Ericom Blaze Client connects to a Blaze enabled host running Ericom Access Server.

NOTE Ericom Blaze Client may not be backward compatible with earlier versions. If you are using an earlier version of Blaze, please upgrade all Blaze client and server components to the same version for the best results.

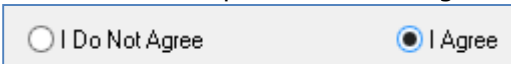
Ericom Blaze Client Requirements

The Ericom Blaze client is installed on the user's devices.

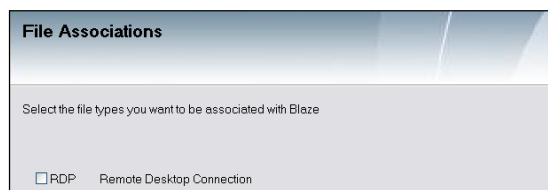
- See section 1 for a list of supported platforms
- 30 MB of free Hard-Disk space
- MMX capable CPU

Installing Ericom Blaze Client

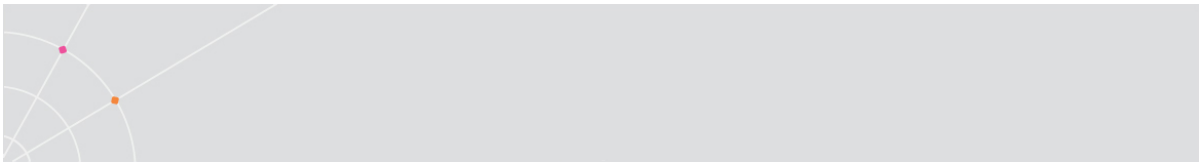
- The Blaze installer may overwrite any previous installations.
- Run *Ericom Blaze Client.msi*.
- Review and accept the License Agreement. Click *Next*.



- Click *Next* to associate **.rdp** files to use the Blaze Client. The **.blaze** extension will be automatically added to the system. When double clicking on an associated configuration file, the Blaze Client will be launched with the file's settings.



HINT To auto-connect a Blaze session using a .rdp file created with the RDP Client (MSTSC.exe), the .rdp file must be saved using the Blaze client *first*. Launching a .rdp file before it is saved using the Blaze client will open the Blaze client user interface. Simply save the .rdp file using the Blaze client (all settings will be maintained) and it will auto-connect when launched in the future.



- Select *installation location* and specify which users can utilize Ericom Blaze.

To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".

Folder:
C:\Program Files (x86)\Ericom Software\Ericom Blaze Client\ Browse...
Disk Cost...

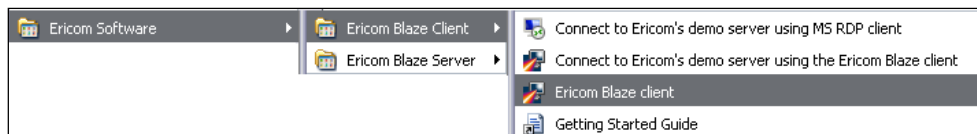
Install Ericom Blaze Client 3.1.0 for yourself, or for anyone who uses this computer:

☒ Everyone
☐ Just me

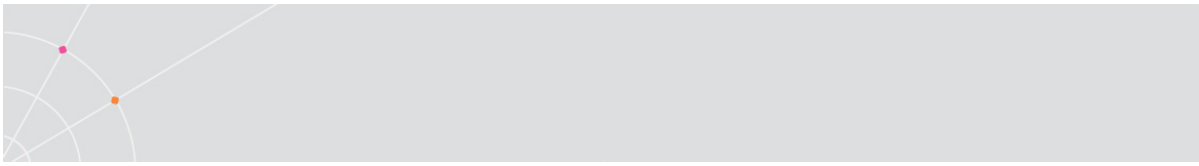
- Click *Next* to start the installation and wait for the installation to complete (you may be required to accept a security elevation request).
- Click *Close* when prompted, and the Blaze Client will be ready for use.

Using Ericom Blaze Client for Windows

Once installed, the Ericom Blaze Client may be launched from the Start menu or the desktop icon.



The Ericom Blaze Client may also be launched by double-clicking on a configuration file that has the *.blaze* extension. This will cause the Blaze Client to immediately connect using the settings specified in the file, without displaying its configuration user interface. A *.blaze* file can also be used as a parameter for the *blaze.exe* executable file.



General Configuration

The screenshot shows the 'Ericom® Blaze Remote Desktop Connection' dialog box with the 'General' tab selected. It contains three main sections: 'Logon settings' with fields for 'Computer' (192.168.1.123), 'User name', and 'Password', and an 'Always ask for credentials' checkbox; 'Ericom Blaze' settings with a checked 'RDP Compression and Acceleration' box and an 'Acceleration / Quality' dropdown set to 'Fastest / Fair Quality'; and 'Connection settings' with a 'Save the current connection settings to an RDP file or open a saved connection.' checkbox and 'Save', 'Save As...', and 'Open...' buttons.

Computer – enter the address of the host that is running the Ericom Access Server, or any standard RDP host (host name or IP address). By default, if the port number is not specified, then port **8080** will be used for Blaze accelerated connections, and port **3389** for regular RDP.

To specify a different port number, add “:<port number>” to the end of the address. Example using port 23: **rdpdemo.ericom.com:23**

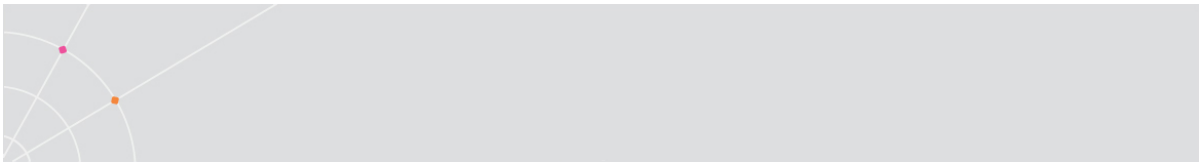
User name/Password (optional fields) – enter credentials to login to the destination host. Provide both to circumvent the host’s login dialog.

Enable Enhanced RDP Compression and Acceleration – Uncheck this box to disable compression and acceleration. When disabled, RDP will be used.

Ericom Blaze Acceleration / Quality Settings

This screenshot shows the 'Acceleration / Quality' dropdown menu from the Ericom Blaze settings. The menu is open, displaying a list of options: 'Very Fast / Good Quality (Recommended)' (highlighted), 'Fastest / Fair Quality', 'Very Fast / Good Quality (Recommended)', 'Fast / High Quality', 'Good / Very High Quality', 'Moderate / Highest Quality', and 'Lossless' (highlighted at the bottom).

- **Lossless** – Lossless compression
- **Moderate/Highest** – Almost perfect quality (minimal lossy compression). Appropriate when close-to-exact image rendering is required.



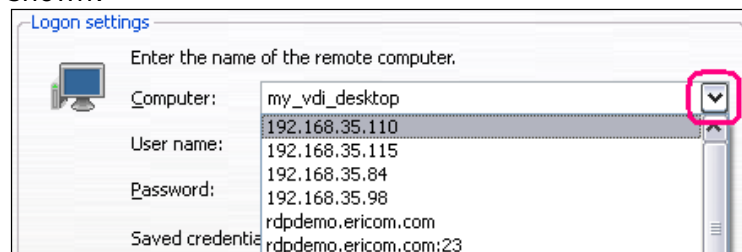
- **Good/Very High** – Minimal image quality loss.
- **Fast/High** – Slightly less quality, slightly greater acceleration than Best.
- **Very Fast/Good** – Balanced quality and performance, ideal for most cases.
- **Fastest/Fair** – Lower quality but better performance. Appropriate when bandwidth is limited, especially when using graphic intensive applications.

Connection Settings:

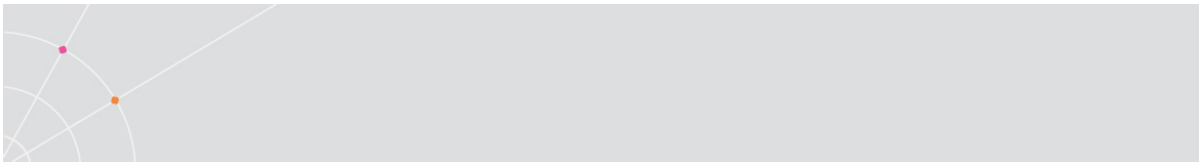
- **Save** – Save settings to the file from which they were read. If settings were not read from a file then the behavior is the same as Save As (see below)
- **Save As** – Save settings to a new .blaze file. It is also possible to save to a file that has the .rdp extension
- **Open** – Read settings from an existing .blaze file. It is also possible to load settings from a file that has the **.rdp** extension

Accessing previous configurations:

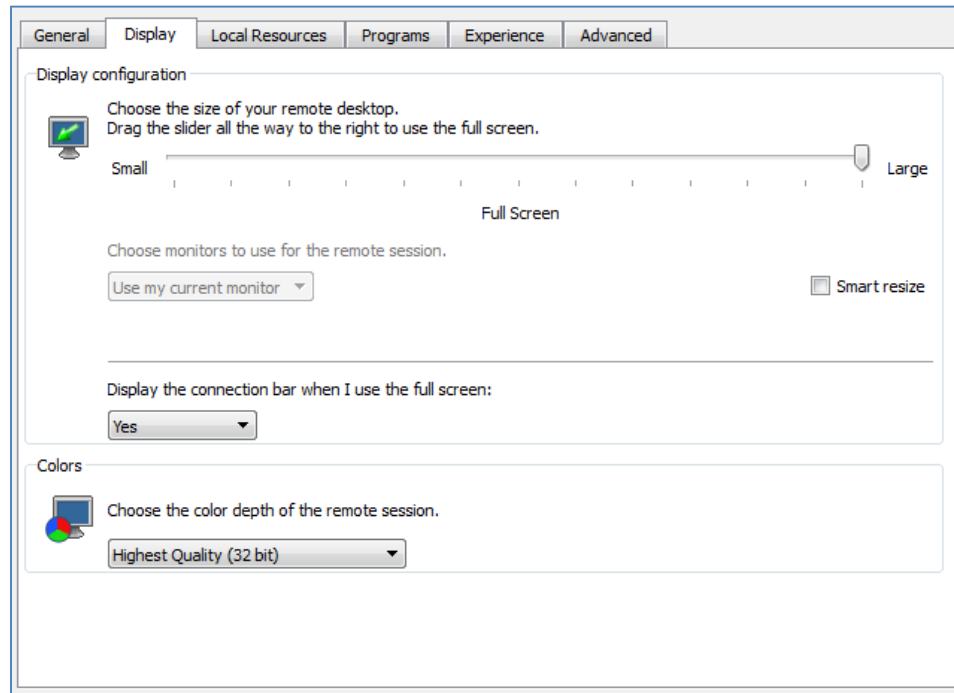
- Settings for all successful past sessions are automatically preserved for reuse.
- To use previous configurations, click on the drop-down arrow icon to the right of the **Computer** name. The sessions are displayed in order of use, with the most recently used session appearing at the top, as shown:



Click the **Connect** button once all parameters are set to begin the Ericom Blaze session.



