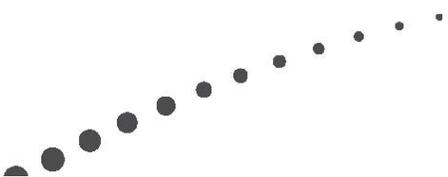




# Citrix Technical Support Brief Troubleshooting Guide





## Introduction

This Brief Troubleshooting Guide is intended as the first resource for Citrix administrators and Citrix engineers to troubleshoot technical issues for all Citrix technologies.

The Brief Troubleshooting Guide provides you with a single point of access to narrow down your technical issues and help you resolve as many issues as possible in an autonomous manner.

Citrix Technical Support™ expects you to perform these basic troubleshooting steps before you contact them and will request information from you based on that troubleshooting. If you have the information on hand, it proactively helps them to decrease resolution time for your issue.

Each product section includes a brief product description, supported languages, links to Citrix Knowledge Base articles, third-party articles, troubleshooting tools, and questions and information to gather to help you pinpoint your technical issues.

An electronic copy of this document is available from [CTX106727](#)

This Brief Troubleshooting Guide should be used when tackling any issue, especially when you are unfamiliar with a product, or a product type.

The Knowledge Center continues to be a very useful resource and is constantly being updated by Citrix Technical Support engineers worldwide - and you can find articles there created after this guide has been published.

If there is a Knowledge Base article that you would like to see placed in this guide, let Technical Support know. Any feedback you have on this Brief Troubleshooting Guide is also welcome.

Mail your feedback to [BTG@citrix.com](mailto:BTG@citrix.com)



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## 1. Citrix XenApp for Windows

Citrix XenApp™ is the de facto standard for delivering Windows® applications at the lowest cost – to any user, anywhere. It offers both application virtualization and application streaming delivery methods to enable the best access experience for any user, with any device, working over any network.

<http://www.citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

### 1.1 Languages Supported

English, French, Spanish, German

### 1.2 Administrator's Guides

Each version of XenApp and Presentation Server for Windows has its own Administrator's Guide. They can be found in the Product Documentation section of the Citrix Web site –

<http://support.citrix.com/docs/>

Most popular versions:

- [CTX115519](#) Citrix XenApp 5.0 for Windows Server 2008
- [CTX112223](#) Citrix Presentation Server 4.5
- [CTX106319](#) Citrix Presentation Server 4.0

### 1.3 Supported Versions

There are several releases of Presentation Server and XenApp supported by Citrix: Citrix Presentation Server 4.0, Citrix Presentation Server 4.5 (32-bit only, 64-bit is no longer supported), and Citrix XenApp 5.0 (both 32-bit and 64-bit). The troubleshooting information below applies to all of these releases, unless otherwise specified. On December 31, 2009 Presentation Server 4.0 reaches its End of Life. No further support is available for it after that time.

For further information regarding Citrix Product Lifecycle Support, see the Citrix Web site <http://www.citrix.com/site/SS/supportThird.asp?slID=5107&tlID=5110>

### 1.4 Troubleshooting Questions

#### Gather general information

- What are the details of your environment – size of server farm, data store type, version(s) of Presentation Server, or XenApp, operating system(s) of server(s), Service Packs, WAN/LAN architecture?
  - Obtain this information automatically by running the diagnostic tool from the Access Management Console (you can collect server farm information, Presentation Server computer information and event logs) – See [CTX104578](#) for more information.
  - To manually determine the version of Presentation Server that is running, see the article [CTX107570](#)
- Which type of clients are in use (If this is a client issue, refer to the [ICA® clients section](#))?
- What is the exact issue that you are having (what is happening – what should happen)?
- What are the exact steps to reproduce the issue?
- When did it start? What triggered the issue?



- Who is affected by the issue (administrators, users, or both)?
- Does the issue affect all servers or only some?
- Do you get an error (send a screen shot) or an event in the Event Log?
- Can you reproduce the issue at the server console in a loop back session? (Make a test ICA connection from the server back to the same server desktop.)
- Can you reproduce the issue when using RDP, or RDP initial application?
- What troubleshooting steps have you taken to resolve this issue?
- Have you tested with seamless and non-seamless connections?

## Troubleshooting Installation

- Where in the installation did the failure occur? Send a screen shot of the last panel seen before the failure occurs.
- Are there any errors recorded in the event viewer? If so, obtain these and send them.
- Does the problem occur with a local database (Access or MSDE or with Oracle/SQL? [CTX114501](#))
- If it is a third-party database, is it on a dedicated database server?
- Is the installation performed from a CD or a network share? Does it work if the CD is copied to the server?
- Are you trying to install on to a Domain Controller or server with different operating system language? If so, this is not supported.
- XenApp creates a Citrix Diagnostic Facility (CDF) trace by default during installation which is saved as a .etl file.
  - In XenApp 4.0 it is saved to: Documents and Settings\user\_account\Local Settings\Temp of the user account that is used during the installation.
  - In XenApp 5.0 it is saved to \users\user\_account\appdata\local. Send in the .etl file for examination. [CTX106529](#)
- Which account was used during the installation?
- Are you enabling IMA encryption during the installation? (Citrix Presentation Server 4.5 only)
  - What error do you receive?
  - Is it the first server of the farm or are you joining an existing farm?
  - Are you using a new key or an existing key?
- Send the installation log generated using msixexec.exe mps.msi /L\*v install.log
- During the installation are you joining a farm or creating a new farm? [CTX677542](#)
- Is the server built from an image (Ghost, Altiris, other)?
- Is the installation a standard installation or unattended installation? [CTX371045](#)
- Check the build number in the Readme file on the Presentation Server CD.
- NOTE: There are two different user accounts involved: the first is the user you are logged on as while you are performing the installation. The second is the user account you specify while connecting to the SQL db or Oracle db during the installation.

## Troubleshooting IMA service and Data Store

- What is the Data Store type? Is it on a dedicated server? [CTX105257](#)
- If using an SQL, Oracle, or Access Data Store where the server is not hosting the data store, is using chfarm to a test Access data store possible to confirm that the Data Store is not corrupt? (Refer to the chfarm section of Administrator's Guide.)



- Use Qfarm to identify which server is the Data Collector. [CTX111964](#)
- Does changing the Data Collector help? Farm Properties (Zone – Set Election Preference)
- Does the IMA service start? If not, what is the error message?
- Check the Event Viewer and send any errors to Citrix Technical Support.
- What is the currently loading plug-in? Check in:  
HKLM\SOFTWARE\Citrix\IMA\Runtime\CurrentlyLoadingPlugin?
- Check the troubleshooting IMA service article for possible causes – [CTX105292](#).
- For Presentation Server 4.x, enable tracing using the CDF and send the log file from the server during an attempted IMA service restart to Citrix Technical Support if requested: [CTX104578](#). See [CTX539756](#) to determine which modules to trace.
- Verify in the Administrator's Guide, that the MDAC is a supported version. [CTX809548](#) – How to Determine the MDAC (Microsoft Data Access Components) Version.
- Does IMA fail to start on all servers or on just one server? If it does start on other servers, are there any Event viewer errors stating that the server cannot reach the data store?
- Try recreating the Local Host Cache (LHC) on the server.

### Troubleshooting Load Manager

- Ensure that you have the Advanced or Enterprise Edition of Presentation Server (pre- 4.5 versions). Highlight the server to see the Edition.
- Run **qfarm /application** and send Citrix Technical Support the result, if requested.
- Are there many disconnected sessions (disconnected sessions do not use load balancing) – [CTX439031](#)?
- Are you using Custom Connections to connect directly to a specific server? These do not use the load balancing system.
- Is Load Manager showing correct information in the Presentation Server Console [CTX103441](#)? If incorrect, take a screen shot and send to Citrix Technical Support.
- Are you using throttled load balancing? (Presentation Server 4.x only)
- What is the *Impact of Logons on Load* set to? (Extreme, High, Medium-high, Medium, Medium-low)
- Does the issue persist when default load evaluators are used?

### Troubleshooting Connectivity Issues

- Check article [CTX106250](#) for Troubleshooting ICA Session Initialization steps.
- Is the same behavior seen with a local account from the server? With an administrator account? With a brand-new user account?
- Can you ping the server and telnet to the ICA port (1494 by default)? [CTX075552](#)
- Are there any routers, firewalls, or proxy servers used between the client and the server?
- Can you connect using RDP?
- Test a connection with both TCP/IP+HTTP and just TCP/IP? (Check PN > Application Set Settings > Network Protocol.)
- Can you make a direct ICA connection to the server? Using its NetBIOS name? IP address? Using Program Neighborhood®, Web Interface, or published application?
- Does a loopback connection work (ICA connection from the server console back to the same server)?
- Can you delete and create a new ICA listener from the Citrix Connection Configuration tool?



- Can you capture a network trace of a successful and unsuccessful connection?
- Can you connect if Session Reliability is disabled?  
Disable on the server at Management Console > Farm properties > Session reliability tab or ICA client Application set settings > Default options
- Use **netstat** to check that server is listening on connection ports:  
(1494 by default for ICA, or 2598 (by default) for Session Reliability)

## Troubleshooting Printing Issues

### General

- What kind of printer is it? Client autogenerated, Client network printer, or Session printer?
- What are the make and model and driver of the printer?
- Is the driver installed on the Presentation Server? (Check in Print Server Properties > Drivers tab or Citrix Management Console.)
- Is driver mapping or compatibility list used? (Check in Presentation Server Console > Printer Management > Drivers tab > Compatibility.)
- Is the printer issue only with a specific application? Test that application with RDP.
- Are printers created synchronously or after the application is displayed?  
Check application properties > client options.
- [CTX113554](#) CTX\_CPSVCUser Recreation tool for permissions related printing issues
- [CTX114079](#) Breakdown of the Print Driver Mapping Process
- [CTX111967](#) Common Microsoft Windows and Citrix Printing Terms Defined
- [CTX113261](#) Troubleshooting Printer Issues in Presentation Server 4.5
- [CTX106698](#) Unable to Print from Presentation Server with McAfee and ICA Client Version 9.0 or Later
- [CTX119690](#) Print Jobs Become Very Large when using the Citrix Universal Print Driver
- [CTX119691](#) How to Retain Printer Settings in ICA

### Citrix Presentation Server 4, XenApp 5

- Printing architecture is changed in version 4.0 and above; extra troubleshooting steps are required.  
Autocreation of printers is now manually controlled and must be configured through a policy in the Presentation Server Console.
- Check the policy filter. Check if there are any policies with higher priorities with similar settings.
- Test reverting to pre-4.0 printer functionality by enabling the Legacy Client Printers rule in the policy.
- While a user is logged on, check that the policy is actually enforced on the session of the server registry key HKLM > Software > Citrix > Sessionid
- [CTX107137](#) Troubleshooting Printing Problems In Presentation Server 4.0
- Test ICA client 10.2 or later to take advantage of version 4.0 printing changes
- [CTX106698](#) Unable to Print from Presentation Server 4.0 when Connecting using ICA 9.0 Client
- [CTX106623](#) Failure to Create Printer Monitors or Drivers When an Application is Installed into an Isolation Environment
- [CTX106629](#) Client Printers Fail to Autocreate in Presentation Server 4.0



- [CTX108170 Printing Enhancements Whitepaper](#)
- [CTX458114 Steps for Connecting Local Printers to Thin Client Devices](#)
- [CTX774641 Printer Driver Replication Failed for Certain Printers and Printer Drivers](#)
- [CTX104553 A4 Paper Size Setting and Citrix Printing](#)
- [CTX051476 Troubleshooting the Deletion of Autocreated Printers](#)
- [CTX111464 CTX\\_SMAUser Re-creation tool](#)

## Questions for Application Install and Integration Issues

- Is this application a multi-user application Ref TechNet (check with vendor)? Consider using AIE.
- Is AIE involved? Refer to Troubleshooting Application Isolation Environments [CTX111545](#)
- What is the name and version number of the application?
- If the application is custom written, what language was it written in? Is it a 16-bit, 32-bit or 64-bit application? Are there any other application details?
- Does the application run properly when you are logged on at the server console?
- Do you have the same issue when you make an ICA connection to a desktop?
- Do you experience the same problem using a seamless connection? A fixed sized window? Different color depths? [CTX101644](#)
- Is it working with an RDP client?
- Was the application installed using Add/Remove Programs? (change user /installation mode)
- [CTX101709](#) - How to Troubleshoot Application Integration Issues
- Can you install the application on a server without Terminal Services?
- For Presentation Server 4.x and XenApp 5.0, check if the application requires unique client IP addresses or loopback address (127.0.0.1) to function properly. See the Virtual IP section below.
- For Presentation Server 4.x, check if Memory Optimization is enabled at the farm or server level.
- Does the application work properly if the feature is disabled or the offending processes are excluded?
- For Presentation Server 4.x, check if CPU Utilization Management is enabled at the farm or server level.
- Does disabling the feature affect the application?

## Troubleshooting Performance Issues / Server Lock-ups

- What kind of server (IBM, Compaq, Dell, other) and how much CPU and RAM does it have?
- Does the Event Viewer show any entries just before the slow-down or trap occurs?
- Under what conditions is the server lock up seen?
- Does the slow down also occur when connected using RDP?
- Is the server blue screening? What is the STOP code?
- Troubleshooting blue screens – MS Article Q216206.
- Is a memory dump created? If not, can you create one?
- If the server freezes completely, can you generate a full dump (MS Article Q244139)?

- Can you see which process and thread (TID) is consuming CPU using **Qslice** (from Windows Resource Kit)?
- [CTX106110](#) How to get a spiking thread ID using Process Explorer when QSlice utility does not work
- Can you get a user dump of the process that is using high CPU (MS Article Q278689)? FTP it to the Citrix site. Contact Citrix Technical Support for FTP instructions.
- If a process crashes, a Dr. Watson dump is generated (see MS Articles Q308538, Q246084). FTP it to the Citrix site. Contact Citrix Technical Support for FTP instructions.
- [CTX105888](#) – Dr. Watson doesn't work as the default debugger
- If your server crash is caused by Citrix, then send or FTP the memory.dmp or user.dmp. FTP details are available from Citrix Technical Support

### Troubleshooting Virtual IP Issues

- To correctly configure the Virtual IP feature, you might need to work with your application vendor to determine the specific requirements of the application.
- To determine whether the application requires a Virtual IP address or Virtual Loopback address, consult the Administrator's Guide (p 240).
- Ensure that the IP Address range provided to the Presentation Server(s) is unique and is on the same subnet as the Presentation Server(s).
- Ensure that the Virtual IP address range is correctly assigned to appropriate servers using the Farm and Server properties.
- Check that the correct processes are configured for Virtual IP, Virtual Loopback, or both, within the Virtual IP Process section of the Farm Properties.
- Check that the correct IP address is being assigned to the process by using **TCPView**.
- If there is a red X beside the server name when configuring farm properties, ensure that Virtual IP is enabled at the server level – [CTX106063](#)

### Troubleshooting Application Isolation Environment Issues

- [CTX106868](#) Application Isolation Environments Explained
- [CTX106100](#) Application Isolation Environment Supported Applications
- Refer to Advanced Concepts Guide Troubleshooting Application Compatibility Issues section
- Ensure that AIE is enabled in the Management Console Farm Properties > Isolation Settings.
- Is the application installed into an AIE using **AIESETUP** or associated with an AIE?
- Check Management Console AIE Properties.
- Does the application install correctly using the **AIESETUP** command? What is the error message?
- Are there any sessions at installation time? Reboot the server and retry.
- Is it possible to create a new AIE in the Management Console and try again?
- Verify that the folders and registry keys were created after application installation.
- Check AIE properties for exact locations.
- Does the application launch successfully using the **AIERUN** command on the server console?
- Is it possible to publish the application?
- Can the application be correctly seen in the Management Console AIE properties after installation?



- Why exactly did the application need to be isolated?
- Can you provide a copy of the software to Citrix Technical Support for testing?
- You should involve the software developers; they might advise you to add rules to the AIE properties.
- [CTX106595](#) Unable to Start Different Versions of Acrobat Reader in an Isolation Environment from a Single User Session

### **Troubleshooting Citrix Application Streaming (Presentation Server 4.5, Citrix XenApp 5)**

- [CTX112526](#) Citrix Application Streaming Guide
- [CTX116618](#) Enabling Application Streaming
- Do you have Presentation Server 4.5, XenApp 5, Enterprise or Platinum Edition installed?
- Are you using Program Neighborhood Agent version 10.2 or higher?
- What version of the streaming client are you using?
- What version of the streaming profiler are you using?
- Are you using Web Interface version 4.5 or higher?
- Are you using Citrix License Server version 11.5 (required for [Hotfix Rollup Pack 06](#) for Presentation Server 4.0 and [Hotfix Rollup Pack 03](#) for XenApp 5)?
- How is the streamed application configured in the published application's properties and where is the application delivered?
  - Streaming to Server
  - Streaming to Client
- Are there any errors returned when streaming the application?
- Is the application configured for offline access?
- Do you have the RADE client installed on the client machines?
- Is Web Interface configured for Streaming or Dual Mode?
- Do you have any Streaming Policies enabled?
- Are the correct permissions configured on the file server hosting the application profile packages?
- Do you have Application Streaming licenses installed on the license server? (Note: these are different from the licenses for Presentation Server 4.5).
- Are all the licenses being used?
- Does the Web Interface receive a license from the License Server?
- [CTX112636](#) – Application Streaming Licensing Explained
- When does the error occur?
  - When starting the installation?
  - When running the installation?
  - When saving the profile?
- Is the same issue experienced on a different profiling station?



## Migrating and Upgrading Presentation Server from Previous Versions

Citrix recommends using the latest release of Presentation Server, and having all servers on the same product and service pack. For further information regarding Citrix Product Lifecycle Support, see the Citrix Web site:

<http://www.citrix.com/site/SS/supportThird.asp?slID=5107&tlID=5110>

When migrating your server, you should consult the guide (below) corresponding to the version you wish to migrate your system to.

[CTX112223](#) - Citrix Presentation Server 4.5 Administrator's Guide – Page 77-84

[CTX117913](#) - Technical Guide for upgrading to XenApp 5

[CTX114618](#) - Technical Guide for upgrading to Presentation Server 4.5 FR1

[CTX106832](#) - Migrating to Citrix Presentation Server 4.0

### 1.5. Related Knowledge Base Articles

- [CTX107572](#) Troubleshooting Tools for Your Citrix Environment
- [CTX101892](#) Application Troubleshooting in a MetaFrame Environment
- [CTX564283](#) How to Troubleshoot 1003 and 1004 Terminal Server Licensing Errors
- [CTX159159](#) Troubleshooting and Explaining Session Sharing
- [CTX424827](#) Troubleshooting and Installing the Citrix Web Console
- [CTX051476](#) Troubleshooting the Deletion of Autocreated Printers
- [CTX089874](#) Troubleshooting and Explaining the Citrix Universal Print Driver, UPD
- [CTX104216](#) Troubleshooting and Optimizing Digital Dictation
- [CTX086028](#) Troubleshooting Client Clipboard Issues
- [CTX103126](#) Troubleshooting Server to Client Content Redirection
- [CTX238200](#) Troubleshooting Various Client Drive Mapping Issues
- [CTX107433](#) The Logon Process Hangs At "Running logon scripts..."
- [CTX101705](#) Troubleshooting Slow Logons
- [CTX104891](#) Troubleshooting Slow Logoff
- [CTX106021](#) FAQ: The CPU Utilization Management Feature
- [CTX106023](#) Virtual Memory Optimization Feature
- [CTX956895](#) Error: Could Not Write Application Data to the Citrix Server Farm.
- [CTX107323](#) Unable to Delete Objects from the Citrix Management Console
- [CTX106951](#) Session Stays in Active State after User Logs Off
- [CTX102750](#) Seamless Applications Launch in a Fixed Window
- [CTX106920](#) Error: You do not have access to logon to this Session...
- [CTX107411](#) Troubleshooting TWAIN with Citrix Presentation Server 4.0
- [CTX106610](#) Error: An unknown error occurred while communicating with server <servername>
- [CTX228511](#) Explaining Printer Properties for Network Printers
- [CTX106058](#) Known issues with Windows 2003 Service Pack 1
- [CTX106393](#) How to Recreate the Ctx\_SmaUser Account



## 1.6. Other Relevant Information

- [CTX107059](#) Advanced Concepts Guide for Citrix Presentation Server 4.0



## 2. Installation Manager for XenApp Server

Installation Manager for Citrix® XenApp Server is a feature of Citrix XenApp Servers, Enterprise and Platinum Editions, that allows you to rapidly deploy software to servers from a central location.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

### 2.1 Languages Supported

English, Spanish, French, German

### 2.2 Administrator's Guides

[CTX118309](#) Installation Manager Administrator's Guide for XenApp 5.0 for Windows Server 2008

[CTX112379](#) Installation Manager for Citrix Presentation Server 4.5

[CTX106469](#) Installation Manager for Citrix Presentation Server 4.0

### 2.3 General Troubleshooting Steps:

- Does the application's .exe function as a *wrapper* and subsequently spawn msixexec to install the wrapped MSI components? MSI components are not *recorded*.
- Packaging cannot complete if a restart takes place during the recording. Choose to restart later if an installation prompts you to restart.
- The Citrix packager does not acknowledge component file names that contain special characters.
- If a folder with the hidden attribute is included in the package, the hidden attribute is not retained when the package is deployed to servers. The hidden attribute must be manually set on the folder after the package is deployed.
- Does an application such as WinZip package and deploy? Compare another application to see if it is an application specific problem.
- Does a standard MSI package deploy? If WinZip failed but a MSI was successful, the problem can be isolated to the packager.