Display Configuration



Display Configuration – Specify the screen size of the Ericom Blaze session. Full screen sessions will cover the entire local screen(s).

Choose monitors to use for the remote session

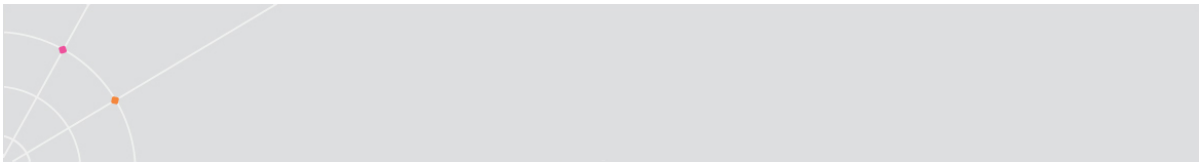
- Use my current monitor – Blaze session only opens on the current monitor (where the Blaze dialog appears).
- Use all my monitors – Blaze session opens using all monitors.

When connecting to Windows 7, 8, Server 2008 R2 or higher the RDP Multimon feature is used to create virtual monitors in the remote session that exactly match the local monitors.

When connecting to earlier versions of Windows, multi-monitor spanning is used to create a single remote monitor that covers all local monitors, similar to MSTSC.exe's /span flag. Regardless of how many monitors are being used, the maximum desktop resolution will be 4096x2048. In this mode, Ericom Blaze will automatically adjust size and position of windows so that they are properly displayed within the monitors. For example, maximized application windows will only cover its primary monitor.

- Span all my monitors – Blaze session opens using all monitors.

Multi-monitor spanning creates a single remote monitor that covers all local monitors. This feature is implemented for all operating systems.



- **Monitor X** – Blaze session opens on the monitor identified as X (X denotes the numeric identifier of the monitor).

Smart resize

The Smart resize feature will automatically re-proportion the session display when the window size is changed. The original aspect ratio is maintained. No scroll bars will be displayed.

Display the connection bar when I use full screen

The Blaze full screen connection bar has three modes:

- **Yes** – The connection bar is available and starts in auto-hide mode (default). Can be changed to Pinned mode.
- **Yes (Pinned)** – The connection bar is available and starts in pinned mode. Can be unpinned to change to auto-hide mode.
- **No** – No connection bar is available. This is useful for kiosks and thin clients environments.

Colors – Specify the color depth for the Ericom Blaze session.

Display the connection bar – Uncheck this box to hide the Ericom Blaze RDP bar that appears at the top of the RDP window in full screen mode.



Local Resources Configuration

Remote Audio (sound) – Specify the audio settings for the Ericom Blaze session.

<p>NOTE Connections with limited bandwidth or high latency may degrade audio quality.</p>
--

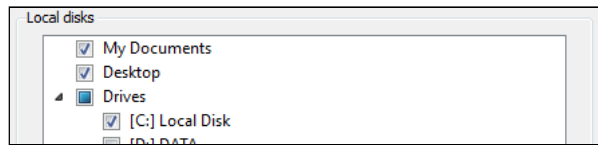
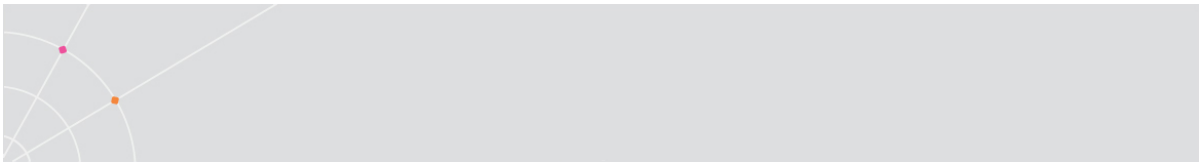
Keyboard – Specify the Windows key combinations configuration.

Local devices and resources Clipboard redirection – enables text and image clipboard redirection. File copy and paste is not supported.

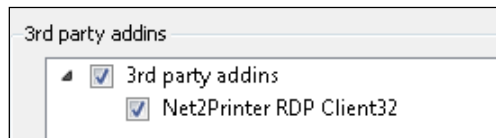
Local devices and resources Printers (native) – enables standard RDP printing redirection. In order to use standard RDP printer redirection, the printer driver must be installed on the host and the client

Local devices and resources Printers (universal) – enables the built-in universal print driver. See next section for details on the universal printer.

Click **"More devices ..."** to specify *mapping of local disks* on the remote host. It is possible to map special folders: *My Documents* and *Desktop* for the local user; and enable mapping of plugged in drives while the session is active.

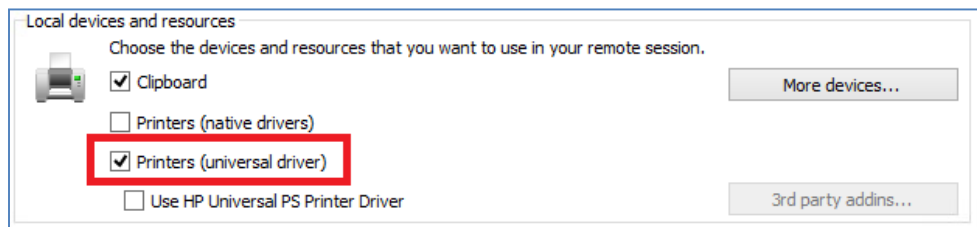


3rd party add-ins – enables the use of third-party RDP add-ins (i.e. universal printing redirection support). The third-party add-in bit level must match that of the Blaze client, for example if a x64 based third-party component is installed, it must be used with x64 Blaze client. The bit levels cannot be mixed, or the third-party component will not appear in the add-ins list.

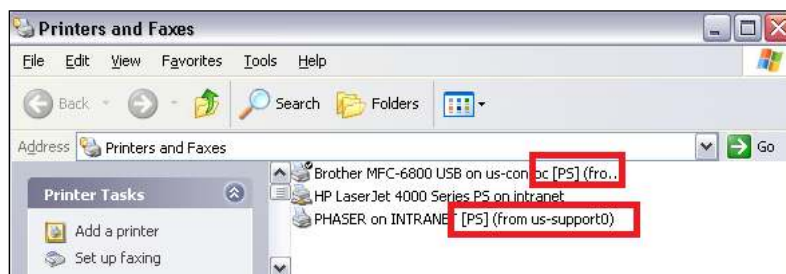


Built-in Universal Printing

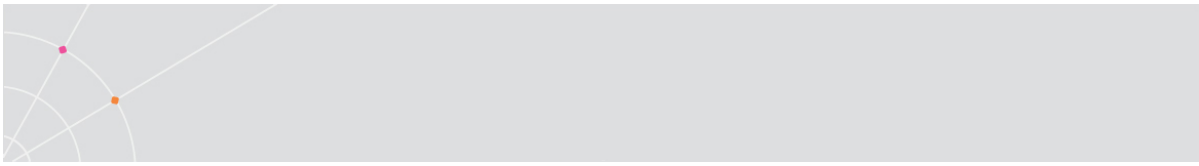
Ericom Blaze includes support for universal printing. The built in universal printer is based on Postscript and will redirect remotely executed print jobs to local printers. To enable the universal printer, check the *Printers (universal driver)* option.



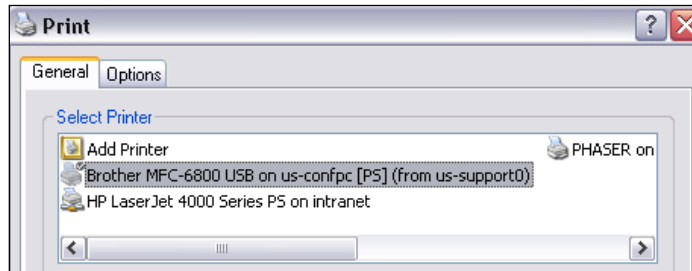
In the Blaze RDP session, the redirected printers will appear alongside any local printers configured on the remote desktop. Redirected printers will have the symbol "[PS]" along with the computer name in its label.



NOTE Since a generic HP Postscript driver is used to process the print jobs, certain printer specific functions may not be available (i.e. duplex printing). To support printer specific features, consider using a third-party print solution or standard RDP printing (by loading the printer driver(s) on the RDP host).



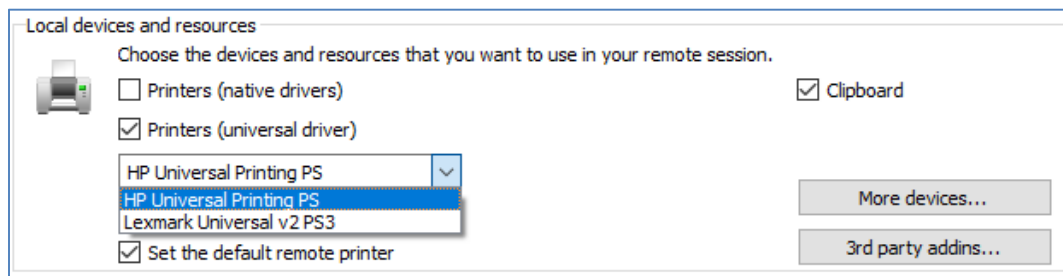
To print to a redirected printer, simply select the desired printer when the application's *Print* dialog appears.



Universal Printing with Windows 8, 10, 2012R2, 2016, 2019 RDP Hosts

A Universal Printer driver is required in order to support Blaze universal printing with Windows 8, 10, 2012, 2012R2, 2016, 2019. Lexmark® and HP® universal drivers are supported, and the Lexmark is recommended.

After installing the Universal Driver, launch the Blaze client. Go to the *Local Resources* dialog box and check *Printers (universal driver)* and select the desired driver. This field is editable in case another universal driver is chosen (a Postscript driver is recommended).