### 2.4. Related Knowledge Base Articles

- [CTX115255](#) Case Study: MSI Packages Fail to Install on Presentation Server 4.5 with Hotfix rollup Pack 1 when using transform files with Installation Manager
- [CTX118308](#) Installation Manager for XenApp™ 5.0 for windows Server 2008 Readme.
- [CTX113786](#) Installation Manager Error: Failed to add package.
- [CTX103634](#) Can an Installation Manager Package SharePoint be a Novell File Share?



### 3. Network Manager for Citrix Presentation Server

Network Manager for Citrix® Presentation Server is the component included with the Enterprise Edition that provides systems management capabilities through third-party SNMP management consoles.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

#### 3.1 Languages Supported

English, Spanish, French, German

#### 3.2 Administrator's Guides

[CTX112378](#) Network Manager for Citrix Presentation Server 4.5

[CTX106453](#) Network Manager for Citrix Presentation Server 4.0

#### 3.3 Troubleshooting Questions

##### General

What SNMP managed console is being used? Network Manager is an optional component of Citrix Presentation Server, Enterprise edition. Network Manager supports the following SNMP management consoles:

- Tivoli® NetView® 7.1 for Windows 2000 with Service Pack 1
- HP OpenView™ Network Node Manager 7.0 for Windows 2000 with Service Pack 1
- CA Unicenter® TNG 2.4.2 for Windows 2000 with Service Pack 1, using either the 2D or 3D WorldView
- CA Unicenter TND 3.1 for Windows 2000 with Service Pack 1, using either the 2D or 3D WorldView
- For CA Unicenter, the Agent Common Services and Windows NT Enterprise Manager must be installed, and the Security Management (secadmin) and trap daemon (catrapd) agents must be active. You can install the Distributed State Machine, Enterprise Manager, and WorldView on separate computers.
- Are UPD Ports 161 and 162 open?
- Is the SNMP Service Running? [CTX701562](#) – Trap Dialogs do not pop up on the Network Manager Unicenter Plug-in

##### XenApp 5 Users:

Network Manager is no longer available to manage vendor-specific snap-ins for SNMP Network monitoring; the snap-ins for third-party products and instructions for their use are now provided by the product vendors. You can continue to enable the SNMP Agent on supported platforms and use the Access Management Console to enable or Disable traps to be reported.

#### 3.4. Related Knowledge Base Articles

- [CTX826119](#) Trap Dialogs do not pop up on the Network Manager Unicenter Plug-in



## 4. Presentation Server Management Pack for MOM

The Presentation Server Management Pack for Microsoft Operations Manager (MOM) is for system administrators who want to monitor the health and availability of their Citrix Presentation Server, Enterprise Edition servers and server farms.

MOM is a management solution for Microsoft® Windows server deployments. MOM collects, filters, analyzes, responds, and reports on information about computers – all from a single view on a desktop console. System administrators can use MOM for performance monitoring, event management, alerting and reporting, and trend analysis.

For more information about MOM, see Microsoft's Web site:

<http://technet.microsoft.com/en-us/library/cc180522.aspx>

<http://technet.microsoft.com/en-us/library/cc750896.aspx>

<https://www.citrix.com/English/SS/downloads/details.asp?dID=8218&downloadID=8219&pID=198>

### 4.1 Languages Supported

- English

### 4.2 Administrator's Guide

- [CTX106454](#) - Management Pack (Citrix Presentation Server 4.0)
- [CTX116422](#) - Management Pack for MOM 2005 Administrator's Guide for XenApp, 5.0 Windows Server 2008
- [CTX107994](#) - Management Pack Administrator's Guide (MOM 2005) (Citrix Presentation Server 4.0, Citrix XenApp 4.5)
- [CTX112422](#) - Management Pack Administrator's Guide (MOM 2000) (Citrix XenApp 4.5)

### 4.3 Troubleshooting Questions

#### Installation

The management pack can be downloaded from [www.citrix.com](http://www.citrix.com) Downloads area:

<http://www.citrix.com/English/SS/downloads/details.asp?dID=8218&downloadID=8219&pID=198>

#### General

- [CTX105241](#) – MetaFrame Management Pack Support for MOM
- Check **eventvwr.msc** for any errors
- Ensure that the Citrix WMI service is running using **services.msc**.
- Does restarting the service resolve the issue?
- What is the error message received in the MOM console?
- Is the error appearing on all servers?

#### 4.4. Related Knowledge Base Articles

- [CTX107065](#) Configuring Disconnection Rate Rules in the Citrix Management Pack for MOM 2005
- [CTX107064](#) Configuring Idle Session Rules in the Citrix Management Pack for MOM 2005
- [CTX104881](#) DCOM 10100 – Citrix WMI Provider Cannot Register as a Service
- [CTX107692](#) MOM Agent Fails to Start on Computers Running MetaFrame Presentation Server
- [CTX116423](#) Provider for Microsoft WMI Administrator's Guide, for XenApp 5.0 for Windows 2008
- [CTX107066](#) Configuring Zone Election Rate Rules in Citrix Management Pack for MOM 2005



## 5. Citrix Presentation Server for UNIX

Citrix Presentation Server™ for UNIX® is the easiest way to access UNIX applications securely and remotely from any device. With Citrix Presentation Server for UNIX, remote, mobile, and local users in heterogeneous environments can access UNIX and Java™ applications from any device, over any connection, and no longer need multiple desktops or software emulation packages.

Citrix Presentation Server for UNIX supports Sun Microsystems' Solaris 8, 9, and 10; Hewlett-Packard's HP-UX 11 and 11i; and IBM's AIX 5.1, 5.2, and 5.3, and now includes new features to extend performance, usability and security.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

### 5.1 Languages Supported

English, Spanish, French, German

### 5.2 Administrator's Guide

[CTX106447](#) Citrix Presentation Server for UNIX

### 5.3 Troubleshooting Questions

- What are the details of your environment – size of server farm, version(s) of Presentation Server, Operating System(s) of server(s), Service Packs, WAN/LAN architecture?
- The version of Presentation Server, including patches, can be obtained with the following commands:
  - Solaris **pkginfo -l CTXSmf showrev -p** command
  - AIX **smit**
  - HP-UX **swlist**
- Which type of clients are in use (If this is a client issue refer to the ICA clients section)?
- What is the exact issue (what is happening – what should happen)?
- What are the exact steps to reproduce the issue?
- When did it start? What triggered the issue?
- Who is affected by issue (administrators, users, or both)?
- Does the issue affect all servers or only some?
- Are there any messages in the syslog? These errors are usually written to the file `/var/adm/messages`.
- Can the issue be reproduced at the server console in a loop back session?
- What troubleshooting steps have you taken to resolve this issue?
- Have you tested with seamless and non-seamless connections?
- What are the details of the session which is running, including the version of thinwire? The X-server stores the version of thinwire running in a property on the root window. It can be found by typing this command **xprop -root | grep TWVERSION**.
- Establishing the actual color depth of the session is best done using the **xdpyinfo X** command.



- In case the session disappears immediately, has it been disconnected, or logged off? (After the error occurs, does `ctxqsession` still show a disconnected session, or is the list empty)? Send the output of `ctxcfg`.
- Presentation Server for Unix 4.0 introduced two new daemons, the Management Service Daemon and the license service daemon (`ctxlsd`).
- If you have license errors, check your license server configuration using the `ctxlsdcfg` utility.
- The farm concept is introduced with Presentation Server for Unix 4.0. See the administration guide for further details.

## 5.4 Debugging techniques

Below are some general debugging techniques. Note that wherever you see the path `/opt/CTXSmf`, on the AIX platform it is `/usr/lpp/CTXSmf`.

- Debug `ctxsession.sh`
  - In `/opt/CTXSmf/lib/ctxsession.sh`, there are some debugging hints if the session is failing before it appears on the screen. You can uncomment some lines in there to write output to a log file. Look for the lines which start with: `# exec 1>> /tmp/ctxsession.log 2>&1` and `# set -x` and uncomment those lines.
- Debug `ctxXtw.sh`
  - In `/opt/CTXSmf/lib/ctxXtw.sh`, you can set up debugging by uncommenting lines in a similar way as described for debugging `ctxsession.sh`. This can be a useful way of detecting, for example, that someone has passed an unrecognized argument to the X server. When the X server sees this, it exits with an error message which the user never sees, he only knows he does not get a session. It has happened.
- `pstack` and related utilities (Solaris only)
  - These utilities are available only on Solaris. To use these utilities you must be the root user. These three utilities are useful to debug Citrix processes that seems to be in a hung state or consuming a lot of resources.
  - `pstack` allows you to take a stack trace of a running process. Recent versions also allow you to dump a stack back trace of all threads even from a core file.
  - `pfiles` lists all the opened files in a process.
  - `pflags` lists the state of each lwp in the process.
- `xwd/xwud`
  - This pair of utilities is useful for determining if display corruption is caused by a thinwire bug. If there is a thinwire bug, the contents of the framebuffer does not match what appears on the screen. Running `xwd -root | xwud` displays the contents of the framebuffer on the screen. Thus allowing the two to be compared.

## Truss

Truss is a utility which traces the system calls in a running process, and can be very useful for finding problems. It is available on AIX 5.1 onwards systems, but was not available for AIX 4.3.3 where you have to use the `trace` system utility.

There is a public domain version for the HP-UX platform which can be downloaded from the HP Web site.

## Generating cores from MPSU processes

To get a core of a running process without using `kill` to make it crash you can use the `gcore` utility.



## Tracing the X protocol

In some cases, it is useful to analyze the X protocol. A utility to do this is **xmon**. See [CTX104541](#).

### 5.5. Related Knowledge Base Articles

- [CTX106468](#) Seamless Issues Found with MainWin-based Applications
- [CTX103576](#) Troubleshooting UNIX / Linux Keyboard and Language issues in ICA sessions
- [CTX105825](#) Troubleshooting MetaFrame Presentation Server for Unix Licensing
- [CTX103591](#) Diagnosing UNIX Server and Client Processes
- [CTX103303](#) Troubleshooting OpenGL Issues on MetaFrame for UNIX 1.2
- [CTX319752](#) How to Publish an Application on a UNIX Server of Different Architecture, or Using MetaFrame as a Proxy to Other UNIX Servers
- [CTX676453](#) Citrix MetaFrame 1.x for UNIX Look-and-feel Toolkit
- [CTX861701](#) Workaround using PostScript files with GhostScript
- [CTX803423](#) Font Displaying Incorrectly within an ICA Session



## 6. Conferencing Manager for Citrix XenApp Server

Conferencing Manager for Citrix® XenApp Server adds intuitive application conferencing that eliminates the geographical distance between team members, increases the productivity of meetings, and allows easy collaboration. Teams can share application sessions, work together on document editing, and conduct online training regardless of the location of individual team members or the access devices or network connections they are using.

<http://www.Citrix.com/site/PS/products/product.asp?familyID=19&productID=186>

### 6.1 Languages Supported

English

### 6.2 Administrator's Guides

[CTX112386](#) Citrix Conferencing Manager Administrator's Guide 4.5

[CTX107432](#) Citrix MetaFrame Conferencing Manager 4.0

### 6.3 Troubleshooting Questions

#### Installation

- What is the error message you are receiving? Can you send a screen shot?
- Which components have you installed?
- Have you installed all of the features of MetaFrame Conferencing Manager – See Chapter 2 of the respective Administrator's Guide
- Does the server meet the necessary requirements? See 'System Requirements' section in Chapter 3 of the respective Administrator's Guide.
- Are you upgrading from an earlier version of MetaFrame Conferencing Manager? See 'Planning Your Deployment' section in Chapter 3 of the respective Administrator's Guide.
- Are you upgrading the Outlook Add-In?  
See 'Configuring an E-mail Client' section of Chapter 4 of the respective Administrator's Guide
- Make sure the Guest Attendee Web Interface component is installed on a Web Interface 4.0 server. See 'Giving Attendees Access to (MetaFrame) Conferencing Manager' of the respective Administrator's Guide

#### Configuration

- For information on configuring an e-mail client, see 'Configuring an Email Client' section of Chapter 4 of the Respective Administrator's Guide
- Integrating Conferencing Manager with Microsoft Exchange Server and Outlook – See Chapter 5 of the respective Administrator's Guide
- Integrating Conferencing Manager with Lotus Domino and Lotus Notes – See Chapter 6 of the respective Administrator's Guide
- Problems configuring {MetaFrame} Conferencing Manager – See Chapter 4 of the respective Administrator's Guide



- Secure Gateway Integration  
Did you install and configure Secure Gateway? For information, consult the Secure Gateway Administrator's Guide (see below).

#### 6.4. Related Knowledge Base Articles

- [CTX106757](#) Error occurred while trying to add accounts. Error code: Name translation: could not find the name or insufficient right to see name while trying to add Guest Attendee Accounts
- [CTX106954](#) Error: The supplied credentials were invalid. Try again or contact your system administrator
- [CTX107171](#) Attendees and Guest Attendees Cannot Join Conferences Using Conferencing Manager When Windows 2003 Service Pack 1 Is Applied
- [CTX106319](#) MetaFrame Presentation Server 4.0 Administrator's Guide
- [CTX112429](#) Secure Gateway for Windows Administrator's Guide
- [CTX113743](#) Web Interface Administrator's Guide 4.6
- [CTX106472](#) Web Interface Administrator's Guide 4.0



## 7. Citrix XenApp Fundamentals (formerly Access Essentials)

Citrix XenApp Fundamentals brings secure remote access and simple, centralized management of applications within easy reach of organizations with up to 75 users.

<http://www.citrixaccessessentials.com>

### 7.1 Languages Supported

English, French, Spanish, German

### 7.2 Administrator's Guides

[CTX118414](#) - Citrix Access Essentials 3.0

[CTX113112](#) - Citrix Access Essentials 2.0

Note: If you are running versions 1.0 or 1.5, these products are no longer supported. To receive support, you must upgrade to a newer version of Citrix Access Essentials.

### 7.3 Troubleshooting Questions

#### Installation

- What error message are you receiving?
- Is the installation log file available?
- An installation log file is generated during installation:  
C:\Documents and Settings\%User%\Local Settings\Temp\
  - Citrix Access Essentials Install Log.txt
  - This log file is deleted after a successful installation
- Are you installing Access Essentials in a Workgroup or Domain?
- Did you recently upgrade to Access Essentials 2.0 and the Quick start Tool is not opening?
- See [CTX116200](#) because there could be issues with the DNS.
- Advanced Mode is only available in an Microsoft Active Directory environment
- Are you installing Access Essentials on a Domain controller?
- Installation on a Domain controller only supports Basic Mode
- Access Essentials 2.0 installed on a Domain controller cannot join a Server Group (Advanced Mode)

#### General - QuickStart Utility

- What error message are you receiving?
- Is the Citrix Access Essentials service running?  
See [CTX113326](#) to enable logging for the Citrix Access Essentials Service
- Can you enable the QuickStart utility logging?  
See [CTX113328](#) to enable logging
- Citrix Access Essentials is based on Citrix Presentation Server 4.5, Web Interface 4.5 and Secure Gateway 3.0. For this reason, many of the same troubleshooting steps and Knowledge Base articles apply, and the earlier sections in this document should be consulted.



## Upgrading to 3.0

If you would like to upgrade to Citrix Access Essentials 3.0, see article [CTX119175](#) for the upgrade process.

### Licensing

- What error message are you receiving when users try to connect?
- Are the licenses showing up in the QuickStart Utility under licenses?  
If not See [CTX109108](#) to make sure the licenses have been allocated to the proper hostname.

### 7.4. Related Knowledge Base Articles

- [CTX113192](#) Citrix Access Essentials 2.0 Reviewer's Guide
- [CTX118463](#) Citrix Access Essentials 3.0 Reviewer's Guide
- [CTX113326](#) How to Troubleshoot the Quick Start Utility in Citrix Access Essentials 2.0
- [CTX113328](#) How to Enable Logging for the Citrix Access Essentials Service
- [CTX107097](#) Citrix Access Essentials - Unsupported Features
- [CTX107170](#) Error: Installation of Citrix Access Essentials has failed
- [CTX108124](#) How to Limit Printer Access in Citrix Access Essentials
- [CTX116200](#) Quick Start Fails to Run After Installing Access Essentials 2.0
- [CTX108122](#) Citrix Access Essentials Server Requirements and Recommendations
- [CTX119175](#) Citrix Access Essentials 3.0 for Windows Server 2008 Upgrade Process



## 8. XenApp Plugin for Hosted Apps

Citrix® ICA® clients are the components of Citrix Presentation Server that users run on their computers to access resources published on servers running Citrix Presentation Server. The Clients combine ease of deployment and use, and offer quick, secure access to applications, content and entire server desktops.

<http://www.Citrix.com/site/SS/downloads/downloads.asp?dID=2755>

### 8.1 Languages Supported

Depends on the client version and client type, but in general English, French, Spanish, German, Simplified Chinese, Traditional Chinese, Japanese and Russian are supported.

### 8.2 Administrator's Guides

Each ICA client has its own administrator's guide. They can be found in the downloads section of the Citrix Web site.

<http://www.Citrix.com/site/SS/downloads/downloads.asp?dID=2755>

#### Most common clients

[CTX116424](#) XenApp Plugin for Hosted Apps for Windows - Version 11.x

[CTX112190](#) Client for Windows Version 10.x

[CTX106470](#) Client for Java Guide Version 9.x

### 8.3 Troubleshooting Questions

#### For every problem

- Which version and build of the client are you using?
- Is it the same problem with the latest version (if not already in use)?
- Did it work at least once? Did you change anything since then?

#### Installation

- What is the error message (send a screen shot)?
- How are you trying to install the client (client database, MSI, silent installation, other)?
- Is the same problem seen when a user with administrator's rights is tested?

#### Connectivity

- Do you see the logon box or the background screen of the server, or does the connection fail before this?
- Any errors on the event viewer of the server (send the event viewer files)?
- Is it happening for all applications? All servers? All users? At all times?
- Through which protocol does the client connect: TCP/IP, TCP/IP + HTTP, SSL/TLS + HTTPS?
- Is the problem persistent if the connection is made using TCP/IP + HTTP?



- Which settings are applied for Session Reliability, Data Compression and Speed Screen Latency reduction?
- Is the problem persistent if these features are deactivated?
- How do users authenticate against the farm: Primary Windows Credentials, Pass-through or Pass-through with Smartcard?
- Is it the same issue with non-seamless connections? And for seamless connections?
- Are you connecting through Web Interface, MSAM or Advanced Access Control? If so, try connecting directly to the farm using a Custom ICA connection. Refer to the administrator's guide of the ICA client in use to know how to create an ICA connection.
- Is the problem persistent if you disable the mappings (drives, printers)? You can disable mappings within the Citrix Connection Configuration > Client Settings section.
- If connecting with Web Client, what is the browser version?
- If connecting with the Java client, what is the Java Virtual Machine (JVM) version?
- Do you have the same problem if connecting with the RDP client?
- Are there any proxy servers or firewalls between the client and the server?
- Is the browser configured to allow ActiveX script?
- Can you telnet to the Presentation Server using port 1494?
- Did you manually change any settings in the client configuration files?

#### 8.4. Related Knowledge Base Articles

##### Win32 Client

- [CTX859359](#) How the Win32 ICA Client determines the value for Clientname
- [CTX089874](#) Troubleshooting and Explaining the Citrix Universal Print Driver
- [CTX105353](#) Universal Print Driver output is faded and illegible
- [CTX114287](#) How to enable Preview on a Client as the Default for Citrix Universal Autocreated Client Printers
- [CTX102919](#) Wfica32.exe program error may occur when printing from the ICA Version 7.100 Client using Universal Print Driver PCL:4
- [CTX108782](#) Error: Cannot connect to the Citrix MetaFrame server. Protocol Driver error.
- [CTX105567](#) Error: Unable to enumerate your disconnected or active session, the remote server might be down, or the reconnect.asp cannot be found
- [CTX105226](#) Cannot open the Citrix ICA Client. [Error 1000: (no error text available)]
- [CTX368624](#) Troubleshooting Citrix Pass-through Authentication (Single Sign-On)
- [CTX105958](#) Error: A previous version of one of the Citrix ICA Client utilities is already running. Close the Citrix ICA Client, Remote Application Manager, and Connection Center before launching an application
- [CTX443787](#) Troubleshooting ICA Client Audio Issues
- [CTX140219](#) How to enable or disable Hotkeys within a ICA file (including Template.ica)
- [CTX336368](#) What are the .SRC Files in the ICA client directory and on the installation disks?