The Ericom printer will appear at the next user login (if printing is enabled for the session). Any instances of the third-party universal printer may now be deleted from the Windows *Printers* menu as the driver is now present on the RDP host system.

The Lexmark universal driver is recommended for best accuracy and performance. To begin, download the Lexmark universal driver from the Internet:

https://www.lexmark.com/en_us/support/universal-print-driver.html

Note: this is a third-party link that may change unexpectedly. If the link does not work, perform a Google search for Lexmark Universal Print driver to search for the updated link.

Download the "PS"/"PS3" version.

Individual Driver Packages for Windows

Each package includes a Microsoft WHQL certified 32 and 64-bit PCL 5 emulation, PCL XL emulation, or PS3 emulation universal printer driver.

These driver packages will upgrade your existing installation of the universal printer driver.

- [Download PCL5](#)
- [Download PCL XL](#)
- [Download PS3](#)

Install it on the RDP host(s).

When prompted, select "Install Only"

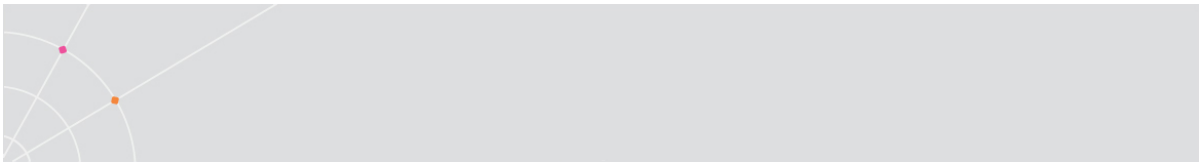


Once the Lexmark driver is installed, and Blaze client is configured to use it, printing with universal printing will be available.

Redirecting only the local default printer

RDP printer redirection requires time to display all redirected printers. If only the local default printer is required in the remote session, select *Redirect only the default local printer* (all other local printers will not be redirected).

☒ Redirect only the default local printer



Set the local default printer as the default remote printer

When this setting is checked, the local default printer will also be the default printer in the remote session, overriding any remote default settings.

If this setting is unchecked, any remote default printer will remain the default and the local default printer will be another available printer in the list.

☒ Set the default remote printer

Program Mode Configuration (Seamless Application)

General Display Local Resources Programs Experience Advanced

Start a program

☒ Start the following program on connection:

Program path and file name:

notepad

Start in the following folder:

☒ Enable session sharing

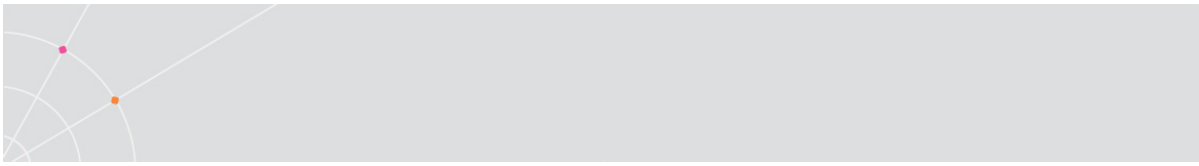
Ericom Blaze *Seamless* Applications are remote applications that appear as local applications on the user's desktop. The remote desktop will not be visible. This allows remote applications to appear side by side with user's local applications. Seamless Applications are supported in accelerated and non-accelerated modes via the Blaze Client. Access Server is required on the host system where the application will be launched from.

Check *Start the following program on connection* to specify the path and startup folder of a program that will be launched as a seamless application. Remember to enter the application's path on the *remote* system. Do not enter an application path located on the local (user's) system.

Ericom Blaze supports **Session Sharing** with seamless applications. Multiple seamless applications may be launched using the same session to minimize unnecessary logins. To enable this, check the *Enable session sharing* box.

On a 2008R2 and higher, the RemoteApps feature needs to be enabled to allow seamless windows. However, Access Server launches requested applications using its built-in TSagent component, so these applications do not need to be manually added to the RemoteApp list.

Ericom seamless is not supported on 2008 (non-R2) and lower operating systems, use Microsoft seamless for these operating systems.)

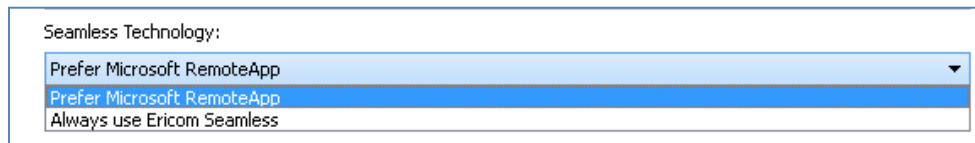


HINT Blaze Seamless Applications may be used as an alternative to Microsoft RemoteApps. Blaze configuration files can be set to launch a seamless application from the remote host running Access Server. By placing Blaze icons on the user's desktop, users can easily access Blaze-enabled applications.

Sample icons:

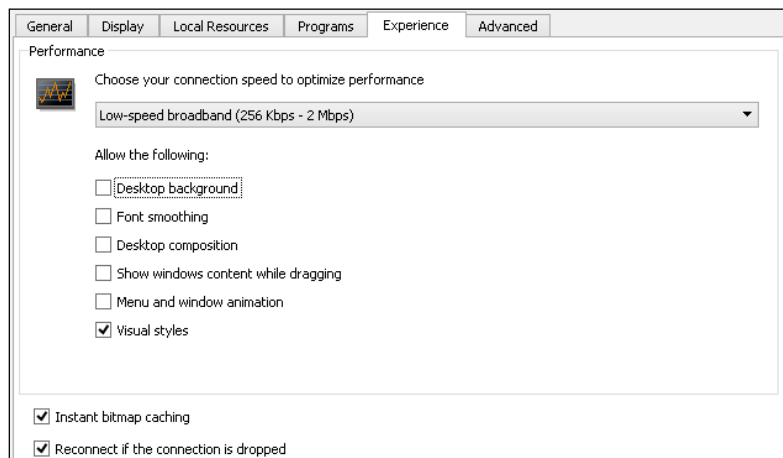


Ericom Blaze supports two types of *seamless* engines: Ericom's and Microsoft's. Certain applications may display better with one over the other, so if the selected one is causing an issue, try the alternate setting.



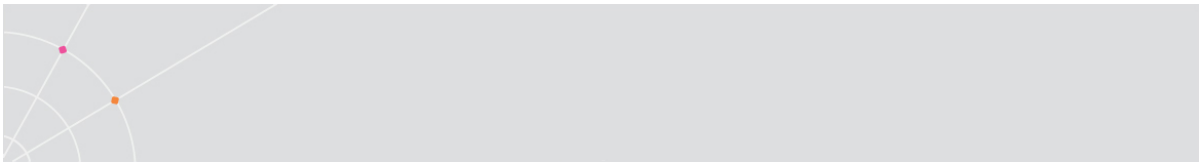
NOTE When the Microsoft RemoteApp functionality is not available due to an operating system limitation, Ericom Blaze will automatically use Ericom Seamless.

Experience Tab Configuration



Click the *Experience* drop down box to select the setting that best matches the user's network speed. Session features may also be specifically disabled by unchecking the respective checkboxes.

NOTE If *Show window content* is selected, it will also need to be enabled on the RDP host. The configuration varies based on the operating system, search the Internet for "*Show window content*" to find instructions.



- *Instant Bitmap Caching* – This allows bitmaps to be cached for best performance. Uncheck this setting when connecting to an RDP host that also has Microsoft RemoteFX enabled.
- *Reconnect if the connection is dropped* – This enables a session to reconnect automatically when the Blaze session is interrupted by a network outage.

Advanced Tab Configuration

Ericom Secure Gateway

If the Ericom Secure Gateway will be used in the user's connection - check the box *Connect using Ericom Secure Gateway*. Enter the address of the Ericom Secure Gateway server. If no port is explicitly specified, the default 443 is used. To specify a custom port, enter ':' and the port value after the address, as show in the example below. Refer the *Ericom Secure Gateway manual* for information on installing and configuring the Ericom Secure Gateway.

A user account is required to login to the Secure Gateway; this can be manually entered or passed from the credentials stored in the Blaze client.

The screenshot shows the 'Advanced' tab in a configuration window. The 'Connect using Ericom Secure Gateway' checkbox is checked. Below it, there is a text field for 'Enter host-name[:port] or IP-address[:port]' with the value 'secure.ericom.com:4343'. There is also a 'Secure Gateway:' dropdown menu. The 'User name:' field is set to 'Not specified' with an 'Edit...' button next to it. At the bottom, there is an unchecked checkbox for 'Use Ericom Secure Gateway credentials for the remote computer'.

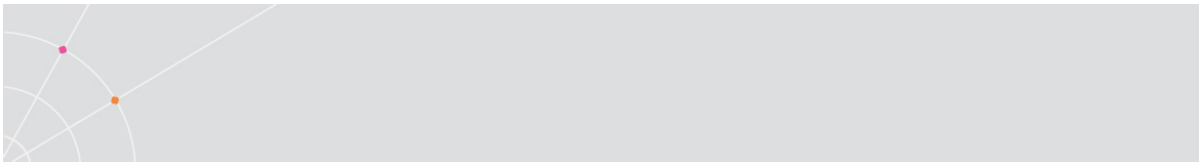
Access Server as a Gateway

The Access Server may act as a gateway proxy to an RDP host. This is beneficial for situations where third-party components cannot be installed on the RDP host.

The screenshot shows a configuration window for 'Connect using standalone AccessServer'. The checkbox is checked. Below it, there is a text field for 'Enter host-name[:port] or IP-address[:port]' with the value 'access-gateway.test.local'.

When the Access Server gateway is enabled, enter a value for *Computer* address that is recognizable by Access Server (not from the end-user's machine). This address should be reachable via ping and telnet commands from the Access Server system.

The screenshot shows the 'Logon settings' section. It has a title 'Logon settings' and a subtitle 'Enter the name of the remote computer.' Below this, there is a 'Computer:' field with the value '10.20.4.123' and a 'User name:' field which is empty.



When Access Server is used as a Gateway, it becomes a point of failure for multiple users. Ensure that enough resources are allocated to the system running Access Server and consider adding a second server for redundancy.

HINT To minimize performance loss in Gateway mode, keep the latency between the Access Server and RDP host to a minimum.

Local Cursor Options

To enable the local cursor, edit the .blaze file using a text editor and add one of the following to the end of the file:

1. `"null cursor:s:cross"`

This will show the crosshair cursor

2. `"null cursor:s:arrow"`

This will show the standard local arrow cursor

3. `"null cursor:s:png"`

This will use the "null_cursor.png" file that is located in the blaze.exe directory. This image must be 32x32 pixels and up to 32 bit colors and with alpha (0 = transparent, 255 = fully opaque).

4. `"null cursor:s:bmp"`

This will use two B&W bitmaps: null_cursor.bmp and null_cursor_map.bmp. The cursor bitmap (B) and mask (M) bits are combined like this:

B=1 and M=1 gives black.

B=0 and M=1 gives white.

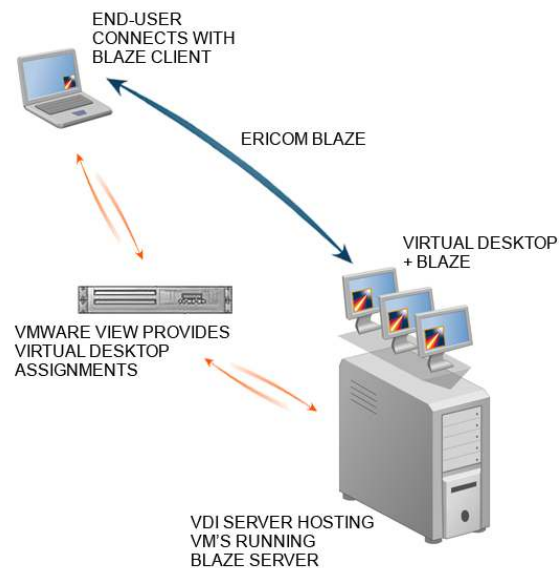
B=0 and M=0 gives transparent.

B=1 and M=0 gives an XOR'd result under Windows, undefined results on all other platforms

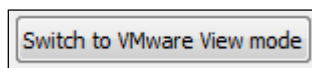
NOTE: Once this setting is manually added to the .blaze file, do not save new settings on top of it. Any new save operation will overwrite this setting and it will have to be manually re-added.

5. VMWARE® VIEW CLIENT MODE

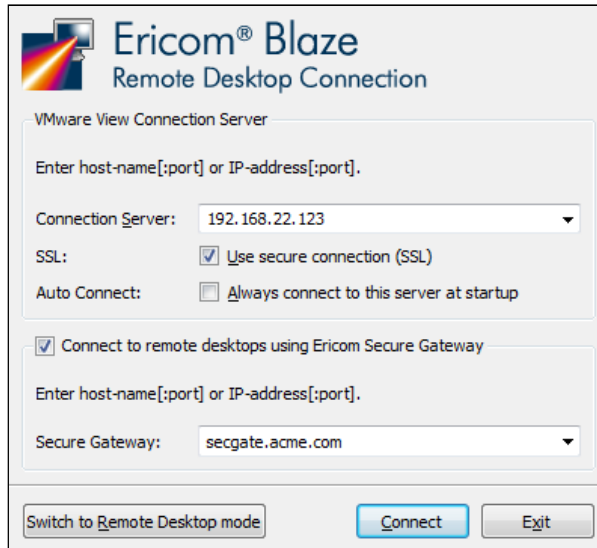
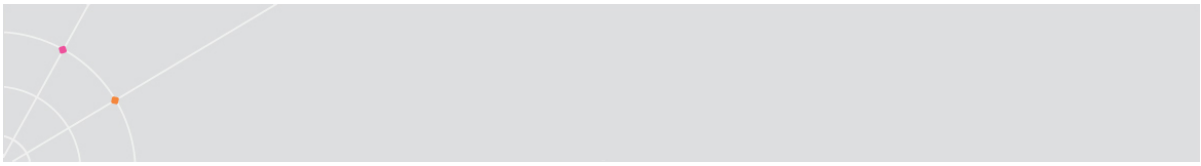
Ericom Blaze Client supports VMware View 5.2 and 5.3 connection brokers. Ericom Blaze uses the View broker for authentication and then connects directly to the target virtual desktop. When using Ericom Blaze RDP acceleration for VMware View access, the Blaze client is used *in place* of the View client. The Blaze client does not require the View client and does not replace it either.



To enable VMware View mode in the Blaze client, click the *Switch to VMware View mode* button.



The Ericom Blaze – VMware View interface will appear.



Ericom® Blaze
Remote Desktop Connection

VMware View Connection Server

Enter host-name[:port] or IP-address[:port].

Connection Server: 192.168.22.123

SSL: ☒ Use secure connection (SSL)

Auto Connect: ☐ Always connect to this server at startup

☒ Connect to remote desktops using Ericom Secure Gateway

Enter host-name[:port] or IP-address[:port].

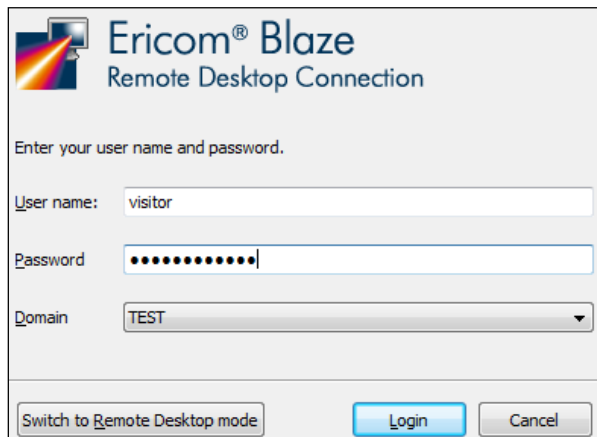
Secure Gateway: secgate.acme.com

Switch to Remote Desktop mode Connect Exit

Enable SSL if it is required by your VMware View connection broker.

Enter the address of the VMware View server in the *Computer* field and click *Connect*.

The next dialog will prompt the user for credentials.



Ericom® Blaze
Remote Desktop Connection

Enter your user name and password.

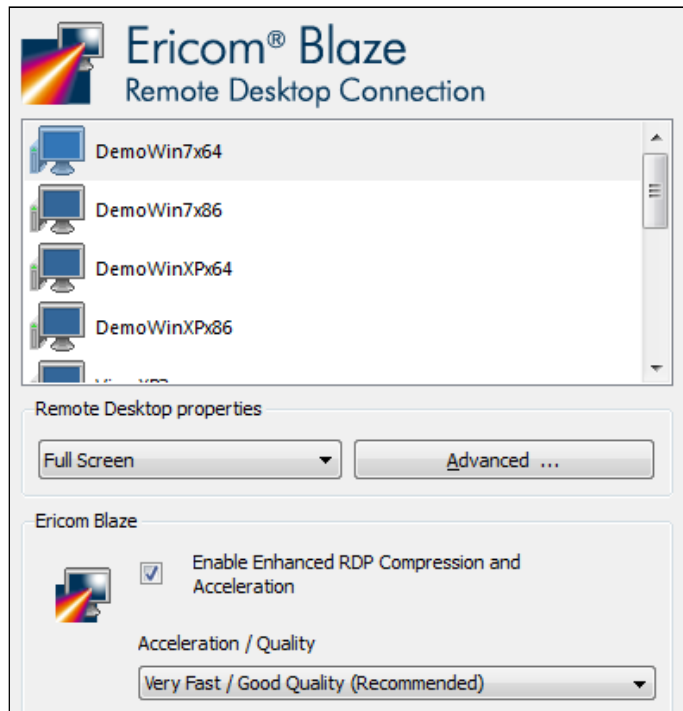
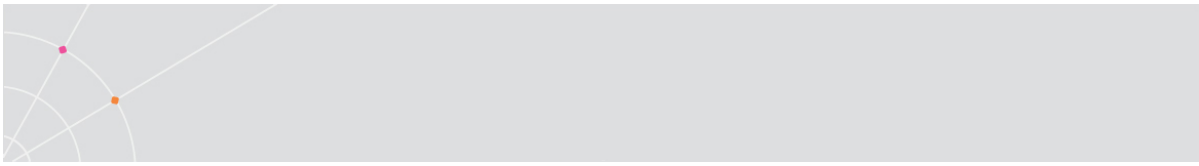
User name: visitor

Password:

Domain: TEST

Switch to Remote Desktop mode Login Cancel

Once authenticated, the Blaze client will display a list of desktops available via the View broker to the user.

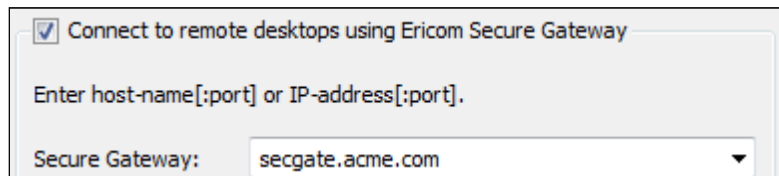


Configure any Blaze settings as desired and click the *Connect* button to connect to the selected desktop.

NOTE The Blaze client does not support PCoIP. The Ericom Blaze client and Blaze protocol functions independently from the View client and PCoIP protocol.

Secure Gateway Access

If the Ericom Secure Gateway will be used - check the box *Connect using Ericom Secure Gateway*. Enter the address of the Ericom Secure Gateway server. If no port is explicitly specified, the default 443 is used. To specify a port, enter ':' and the port value after the address, as show in the example below. In the example above, the Secure Gateway has an address of *secgate.acme.com*; since no port is specified *443* is automatically used.



6. ERICOM BLAZE CLIENT FOR MAC

Installation Prerequisites

- Mac OS X 10.9 or higher
- 30 MB of free hard-disk space
- MMX capable CPU

Installing Ericom Blaze Client for Mac

To launch the Ericom Blaze Client for Mac, run installer and follow the instructions contained in the installation wizard.



Using Ericom Blaze Client for Mac

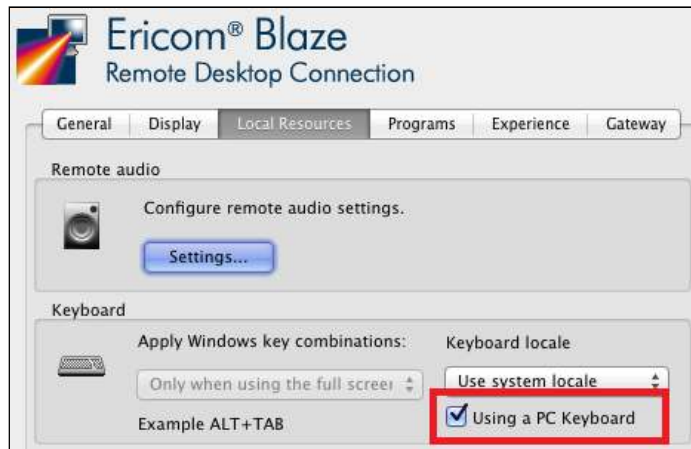
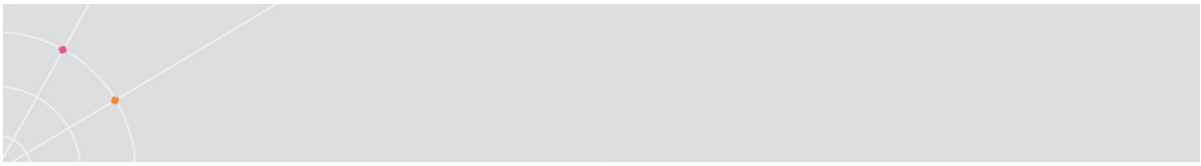
To launch the Ericom Blaze Client run the blaze executable or the shortcut.