##### Web Client

- [CTX075552](#) Troubleshooting ICA 32-bit and Web Client Connectivity Issues
- [CTX568194](#) ICA Client File Security: WEB Client drive access and the Webica.ini File explained



## Java Client

- [CTX101666](#) Prompting the acceptance of a Digital Certificate when downloading the Java Client
- [CTX101620](#) Changing keyboard layout and type in Java Client
- [CTX101845](#) TS CAL Issue with the ICA Client for Java
- [CTX103079](#) Configuring the Java client to work with private certificates with MetaFrame

## Secure Access Manager

- [CTX106728](#) Client for Java 9.0 hangs while connecting
- [CTX105291](#) Java Client sessions disconnect when there is no mouse activity
- [CTX106749](#) How to use private certificates with the Client for Java 9.0
- [CTX105617](#) Error: Root certificate not found

## 8.5. Other Relevant Information

- [CTX112190](#) Client for 32-bit Windows Administrator's Guide – Version 10.x
- [CTX103289](#) The evolution of the ICA Win32 clients
- [CTX107102](#) Program Neighborhood Client for 32-Bit Windows Configuration Guide (INI File Reference)



## 9. Citrix Offline App Plug-in

Application streaming simplifies application delivery to users by virtualizing applications on client devices. Administrators can install and configure an application centrally and deliver it to any desktop on demand.

The streaming feature of Citrix XenApp augments application delivery not only to user desktops, but also to servers in your server farms.

<http://support.citrix.com/article/ctx116414>

### 9.1 Languages Supported

Application Streaming is a feature of Citrix XenApp and therefore supports the same languages. English, French, Spanish, German.

### 9.2 Administrator's Guides

[CTX116414](#) Citrix Application Streaming Guide for XenApp 5.0

[CTX118181](#) Application Streaming FAQs for Administrators

### 9.3 Troubleshooting Questions

#### Application Isolation Environment

- Ensure that AIE is enabled in the Management Console Farm Properties > Isolation Settings.
- Is the application installed into an AIE using **AIESETUP** or associated with an AIE?
- Was the application installed into an AIE using Installation Manager? If so, does using the AIE setup command work?
- Does the application install correctly using the **AIESETUP** command? What is the error message?
- Are you running the **AIESETUP** command in an RDP or ICA session? This is not recommended. Try running it directly from the server console.
- Check Management Console AIE Properties:
  - Do the default rules show up in the properties of the AIE?
  - Properties of the AIE > Rules
- Have you tried adjusting the default AIE rules? To narrow down if it is a File, Registry, or Named Object issue, try one of the following, one at a time:
  - Action > Ignore, Object > Files > All files
  - Action > Ignore, Object > Registry entries > All registry entries
  - Action > Ignore, Object > Named Objects > All named objects
- If it is a Registry issue, try running **RegMon for Windows** from Microsoft to see what registry entries need to be isolated.
- If it's a File system issue try running **FileMon for Windows** from Microsoft to see what files need to be isolated.
- If it's a named object issue try running **Process Explorer** from Microsoft to see what named objects need to be isolated.



- Does the application work outside the isolation environment as a published application?
- Are there any user sessions on the server at installation time? Reboot the server and retry.
- Is it possible to create a new AIE in the Management Console and try again?
- Verify that the folders and registry keys were created after application installation.
- Registry keys for the application should be created under HKLM\Software\Citrix\AIE
- Folders and files for the application should be created under %SystemRoot%\Program Files\Citrix\AIE
- Does the application require any files to be executed from the users Profile? If it does, switch the Security of the AIE to Relaxed security: properties of the AIE > Security > Relaxed Security
- Does the application launch successfully using the AIERUN command on the server console?
- Can the application be correctly seen in the Management Console AIE properties after installation?
- Why exactly did the application need to be isolated?
- Can you provide a copy of the software to Citrix Technical Support for testing?
- Did you try testing the latest ica client if it's a problem launching the application from the isolation environment?
- Did you try applying the latest Server side Hotfix or Rollup Package?
- You should involve the software developers; they might advise you to add rules to the AIE properties.

## Application Streaming

- Are you using the latest Profiler?
- Are you using the latest Streaming Client?
- Are you using Web Interface version 4.5 or higher?
- Are you using Citrix License Server version 4.5 or higher?
- If you are using Presentation Server 4.5 Enterprise Edition do you have Rollup pack 1 or higher installed? Rollup pack 1 enables Enterprise licensing to stream to both the server and client desktop.
- How is the application published? Streaming to Server or streaming to Client
- Is the location of the profile correct in the properties of the published application?
- If you have issues streaming it to the server can you stream it to the client? And vice versa.
- If streaming to client did you check for any clues in the .RAD file?
- If using Web Interface the file is located in Documents and Settings\%UserName%\Local Settings\Temporary Internet Files\IEVersionContent
- If using Program Neighborhood Agent the file is located in Documents and Settings\%UserName%\Application Data\Citrix\PNAgent\ResourceCache
- If streaming to client is the RADERUN.EXE process running?
- Can the application can be executed in the Run Application screen in the Profiler wizard? Is the Citrix Streaming Service running and is it using the account called **Ctx\_StreamingSvc**?
- Are there any errors returned when streaming the application?
- Have you tried adjusting the default Streaming rules on the Profile? To narrow down if it's a File, Registry , or Named Object issue? (Follows the same steps listed above in the Troubleshooting Application Isolation Environment Issues section
- Is the application configured for offline access?



- Do you have the latest streaming client installed on the client machines if trying to stream to the client desktop?
- Is the streaming client installed on the Server if trying to stream to server?
- Is Web Interface configured for Streaming or Dual Mode?
- Do you have any Streaming Policies enabled?
- Are the correct permissions for users configured on the file server hosting the application profile packages?

## Profiling

- Are there issues profiling the application? When does the error occur?
  - When starting the installation?
  - When running the installation?
  - When saving the profile?
- Is the same issue experienced on a different profiling station?
- Can the application be installed outside the Profiler?
- Is the profiler machine a clean build of the operating system and same operating system version as the target machines?
- Are there any errors in the event log of the Profiler machine?
- During the profiling are files being written to \Documents and Settings\%UserName%\Local Settings\Temp\Citrix\Packager \TGT\_1\?

## 9.4. Related Knowledge Base Articles

- [CTX106868](#) Application Isolation Environments Explained
- [CTX106100](#) Application Isolation Environment Supported Applications
- [CTX113304](#) Troubleshooting Application Streaming Issues
- [CTX116483](#) Required Permissions to Run the Citrix Streaming Service
- [CTX113858](#) Group Policy Object (GPO) Settings May Not Get Applied for Streamed Applications
- [CTX115191](#) How to Use Raderun to Manually Stream an Application
- [CTX112472](#) How to Enable the Streaming Client Debug Console
- [CTX114673](#) How to Find the .Rad File that is Used to Launch a Streamed Application
- [CTX120006](#) How to Configure the Per-User Cache Location for Streamed Apps
- [CTX107864](#) Troubleshooting Applications Installed into Isolation Environments
- [CTX107713](#) Application Isolation Environment Process Files - Descriptions and Function Definitions
- [CTX108156](#) System Impact using Isolation Environments
- [CTX107047](#) How to Update an Application Installed Into an Isolation Environment From the Internet
- [CTX109109](#) Case Study: Applications with the Application Isolation Environment
- [CTX108171](#) Drive Handling for Isolation Environments
- [CTX109254](#) Application Isolation Environments - Compatibility Issues

## 9.5. Other Relevant Information

- [CTX118181](#) Application Streaming FAQs for Administrators
- [CTX112526](#) Citrix Application Streaming Guide



- [CTX110303](#) Citrix Application Streaming Internals
- [CTX115137](#) Application Streaming Utilities
- [CTX110304](#) Enhancing Security in Application Streaming for Desktops
- [CTX112636](#) Application Streaming Licensing Explained
- [CTX118623](#) Application Streaming Delivery and Profiling Best Practices for XenApp 5.0



## 10. UNIX Clients

The ICA clients for major UNIX platforms currently support Linux, Solaris (Sparc/Intel), AIX, IBM, HP-UX, and SGI.

<http://www.citrix.com/site/SS/downloads/downloads.asp?dID=2755>

### 10.1 Languages Supported

English, Spanish, French, German, Japanese

### 10.2 Administrator's Guide

[CTX120175](#) Citrix Receiver for Linux 11.x

[CTX101298](#) Clients for UNIX

### 10.3 Troubleshooting Questions

- What version of the UNIX Client is running?
- What operating system version is the Client running on?
- Which Kernel version? **Uname – a** output?
- What is the desktop you are using?
- Window manager? Any customization?
- What kind of network connection?
- Desktop fixed windows or seamless? Any difference?
- Color depth? Screen resolution? Any difference? **Xdpyinfo** output?
- Window properties, output of **xprop –root** command, **xwininfo** over ICA session window?
- Check the user display preferences using **xset –q**. Send output to Citrix Technical Support.
- Is the problem specific for a particular platform: Linux, Solaris, HP-UX, AIX, other?
- Does the Win32 client behave in a similar fashion?
- Check configuration files for errors:
  - **wfclient.ini**, **appsrv.ini** in **\$HOME/.ICAClient**
  - **wfclient.ini**, **appsrv.ini** and **module.ini**, in the **\$ICAROOT/config**
- If using Linux Client v11.x, ensure that OpenMotif 2.3.x package is installed.
- Does the client crash? If so, send the core dump generated. If it crashes and there is no core dump, use **ulimit –c unlimited** to activate dump generation.
- Does the client give back an X error? Run the client (**wfica**) through **xmon**. Xmon can be downloaded from [http://ftp.x.org/contrib/devel\\_tools/](http://ftp.x.org/contrib/devel_tools/)
- Connectivity issue? Any difference using different browsing, (http/https, TCP/IP)? Network traces are required, you can use Ethereal, available to download from the Ethereal Web site.
- Keyboard issue, does it work locally? Which is the layout in use? **xmodmap –pke**, **xmodmap –pm**. Output of **whatkey.exe/spy++** is needed from within the remote session.
- Does the client hang? What is the CPU utilization (top tool or equivalent), output of system call traces (**trace** for Linux, **truss** for Solaris-AIX, **tusc** for HP/UX). What's the memory utilization?

### 10.3 Related Knowledge Base Articles

- [CTX564283](#) How to Troubleshoot 1003 and 1004 Terminal Server Licensing Errors
- [CTX103329](#) ICA Client for UNIX Printing Explained
- [CTX103583](#) Integrating Smart Cards with Linux/UNIX Clients
- [CTX103576](#) Troubleshooting UNIX / Linux Keyboard and Language issues in ICA sessions
- [CTX105010](#) Clients for UNIX and Linux Overscrolling When Using Published Applications
- [CTX105000](#) UpdateTime Setting on the Client for UNIX for KeyStroke Latency



## 11. Citrix Receiver for Windows

Formerly known as App Receiver, Citrix Receiver provides a simple method for users to download and install Citrix plug-ins

<http://www.Citrix.com/site/SS/downloads/downloads.asp?dID=2755>

### 11.1 Languages Supported

English Only; other languages will be supported in subsequent releases

### 11.2 Supported Citrix Plugins (Clients)

XenApp Plugin for Hosted and Streamed Apps (Client) – Version 11.0 or later

Citrix Streaming Client – Version 1.0 or later

Citrix Streaming Client – Version 1.0 or later

### 11.3 Troubleshooting Questions

#### For every problem

- Which version and build of the client are you using?
- Is it the same problem with the latest version (if not already in use)?
- Did it work at least once? Did you change anything since then?

#### Installation

- What is the error message (send a screen shot)?
- How are you trying to install the client – by updating the client using a LAN or WAN?
- Is the same problem seen when a user with administrator's rights is tested?
- Is the user installing the Citrix Receiver on a supported Client operating system for that specific Plugin?
- What are the user specific error logs in the Citrix Receiver Administrator Console?

#### Connectivity

- Citrix Receiver is unable to contact Update Server.
- Is there network communication between CR and the Update Server? Verify Update Server is reachable using the "Test" option.
- Are you able to ping the Update Server by name and IP address?
- Plugins are not showing up in the Citrix Receiver Admin Console?
- Is the Update Server site accessible?
- Are you able to get to the URL from the location of the Update Server on the network?



## Authentication

- User account is not enumerated in Admin Console:
  - Is the Update Server downloads user/group list from Active Directory Server using LDAP?
  - Is the Update Server downloads synched with Active Directory when?

## 11.4 Other Relevant Information

[http://support.citrix.com/servlet/KbServlet/download/19582-102-47778/SimplifyingApplicationDeliveryVirtual Desktop - Getting Started Guide.pdf](http://support.citrix.com/servlet/KbServlet/download/19582-102-47778/SimplifyingApplicationDeliveryVirtual+Desktop+-+Getting+Started+Guide.pdf)



## 12. CDF (Citrix Diagnostic Facility)

### 12.1 What is the Common Diagnostics Facility?

The Citrix Diagnostics Facility (CDF) is a troubleshooting feature introduced with Citrix® MetaFrame® Presentation Server 3.0. It changes the way information is collected and tracing is performed within Citrix products. CDF provides a number of benefits for customers, support, test, and developers.

The key benefits that CDF brings to customer / support / test are:

- Very high performance, dynamically controllable, retail product tracing
- A single UI to collect all needed diagnostic information for in-house analysis or to be sent to Citrix
- A single tool for all Citrix products

With CDF you can enable or disable tracing on a “live” environment because the tracing information is integrated in the retail version of the product. It allows Citrix Technical Support to trace issues on customer environments without having to send debug binaries.

### 12.2 Products Supported

Citrix Password Manager 4.6  
Citrix Password Manager 4.5  
XenDesktop 3.0  
XenDesktop 2.1  
XenDesktop 2.0  
XenApp 5.0  
XenApp 4.5  
Citrix Presentation Server 4.0  
Conferencing Manager 4.0  
Advanced Access Control 4.5

### 12.3 How To Enable Tracing

Various ways to enable CDF Tracing and procedure differs depending on tools being used. Refer to the following CTX articles to enable CDF tracing:

- [CTX107025](#) How to Collect System Startup Traces with the CDF
- [CTX104578](#) Using Citrix diagnostic facility, CDF, and the Access Management Console for Tracing
- [CTX111405](#) How to Collect System Startup Traces Using the Microsoft Windows 2003 Utility Tracelog.exe
- [CTX117767](#) How to Run a CDF Trace on a Citrix Virtual Desktop
- [CTX120269](#) CDF Tracing for the Desktop Receiver 11.100 Client

### 12.4 Tools

#### **CDFControl – [CTX111961](#)**

CDFControl is a software debugging utility that captures Citrix Diagnostic Facility (CDF) trace output messages that are output from the various Citrix product modules. You would use this tool for example when troubleshooting products that do not work with the Access Management Console, for example the Streaming client.



## Tracelog.exe – Windows 2000 Resource Kit

The viewer allows you to read the .etl files created by the CDF. In order to “translate” these files, you must associate them with some symbols files. These symbols files are called TMF files.

Some TMF files are located on our FTP site (<ftp://ftp.citrix.com>).

If you have any doubt on how to create/read a CDF trace, contact the Citrix Technical Support or look at the articles mentioned on the following section.

### 12.5. Related Knowledge Base Articles

- [CTX106233](#) Viewing Common Diagnostics Facility Traces Using TraceView
- [CTX114975](#) Common CDF Templates for Troubleshooting
- [CTX108086](#) How to Collect Diagnostic Information for Presentation Server 3.0 and 4.0 Farms
- [CTX117426](#) How Citrix Diagnostic Facility Tracing Works
- [CTX104295](#) Unable to Locate Event Trace Log `_.etl_` Files on the Server
- [CTX104381](#) Warning: The following servers failed to start a trace session. Make sure....
- [CTX104559](#) Diagnose Problems Link not Accessible in the Access Suite Console
- [CTX104996](#) CDF Traces Show a "Service Control Handler, control=4" Message
- [CTX108378](#) Error: The application failed to initialize properly 0xc0000135 when launching CdfView.exe
- [CTX112868](#) You Cannot See the "Diagnose Problems" Menu for CDF Tracing in the Access Management Console

### 12.6 Other Relevant Information

- [CTX107675](#) IMA Modules to select when obtaining a CDF trace for a Load Balancing problem
- [CTX108338](#) Print Modules to select when obtaining a CDF trace for Printing problems
- [CTX108820](#) IMA Modules to select when obtaining a CDF trace for an Application Isolation Environment issue
- [CTX108990](#) IMA Modules to select when obtaining a CDF trace for a Multi-Monitor problem
- [CTX111805](#) IMA Modules to select when obtaining a Citrix Diagnostic Facility trace for a TWAIN issue
- [CTX111806](#) Modules to select when obtaining a Citrix Diagnostic Facility trace for a Virtual IP Address issue
- [CTX112659](#) IMA Modules to select when obtaining a CDF trace for Clipboard issues
- [CTX113159](#) How to select the appropriate IMA Modules when obtaining a Citrix Diagnostic Facility trace for a COM port redirection issue
- [CTX113199](#) IMA Modules to select when obtaining a CDF trace for a policy problem
- [CTX113285](#) IMA Modules to select when obtaining a CDF trace for COM port issues
- [CTX113427](#) Which IMA Modules to select when obtaining a CDF trace for session disconnection issues
- [CTX113491](#) Obtaining a CDF Trace for Application Streaming issues
- [CTX114150](#) Which IMA Modules to select When Obtaining a CDF trace for client connection failure issues



- [CTX114177](#) The IMA Modules to select when obtaining a Citrix Diagnostic Facility trace for Seamless issues
- [CTX114583](#) IMA Modules to select when obtaining a CDF trace for an Access Management Console issue
- [CTX115244](#) IMA Modules to select when obtaining a CDF trace for Printer Driver Replication issues
- [CTX115557](#) Citrix Diagnostic Facility Modules to select when obtaining a trace for SpeedScreen Latency Reduction issues
- [CTX115822](#) CDF Modules to select when obtaining a trace for SpeedScreen progressive display issues
- [CTX117590](#) IMA Modules to select when obtaining a CDF trace for Slow/Delayed Logon issues
- [CTX120054](#) Citrix Modules to select when obtaining a CDF trace for Time Zone problems



## 13. Citrix XenServer

XenServer is an open and powerful server virtualization solution that radically reduces datacenter costs by transforming static and complex datacenter environments into more dynamic, easy to manage IT service delivery centers.

### 13.1 Supported Languages

XenServer available only in English with XenCenter available in English and Japanese

### 13.2 Administrator's Guides

[CTX118447](#) XenServer Administrator's Guide Version 5.0

[CTX118448](#) XenServer Installation Guide

[CTX118449](#) XenServer Virtual Machine Installation Guide

[CTX118451](#) XenServer Release Notes

[CTX119472](#) XenConvert Guide Version 1.1

[CTX118450](#) XenServer Software Development Guide

### 13.3 Troubleshooting Questions

#### Installation

- What are the details of your environment – XenServer Version, Hot Fixes applied, Standalone or Pool, Type and model of storage, Type and model of server?
- Is your hardware on the hardware compatibility list (HCL <http://www.citrix.com/ready/hcl>)?
- At what stage of installation are you having an issue?
- Is this issue occurring on all servers?

#### General

- What are the details of your environment – XenServer Version, Hot Fixes applied, Standalone or Pool, Type and model of storage, Type and model of server?
- What is the exact issue that you are having (what is happening – what should happen)?
- What are the exact steps to reproduce the issue?
- When did it start? What triggered the issue?
- Does the issue affect all servers or only some?
- Are there any error messages in the /var/log directory?
- Can the issue be reproduced on another server?
- What troubleshooting steps have you taken to resolve this issue?
- Have you collected the logs and sent them to Citrix Technical Support?

#### Commands

Below are some general commands used in XenServer.

##### Host

- Run the command **xe-toolstack-restart** to restart XAPI



- Run the command **eject** to eject physical CD from server.
- Run the command **cat /etc/xen-source-inventory** to see your host information.

### Network

- Run the command **ifconfig** to see what interfaces are up for networking.
- Run the command **ethtool -p eth0 60** for make NIC flash for identification.
- Run the command **ethtool eth0** to check the status of the interface.
- Run the command **ethtool -i eth0** to check the driver type and version of NIC.

### Disk

- Run the command **fdisk -l** to view local disk information.
- Run the command **df -h** to see how much space you have left in root disk.

### Multipath

- Run the command **multipath -ll** to view the current multipath topology as presented by control domain.

### VM

- Run the command **xe vm-reboot vm=<VM Name> force=true** to hard-reboot a VM.

### Logs

- Run the command **xen-bugtool -yestoall** to get the logs for support.
- Run the command **tail -f /var/log/messages** to view events in messages log.

Note: It is recommended to download and install PuTTY to connect to XenServer for diagnostics steps.