In Blaze Client 2.5 and higher, the .blaze extension is associated to the Blaze Client. Simply double-click on any .blaze configuration file and the Blaze Client will launch using the configured settings.

Review the chapter on the Blaze Client for the Windows platform for instructions on the proper usage of core features. The content of this section covers the differences in functionality between the Windows and Mac version of the Blaze client.

Using a PC Keyboard

When using a physical Windows based keyboard, go to the Blaze Client's *Local Resources* tab and check the setting *Using a PC Keyboard*.

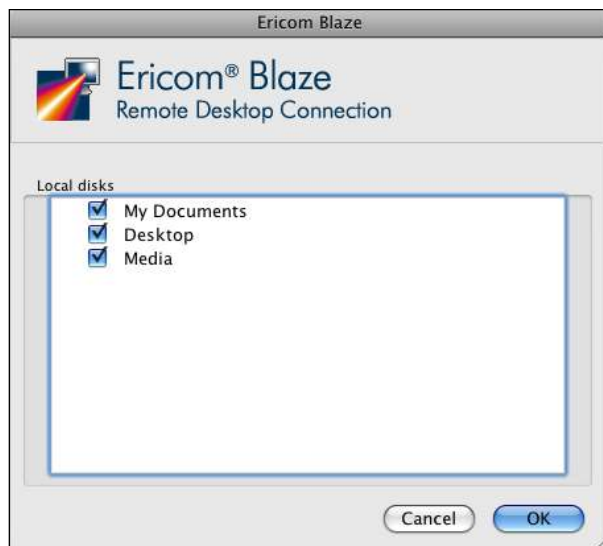


When this setting is checked, certain Mac to Windows key mappings will be disabled. The *Control* and *Windows* keys will work natively as expected.

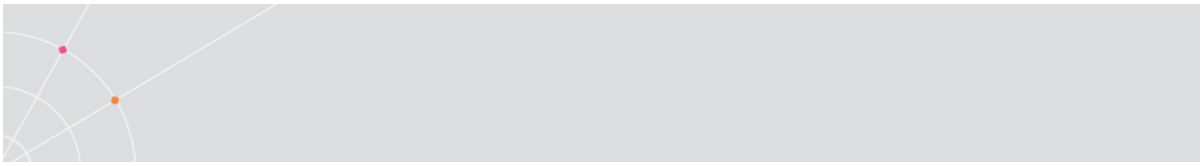
When this setting is unchecked, the default Mac keyboard emulation is used. The *Control* (CTRL) key operates as the *Windows* key and the *Command* key operates as the *Windows Control* (CTRL) key.

Drive Mapping

To access the drive mapping options, go to *Local Resources* and go to the *More devices* dialog. The drive mapping dialog provides three options:



- Select *My Documents* to map the home directory
- Select *Desktop* to map the desktop directory
- Select *Media* to map the */media* directory. This directory is used for mounting file systems on removable media like CD-ROM drives, floppy disks, and Zip drives

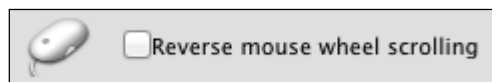


Printer Redirection

Printer redirection for Mac clients only supports postscript printers. In addition, the HP PS Universal driver must be installed on the Windows RDP host (refer to the *Built-in Universal Printing* section in this manual for details).

Reverse Scroll Wheel

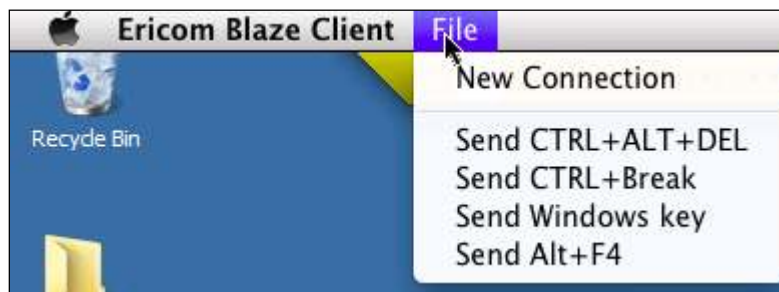
On certain Macs, the scroll wheel will operate in the reverse direction. To change the current direction of the scroll wheel, select the *Reverse Scroll Wheel* setting under the *Local Resources* tab.



Blaze Client File Menu

Ericom Blaze Client for Mac provides a *File* menu to execute additional functions: open a *New Connection*, and send various Windows related key combinations.

To access the *File* menu in Full Screen mode, move the mouse to the upper left hand corner of the screen. The Mac toolbar will appear along with the *File* menu selection.



Blaze Title bar

In Blaze Mac 7.6 and higher, the original yellow Blaze title bar has been discontinued in favor of the operating system native title bar. The ability to pin the title bar is no longer available.

When Blaze Mac connects using 'Use all my monitors' mode, the restore button will be unavailable in the title bar.



7. ERICOM BLAZE CLIENT FOR LINUX

Installing Ericom Blaze Client for Linux 7.x (64-bit)

These are the installation pre-requisites:

- Ubuntu 14.04 LTS
- MMX capable CPU
- The following dependencies:

```
sudo apt-get install libqt5x11extras5
```

```
sudo apt-get install libqt5printsupport5
```

```
sudo apt-get install libqt5serialport5
```

```
sudo apt-get install libqt5multimedia5-plugins
```

A deb installer for Debian based Linux distributions is available. Run the following command to install it:

dpkg -i ericom-blaze-client_x64.deb

The application will be installed in the /opt/ericom/ericom-blaze-client/ directory. Run “./blaze” from this directory to launch the application.

Installing Ericom Blaze Client for Linux 3.x (32-bit)

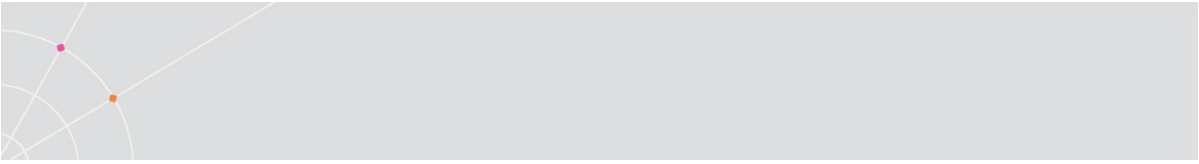
These are the installation pre-requisites:

- Most current Linux distributions, such as Red Hat, Fedora, Suse and Ubuntu. Requires Linux kernel 2.6 and above.
- 20 MB of free hard-disk space
- MMX capable CPU
- The following X11 libraries must be installed prior to using Blaze: Xcursor, Xrandr, and Xinerama

There are different types of installers for Ericom Blaze Client for Linux:

- rpm for most Linux distributions such as Red Hat / Fedora / Suse
- deb for Debian based Linux distributions such as Ubuntu and HP® ThinConnect
- Graphical installer that is compatible with most Linux environments and can be used by root and by other users
- Blaze.tar.gz archive containing all the files – this is appropriate for installation on Linux Thin Clients

To install using rpm enter the following command:



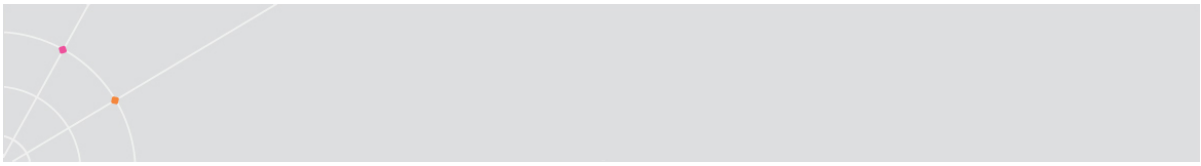
```
rpm -I Ericom-Blaze-Client.rpm
```

To install using deb double-click on the file `Ericom-Blaze-Client.deb`

The deb version can also be installed running the command:

```
dpkg -i Ericom-Blaze-Client.deb
```

<p>NOTE When installing the Blaze deb package on Linux thin clients, a software installation tool is may be required by the thin client vendor.</p>
--



To use the graphical installer:

1. Unzip Ericom-Blaze-Client-For-Linux.zip
2. Launch Ericom-Blaze-Client-For-Linux.sh which was extracted from the zip
3. Follow the instructions in the installation Wizard

If the installer is run by root then the default installation location will be:

```
/Ericom-Blaze-Client
```

Otherwise the installation directory will be created under the installing user's home directory, e.g.:

```
/home/user/Ericom-Blaze-Client
```

The installation directory will contain an executable file called blaze. Run this file to launch the Ericom Blaze Client.

The graphical installer provides an option to create a link file to the executable in the directory of your choice – the default being /user/bin



Write premissions to the destination folder is required, otherwise an error message will be displayed.

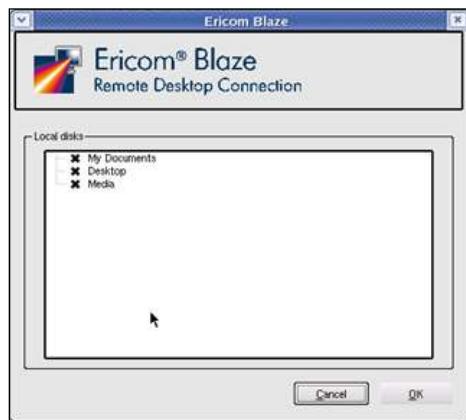
Using Ericom Blaze Client for Linux

To launch the Ericom Blaze Client run the blaze executable or the link. A connection Wizard is displayed that is the same as on the Windows platform – see *Blaze Client for Windows* Chapter for details. The executable is located in the directory `/opt/Ericom-Blaze-Client`.