## 13.4. Related Knowledge Base Articles

- [CTX116981](#) How to Run a Status Report in XenCenter 4.1/5.0 and XenCenter 4.1/5.0
- [CTX116372](#) How to assign a Static IP Address to a XenServer Host
- [CTX118545](#) How to Configure High Availability in XenServer 5.0
- [CTX116324](#) How to Change the Default Storage Repository to File-based VHD-on-EXT3
- [CTX117101](#) How to Use a USB Disk as a Local Storage Repository on XenServer

## 13.5. Other Relevant Information

- [CTX118841](#) Deploying Citrix XenServer 5.0 with Dell EqualLogic PS Series Storage
- [CTX118842](#) Citrix XenServer 5.0 and NetApp Storage Best Practices
- [CTX118735](#) XenServer Demo and Evaluation Guide
- [CTX118449](#) XenServer Virtual Machine Installation Guide
- [CTX118417](#) XenConvert Installation Guide
- [CTX116776](#) XenServer 4.1 and 5.0 Licensing Overview
- [CTX117258](#) XenServer Pool Replication – Disaster Recovery
- [CTX116894](#) Current XenServer Technical Support Information
- [CTX119088](#) XenServer Storage Overview
- [CTX117915](#) Understanding XenServer Networking
- [CTX118791](#) Multipathing Overview for XenServer 5.0



- [KB904946](#) You experience intermittent communication failure between computers that are running Windows XP or Windows Server 2003



## 14. Citrix XenDesktop

Citrix XenDesktop™ is a desktop virtualization system that centralizes and delivers desktops as a service to users anywhere, reduces desktop total cost of ownership up to 40 percent and improves data security by centralizing desktop lifecycle management in the datacenter. It delivers a high definition user experience over any connection including high latency wide area networks using Citrix HDX technology.

The open architecture of XenDesktop offers choice and flexibility of virtualization platform and endpoints. Unlike other desktop virtualization alternatives, it simplifies desktop management by using a single image to deliver personalized desktops to both virtual and physical devices—in the datacenter or at the endpoint—and enables IT to manage service levels with built-in performance monitoring.

[http://citrix.com/English/ps2/products/product.asp?contentID=163057&ntref=hp\\_nav\\_US](http://citrix.com/English/ps2/products/product.asp?contentID=163057&ntref=hp_nav_US)

### 14.1 Languages Supported

English, Japanese

### 14.2 Administrator's Guide

[CTX118856](#) Citrix XenDesktop 3.0 Administrator's Guide

[CTX116843](#) Desktop Delivery Controller 2.0 Administrator's Guide

### 14.3 Implementation Guides

[CTX118911](#) XenDesktop 3.0 Evaluator's Guide

[CTX118041](#) Getting Started with XenDesktop 2.1

[CTX117935](#) XenDesktop 2.0 Implementation Guide

### 14.4 Integration Guides

[CTX116927](#) Using XenServer with Desktop Delivery Controller

[CTX118212](#) Using SCVMM 2008 with Desktop Delivery Controller

[CTX116928](#) Using VMWare Infrastructure 3 with Desktop Delivery Controller

[CTX119849](#) Best Practices for Citrix XenDesktop with Provisioning Server

[CTX119426](#) Citrix Access Gateway Enterprise Edition Integration Guide for XenApp and Citrix XenDesktop

[CTX119186](#) Using Citrix User Profile Manager with XenDesktop

### 14.5 Known Issues

[CTX118860](#) Citrix XenDesktop 3.0 Readme

[CTX118012](#) Citrix XenDesktop 2.1 Readme

[CTX116844](#) Desktop Delivery Controller 2.0 Readme

## 14.6 Troubleshooting Questions

### Gather General Information

- What are the details of your environment:
  - XenDesktop version and installed Hotfixes
  - Client type: Desktop Receiver (XenApp Web Plugin or XenApp Plugin), Desktop Receiver Embedded
  - Access point: XenDesktop Web Interface Site, XenDesktop Services Site, Desktop Appliance Connector Site
  - Operating system version: DDC, VDA, Client
  - XenDesktop edition: Platinum, Enterprise, Advanced, Standard, Express - See [CTX118295](#) for more information.
  - Size of environment: Number of Desktop Delivery Controllers and Virtual Desktop Agents
  - Data Store type: Microsoft Access, MS SQL, Oracle
  - Hosting infrastructure: XenServer, MS System Center Virtual Machine Manager, VMWare Infrastructure 3
  - Active Directory environment: Domain relationships, domain functional level, AD OU or registry replacement
  - Additional Citrix components: Provisioning Server, XenServer, User Profile Manager, XenApp, and so on
  - WAN/LAN architecture
- What is the exact issue that you are having (what is happening – what should happen)?
- What are the exact steps to reproduce the issue?
- When did it start? What triggered the issue?
- Who is affected by the issue (administrators, users, or both)?
- Do you get an error (send screen shot) or an event in the Event Log?
- What troubleshooting steps have you taken to resolve this issue?

### Troubleshooting Installation Issues

- What installation scenario was used: Single-server, Multiple-server or Multiple Server with separate installation of the management components?
- What database is used for the farm data store?
- What database is used for the Desktop Broker database (cvmdb)?
- Does the user running the installation have creation permission rights to the cvmdb database?
- Is the DNS-name of the Desktop Server the same as its NetBIOS-name?
- Does the user account being used for installation make use of permissions compatible with pre-Windows 2000 domain?

### Troubleshooting Registration Issues

- Has the VDA been added to a Desktop Group?
- What events are generated on the VDA, DDC and Connected AD Controller?
- Do the Farm GUIDs match between the VDA, DDC and Farm OU?



- Make sure you can telnet to port 8080 from the VDA to the DDC and from the DDC to the VDA.
- Test DNS from the VDA to the DDC and from the DDC to the VDA using the respective machines FQDN.
- For successful Kerberos authentication, time must be synchronized between the VDA, DDC, and AD.
- Test Kerberos authentication from the DDC and VDA. Use netdiag: netdiag /test:kerberos (Windows Support Tools)
- Verify that the VDA's machine account contains the correct ServicePrincipalName in AD using a tool such as ADSI Edit
- Try removing and re-adding the VDAs machine account from AD. See [CTX117248](#) for further troubleshooting.
- Enable Controller and Workstation Agent logging for further troubleshooting - See [CTX117452](#).

### Troubleshooting Launch Issues

- Have the desktops successfully registered? Desktops must be registered prior to launch.
- Are the desktops in maintenance mode? Disable maintenance mode.
- What events are generated on the VDA, DDC and Client?
- Is your firewall properly configured? The client needs an open communication path to 1494 (ICA) and 2598 (CGP - If session reliability is used).
- Is a proxy in use? Client side proxy settings can be configured on the Web Interface site. See [CTX119738](#) for further troubleshooting.
- Enable Controller, WorkstationAgent, and PortICA logging for further troubleshooting. See [CTX117452](#) and [CTX118837](#).

### Troubleshooting Active Directory Farm OU Issues

- Are you able to complete the AD Configuration Wizard? Logging can be enabled.
- Is the Farm OU present in AD?
- All computers within the farm must be part of the same domain, or mutually trusting domains.
- All computers must be in a single AD forest.
- If using Windows 2000 Mixed AD functional level, the Farm OU must be in the same domain as the DDC's.
- If OU is in a different domain than both the DDC's and VDA's, a Universal group must be used for the DDC's security group.
- See [CTX120468](#) for Active Directory Configuration Wizard Logging.
- See [CTX120445](#) to manually create the Farm OU in AD.
- See [CTX118976](#) for configuration of XenDesktop without a Farm OU.

### Troubleshooting service issues

#### DDC: IMA

- What is the Data Store type? Is it on a dedicated server?
- Is a temporary change farm possible to confirm that the DS is not corrupt?



- Use **Qfarm** to identify which server is Data Collector.
- Does the IMA service start? If not, what is the error message?
- Check Event Viewer. Send errors to Citrix Technical Support.
- What is the currently loading plug-in? Check in:  
HKLM\SOFTWARE\Citrix\IMA\Runtime\CurrentlyLoadingPlugin?
- Check troubleshooting IMA service article for possible causes - See [CTX105292](#)

### **DDC: Citrix Desktop Delivery Controller Service**

- Are the services configured to run under the Network Service account?
- This service fails to start if the configuration file is corrupt or contains typographical errors - See [CTX118881](#)
- Has the Farm OU been set up correctly?
- Verify EXE and DLL files

### **DDC: Citrix IMA Proxy Service**

- Is IMA running?
- Is the service configured to run as Network Service?
- This service fails to start if the configuration file is corrupt or contains typographical errors - See [CTX118881](#)
- Verify EXE and DLL files

### **VDA: Citrix Desktop Service**

- Does the DDC have the proper rights to access the VDA from the network? See the permissions of 'Access this computer from the network' policy.
- Has the Farm OU been set up correctly?
- Is DNS configured properly?
- Is port 8080 accessible from the VDA to the DDC and from the DDC to the VDA?
- Are the services configured to run under the Network Service account?
- This service fails to start if the configuration file is corrupt or contains typographical errors - See [CTX118881](#)
- Verify EXE and DLL files. See [CTX119736](#) for further troubleshooting.
- Enable Controller, WorkstationAgent, and PortICA logging for further troubleshooting - See [CTX117452](#) and [CTX118837](#).

### **Troubleshooting Performance Issues**

- What kind of VDA (Virtual - XenServer, VMWare, or SCVMM | Physical - IBM, Compaq, Dell, other) and how much CPU and RAM have been allocated?
- Does the Event Viewer show any entries just before the slow-down or trap occurs?
- Under what conditions does the VDA lock up?
- Does the slow-down also occur when connected using RDP?
- Is the desktop blue screening? What is the STOP code?  
Troubleshooting blue screens – MS Article: Q216206.
- Is a memory dump created? If not, can you create one?
- If the VDA freezes completely, can you generate a full dump (MS Article: Q244139)?



- Can you see which process and thread (TID) is consuming the CPU using **Qslice** (from Windows Resource Kit)?
- See [CTX106110](#) – How to Get a Spiking Thread ID Using Process Explorer When QSlice Utility Does Not Work
- Can you get a user dump of the process that is using high CPU (MS Article: Q278689). FTP it to the Citrix site. Contact Citrix Technical Support for FTP instructions.
- If a process crashes, and a Dr. Watson dump is generated (see MS Articles: Q308538, Q246084), FTP it to the Citrix site, upon the request of Citrix Technical Support.
- See [CTX105888](#) – Dr. Watson does not work as the default debugger.
- If your server crash is caused by Citrix, then send the memory.dmp or user.dmp – FTP details are available from Citrix Technical Support.

### **Troubleshooting XenDesktop Setup Wizard Issues**

- The XDSW only supports the Pooled desktop group model.
- The user running XDSW must have permissions to create and modify AD computer accounts in the specified OU.
- No hosting providers found? Verify that the Farm OU is set up correctly.
- See [CTX117830](#) for issues mapping VM's to AD during creation of a Desktop Group.
- See [CTX118793](#) for further troubleshooting
- See [CTX118278](#) for XDSW logging.

### **Troubleshooting Printing Issues**

- What kind of printer is it? Client autogenerated, Client network printer, Session printer?
- What are the make and model and driver of the printer?
- Is the driver installed on the VDA? (Check in Print Server Properties > Drivers tab)
- Is the printer issue only with a specific application? Test that application with RDP.
- See [CTX119066](#) for XenDesktop printing related registry settings

### **Troubleshooting Smart Card (XD 3.0) Issues**

See [CTX119227](#) for setup and configuration of Smart Card for XenDesktop.

### **Troubleshooting USB (XD 3.0) Issues**

- Has the USB been enabled using a Citrix policy through the Citrix Management Console?
- Are the device rules configured properly? See default device rules contained in HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\PortICA\GenericUSB
- Isochronous devices are not yet supported by XenDesktop.
- USB is not yet supported on 64-bit clients.
- You must be an administrator to see the USB option during the client installation.
- Not prompted for USB? Desktop must be in focus.
- See [CTX119861](#) for a list of tested devices
- See [CTX120269](#) for CDF tracing on the client related to USB.

### **Troubleshooting HDX Media Stream (SpeedScreen Multimedia Acceleration) Issues**

- SpeedScreen Multimedia Acceleration is enabled by default.



- The correct codecs for rendering the media must be installed on the client device.
- Use the Windows Performance utility to add ICA Session > Input/Output SpeedScreen Multimedia Acceleration (must be done during ICA session) to verify Rave is running.
- Flash, QuickTime and Silverlight media players are not currently supported by HDX Media Stream
- See [CTX104912](#) for further troubleshooting and supported media types.

#### 14.7. Related Knowledge Base Articles

- [CTX118041](#) Getting Started with XenDesktop 2.1
- [CTX117935](#) XenDesktop 2.0 Implementation Guide
- [CTX116927](#) Using XenServer with Desktop Delivery Controller
- [CTX118212](#) Using SCVMM 2008 with Desktop Delivery Controller
- [CTX116928](#) Using VMWare Infrastructure 3 with Desktop Delivery Controller
- [CTX119849](#) Best Practices for Citrix XenDesktop with Provisioning Server
- [CTX119186](#) Using Citrix User Profile Manager with XenDesktop
- [CTX118295](#) How to Verify or Change your XenDesktop Edition after Installation
- [CTX117248](#) Troubleshooting Virtual Desktop Agent Registration with Controllers in XenDesktop
- [CTX117452](#) How to Enable Logging for the Desktop Delivery Controller and Virtual Desktop Agent
- [CTX119738](#) Troubleshooting XenDesktop Launch Issues
- [CTX117452](#) How to Enable Logging for the Desktop Delivery Controller and Virtual Desktop Agent
- [CTX118837](#) How to Enable PortICA Logging
- [CTX120468](#) How to Enable Logging for the Active Directory Configuration Wizard
- [CTX120451](#) How to Configure Custom Controllers Security group for XenDesktop
- [CTX118976](#) How to Configure XenDesktop to Function Properly Without an Organizational Unit in Active Directory
- [CTX105292](#) Troubleshooting IMA Service Failure To Start
- [CTX118881](#) Error 1053: Could Not Start the Citrix Service on Local Computer
- [CTX119736](#) Troubleshooting XenDesktop Service Startup Issues
- [CTX117830](#) Issues with Mapping Virtual Desktop to AD Computer Account When Creating a Desktop Group
- [CTX118793](#) XenDesktop Setup Wizard - Issues
- [CTX118278](#) How to Enable Logging for the XenDesktop Setup Wizard
- [CTX119066](#) XenDesktop Printing Registry Settings - DefaultSessionFlags DefaultPrnFlags for XenApp
- [CTX119227](#) Configuring XenDesktop for use with Smartcards
- [CTX119861](#) XenDesktop 3.x USB Citrix Tested Device List
- [CTX104912](#) Troubleshooting the HDX Media Stream SpeedScreen Multimedia Acceleration Feature



## 15. Web Interface for Citrix XenApp

Web Interface is an application deployment system that provides users with access to Presentation Server applications through a standard Web browser. Web Interface employs Java and .NET technology executed on a Web server to dynamically create an HTML depiction of server farms for your users. Each user is presented with all the applications published in the server farms for that user. With the Web Interface, you have centralized application management capabilities and complete control over the application deployment process. You can create standalone Web sites for application access or Web sites that can be integrated into your corporate portal.

<http://support.citrix.com/product/wi/>

### 15.1 Languages Supported

English, Spanish, French, German, Japanese

### 15.2 Administrator's Guide

- [CTX113743](#) Web Interface 4.5
- [CTX118984](#) Web Interface 5.1

### 15.3 Troubleshooting Questions

#### General questions

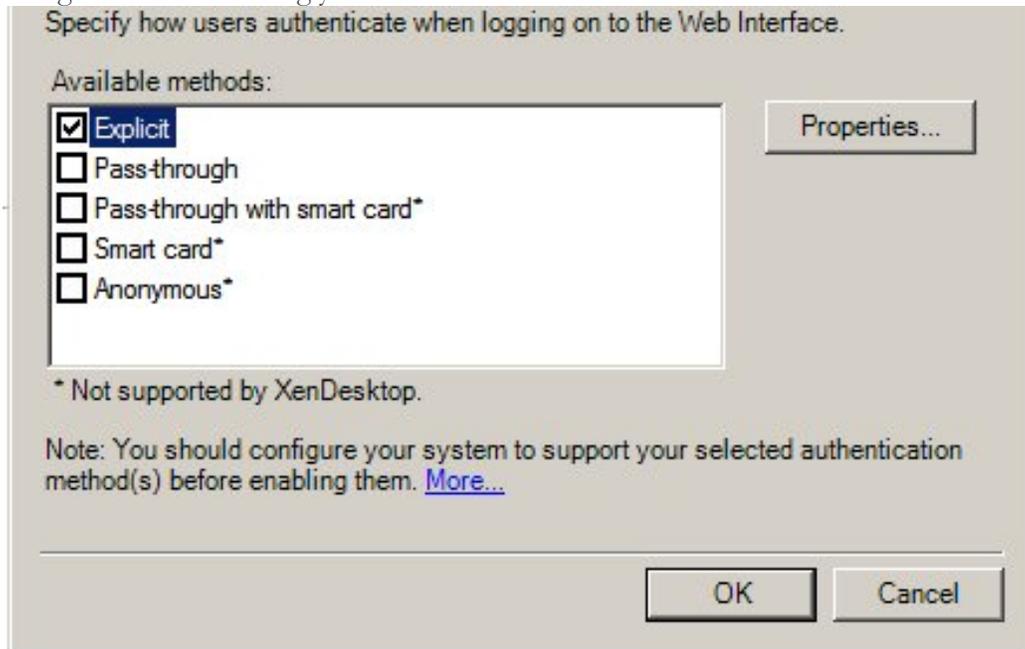
- What is the error message? (Send a screen shot.)
- What is the version of the Web server (IIS7, IIS6, Apache, other)?
- Is the error message coming from the Web server or Web Interface? (Messages from Web Interface appear in the page but you still see a Citrix logo.)

#### Installation

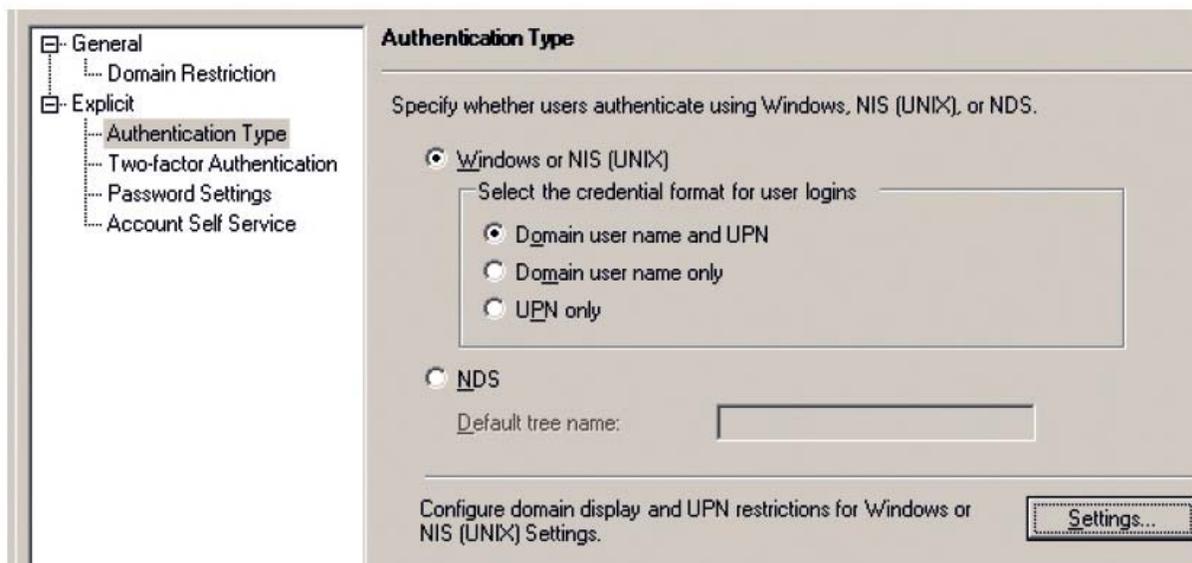
- Check if the version of .NET installed on the IIS server is correct.
- Is Microsoft SharePoint also installed on the server? If so, see [CTX108178](#).
- Do you have any COM error messages in the event viewer? (Send the event viewer files.)
- Is Citrix Access Management Console for 4.5 installed (for Web Interface 4.5)?
- Web Site creation
  - Did you create a Web site using the Access Management Console after installing Web Interface? (Web Interface 4.5 does not create a default Web site during installation.)
  - Are you trying to create a Web site using central or local configuration?
- If using central configuration, is the server hosting the Access Management Console on the same domain as the Citrix Presentation Server 4.5?
- Is the Web Interface server part of a different domain (as the Presentation Server) or a workgroup?
- If using Central configuration, are you pointing to a Presentation Server 4.5? (Only this version is supported for central configuration)
- If using Central configuration, does the problem the same if you try to create a Web site with local configuration?

## Authentication

- What is the type of authentication in use (Smart card, single sign-on, Explicit, NDS, other)?
- Select Configure Authentication Methods and then click on Properties for each method to configure them accordingly.



- If using Windows Explicit, what is the configuration?
- Select Specify Authentication Type Settings



- Has strong authentication being enabled?



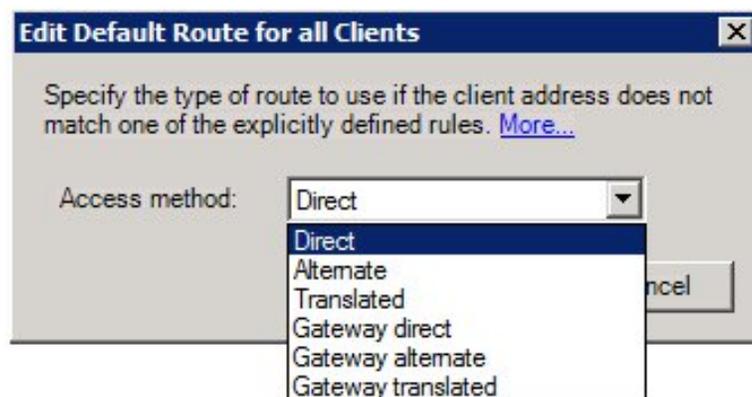
- Do you have the same problem if you disable the strong authentication?
- Could you log on locally on the server running the XML service?
- Do the users go through a proxy server?
- If using several farms on different domains, does a trust relationship exist between the domains?

### Enumerating Apps

- Did you recreate the Local Host Cache on the server(s) running the XML service ([CTX759510](#))?
- Use Tube to capture the XML traffic and send us the capture file (see troubleshooting tools below)?

### Launching Applications

- Does it happen with all the ICA clients?
- What is the version of the ICA client(s)?
- Has the default.ica file been modified?
- Could you send the default.ica?
- Have the DMZ Settings been changed? (Send a screen shot.)
  - In the Access Management Console, select the Manage Secure Client Access > Edit Secure Client Access Settings option – and choose your preferred access method.



- When you choose your option – there is a Next button, which allows you to configure your access method further.

- If the DMZ settings have been changed, what are the Address translation settings?
  - In the Access Management Console, select the Manage Secure Client Access > Select your Gateway Translated method, and choose Next.

Specify details of internal to external IP address mappings in the table below. These mappings are used for client, gateway or both client and gateway route translations. [More...](#)

Address Translation Table:

Access Type	Int. Address	Int. Port	Ext. Address	Ext. Port
-------------	--------------	-----------	--------------	-----------

[Add...](#) [Edit...](#) [Remove](#)

[OK](#) [Cancel](#)

- Is Secure Gateway enabled? (Send a copy of the Webinterface.conf located under \Inetpub\wwwroot\Citrix\AccessPlatform\conf.) In the Access Management Console, select the Manage Secure Client Access > Select your Gateway Direct method, and choose Next.

You are prompted to enter the FQDN of the Access Gateway or Secure Gateway.

Specify gateway server details for any client devices that access this site through the Access Gateway or Secure Gateway. [More...](#)

Address (FQDN):

Port:

Enable session reliability

- When you click Next, you are presented with the window where you can configure the STA servers:

Specify gateway server details for any client devices that access this site through the Access Gateway or Secure Gateway.

Secure Ticket Authority URLs:

[Empty list box]

[Move Up] [Move Down]

[Add...] [Edit...] [Remove]

Use for load balancing

Bypass failed servers for: [1] [Hours]

[< Back] [Finish] [Cancel]

- You can see the general configuration by selecting in the Access Management Console Manage Secure Client Access > Display Settings

**Secure client access**

This window displays all the client secure access settings currently configured for the object selected in the left pane. You can amend the data by clicking on the links within this window or selecting one of the tasks in the task pane.

Direct

Alternate

Translated

Gateway Direct

Gateway Alternate

Gateway Translated

NAT firewall using alternate address

NAT firewall using translation map specified below

Non translating firewall

NAT firewall using alternate address

NAT firewall using translation map specified below

[Edit secure client access settings](#)

Default access method

- Is same problem seen if you disable Secure Gateway?
- Does it happen for all the users (internal, external)?

### Web Interface 4.5 and Password Unlock and Reset Troubleshooting

The Web Interface self-service to unlock or reset the user's password should have the same effect if the Password Manager Agent is installed on Presentation Server or a Windows XP workstation. When the Password Manager agent is installed with account self-service enabled, the Microsoft GINA logon to the server or client device looks like the screen shots below:



To troubleshoot Web Interface 4.5, Password unlock, and reset functionality issues, you must make sure that you are able to use self-service in your LAN.

This can be done by installing a Password Manager Agent on the client device in LAN with Account self service enable.

- If this does not work, then the issue is more likely a Password Manager Service issue.
- If this works but not using Web Interface, then Web Interface is more likely the problem.

Note that Self-Service Integration with Web Interface 4.5 is a new feature introduced in Password Manager 4.5, and therefore not supported with version 4.2 and earlier versions.



## Troubleshooting Tools

- Secure Ticket Authority Test Tool (STATest) – Contact Citrix Technical Support
- Capturing XML traffic (TUBE) or run a Network trace (Wireshark, Ethereal, Netmon) – Contact Citrix Technical Support

### 5.5. Related Knowledge Base Articles

[CTX112732](#) How to Deploy the ICA Web Client through Web Interface 4.5  
[CTX114097](#) Deploying the Web Client 10.1 for Windows through Web Interface 4.6  
[CTX111820](#) How to Obtain an ICA File through Citrix Web Interface 4.5 and 4.6  
[CTX112065](#) Enabling Download of ica32t.exe Client Install on Web Interface 4.5  
[CTX111851](#) How to Change the Dynamic Client Name for Web Interface 4.5  
[CTX110875](#) The Java Client Fails to Launch when Using Web Interface 4.x  
[CTX107181](#) Error: An error has occurred while connecting to the requested resource  
[CTX102226](#) Error: The credentials supplied were invalid. Try again...with RSA integration  
[CTX107146](#) Error: You do not have access to logon to this session when launching sessions from Web Interface  
[CTX107270](#) Web Interface 4.0 does not display a link to download the ICA Client when using the Safari browser  
[CTX107235](#) ICA Client for Macintosh OS X is not displayed on Web Interface 4  
[CTX103163](#) Error: Your session with the web server expired. You have been logged out  
[CTX117273](#) Web Interface 5.0 Delay on First Page

### 15.6. Other Relevant Information

[CTX112512](#) Error: Snap-in failed to initialize ... When Starting the Access Management Console  
[CTX111861](#) Web Interface 4.5 Fails to Show Folder Names in Advanced Access Control  
[CTX111915](#) Using Federated Authentication with Web Interface 4.5  
[CTX117965](#) How to Configure Web Interface 5.x for Radius Authentication  
[CTX106202](#) Forwarding Credentials from Access Gateway 4.x to Web Interface 3.x and 4.x  
[CTX110881](#) Configuring Web Interface 4.x for Authentication Through Novell\Directory  
[CTX106665](#) Customizing the Web Interface for Presentation Server 4.0  
[CTX107050](#) Enabling Citrix Access Management Console Traffic Across Firewall Policies  
[CTX115559](#) How To Remove the Welcome and Message Center Panels in Web Interface 4.6  
[CTX118819](#) How to Manually Uninstall Web Interface  
[CTX103672](#) How to Change the Session Timeout for Web Interface 3.0, 4.x, and 4.5  
[CTX116088](#) Feature Support in Web Interface 4.6 for ASP.NET and JSP Platform  
All technotes for Web Interface 5: <http://support.citrix.com/product/wi/v5.0/technote/>



## 16. Secure Gateway for Citrix XenApp

Secure Gateway for Citrix® XenApp is an infrastructure component you can use to secure access to resources and applications hosted on servers running one or more XenApp Server products. Secure Gateway transparently encrypts and authenticates all user connections to protect against data tampering and theft.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=186>

### 16.1 Languages Supported

English

### 16.2 Administrator's Guides

- [CTX116425](#) Secure Gateway 3.1 for Windows
- [CTX103759](#) Secure Gateway 3.0 for Windows
- [CTX106472](#) Web Interface

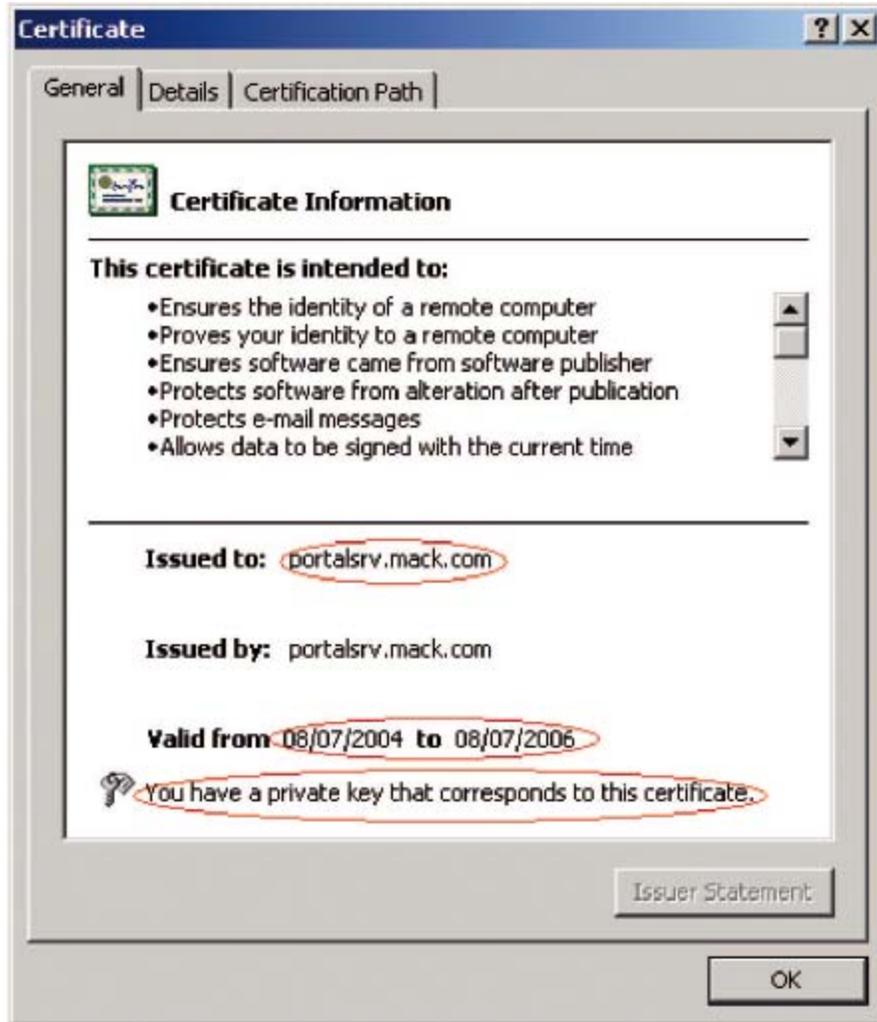
### 16.3 Troubleshooting Questions

#### Installation

- What is the error message you are receiving? Send a screen shot of the error message.
- Did you install the server certificate on the Secure Gateway? See “Obtaining and Installing Server Certificates” section of the Administrator’s Guide
- Are you installing Secure Gateway in a Single or Double-hop DMZ?
- Are you upgrading from a previous version of Secure Gateway?

#### Configuration

- What is the exact error message you are receiving? Send a screen shot of the error message.
- Run the Diagnostic tool and send the output
- Re-run the configuration to make sure you entered the correct details
- Check the certificate to make sure it is valid
- Open the MMC console on the Secure Gateway server and load the Certificate snap-in for the local computer.
- Open the Web Server Certificate



- Verify that the Issued to address (circled above) matches the Fully Qualified Domain Name (FQDN) of the Secure Gateway Server
- Verify the Valid from and to date's are correct and not expired
- Verify that your certificate has “You have a private key that corresponds to this certificate.”
- The server certificate must be paired with its private key in order to support SSL connections  
Without this private key, the Secure Gateway service fails to start, reporting “Unable to acquire certificate credentials”

### User Errors

- Does the user have a valid root certificate installed?
- To indicate your trust in a given CA, you must install their root certificate. Once a root certificate is installed on your workstation, your Web browser or ICA client automatically trusts any server possessing a certificate signed by that CA.

- To view your installed root certificates, select the Tools > Internet Options menu in Internet Explorer, view the Content tab, and click the Certificates button. This opens a Certificates dialog.
- View the Trusted Root Certification Authorities tab to see what CA certificates have been installed.
- Double-click on the root certificate that trusts the server certificate on your Secure Gateway server.



- On the Certification Path, you can find the root to your Certification Authority and the Certificate status should read “This certificate is OK”
- Can the user resolve the FQDN of the Secure Gateway server?
- Users receive the following error message when trying to launch applications through Secure Gateway “Cannot connect to the Citrix server: The Citrix SSL relay name could not be resolved (SSL error 40)”
  - This means that the fully qualified domain name (FQDN) of the Secure Gateway server is not recognized by the client



- Create a DNS record that resolves the FQDN of the Secure Gateway server or create an entry in the host file on the client devices
- What is the error message that the user receives?
- Send screen shot or event log error message

### **Web Interface Integration**

- Did you install and configure Web Interface?



#### 16.4. Related Knowledge Base Articles

- [CTX106975](#) Secure Gateway 3.0 for Citrix Presentation Server Troubleshooter's Guide
- [CTX103696](#) SSL error 4 when using ISA and Secure Gateway
- [CTX103569](#) The Citrix SSL relay name could not be resolved (SSL error 40)
- [CTX102765](#) Using a Private Certificate Authority with Secure Gateway and a Secure Gateway proxy client requires a root certificate on the client device from that Private Certificate Authority
- [CTX104717](#) How to Enable Extended Activity Logging at the Logon Agent
- [CTX101993](#) Configuring Address Translation with Secure Gateway
- [CTX435418](#) Troubleshooting Disconnected Sessions in Secure Gateway
- [CTX711855](#) Common SSL Error Messages and their Causes
- [CTX102579](#) The SSL certificate could not be checked for revocation

#### 16.5 Other Relevant Information

- [CTX106311](#) Secure Gateway Pre-installation Checklist
- [CTX118797](#) Secure Gateway 3.1 Compatibility with Web Interface and XenApp



## 17. Citrix Access Gateway, Standard Edition

Access Gateway Standard Edition can be used as a standalone VPN solution or integrated with Web Interface to deliver applications securely or provide VPN access to the corporate network.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=15005>

### 17.1 Languages Supported

English, Spanish, French, German

### 17.2 Administrator's Guide

[CTX109586](#) Citrix Access Gateway, Standard Edition

### 17.3 Troubleshooting Questions

Is the issue an installation issue, a configuration issue or a connectivity issue?

#### Installation

- What is the error message you are receiving? Send a screen shot of the error message
- If you are having an issue during the installation and believe hardware might be the issue, consult the hardware error information article – [CTX106921](#) (model 2000 unit)
- Have you upgraded to the latest release? See [CTX106192](#) – Access Gateway Software Updates

#### Configuration

- Are you integrating Web Interface with Access Gateway? See [CTX106978](#) – How to Integrate Access Gateway with Web Interface
- What is the exact error message you are receiving? Send screen shot error message

#### User Errors

- Is the user connecting from a private or public computer? What is the error message that the user receives?
- Are users receiving a Disconnected message when using kiosk mode client?
  - See [CTX106694](#) for resolution
- Send screen shots or event log error messages.



#### 17.4. Related Knowledge Base Articles

- [CTX109588](#) Citrix Access Gateway Pre-Installation Checklist
- [CTX108847](#) Troubleshooting Citrix Access Gateway Hardware Issues
- [CTX106921](#) Citrix Access Gateway Hardware Error Information
- [CTX109587](#) Getting Started with Citrix Access Gateway 4.5 Standard
- [CTX109589](#) Readme for Citrix Access Gateway, Version 4.5
- [CTX106694](#) Users receive Disconnected message...when using the kiosk mode client
- [CTX107203](#) The AG Client Installs but fails to initialize user enters into unprivileged mode
- [CTX107495](#) Configuring Radius Authentication on Windows 2003 for Use with Citrix Access Gateway
- [CTX107110](#) Duplicate Gateways Appear in Access Gateway Administration Tool
- [CTX107079](#) Cache Timeout Settings in Access Gateway
- [CTX111872](#) How to Upload an Intermediate Certificate on Citrix Access Gateway 4.5.x
- [CTX109380](#) Error: VPN Halted Due to Policy Error
- [CTX112084](#) Secure Access Client Version 4.5.0 Upgrade Ends Prematurely
- [CTX111632](#) Configuring RADIUS Authentication/Authorization on Citrix Access Gateway 4.x for Steel-Belted Radius
- [CTX109979](#) Settings Are Not Applied to the Secure Access Client When "Inherit from the Default Group" is Enabled



## 18. Citrix Access Gateway, Advanced Edition

Citrix Access Gateway™, Advanced Edition extends access to more devices and users, including browser-only kiosk access and mobile devices. Extensive SmartAccess capabilities provide flexible, highly granular policy based access control, including tight integration with Citrix Presentation Server.

<http://www.citrix.com/English/ps2/products/feature.asp?contentID=26143>

### 18.1 Languages Supported

English, Spanish, French, German

### 18.2 Administrator's Guide

[CTX109103](#) Citrix Access Gateway Advanced Edition 4.5

### 18.3 Troubleshooting Questions

Is the issue an installation issue, a configuration issue, Web resource or policy issue, endpoint analysis issue, or a farm management issue?

#### Installation

- What is the error message you are receiving?  
Send a screen shot of the error message.
- Are you doing a single or multiple server farm installation?  
Provide details of your setup.
- Did you follow the instructions in the Readme and install the prerequisites?  
See page 40 of the Administrator's Guide for details
- What type of Database did you choose?  
See page 46 of the Administrator's Guide for details
- What are your client requirements?  
See page 58 of the Administrator's Guide for details

#### Configuration

- Are you trying to create or join a farm?  
See page 77 of the Administrator's Guide for details
- What is the exact error message you are receiving?  
Send a screen shot of the error message.
- Are you creating a new Logon Point?  
See page 90 of the Administrator's Guide for details
- Does the issue still exist if you use a new logon point?

#### Web Resources and Policies

- Controlling access through policies  
See page 131 of the Administrator's Guide for details
- Adding resources
- What type of resource are you trying to create?

- Did you select the correct resource type?  
See page 119 of the Administrator's Guide for details
- Is bypassing URL Rewriting needed?  
See page 144 of the Administrator's Guide for details
- How to Enable pass-through authentication  
See page 124 of the Administrator's Guide for details
- Creating resource policies
- Did you select the option to create a default policy with the resource?
- Multiple policies can exist for one resource. If this is the case, then a policy that denies a policy-setting permission always wins over other policies that allow the permission.  
Note that policy names must be unique.
- Did you apply a filter to the policy? Is the issue the same without the filter?
- Are you implementing Double-Hop DMZ configuration?  
See page 69 of the Administrator's Guide for how to implement Double Hop DMZ configuration

### Endpoint Analysis

- Firstly, consider configuring Audit Logging to capture Endpoint Analysis error information.  
See page 225 of the Administrator's Guide for details
- Secondly, for each denial of access to a resource or failed endpoint analysis scan, a unique value is displayed in the user's browser.
- Thirdly, cross-reference this unique value in the event log for more information on the error.
- Verify that the scan was created correctly.  
See page 166 of the Administrator's Guide for details for creating Endpoint Analysis Scans

### Managing Access Server Farms

- Information on how to remove servers from the farm -  
See page 219 of the Administrator's Guide for details
- Components such as Logon Points or Web Proxy function incorrectly.  
Try restarting the Access Gateway, Advanced Edition COM+ applications,  
See page 215 of the Administrator's Guide for details

### 18.4. Related Knowledge Base Articles

- [CTX107240](#) Error: Failed to create the Sample Logon Point
- [CTX112441](#) How to Enable the Access Gateway, Advanced Edition Web Proxy Cache
- [CTX711855](#) Common SSL Error Messages and Their Causes
- [CTX108792](#) SSL Error 29: proxy denied access to port 1494 STA from Web Resource in an Advanced Access Control Farm
- [CTX108638](#) Configuring SmartAccess for Published Applications
- [CTX107230](#) Error: "Failed to create sample logon point" During Server Configuration
- [CTX112443](#) How to Create Custom Endpoint Analysis Scan Packages and New Endpoint Analysis Clients
- [CTX111410](#) Additional Recommendations for Using the Access Gateway Migration Wizard
- [CTX115205](#) Using a Web Interface as an Access Gateway Advance Edition Resource Home Page Returns an Error at Logoff



- [CTX118639](#) How to Set Up Secure communication Between Access Gateway and Advanced Access Control
- [CTX115253](#) Case Study: LogonPoint Fails to Display Images With Error: HTTP 404 Not Found

#### **18.5. Other Relevant Information**

- [CTX109105](#) Access Gateway Advanced Edition Readme
- [CTX111111](#) Access Gateway Advanced Edition 4.5 Fixed Issues Readme EN



## 19. Citrix Access Gateway, Enterprise Edition

Citrix Access Gateway™, Enterprise Edition is the premier Citrix SSL VPN, aimed at the most demanding customer needs. The unique combination of capabilities allows administrators to reduce the ongoing cost of secure remote access and improve the end-user experience.