Review the chapter on the Blaze Client for the Windows platform for instructions on the proper usage of core features. The content of this section covers the differences in functionality between the Windows and Mac version of the Blaze client.

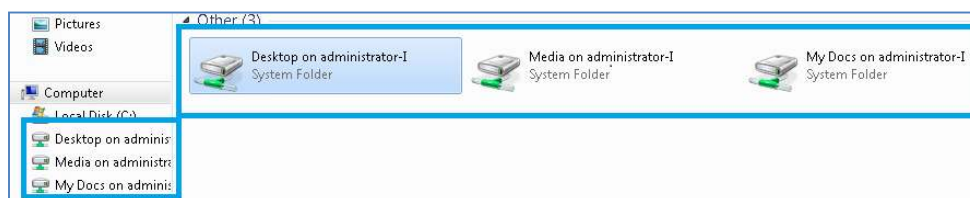
Drive Mapping

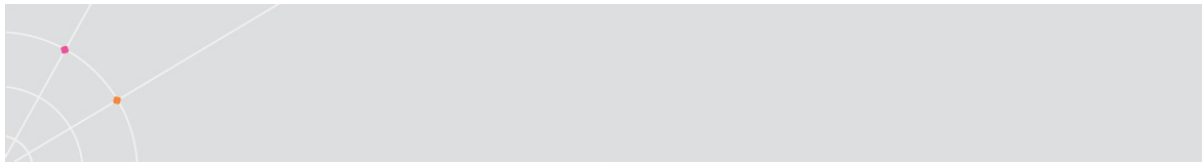
The drive mapping dialog provides three options:



- Select *My Documents* to map the home directory
- Select *Desktop* to map the desktop directory
- Select *Media* to map the `/media` directory. This directory is used for mounting file systems on removable media like CD-ROM drives, floppy disks, and Zip drives

Once the Blaze Linux client is connected to the Windows session, the drive will appear in the *Computer* list:



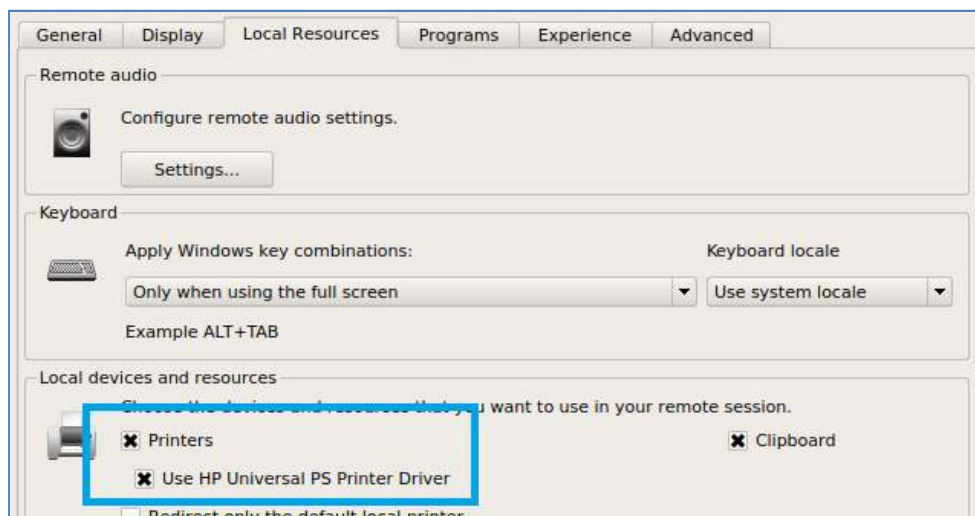


Printer Redirection

Printer redirection for Linux clients only supports postscript printers. The following printer driver must be installed on the Windows RDP host:

- On 32-bit systems (x86) install HP Universal Print Driver for Windows PostScript
- On 64-bit systems (x64) install HP Universal Print Driver for Windows PostScript x64

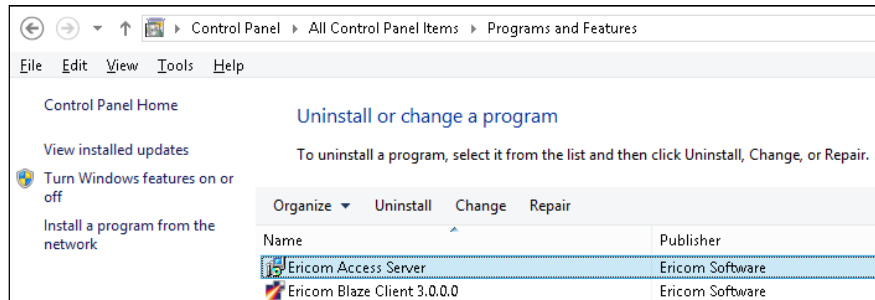
To enable printing, click on the *Local Resources* tab and check *Printers* and *Use HP Universal PS Driver*



8. UNINSTALLING ERICOM

Windows

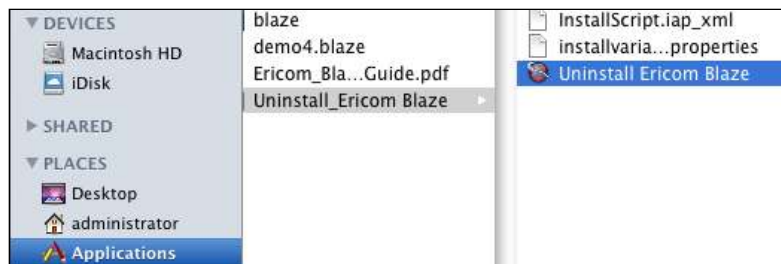
Uninstall Ericom Blaze client and Access Server using Control Panel | *Add/Remove Programs*



Select the desired application and click *Uninstall* to begin the uninstall process.

Mac

Run the Uninstaller from the Blaze Application directory



Linux

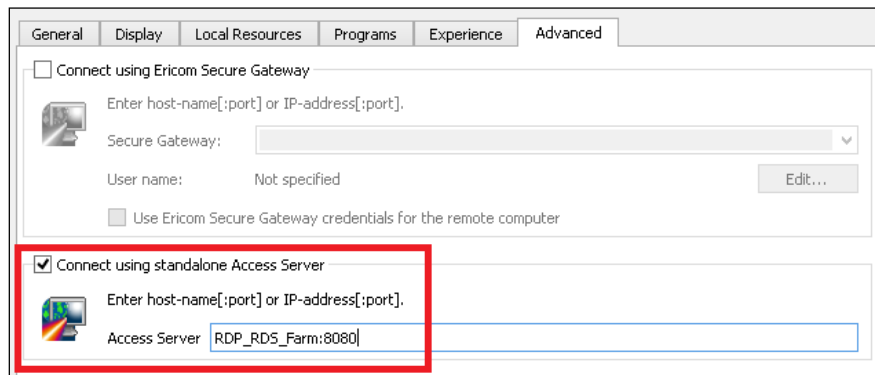
Use the system's application manager, such as *Synaptic* on Ubuntu, to remove the Ericom Blaze Client for Linux.

9. BLAZE AND LOAD BALANCERS

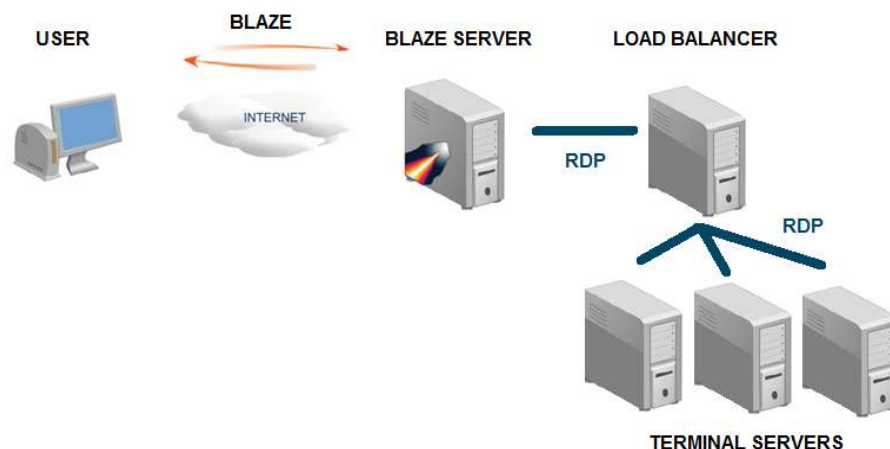
Larger application and desktop hosted deployments will require multiple RDP host servers. The Ericom PowerTerm™ WebConnect connection broker is recommended to handle larger loads and evenly distribute users across a large base of Terminal Servers. However, third-party Terminal Server aware load balancers (i.e. Microsoft Windows 2008 R2 Remote Desktop Connection Broker or 2X Load Balancer) may also be used.

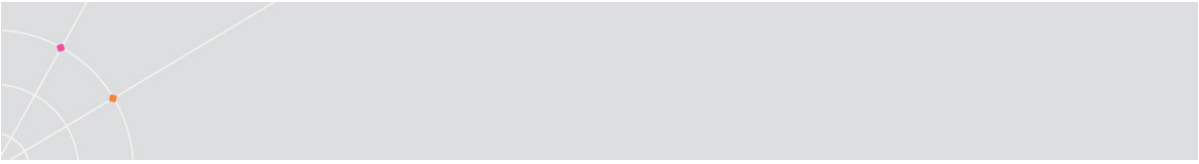
To use Blaze with a load balanced RDP farm, install Access Server on a powerful dedicated server. Using a x64 server and x64 Access Server is strongly recommended for this. Open the Access Server port (e.g. 8080) inbound into the server and the RDP port (e.g. 3389) outbound.

Configure Ericom Blaze clients to connect to the address of the Access Server. Access Server will forward communication onto the load balancer. The connection between the Access Server, load balancer, and RDP hosts must be in very close proximity, with minimal latency, to ensure good performance.



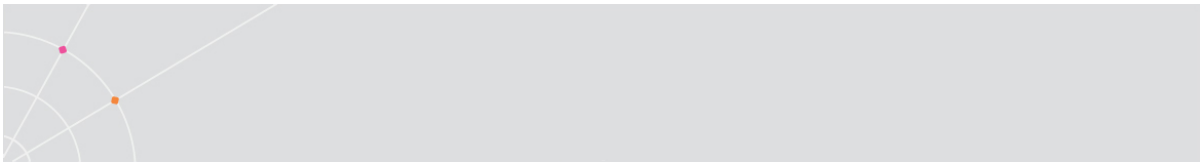
This diagram illustrates how Ericom Blaze works with a load balancer:





The system running Ericom Access Server must be equipped with enough memory to handle the total number of active users.