<http://www.citrix.com/English/ps2/products/feature.asp?contentID=26144>

### 19.1 Languages Supported

English

### 19.2 Administrator's Guide and Firmware Downloads

The link below requires a Citrix agreement and authentication to [www.MyCitrix.com](http://www.MyCitrix.com)

<https://www.citrix.com/English/SS/downloads/downloads.asp?dID=36335>

You can also access the administration documents by pointing your browser at your Access Gateway Management IP address, and selecting 'Documentation' from the drop down menu.

### 19.3 Supported Hardware Versions

5500 7000 7500 9010 9010 FIPS  
9500 10010 12000 15000 17000

### 19.4 Supported Software Versions

7.x (End of Life: July 5, 2010)  
8.x  
9.x

### 19.5 Troubleshooting Questions

#### Gathering General Information

[CTX113463](#) How to troubleshoot Access Gateway Enterprise Edition

#### Hardware

- What is the model and serial number of the Access Gateway, Enterprise Edition Appliance?  
[CTX111353](#) How to Find the Access Gateway, Enterprise Edition Model Number and Serial Number  
If the above article is not relevant, Model Number and Serial Number are on the back of the appliance.
- Did you receive copper instead of fiber, or vice versa?
- Do you see NIC or LED lights when powered on?
- What does the LCD screen on the front of the Access Gateway appliance display?
- Can you get a logon prompt when connecting to the appliance with a serial cable?
- If you believe that there is a hardware error, the following information is required:
  - Customer Name (Company Name)
  - Customer Contact name (Full name)



- Customer Contact Phone Number
- Customer Contact e-mail Address
- Device Serial Number (Back of Device)
- Desired Software Version
- Model Number
- Mac address of first interface (if possible)
- Fiber or copper
- Customer's ship-to address
- Reasons for return/defect
- If possible, the output of the **dmesg** command from the shell prompt

## Software

- The Access Gateway appliance comes preloaded with software from the factory.
- What is the current version and build of software on the system? (example: 9.0 build 68.6) (Connect with an SSH client, or through the serial console, log on to the system, and issue the "show version" command.)
- Take a detailed description of the error or question, including a copy/paste of error messages if available.
- To upgrade your Access Gateway, Enterprise Edition software, download the required version from the Citrix Support site, make sure to back up the existing configuration and then proceed with the upgrade by opening the GUI:  
Select > Access Gateway > System. Click on Upgrade Wizard > Select your build > Add your licenses if necessary > Upload Documentation (Optional)
- A reboot is necessary to run the upgraded software.

## Licensing

- What is the version of software of the system? (**show version** from the Command Line Interface or click the root node in the GUI). Examples: 7.0, 8.0
- Collect the output of **Show License** and **Show Feature**  
You should see: "SSL VPN: YES (Maximum users = xxx)" where xxx is the max number of concurrent SSL-VPN users.
- Is the feature you want unlicensed? You must request a new license.
- If the feature you want has a YES beside it in the show license output, then you just need to enable the feature.  
This is possible using the command line, or the GUI (Root Node > System > Features.)
- [CTX113028](#) How to License Access Gateway Enterprise Edition

## General Configuration

- Most configuration cases require the ns.conf file.  
Obtain this by connecting to the Access Gateway, Enterprise Edition IP using SCP and downloading the file from the /nsconfig/ directory.
- Run the Tech Support diagnostic. To Do this:
  - GUI: Access Gateway > System > Diagnostics > Technical Support Tools > Generate Support File.

- Command Line Interface: **show techsupport**  
Download this file by connecting with SCP. The path to it is: /var/tmp/support.tgz  
Send this file to your support contact.

## Certificate issues

- [CTX109854](#) What type of certificate does the appliance handle?
- [CTX109260](#) How to install a certificate on a Access Gateway, Enterprise Edition device.
- [CTX109862](#) Invalid certificate error when installing a new certificate.

## Networking Issues

- Get the output of the **show interfaces** command
- Get the output of **show route**
- Get the output of **show vlan**
- Get the output of **show rnat**
- Show vpn parameter
- Get a topology diagram showing IP addresses and infrastructure in the deployment.
- If errant behavior is seen, or some resource is not contactable, conduct a network trace.
- To do this using the GUI:  
Access Gateway > System > Diagnostics > Tech Support Tools > Start new trace
- You can also download the trace from this panel when you are finished capturing it.
- You need to contact Citrix Technical Support to upload it. (It could likely be too big for e-mail.)

## Access Gateway

- For all authentication issues, connect to the NetScaler appliance with SCP, and get the following files: /var/log/messages, /var/log/auth.log, and /var/log/ns.log
- If there is a lot of activity, and the timestamps in the messages file are too new, then you can take one of the archived files such as /var/log/messages.0.gz
- [CTX114999](#) How to troubleshoot authentication issues with aaad.debug

## 19.6 Related Knowledge Base Articles

- [CTX109013](#) Troubleshooting Access Gateway, Enterprise Edition High Availability Issues
- [CTX109262](#) Basic UNIX Commands for Access Gateway, Enterprise Edition
- [CTX108950](#) Setting the Date and Time on Access Gateway, Enterprise Edition
- [CTX108959](#) Installing a New Access Gateway, Enterprise Edition in a High Availability Pair
- [CTX109263](#) Basic Vi Commands for Access Gateway, Enterprise Edition
- [CTX112341](#) Spanning Tree Protocol and Access Gateway, Enterprise Edition
- [CTX111583](#) How to Manually Upload Documents for the Access Gateway Enterprise Edition GUI
- [CTX110542](#) Description of Split Tunneling Settings for SSL VPN
- [CTX117277](#) How to customize Access Gateway Enterprise Edition VPN logon page
- [CTX116059](#) Netscaler IP's FAQ
- [CTX115730](#) How to implement Single sign on feature with Access Gateway Enterprise Edition and Web Interface



## 20. Citrix NetScaler

Citrix® NetScaler® optimizes the delivery of Web applications – increasing security and improving performance and Web server capacity. This approach ensures the best total cost of ownership (TCO), security, availability, and performance for Web applications. The Citrix NetScaler solution is a comprehensive network system that combines high-speed load balancing and content switching with state-of-the-art application acceleration, layer 4-7 traffic management, data compression, dynamic content caching, SSL acceleration, network optimization, and robust application security into a single, tightly integrated solution. Deployed in front of application servers, the system significantly reduces processing overhead on application and database servers, reducing hardware and bandwidth costs.

<http://www.citrix.com/netscaler>

### 20.1 Languages Supported

English

### 20.2 Administrator's Guide and Firmware Downloads

The link below requires a Citrix agreement and authentication to [www.MyCitrix.com](http://www.MyCitrix.com)

<https://www.citrix.com/English/SS/downloads/downloads.asp?dID=36335>

You can also access the administration documents by pointing your browser at your NetScaler Management IP address.

### 20.3 Supported Hardware Versions

5500 7000 7500 9010 9010 FIPS  
9500 10010 12000 15000 17000

### 20.4 Supported Software Versions

7.x (End of Life: July 5, 2010)

8.x

9.x

### 20.5 Troubleshooting Questions

#### Hardware

- What is the model and serial number of the NetScaler Appliance  
[CTX111353 How to Find the NetScaler Model Number and Serial Number](#)  
If the above article is not relevant, the Model Number and Serial Number are on the back of the appliance.
- Did you receive copper instead of fiber, or vice versa?
- Are the network interface LED lights lit when a network cable is inserted?
- What does the LCD screen on the front of the NetScaler appliance display?
- Can you get a logon prompt when connecting to the appliance with a serial cable?
- If you believe that there is a hardware error, the following information is required:
  - Customer Name (Company Name)



- Customer Contact name (Full name)
- Customer Contact Phone Number
- Customer Contact E-mail Address
- Device Serial Number (Back of Device)
- Desired Software Version
- Model Number
- Mac address of first interface (if possible)
- Fiber or copper
- Customer's ship-to address
- Reasons for return/defect
- If possible the output of the **dmesg** command from the shell prompt

## Software

- The NetScaler appliance comes preloaded with software from the factory. What is the current version and build of software on the system? (example, 9.0 build 68.6) Connect with an SSH client, or through the serial console, log on to the system, and issue the **show version** command.
- Take a detailed description of the error or question, including a copy/paste of error messages if available.
- There is a comprehensive document available which details upgrade steps. This is available by putting the NSIP into a Web browser, selecting documentation, and clicking on **NetScaler Migration Guide**.

## Licensing

- Get the version of software of the system (**show version** from the Command Line Interface or click the root node in the GUI). Examples: 8.0, 8.1, 9.0
- Get the output of **Show License** and **Show Feature**
- Is the feature you want unlicensed? If so, you must request a new license.
- If the feature you want has a YES beside it in the show license output, you just need to enable the feature.  
This is possible using the command line, the Configuration Utility (Root Node > System > Features.), or, in 9.0+, by right clicking the feature in the configuration utility.

## General Configuration

- Most configuration cases require the ns.conf file. Obtain this by connecting to the NetScaler management IP using SCP and downloading the file from the /nsconfig/ directory. This is the SAVED configuration however.
  - Run the Tech Support diagnostic. To Do this:  
GUI: NetScaler > System > Diagnostics > Technical Support Tools > Generate Support File.
- Command Line Interface: **show techsupport**
- Download this file by connecting with SCP. The path to it is: /var/tmp/support.tgz
- Send this file to your support contact.

## Certificates

- [CTX109854](#) What type of certificate does the NetScaler support?
- [CTX109031](#) How to transfer certificates from IIS to a NetScaler.
- [CTX109260](#) How to install a certificate on a NetScaler device.
- [CTX109862](#) Invalid certificate error when installing a new certificate.
- [CTX110670](#) How to use Wildcard certificates on the NetScaler appliance.
- [CTX117487](#) How to replace certificates on the NetScaler appliance.
- [CTX109862](#) Invalid certificate error when installing a VeriSign certificate.

## Networking

- Get the output of the **show interfaces** command.
- Verify that the duplex setting is correct.
- Get the output of **show route**.
- Verify you can ping the gateway.
- Get the output of **show vlan**.
- Get a topology diagram showing IP addresses and appliances touching the NetScaler solution.
- If errant behavior is seen, or some resource is not contactable, conduct a network trace. This can be done in the Command Line Interface or the GUI.  
To do this using the GUI:  
NetScaler > System > Diagnostics > Technical Support Tools > Start new Trace
- You can also download the trace from this panel when you are finished the capture.  
To do this using the Command Line Interface (CLI), follow the instructions in article: [CTX114018](#) “How to Take a Network Trace on a NetScaler, “ensuring that the fault condition is reproduced during the capture.
- You must copy this file from the appliance and contact Citrix Technical Support for a location to upload it. (It could likely be too big for e-mail.)

## Compression

- Compression issues require the ns.conf file and a network trace from the NetScaler appliance. (See above) in the Networking section.
- Note: packet size must be set to 0, which means perform a full packet capture. This is necessary so that Technical Support can view all HTTP headers, which otherwise get truncated.
- Useful commands: **show cmp stats** and **show cmp policy**
- By default, the system is configured to compress content of the following Multipurpose Internet Mail Extensions (MIME) types:
  - text/html
  - text/plain
  - text/xml
  - text/css
  - text/rtf,
  - application/msword, application/vnd.ms-excel, application/vnd.ms-powerpoint

- These MIME types are configured on the www server behind the appliance.
- Any additional information pertaining to the URL or VServer \ VIP which is facing the issue.

## Integrated Caching

- To troubleshoot these issues, the running configuration of the appliance is required. (Save the configuration, and send ns.conf from /nsconfig/ or from the configuration utility.
- Verify the free memory on the appliance.
- It is a good idea to set a *global max mem* value for Integrated Cache (IC).
- Check if the client is accessing the site through a proxy.
- Troubleshooting tip on the Configuration Utility:
  - Disable the caching feature,
  - Empty the cache
  - Re-enable the Integrated Cache again.
- From the CLI:
  - Disable the IC feature
  - Flush cache contentGroup ALL
  - Enable the IC feature
- Acquiring a network trace (See above in the Networking section) helps us troubleshoot any Integrated Caching issues as the HTTP Headers will be visible.  
Note: Packet size must be set to 0, which means perform a full packet capture. This is necessary so that we can view all HTTP headers, which otherwise get truncated.
- Include the output of **stat cache** from the NetScaler CLI.

## Load Balancing

- The ns.conf file is critical for load-balancing issues – include this file along with the error description for load-balancing problems.
  - For load-balancing configuration queries, acquire the ns.conf, and take a detailed description (including IP addresses) of the logic the customer wants the load balancer to follow, based on a request coming into the NetScaler solution, and being directed to the back end service.
  - For load-balancing errors, Technical Support also requires the newnslog (stored in binary format).

The logs are stored on the NetScaler hard disk. The one that is being written to is called newnslog. The NetScaler hard disk keeps archives of the old logs, stored as newnslog.xx.gz where xx is the number of the log.
  - You can retrieve these logs using:
    - the GUI NetScaler > System > Diagnostics > Manage Logs> Download Log Files
    - SCP > they are in the /var/nslog/ directory.
  - The following article contains more detailed information about the newnslog (performance log).  
[CTX113341](#) How to obtain performance statistics from Virtual Servers and Service members

## High Availability (HA)

- Double-check that ALL enabled interfaces on both appliances have an UP status.
- Check that the HA monitor for each required interface is enabled on both NetScalers
- Check that the HA monitor on disconnected interfaces is disabled.
- Send the ns.conf from both the NetScalers
- Send the newnslog files from both the NetScalers
- Check with a Network trace that the HA heartbeat packets are not corrupted  
[CTX112967](#) High Availability Packet Data Information
- Verify that any vlan tagging is correctly configured.  
[CTX118597](#) HA and VLANs with 802.1q VLAN Tags

## 20.6. Related Knowledge Base Articles

- [CTX113462](#) How to briefly determine if NetScaler device has hardware issues
- [CTX109013](#) Troubleshooting NetScaler High Availability Issues
- [CTX109262](#) Basic UNIX Commands for NetScaler
- [CTX108950](#) Setting the Date and Time on NetScaler
- [CTX108959](#) Installing a New NetScaler in a High Availability Pair
- [CTX109263](#) Basic Vi Commands for NetScaler
- [CTX112341](#) Spanning Tree Protocol and NetScaler
- [CTX109697](#) NetScaler Web Logging Configuration
- [CTX113038](#) Citrix EdgeSight™ for NetScaler Installation Guide
- [CTX111583](#) How to Manually Upload Documents for the NetScaler GUI

## Troubleshooting Presentations

- [CTX117388](#) CSEIT 2008 – Troubleshooting and Deployment Best Practices for NetScaler



- [CTX115226](#) CSEIT 2008 – Monitoring the Citrix NetScaler Application Switch



## 21. Citrix Application Firewall

NetScaler Application Firewall™ protects Web applications from the growing number of application-layer attacks and prevents the loss of valuable corporate and customer data. In addition to proven attack defenses, the NetScaler Application Firewall aids in compliance with information security regulations, such as PCI-DSS.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=25636>

There are two supported types of the Application Firewall. One is supported on software versions 5.2.x , 5.3.x, or 5.5.x. The other version runs on the NetScaler™ software platform on versions 8.0, 8.1, 9.0 or later. Because the management interfaces of these two types differ, the troubleshooting information is separated accordingly.

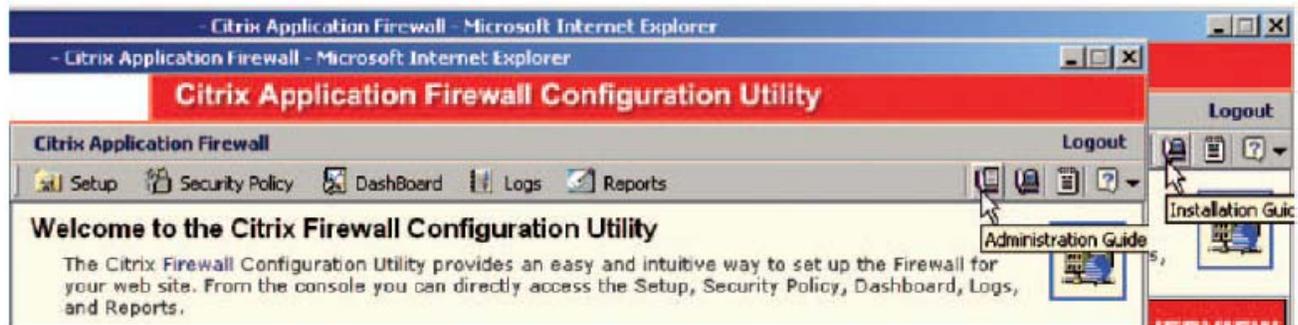
Software versions 5.2.x, 5.3.x, or 5.5.x:

### 21.1 Languages Supported

English

### 21.2 Administrator's Guides

These are available from the GUI after you log on to your device.



### 21.3 Supported hardware Models

T100 End of Life: June 30, 2010

T200 End of Life: June 30, 2010

7000

12000

### 21.4 Supported Software Versions

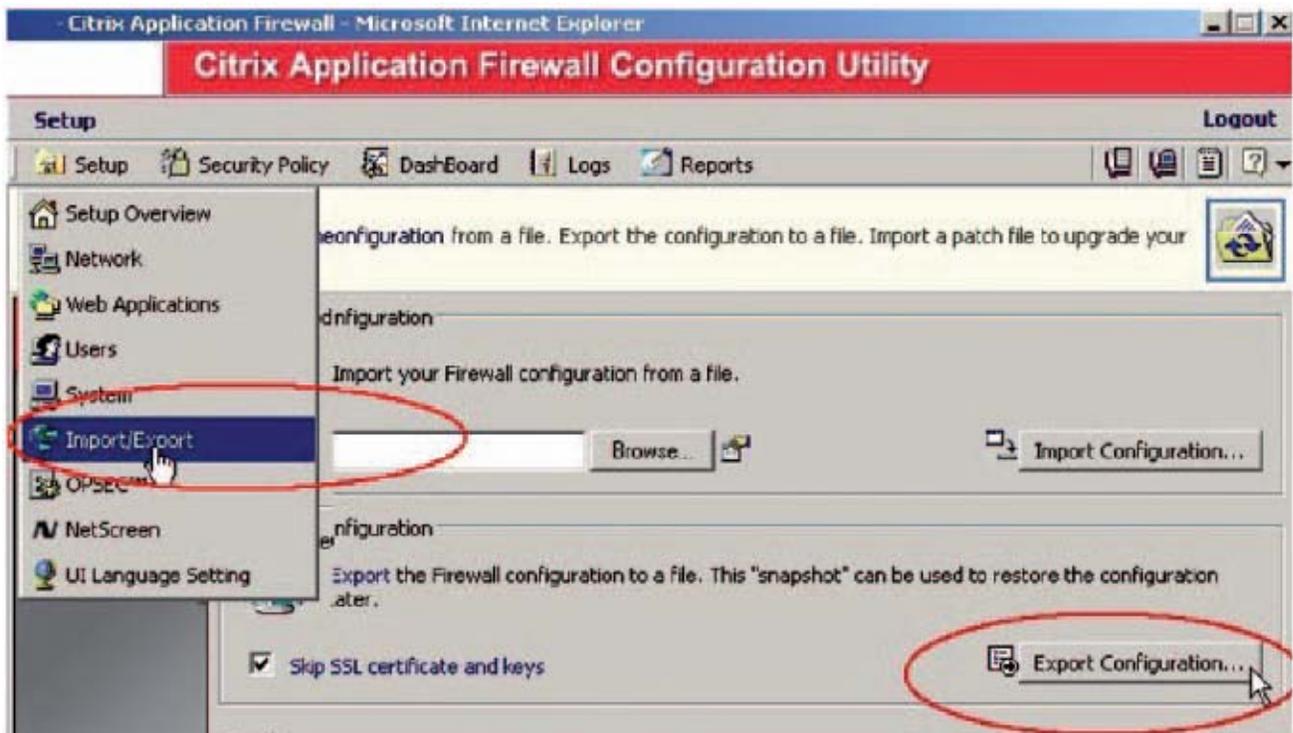
5.x.x

### 21.5 Troubleshooting Questions

Basic Technical Information

- What hardware is the device running on? (T100, T200, 7000, 12000)
- What exact version is the software? (example: 5.0 or 5.5.3)

- Has the appliance been rebooted? (Might resolve sporadic unexplained networking behavior)
- Is this an initial hardware or cabling setup issue? See the following articles:
  - [CTX109630](#) Which Ethernet interface is CTRL\WAN\LAN on?
  - [CTX111727](#) Diagram of Ports on the Citrix Application Firewall 7000 and 12000
- You might want to rule out the Application Firewall protection logic from an issue you are having. To do this, put the appliance in bypass mode where it passes the traffic with no inspections of any sort. This should never be done on a production system without understanding that the site is unprotected while the appliance is in Bypass mode. To put the system into Bypass mode, log on as an administrator, and click:
  - Security Policy > Operating Mode > Tick the Bypass checkbox > Click Save.
  - This is only possible at the SITE level, and not at the application level.
- If the initial configuration and cabling are OK, all interfaces are connected and available on the network, and some configuration is done, but there is a browser error when trying to access a site protected by the Application Firewall.
  - Send a screen shot of the browser error
  - Configuration summary [CTX110624](#) - How do I create, download, and view a configuration summary?
  - URL you are typing in their browser, and the IP address that the URL resolves to
  - Configuration File: At the Site level – click Site > Import Export > Export Configuration



- If something is getting blocked by the Application Firewall which should not be, then the firewall logs and configuration summary are required. To get these:
  - Click Logs > Firewall Log
  - Choose time interval which captures the log entry where the URL is blocked
  - Click Export Log

## 21.6. Related Knowledge Base Articles

[CTX109343](#) How do I configure Start URLs manually?

[CTX109634](#) Why don't I see any recommendations from Learning Mode?

[CTX109635](#) How do I turn off Learning Mode?

[CTX109346](#) How do I capture\send output from a CLI command to a file?

[CTX109324](#) What is the correct certificate format?

[CTX109347](#) How do I install an intermediate certificate?

Software versions 8.0, 8.1, 9.0 and later:

## 21.7 Languages Supported

English

## 21.8 Administrator's Guides

Guides are available from the Configuration Utility login prompt when you connect to your device using a Web browser. Choose Documentation from the dropdown, log on, and click on Citrix Application Firewall Guide.



## 21.9 Supported hardware Models

5500, 7000, 7500, 9010, 9500, 10010 12000,15000 17000

## 21.10 Supported Software Versions

8.0 \*

8.1

9.0

\* The Application Firewall functionality is only available on NetScaler version 8.0 and later.

## 21.11 Troubleshooting Questions

Basic technical information

- What hardware is the device running on? (7000, 12000)
- What exact build is the software? (example: 9.0 Build 67.7)

- If initial configuration and cabling are OK, all interfaces are connected and available on the network, and some configuration is done, but there is a browser error when trying to access a site protected by the Application Firewall, send in:
  - Screen shot of the browser error.
  - The configuration from the appliance ( NetScaler > System > Diagnostics > Running Configuration
  - URL you are typing in your browser, and the IP address that the URL resolves to
- If something is getting blocked by the Application Firewall which should not be, then the firewall logs and configuration are required. To get the logs:
  - Click NetScaler > System > Auditing (Select Auditing Node in left hand window pane) > Recent Auditing Messages
  - These messages can also be located on the appliance in the following directory:  
/var/log/ns.log
  - The system rolls these over periodically, and keeps the past five previous logs in gzip format. These can be opened and viewed from the configuration utility.
- You might want to rule out the Application Firewall protection logic from an issue you are having. To do this, turn off the Application Firewall protection functionality where it passes the traffic with no inspections of any sort. This should never be done on a production system without understanding that the site is unprotected while the appliance is in this Bypass mode. To put the system into Bypass mode, log on as an administrator, and disable the Application Firewall feature. This can be done in the configuration utility by going to: System > Settings > Change Basic Features > Deselect Application Firewall
- If there are multiple profiles and policies configured on the appliance, it is possible to unbind the single policy which protects a particular Web server. In this way, other policies continue to protect their applications, as it is not a system wide change, but policy bindings and priorities need to be understood.
- For performance issues, Technical Support requires the newslog (stored in binary format). The logs are stored on the NetScaler hard disk. The one that is being written to is called newslog. The NetScaler hard disk keeps archives of the old logs, stored as newslog.xx.gz where xx is the number of the log. You can retrieve these logs:
  - Using the GUI in AppFirewall > System > Diagnostics > Download Log Files or
  - Using SCP > they are in the /var/nslog/ directory

## 21.12 Related Knowledge Base Articles

[CTX113462](#) How to briefly determine if the device has hardware issues

[CTX109697](#) Web Logging Configuration

[CTX109854](#) What type of certificate does the NetScaler handle?

[CTX109031](#) How to transfer certificates from IIS to a NetScaler.

[CTX109260](#) How to install a certificate on an Application Firewall device.

[CTX109862](#) Invalid certificate error when installing a new certificate.

[CTX110670](#) How to use Wildcard certificates on the Application Firewall appliance.

[CTX117487](#) How to replace certificates on the Application Firewall appliance.

[CTX109862](#) Invalid certificate error when installing a VeriSign certificate.



## 22. Citrix Repeater and Branch Repeater

Citrix Repeater™ (formerly WANScaler) solutions provide high-performance application delivery to branch office users. Repeaters accelerate application performance across wide area networks (WAN) by an average of five to 30 times, and up to 300 times at peak compression efficiency. With Repeaters in the network, users in the branch office experience LAN-line application performance over the WAN which means accelerated application response time.

[http://www.citrix.com/English/ps2/products/product.asp?contentID=33886&ntref=hp\\_nav\\_US](http://www.citrix.com/English/ps2/products/product.asp?contentID=33886&ntref=hp_nav_US)

### 22.1 Languages Supported

English

### 22.2 Administrator's Guide

<http://support.citrix.com/article/ctx120154>

### 22.3 Supported Versions

WANScaler 3.x: End of Life: July 31, 2009

WANScaler 4.x

Repeater 5.0

Branch Repeater 5.0

### 22.4 Troubleshooting Questions

#### Basic technical information

- Repeater model number
- Device serial number
- Software version
- Platform version
- Configuration file (go to GUI – System tools: Save and Restore)
- Are any alerts displayed on the GUI Page – current status?
- What is the exact error code information, if any?
- Is the client in a VPN or IPSEC tunnel, or is there a network proxy server in the topology?

#### Hardware related issues

- Boot failure
  - Verify that the fan is running
  - Verify that there is a display on the bezel
  - Use the console to connect to the unit
  - Black screen – Contact Citrix Technical Support to verify the hardware.
- **Hard disk failure**
  - Reseat the hard drive (only applicable on Dell 8800 units)
- **System restarts**
  - If the Repeater stabilizes after restarting, retrieve the core files, as described below

- If the unit continues to restart, eventually falling into a disabled state, you must Contact Citrix Technical Support to verify the hardware
- **Failed-to-wire card**
  - Verify the cabling. Make sure it is plugged in to the fail-to-wire card and not the motherboard port.
  - Check NIC status lights
  - Verify the negotiation and if you have switch access, set the port manually, forcing it to Full Duplex, and do the same in the appliance.
  - Use the orange cross-over cable to connect the Repeater to a PC or Router
  - Use the blue straight-through cable to connect the Repeater to a Switch [CTX119790](#)

## Commonly used procedures

- **Creating a trace file**
  - Log on to the Repeater.
  - Click on **Diagnostic Tools** under the Diagnostic section of the menu
  - Under the Tracing Utility, select Trace Type: Headers Only
  - Click **Start**
  - Let run for 10 to 15 seconds and then click **Stop**
  - Where possible, attempt to recreate the error condition while the trace is running
  - Within one minute or so (depending on the size of the Trace File), a URL appears under the Trace Utility section
  - Click to download the trace file to your desktop
- **Extracting logs**
  - Log on to the Repeater
  - Click on **Logging** (under the Configure Settings menu)
  - Scroll to the bottom until you see "Configure Settings: Logging: Log Extract"
  - In the "By Record Number" section
    - Select the last 10,000 records (for example From = 10000 / To = 20000)
    - Select "Text" for the Format
    - Select "All" for Record Types
    - Select the "By Record Number" button
    - Save to your desktop
- **Retrieving core files**
  - Log on to the Repeater
  - Click on **Diagnostic Tools** under the Diagnostic section of the menu
  - Under Tools Section: Core Retrieval
  - Select the Core file(s)
  - Click **Get Core Files**
  - Download the Core file(s) to your desktop
- **Creating a service class**
  - Click **New Service Class** at the bottom
  - Top-Right, Type in the name of the Service Class and click **Create**
  - A link should show-up near the bottom of the list (just above "Unclassified TCP")
  - Click the new Service Class link
  - A new page should appear, click **New Rule**



- Here you can add Source/Destination IP and Port information
- Once this is complete, Click on the Service Class Policy page
- The new rule should show up near the bottom
- Here you can enable or disable Flow Control and Compression
- You can also move the Policy up or down (the priority is from top to bottom)

## 22.5. Related Knowledge Base Articles

- [CTX112413](#) Unaccelerated Connection Error Code Definitions
- [CTX112404](#) What are the Default Passwords for the Different Repeater Firmware Versions?
- [CTX112392](#) How Repeater Accelerates Server Message Block-signed Traffic
- [CTX113151](#) Repeater CIFS Acceleration is Enabled, but the Connection Shows Up as Unaccelerated
- [CTX112401](#) Acceleration Does Not Take Place for Configured Traffic Types
- [CTX113111](#) How Traffic is Handled When a Group Mode Member Failure Occurs
- [CTX112416](#) Simple Mail Transfer Protocol-compressed Traffic that Traverses a Firewall does not Function
- [CTX112415](#) Does the Repeater Require Any Maintenance for the Cached Bytes in Memory or on the Hard Disk?
- [CTX112398](#) Repeater Fails to Start with Error: Repeater xx00 on the Front LCD Panel
- [CTX112403](#) Acceleration Performance is Poor
- [CTX112409](#) Applications Hang or Do Not Accelerate

## 23. Citrix Accelerator Client

The Accelerator Client for Citrix Receiver (formerly the WANScaler or Repeater client) accelerates application delivery to remote users in home offices and on the road. It works in conjunction with the Citrix Repeater, or Citrix Branch Repeater.

### 23.1 Languages Supported

English

### 23.2 Administrator's Guides

<http://support.citrix.com/article/ctx120154>

### 23.3 Troubleshooting Questions

Check if Accelerator Client is running

1. Right-click on the system tray icon and open the Citrix Accelerator Manager

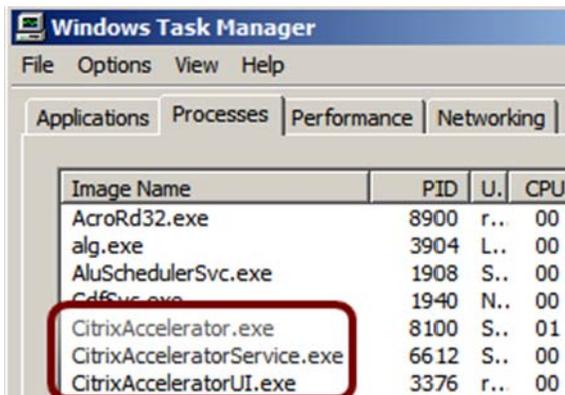


2. At the bottom of the window, the Enable Citrix Accelerator option should be grayed out. If not, left-click once to enable it.

Check to ensure that the relevant Accelerator processes are running

1. Verify in the Task Manager that the relevant Client processes are running, namely:

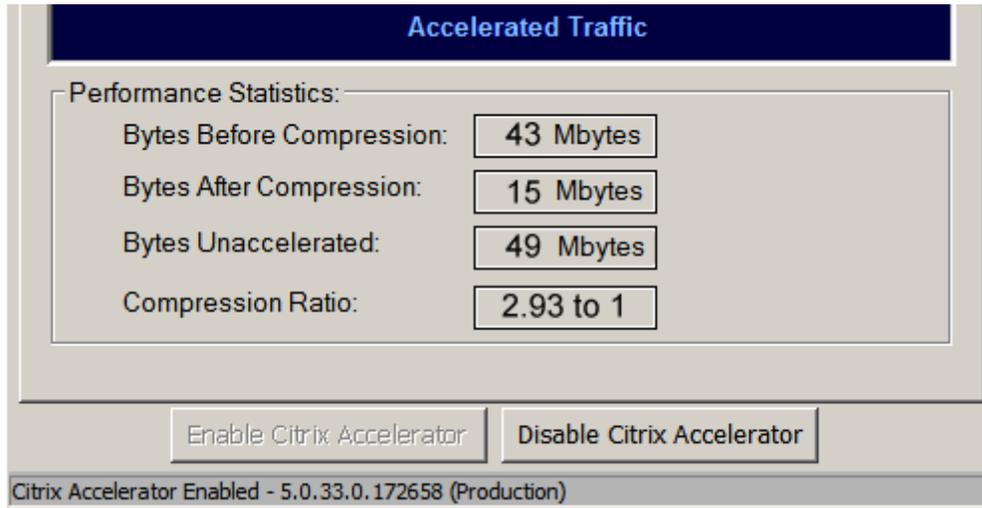
- CitrixAccelerator.exe
- CitrixAcceleratorService.exe
- CitrixAcceleratorUI.exe



Check to verify if the Citrix Accelerator has managed to accelerate/compress traffic

1. Right-click on the system tray icon and open the Citrix Accelerator Manager. At the bottom of the first page (beneath the graphic display) there is a series of counters.

2. Observe the details of any output, such as bytes accelerated, compressed, and the compression ratio



3. This information provides confirmation that the Accelerator has previously been operating successfully

### Capturing a trace

1. Right-click on the system tray icon and open the Citrix Accelerator Manager.
2. Navigate to the Diagnostics tab where the option to capture a trace should be evident. Once the button has been pressed to activate the trace capture, pressing the same button de-activates the tracing function.
3. The same tab can be used to display the number of currently accelerated and unaccelerated connections (including CIFS connections).

### 23.4. Related Knowledge Base Articles

- [CTX117566](#) Performing a silent installation of Repeater Client
- [CTX112194](#) Repeater Client Admin Guide
- [CTX119740](#) Repeater Client Version information
- [CTX118058](#) FAQ - Repeater Client – Appliance compatibility

### 23.5. Other Relevant Information

- [CTX114907](#) Repeater Client Configuration Case Study



## 24. Command Center

Citrix® Command Center is a network performance management and monitoring solution for the complete line of Citrix application networking products including Citrix NetScaler®, Citrix Application Firewall™, Citrix Access Gateway™, Enterprise Edition, and Citrix Receiver™. Citrix Command Center enables network administrators and operations teams to easily take control of their entire global application delivery infrastructure from a single, unified console. Centralized management simplifies operations by providing administrators with enterprise wide visibility and by automating routine management tasks that occur across multiple devices.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=1340321>

### 24.1 Languages Supported:

English

### 24.2 Administration Guide:

<http://support.citrix.com/article/CTX116756>

Limitations regarding supported firmware versions that can be managed from Command Center:

- NetScaler 7.0 build 52 and later support Certificate Management
- NetScaler 6.1 build 88.1 and later support Change Management
- NetScaler 6.0 and onwards support the rest of the features (Certificate Management and Change Management withstanding)
- NetScaler version 5.2 has limited support
- WANScaler 4.3 and later can be discovered by Command Center 3.1 and later

### 24.3 Supported Software Versions

Citrix Command Center 3.x

Citrix Command Center 4.0

### 24.4 Frequently Asked Questions

- What is the default username and password for Citrix Command Center?
  - Default username: root
  - Default Password: public
- How do I install Command Center on Linux using the console?
  - See the following article: [CTX114797](#) > How to Install and Run Command Center 3.0 on Linux
- What features and benefits does Command Center provide for WANScaler appliances?
  - See the following article: [CTX116998](#) > Citrix Command Center for WANScaler



## 24.5 Troubleshooting Questions

Command Center can be started in standalone mode or service / background mode. The usual method of running Command Center is in service mode. However, if it fails to start, try starting it in standalone mode, because this displays startup error messages in your console.

The location of Command Center log files are:

CC\_HOME\log

CC\_HOME\apache\logs

CC\_HOME\apache\tomcat\logs

CC\_HOME is the location chosen for the Command Center files during installation. You might be asked to zip these logs when contacting Citrix Technical Support.

## 24.6 Related Knowledge Base Articles:

- [CTX116463](#) Creating users and groups in Command Center
- [CTX116462](#) Controlling user access in Command Center
- [CTX114920](#) Logon to Command Center fails after weekly backup of data



## 25. Citrix EdgeSight

The Citrix EdgeSight™ solution shifts the IT focus from technology and systems to end-users and achieving business goals. It moves the emphasis away from the “plumbing” – the networks, servers, and infrastructure that support business – to the business itself and the conductors of that business. By measuring performance and availability from the user’s perspective, EdgeSight cuts across organizational and geographic boundaries and monitors the actual end-user experience. The result: IT organizations have the insight, data, and tools they need to ensure that all IT resources are operating at peak efficiency – so that end-users can do the same.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=25119>

### 25.1 Languages Supported

EdgeSight Console: English, Spanish, French, German, Japanese  
EdgeSight Agents: English, Spanish, French, German, Japanese

### 25.2 Administrator’s Guides

<http://support.citrix.com/article/CTX117593>

### 25.3 Supported Versions

EdgeSight 4.5, 5.0 and 5.1 are currently the only versions of EdgeSight for XenApp supported.

### 25.4 Troubleshooting Questions

#### Installation

- [CTX113676](#) Citrix EdgeSight Installation Guide
- [CTX117594](#) Citrix EdgeSight Installation Guide 5.0
- What error message are you receiving?
- Can you enable MSI verbose logging (msiexec.exe EdgeSightServer.msi /L\*v install.log) and send the log file?
- See [CTX110991](#) Error: The installer has encountered an unexpected error installing this package ... when Interactively Installing an EdgeSight Agent
- Does the EdgeSight server meet necessary requirements? See ‘System Requirements’ section in Chapter 1-4 of the [Installation Guide](#)
- Does the EdgeSight Agent for Presentation Server or End Points meet necessary requirements? See ‘System Requirements’ section in Chapter 1-3 of the [Installation Guide](#)
- Which account are you using during installation?
- Are you migrating from EdgeSight 4.2 to 4.5? See [CTX113870](#) How to Migrate From EdgeSight 4.2 to Version 4.5
- Are all EdgeSight components (SQL Server, IIS Web site, Reporting Services) on the same device or on separate devices? Ensure there is connectivity between them.
- Can you create SQL Database during installation?
- See [CTX111897](#) EdgeSight Database Installation Fails with Error - 2147217900 While Attempting to Create a SQL Database



## Configuration

- EdgeSight console error "Reporting Services in not configured or configured incorrectly"  
See [CTX111313](#) How to install and configure Reporting Services for use by EdgeSight
- Which account are you using to access the Report Server? Can you access the Web page from a browser (not the EdgeSight console)?
- Managing Database grooming - See 'Managing the Database' section in Chapter 3 of Administrator's Guide.
- [CTX111019](#) Designing a Strategy for Warehousing Historical Data Collected by EdgeSight
- [CTX111123](#) Disk Fills Up Because the EdgeSight Firebird.log File Grows Very Large
- [CTX111062](#) Required Antivirus Software Configuration for the EdgeSight Agent
- [CTX112491](#) Configuring the Presentation Server Agent for Run Time Efficiency and Reliability
- Are the correct ports opened? See [CTX111113](#) Error: -2147014847 'There was an error connecting to the remote Citrix System Monitoring Agent database
- See [CTX111107](#) Ports Required for Citrix EdgeSight
- What is the error message you are receiving? Can you send a screen shot?
- Is this a Server or Agent Problem?

## Server

- Are Alerts coming in?
- Are payloads being processed?
- Are reports blank?
- Are you able to log on to the console? Any HTTP errors? See [CTX111779](#) Error: "HTTP Error 404 – File Or Directory Not Found" when logging on to the EdgeSight console
- Is RSSH Service running?
- Any IIS lockdown procedures?
- Are you using firewalls or antivirus software?

## Agent

- Are there any application conflicts? Check the event log.
- Are you using SSL? See [CTX111924](#) Configuring EdgeSight to Use SSL with Microsoft Certificate Services
- What is the agent version?
- After installing the agent, does it appear in the EdgeSight Server Web Console?
- Are the RSCorSvc.exe and FBServer.exe services running?
- Does the same problem exist for EdgeSight Agent for Endpoints or Presentation Server?
- Are you able to remotely access the agent?
- Are the necessary ports on firewalls open (9035, 9036)?
- Check antivirus software configuration [CTX111062](#)
- [CTX111096](#) Devices with EdgeSight Agents Do Not Show Up in the EdgeSight Web Console
- [CTX111043](#) Newly Installed EdgeSight Agent Devices Do Not Report Up
- [CTX111871](#) New Agents Fail to Report Up with Error: zpd\_loader. RunCmdLineApp (WshShell.Exec): Error executing command.



- Is the License Server installed and appropriate licenses available (EdgeSight Agent for Endpoints and Presentation Server)?
- For licensing problems, see [CTX111099](#) – EdgeSight Server is unable to connect to the License Server
- See [CTX114401](#) – Error: EdgeSight has detected a problem with the Licensing configuration. Click here for more information.
- See [CTX111870](#) – Error: "No Valid Licenses Found" when logging on to EdgeSight
- See [CTX111204](#) – EdgeSight Server Error: The Licensed Device Count Has Been Exceeded
- Any errors on the event viewer of the server (send the event viewer files)?