NOTE When using the Access Server as a gateway, Ericom recommends using the x64 version on a powerful server (minimum two CPU cores and four gigabytes of RAM).



10. BLAZE CLIENT COMMAND LINE PARAMETERS

Blaze.exe [options]

/option:<value>

/option:<default-value|other-value|yet-another-value>

boolean can be any of: true, false, yes, no, on, off, 1, 0

Example:

```
Blaze /bpp:32 /f /connection-bar:yes /audio:off /drive:C /drive:desktop  
/printer:*,3 /clipboard:1 /v:somehost
```

Options:

/v:server[:port] - RDP Server hostname

/u:[<domain>\]<user> or <user>[@<domain>]

/p:<password>

/d:<domain>

/admin - Admin (or console) session

/multimon:<use|span|#> - Use, Span multiple monitors or use specific monitor

/w:<width> - Remote Desktop width

/h:<height> - Remote Desktop height

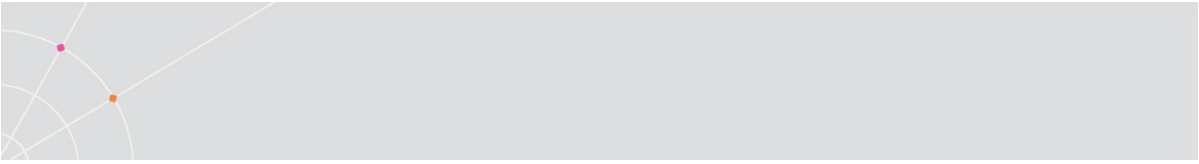
/size:<width>x<height> - Remote Desktop screen size

/f - Fullscreen mode

/bpp:<depth> Session bpp (color depth)

/shell:<alternate shell>

/shell-dir:<alternate shell working directory>



/jpeg-quality:<percentage> 0 = Not accelerated, 100 = lossless, 1-99 jpeg quality

/true-lossless-type:2 /image-quality:100: set true lossless compression

/connection-bar:<yes|no|pinned> connection bar mode (full screen only)

/use-esg:<off|on> use ericom secure gateway

/esg-creds-mode:<separate|gw|rdp> - ericom secure gateway credentials mode

/g:<gateway>[:port] - Gateway Hostname

/gu:[<domain>]<user> or <user>[@<domain>] - Gateway username

/gp:<password> - Gateway password

/gd:<domain> - Gateway domain

/access-server:<server>[:port] - Access Server hostname

/use-scancodes:<on|off> Convert Unicode to Scancodes

/remote-show-window:<|+|_> - default: regular, '+': maximized, '_': minimized

/xtea-password:<password> - XTEA password encryption

/disable-reconnect:<off|on> - disable session reconnect

/session-name:<name> connection name

/null-cursor-shape:<default|blank|cross|arrow|bmp|png> null cursor shape

/reverse-mouse-wheel reverse mouse wheel

/kbd:0x<layout id> or <layout name> - Keyboard layout

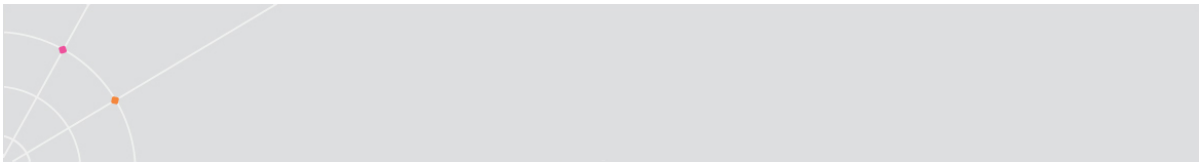
/kbd-subtype:<subtype id> - Keyboard subtype

/kbd-fn-key:<function key count> - Keyboard function key count

/workarea:Use available work area

/monitors:<*|0,1,2...> - Select monitors to use

/addins:<*|specific dll> - '*' = all addins



/audio:<play-on-client|play-on-server|off> - Audio output mode
/network:<none|modem|low-speed-broadband|satellite|high-speed-broadband|wan|lan> - Network connection type
/drive:<*|C|D..|dynamic|desktop|docs> - Redirect drives '*' = all, 'C' = C:\, dynamic = drives that I connect later
/clipboard:<off|on> - Redirect clipboard

/printer<*,1|2|3> - Redirect printer, 1 = native, 2 = universal, 3 = both

Example:

To redirect default printer with 'native': /printer:default,1

/uprinter-use-hp:<off|on> - Universal printing use HP driver

/uprinter-driver:<name> - Universal printing driver

Examples:

To redirect default printer with 'HP':

"/uprinter-driver:HP Universal Printing PS" "/uprinter-postscript-regex:\b((?i)ps|(?i)postscript)\b" /printer:default,2

To redirect ALL printers with 'HP':

"/uprinter-driver:HP Universal Printing PS" "/uprinter-postscript-regex:\b((?i)ps|(?i)postscript)\b" /printer:*,2

/fonts:<off|on> - Smooth fonts (ClearType)

/aero:<off|on> - Desktop composition

/window-drag:<off|on> - Full window drag

/menu-anims:<off|on> - Menu animations

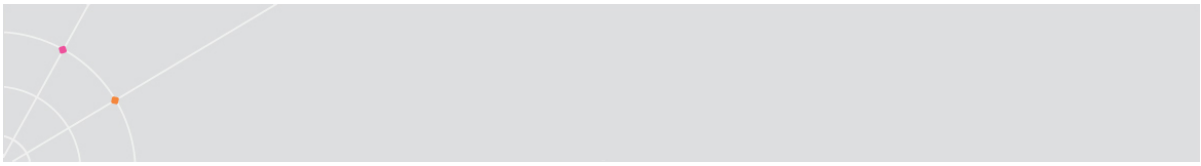
/wallpaper:<on|off> - Wallpaper

/cache-waiting-list:<on|off> Use cache waiting list

/fast-path:<on|off> fast-path input/output

/x:[int value] /y:[int value] for example: /x:0 /y:0 – this sets the upper left corner of the remote session window (when it's not full screen). Added in 8.5.

Technical Support Use only:



"/uprinter-postscript-regex:\b((?i)ps|(?i)postscript)\b" - will search ps or postscript file based on the configured regular expression

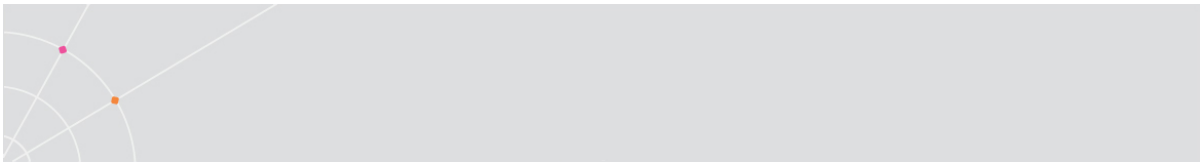
- \b – means match the following expression or word
- (?i) – means case insensitive
- | - Or expression

Proxy Mode Configuration

Starting in version 8.2, Blaze may be configured to connect through a web proxy. The proxy settings will be used for all launched connections.

Syntax: **blaze.exe -proxy-mode [proxy_mode] -proxy-server [proxy_server] -proxy-user [proxy_user] -proxy-password [proxy_password]**

- **proxy_mode** - (numeric value) 0 – proxy mode *Off*, 1 – proxy mode *Auto*, 2 - proxy mode *Manual*.
- **proxy_server** – (string value) the hostname or the IP address of the proxy server, followed by a colon and the port number (e.g. myproxy.com:3138)
- **proxy_user** – (string value, optional) the username to login to the proxy
- **proxy_password** – (string value, optional) the password corresponding to the specified username. This value is required if the username requires a password. AccessPad will not prompt for the password if the password field is empty, but the username requires one.



11. TECHNICAL SUPPORT

Release Notes

Starting in Version 9.0, release notes will be listed here in addition to the product download site. Release notes for versions prior to 9.0 can be found on the product download site.

V9.1

January 2019

- Maintenance version – bug fixes and internal optimization (28123, 28820, 27271)

V9.0

November 2018

- Windows 2019 support
- Windows 10 SAC 1809 support
- Blaze (Windows) client remembers last known window position
- Version alignment to 9.0
- ESG: TLS 1.0 disabled by default, can be enabled in the configuration if needed.

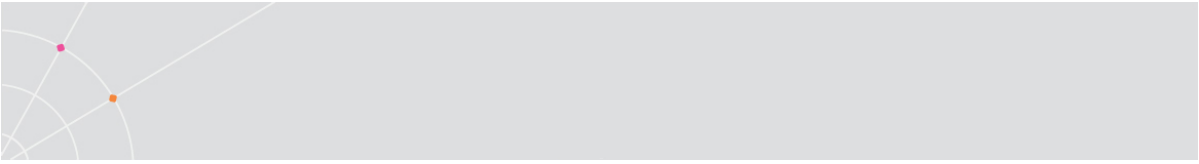
Heartbeat not compatible with pre-7.3

AccessServers prior to 7.3 are not compatible with the heartbeat feature added in version 8.1, and the heartbeat messages will cause the client to disconnect. Disable the heartbeat feature when using older AccessServers, this is set in the config.js:

- `session heartbeat seconds:i:0`

Blaze session is idle, but consuming bandwidth.

Disable any graphics or animation rich screensavers. Use a blank screen or a screensaver with text. Animating screensavers will consume large amounts of bandwidth with any protocol.



Does Blaze use upstream bandwidth?

Ericom Blaze uses upstream bandwidth as part of its communication. Some applications, such as file sharing programs, use heavy upstream bandwidth. Such applications should have their upstream bandwidth limited, or not be used at all, while there is an active Blaze session.

Changing the RDP port to a custom value

Use the Registry Editor (regedit.exe) and modify this setting:

```
HKEY_LOCAL_MACHINE\System\CurrentControlSet\Control\TerminalServer  
\WinStations\RDP-Tcp\PortNumber
```

Enter the desired port value. The Access Server will automatically recognize this setting.

Error: “Unable to connect to Ericom Access Server”

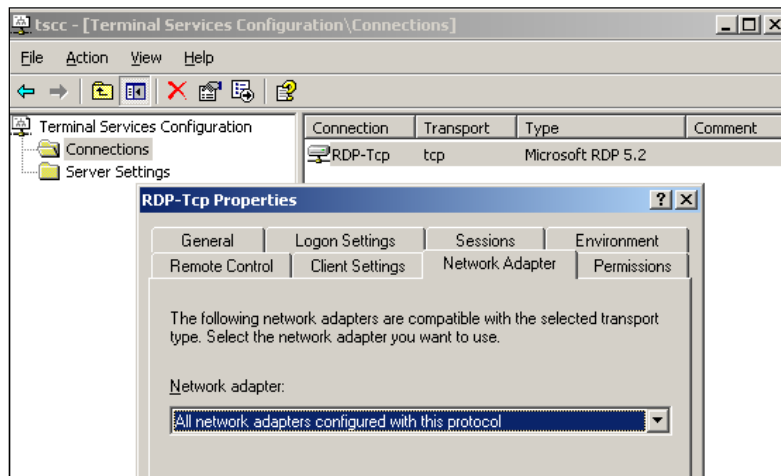
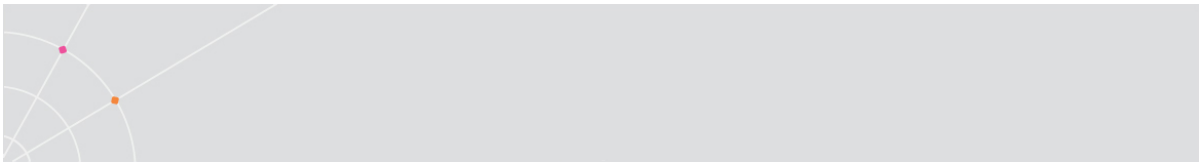
The Ericom Access Server is not running or is unreachable.

- Use ping to verify that the server (i.e., testserver) is reachable.
- Verify that the host/server firewall allows Ericom Blaze traffic (by default, 8080).
- Check the server’s Task Manager to ensure that AccessServer is running (since it is running as a service, you will need the configure Task Manager to show processes for all users).

After splash screen nothing happens

The Blaze Client is able to connect to the Access Server, but it is unable to connect to the RDP host (even though it may be running on it). It is possible that the RDP access to that host has been disabled or limited to certain network adaptors.

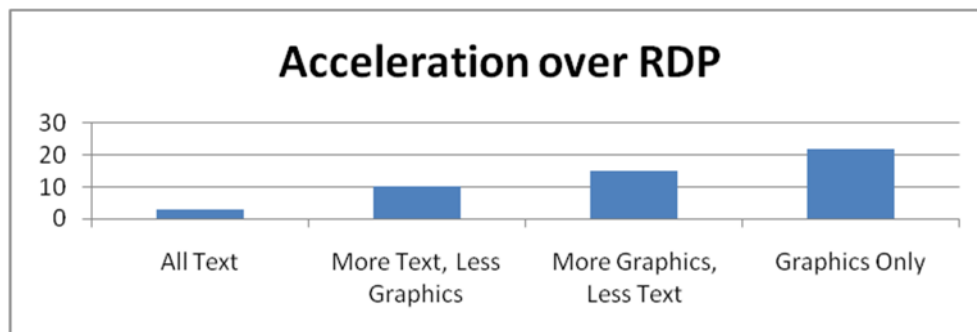
To verify if RDP access to a Terminal Server has been restricted to specific network adaptors, open Terminal Services Configuration from Administrative Tools. In the dialog that is displayed, double-click on RDP-Tcp and select the Network Adapter tab. Make sure that the Network adapter drop-down is set to “All network adapters configured with this protocol”:



How much acceleration can I expect to see with Blaze?

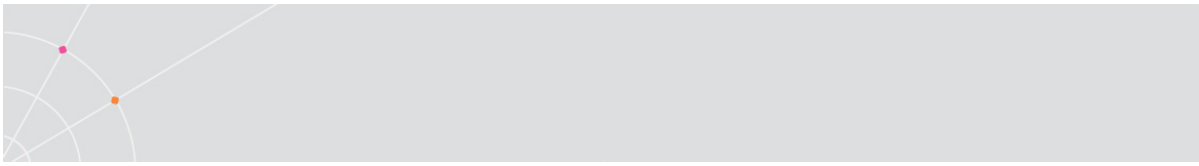
This will depend on your network type and display content. Blaze will accelerate the RDP session **up to** 20 times. You will see the most benefit when connecting over a restricted network (with high latency, low bandwidth or both), such as hotspot. If you are connecting over a LAN with no network restrictions, there may not be noticeable improvements.

If your session consists of mostly text (i.e., editing email) or monochromatic images (i.e., black and white images) the acceleration will also be reduced compared to a graphics rich application (i.e., Google Maps in Satellite mode).



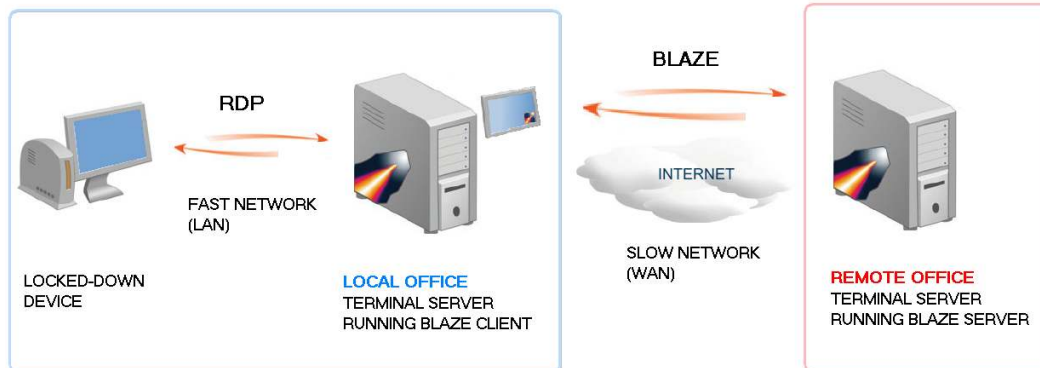
Usage with WYSE thinOS devices

The best way to provide Blaze access for WYSE thin OS devices is to use Access Server as a gateway. To implement this, do the following:



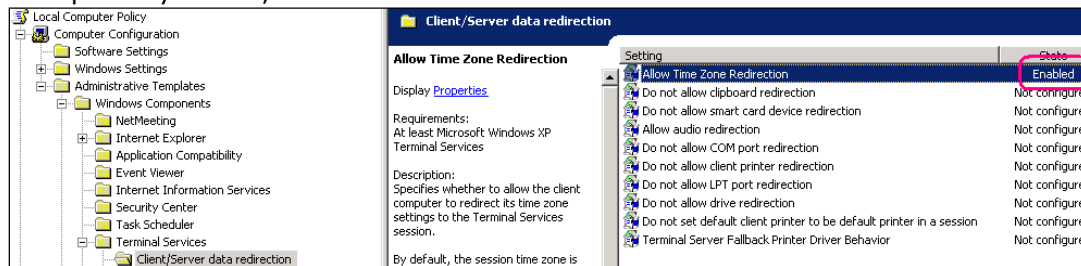
Setup a new (local) Terminal Server at the location where the WYSE terminals are running. Install Blaze on the local TS.

Connect to the local TS with the WYSE terminals (fast LAN connection) using RDP, then run Blaze Client to connect to the remote system (over the slow network connection).



Time-zone redirection not working

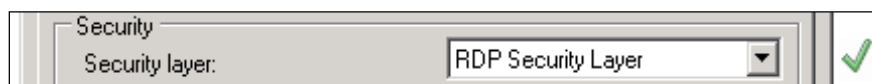
Enable time zone synchronization on the RDP host. This may be done via the Group Policy Editor, as seen below:

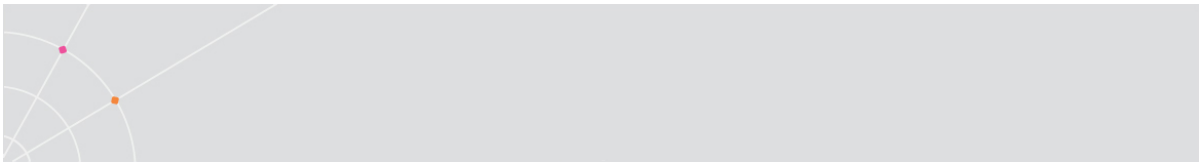


TermDD error in the *Event Viewer*:

Error: The RDP protocol component X.224 detected an error in the protocol stream and has disconnected the client.

Access Server requires access to native RDP to be enabled on the RDP host. For this reason, do not change the *RDP Security Layer* to *SSL*. Leave the setting on *RDP Security Layer* and using the built-in AccessNow SSL encryption or Secure Gateway, to add SSL encryption.

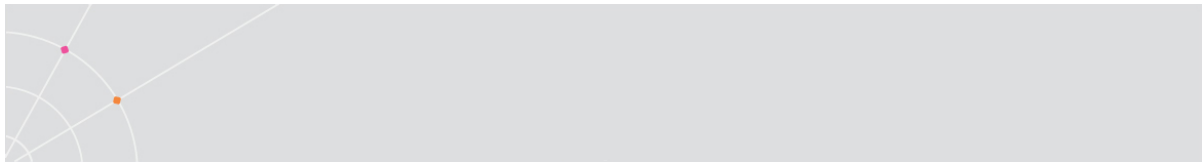




Requesting technical support

Email CA@ERICOM.COM and provide the following information:

- Version of Ericom Blaze
- What type of system/operating system are you connecting to (host)? (e.g., Windows 2012 server) 32 or 64 bit? Is RDP enabled?
- What type of system/operating system are you connecting from (client)? (e.g., Windows 8) 32 or 64 bit?
- Is port 8080 enabled on the host (is the firewall configured with an exception)?
- What error messages are being displayed?
- What type of applications are you using with Blaze? Graphical, text, or both?
- How many people/machines/hosts are having this problem (1, all, etc)?



About Ericom

Ericom® Software is a leading global provider of Application Access, Virtualization and RDP Acceleration Solutions. Since 1993, Ericom has been helping users access enterprise mission-critical applications running on a broad range of Microsoft Windows Terminal Servers, Virtual Desktops, legacy hosts and other systems. Ericom has offices in the United States, United Kingdom and EMEA. Ericom also has an extensive network of distributors and partners throughout North America, Europe, Asia and the Far East. Our expanding customer base is more than 30 thousand strong, with over ten million installations. For more information about Ericom and its products, please visit <http://www.ericom.com>

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