### **Performance Issues**

- What database type is being used? For SQL 2000SP4/2005, check that other databases work correctly on that server.
- Check antivirus software configuration [CTX111062](#)

## 25.5. Related Knowledge Base Articles

- [CTX112604](#) Does EdgeSight Support Windows XP Embedded or Thin Clients?
- [CTX112418](#) Error: No Authorization – An authorization error occurred
- [CTX112602](#) How the Changes to Daylight-saving Time in 2007 Affect EdgeSight
- [CTX112209](#) EdgeSight Agent Worker Function Log Files Explained
- [CTX111231](#) Error: Logon failure: unknown user or bad password ... when Using the Active Directory Logon Authentication Provider
- [CTX111151](#) Citrix EdgeSight Support for 64-bit Platforms
- [CTX111218](#) Citrix EdgeSight Frequently Asked Questions
- [CTX111114](#) How to Enable SSL on the EdgeSight Monitoring Agent after Installation
- [CTX111824](#) Error: "Could not write to output file" when logging on to EdgeSight console
- [CTX110965](#) Citrix EdgeSight Performance Management Architecture
- [CTX111017](#) Generating Reports From Multiple EdgeSight Servers
- [CTX111041](#) How to Change the Email Address Receiving EdgeSight Operational Emails
- [CTX111018](#) The Process for Creating a New Custom EdgeSight Report
- [CTX110992](#) How to Enable or Disable the Presentation Server Functionality in the EdgeSight Server
- [CTX111219](#) EdgeSight Email Errors: Could not access "CDO.Message" object or "relay denied"
- [CTX114939](#) Troubleshooting EdgeSight
- [CTX111032](#) Examples of How to Create EdgeSight Custom Groups Using SQL Queries



## 26. EdgeSight for NetScaler

Citrix EdgeSight for NetScaler builds application visibility into the application delivery infrastructure providing end-user performance monitoring for Web applications and enabling IT managers to proactively monitor Web application performance and availability based on actual user experience.

IT administrators are able to monitor the minimum, average and maximum response time for multiple Web applications in a real-time fashion to proactively identify potential problems before users are affected. By intelligently aggregating and presenting this data on a historical basis, application managers can also better understand how the performance of individual Web pages has changed over time. These tightly integrated real-time Web application monitoring and historical reporting capabilities available in NetScaler 8.0 make it easy for IT administrators to better ensure Web application availability and continue to improve service levels.

<http://www.citrix.com/English/ps2/products/subfeature.asp?contentID=165775>

### 26.1 Languages Supported:

English

### 26.2 Administration Guide:

[CTX114399](#) Citrix® EdgeSight for NetScaler® 1.1 Installation Guide

### 26.3 Supported Software Versions:

EdgeSight for NetScaler 1.1

### 26.4 Troubleshooting Questions

You can use the following four questions to determine what area to look at:

- [CTX114237](#) Are all the Windows Server 2003 components installed?
- [CTX117291](#) Is the page requested being injected with javascript?
- [CTX117295](#) Is the location of the correct data collector in the injected javascript, and what response should we see?
- [CTX117296](#) Has the NetScaler System IID been registered in the web console?

### 26.5 Related Knowledge Base Articles:

[CTX114317](#) How To Mitigate Compressed Responses when using HTML Injection.

[CTX114400](#) Installing EdgeSight for NetScaler Readme

[CTX113121](#) EdgeSight for NetScaler Database Installation fails with error with Error -2147217900

[CTX111313](#) How to install and configure MS Reporting Services for EdgeSight

[CTX117296](#) Error: Data received from unknown device

[CTX118211](#) No Data in EdgeSight for NetScaler Report Console

[CTX115887](#) EdgeSight for NetScaler Printed Online Help

[CTX114471](#) Running the Post-Installation Setup Wizard on a Non-Windows System Causes Issues



## 27. EdgeSight for Load Testing

Automated Application Performance and Regression Testing for Citrix XenApp

EdgeSight for load testing provides an efficient and cost effective method of server sizing and application load testing for Citrix XenApp environments. Using simple to use record and replay functionality, EdgeSight for Load Testing records a user's interaction with an application, generating the necessary information to simulate the activity of hundreds or thousands of users, from any location. This data helps XenApp administrators identify performance bottlenecks before applications are delivered to the production environment, and to establish application monitoring baselines based on transaction and system performance. Once created, scripts can be re-used for application regression testing of updates or for comparing performance of new hardware options or configurations.

<http://www.citrix.com/English/ps2/products/subfeature.asp?contentID=1297903>

### 27.1 Product Documentation

[CTX119008](#) EdgeSight for Load Testing User's Guide

[CTX119007](#) EdgeSight for Load Testing Installation Guide

### 27.2 General Troubleshooting

#### Troubleshooting Connecting and Running Load Tests

- The gray window for TUser starts on the launcher machine when playing a load test and you get "Connect Failed" error.
  - Try increasing the Connect Timeout (s) under Options > Configuration (Default is 30 seconds)
  - Test the ICA file from the launcher computer to see if you can connect to the published application using just the ICA file. Map a drive to the controller computer where the ICA file is and from the launcher computer double click on the ica file (located in \<userprofile>\My Documents\Citrix EdgeSight for Load Testing\ICA Files).
  - Test a direct server connection to see if it is an issue with the published application or ICA file.
  - Test from a different launcher computer and from the controller computer if you are using multiple or remote launchers.
  - When using a remote launcher, the load test fails with error "Create Client Failed. Could not load ICA file". See [CTX116542](#) - ERROR: Could not load ICA file for more information.



## Required Ports Open when Running Load Tests:

Port	Source	Destination	Usage
18745	Controller	Launcher(s)	Used to upload scripts to execute and ICA settings and credentials for use by launchers
18746	Launcher(s)	Controller	Used to communicate statistics for reporting to the Controller
1494/2598	Launcher(s)	Presentation Servers	Default ports used by ICA during activity simulation

### 27.3 Related Knowledge Base Articles

- [CTX118978](#) Manual Steps Needed after Uninstalling the EdgeSight for Load Testing's Web Interface
- [CTX119498](#) EdgeSight for Load Testing Best Practices for XenDesktop Scalability
- [CTX116688](#) How to Extend EdgeSight for Load Testing Scripts with Jscript
- [CTX116542](#) ERROR: Could not load ICA file
- [CTX116694](#) Troubleshooting EdgeSight for Load Testing



## 28. Citrix Password Manager

Citrix Password Manager™ increases application security for all applications, whether delivered by Citrix XenApp™ or deployed to the desktop. Organizations may now centralize password management with IT for greater control, while users experience the productivity gains of fast, automated logons to Web, Windows® and host-based applications.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=7181>

### 28.1 Languages Supported

Console: English, French, Spanish, German

Agent: English, French, Spanish, German

### 28.2 Administrator's Guides

[CTX116582](#) Citrix Password Manager 4.6 SP1

[CTX111558](#) Citrix Password Manager 4.5

### 28.3 Implementation Guides

[CTX116586](#) Citrix Password Manager 4.6 with Service Pack 1 Evaluator's Guide

[CTX111617](#) Citrix Password Manager Evaluator's Guide – 4.5

### 28.3 Troubleshooting Questions

#### Preparation (Active Directory, shared folder)

- Which type of synchronization are you trying to set up (Active Directory®, Shared Folder)?  
Page 15 4.6 SP1 Installation Guide (Which Central Store Type Should I Choose?)
- When you're trying to modify the Active Directory schema, are you using a user account with schema administrator rights?
- Use Active Directory snap-in to see the groups the user belongs to
- What is the error message (send a screen shot)?
- Can you replicate the schema between the domain controllers?
- Using Active Directory Schema snap-in  
How To View and Transfer FSMO Roles in Windows Server 2003 – Q324801
- Did you create the shared folder with the tool delivered by Citrix or manually?  
Page 62 for 4.6 SP1 Installation Guide (Creating a Central Store)
- Are you upgrading Password Manager? If so...
  - Did you run the correct command line tool to prepare the synchronization point?  
Page 93 for 4.6 SP1 Installation Guide (Step 2 – Upgrading the Password Manager Console)
  - Did you follow correctly the upgrade process?  
Page 87 for 4.6 SP1 Installation Guide (Summary of Upgrade Steps)

#### Installation (console and agent)

- What is the error message (send a screen shot)?



- How did you deploy the agent? Is the issue the same if you install the agent using the MSI file?
- Is the Agent installed on a Presentation Server or on the client device?
- Do you have the same problem with a user that has administrator rights?

### **Synchronization**

- What is the error message (send screen shot)?
- Is the device where the agent is installed part of the same domain as the synchronization point (AD, shared folder)?
- If using a shared folder, could you reach the folder by its UNC path (\\server\sharefolder)?
- If using AD, can you ping the domain (ping domain.extension)?
- Does the registry key HKEY\_LOCAL\_MACHINE\SOFTWARE\Citrix\MetaFrame Password Manager\Extensions\SyncManager\Syncs\DefaultSync contains the correct value for the synchronization?
- If using shared folder, you should see a value for SSOSyncType = FileSyncPath and then in the server node, you should find a value like \\<serverName>\<shareFolder>
- If using AD, the value of SSOSyncType = ADSyncPath with no server's folder
- Could you run a repair of the agent? (Add/Remove programs)
- Does the problem appear with all the agents?
- Does the problem appear with all the users? Does the problem persist after deleting the Password Manager's user profile?

### **Getting new settings (agent, application definition)**

- If using Active Directory, are you synchronizing the settings on the correct OU (Organizational Unit)?
- Did you refresh or shut down the agent after pushing the information from the console?
- What are the exact settings that are not received (send a screen shot from the console)?
- Does the problem appear with all the agents?
- Does the problem appear with all the users?

### **Detecting application**

- What type of application are you trying to detect (windows, Host emulation, Web application, Java application or applet)?
- Did you use a template to create the application definition? If so, could you send Technical Support the template used?
- What are the settings in use for the application definition (fields detection, sendKeys, Window matching...)?
- Could you export the settings from the Access Management Console (Password Manager Node > Export Administrative data)
- Is the terminal emulator compliant with HLLAPI?
- For a Web application, what is the version of the Web browser?

## Troubleshooting tools

- [CTX107169](#) Troubleshooting the Citrix Password Manager Service.
- [CTX110326](#) Using the Citrix Password Manager Agent Logging Facility.
- [CTX119662](#) Hot Desktop Logging.
- Debug log calculator – Contact Citrix Technical Support.
- Password Manager Tracing Tool – Contact Citrix Technical Support.
- Test Applications – Contact Citrix Technical Support.

## 28.4. Related Knowledge Base Articles

- [CTX107435](#) Single Sign-on Is Not Working with Program Neighborhood Agent In a Hot Desktop Environment
- [CTX107380](#) Program Neighborhood Agent Applications for a Hot Desktop User Do Not Show Up In the Expected Locations
- [CTX107328](#) Dialog: The user configuration cannot be updated because it has been retired
- [CTX107399](#) Error: You cannot use the Password Reset feature. Contact your Administrator
- [CTX106759](#) Impact of Data Integrity Feature on Agent Authentication Methods
- [CTX108740](#) Hot Desktop FAQ Hot Desktop FAQ CPM4.1/CPM4.5
- [CTX107169](#) Troubleshooting the Citrix Password Manager Service
- [CTX107024](#) Improving Security with Citrix Password Manager
- [CTX111617](#) Citrix Password Manager Evaluator's Guide
- [CTX111189](#) Citrix Password Manager 4.5 Fixed Issues English
- [CTX112493](#) The Password Manager Agent Icon Does Not Appear When Using Fixed Window Sizes for Published Applications
- [CTX111831](#) Creating a Custom Account for the Self-Service Features
- [CTX111616](#) Password Manager Licenses no Longer Appear in the License Management Console
- [CTX112729](#) The Password Reset Icon on the Web Interface 4.5 Logon Page is Missing
- [CTX112148](#) Windows Applications are not Recognized by the Password Manager Agent
- [CTX112838](#) How to Deploy Only the Account Self-Service Features of Password Manager
- [CTX112623](#) You Cannot Acquire a License From a Password Manager 4.5 License File When Using Password Manager 4.1
- [CTX112783](#) Automatic Key Recovery Breaks if a User ID is Changed in Active Directory
- [CTX112743](#) Password Manager Agent, Version 4.5.124 – English
- [CTX110326](#) Using the Citrix Password Manager Agent Logging Facility
- [CTX119662](#) Hot Desktop Logging



## 29. Citrix User Profile Manager

User Profile Manager addresses profile deficiencies in virtualized environments where simultaneous logins by the same user introduce complexities and consistency issues to the profile. User Profile Manager is a profile optimization service that provides an easy, reliable way for managing user personalization settings

User Profile Manager may be installed on Windows XP or Vista computers to provide the same profile improvements as on XenApp servers.

### 29.1 Languages Supported

English

### 29.2 Administrator's Guide

[CTX118943](#) Citrix User Profile Manager 2.0 Administrator's Guide

### 29.3 Supported Versions

Citrix User Profile Manager 2.0

### 29.4 Troubleshooting

- What error messages are you receiving?
- Is logging turned on?
  - How to enable the logging [CTX119038](#)
  - All log files from User Profile Manager (under <SystemRoot>\System32\Log files\UserProfileManager
- Enable userenv logging <http://support.microsoft.com/kb/221833>
- Copy of Windows system and application event logs.
- Ntuser.dat is not getting its settings copies back to the user's central store.
  - Using UPH clean for issues where the ntuser.dat is in use.
  - Install UPH clean on the computers. <http://support.microsoft.com/kb/837115>
- Are you using the Administrative Template or the INI files for configuration settings?
- The resultant set of policies (RSOP) for the machine and user affected. This can be generated by the Group Policy Management Console (GPMC).
- Copy all logs after one full logon and logoff process for the affected user. Submit the logs to Citrix Technical Support

### 29.6 Related Knowledge Base Articles

- [CTX119747](#) Licensing FAQ
- [CTX119791](#) Technical FAQ
- [CTX119039](#) Cross Platform Profiles FAQ
- [CTX119466](#) Logon-Logoff Chart
- [CTX118944](#) ADM Template File Reference



## 30. Citrix EasyCall

Citrix EasyCall™ is an award winning technology that provides the simplest and most intuitive way of communication enabling applications while cutting corporate telephony expenses by over 50 percent with the flexibility of using any telephone.

### 30.1 Languages Supported

English

### 30.2 Administrator's Guides

- [CTX117219](#) EasyCall Gateway 1.2 Administrators Guide
- [CTX118424](#) EasyCall Gateway 2.1 Administrators Guide
- Read the pre-installation checklist located here [CTX120390](#)

### 30.3 Troubleshooting Questions

- What telephony system is used at the site? (The vendor and product type is required, (Example: Avaya S8300/S87xx-Series)
- What is the trunk type (E1, T1, other)
- What is the Signaling type?
- What is the trunk capacity?

### 30.4. Related Knowledge Base Articles

- [CTX120377](#) Hardware Installation Guide

### 30.5. Other Relevant Information

- [CTX116467](#) EasyCall Gateway FAQ
- [CTX118452](#) Easy Call User guide



## 31. Provisioning Services for Datacenters and Desktops

Citrix Provisioning Server™ for Datacenters reduces total cost of ownership and improves both manageability and business agility by virtualizing the workload of a datacenter server—operating system, applications and configuration—and streaming the workload on-demand to physical or virtual servers from the network. Citrix Provisioning Server for Datacenters:

- Simplifies and streamlines server management, and reduces software rollout risk.
- Ensures server consistency within silos by provisioning servers simultaneously from a single standard workload image.
- Increases IT responsiveness and agility by enabling capacity on-demand—repurpose any server to do any job.
- Reduces utility costs and space needs by cutting the number of backup servers required.
- Dynamically satisfies needs for growth, disaster recovery, and business continuity.

Provisioning Server for Datacenters can stream a workload to any server or server farm, extending Citrix XenApp™ application delivery capabilities and Citrix XenServer™ server virtualization capabilities. Importantly, Provisioning Server complements existing systems management solutions (SMS). It drives even better ROI by giving an existing SMS the additional option of delivering the workload as a service rather than relying on the traditional approach of deploying the workload by repeatedly copying it to every server.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=683392>

Citrix Provisioning Server™ for Desktops uses streaming technology to deliver a single, standard desktop image –operating system and software stack– on-demand to physical desktops from a network service. The shared desktop image is configured, delivered and managed centrally, reducing total costs, increasing security and flexibility, and enabling an uncompromised user experience.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=1297541>

### 31.1 Languages Supported

English, French, Spanish, German

### 31.2 Product Documentation

- [CTX117916](#) - Citrix Provisioning Server 5.0 (SP1, SP1a) Administrator's Guide
- [CTX117917](#) - Citrix Provisioning Server 5.0 (SP1, SP1a) Installation and Configuration Guide
- [CTX116922](#) - Citrix Provisioning Server 4.5 Installation and Administration Guide

### 31.3 Troubleshooting Questions

Target device loses synchronization with Active Directory

- Is Active Directory Machine Account Management configured on the vDisk that the target device is booting to?



- Is Active Directory Machine Account Management configured on the properties of the server in the provisioning server console?
- Is there a GPO on the Domain configured to Disable all machine account password changes thus giving the control to the Provisioning Server over the targets AD machine account?

### **Network Performance or target device hangs during boot**

- Is the Spanning Tree Protocol (STP) enabled on the switches? If STP is enabled, is the Portfast feature enabled on the switched?
- Is Large Send Offload disabled on the NIC of the Provisioning Server and client
- Are the ports on the NIC and switches used by Provisioning Server hard coded or are they configured using Auto-negotiation?
- Auto Negotiation can cause long booting times and PXE timeouts, especially when booting multiple target devices. Citrix recommends hard-coding all Provisioning Server ports (server and client) on the NIC and on the switch.

### **Device does not PXE boot**

- Was the Provisioning Server Configuration wizard run in the Provisioning Server?
- Locate the DHCP Server. Is DHCP Service located on different subnet/VLAN?
- Define/verify what PXE Configuration is used in the network.
- Verify client BIOS with NIC as first boot order.
- Enable verbose mode on the bootstrap.
- Managed Switch: STP is disabled or Port fast enabled

### **PXE Configuration:**

Three configuration scenarios can be used to implement PXE in a Provisioning Server Network

- DHCP Option 66/67: UDP Port 67
- DHCP Service and PXE Service on separate Server: UDP port 67
- DHCP option 60 with PXE Service in same server:
- DHCP: UDP Port 67, Citrix PXE service UDP port 4011

### **More information**

Use **netstat -nao** and **tasklist** commands to verify ports used by the Provisioning Server services. For PXE Error list visit <http://www.emboot.com/faq-pxe.shtml>

### **31.4 Related Knowledge Base Articles**

- [CTX118319](#) Provisioning Server 5.0 Stream Console and Advanced Logging Overview
- [CTX117585](#) How to Add Provisioning Server Clients to Active Directory
- [CTX116331](#) How to Capture Event Logs and Dumps After a Provisioning Server or vDisk Stop Error
- [CTX117374](#) Best Practices for Configuring Provisioning Server on a Network
- [CTX116814](#) Provisioning Server Target Devices Lock up Shortly Before or After Logging on to Windows
- [CTX117491](#) Excessive Amounts of Retries Occur when a Provisioning Server Target Device is Deployed on a XenServer Platform



## 32. Workflow Studio

Citrix Workflow Studios is an infrastructure process automation platform that enables you to transform your datacenter into a dynamic delivery center.

<http://www.citrix.com/English/ps2/products/product.asp?contentID=1297816>

### 32.1 Supported Languages

English

### 32.2 Workflow Studios User guide

[CTX119907](#) Work Flow Studio User Guide

### 32.3 Installation

[CTX120085](#) Work Flow Studio Installation FAQs

[CTX119902](#) Installing Workflow Studio 1.0

### 32.4 Related Knowledge Base Articles

[CTX120084](#) Workflow Studio Error Connecting to SQL Server

[CTX119435](#) How to Programmatically Initialize a Variable in Work Flow Studio 1.0

[CTX119979](#) Workflow Studio Sample Workflow Spooler Alert



## 33. Citrix Licensing

Since the introduction of Citrix Presentation Server, Citrix simplified licensing for its products, such as Citrix Presentation Server, Citrix XenApp, and Citrix Password Manager.

### 33.1 Languages Supported

English, Spanish, French, German, Japanese

### 33.2 Administrator's Guides

Citrix Licensing for 4.5 – Product Documentation

<http://support.citrix.com/proddocs/index.jsp?topic=/licensing/lic-readme.html>

[CTX117530](#) Citrix Licensing - Start Here

[CTX109108](#) Getting Started with Citrix Licensing Guide 4.5

[CTX110840](#) Citrix Licensing for Windows Readme

### 33.3 Troubleshooting Questions

#### Installation

- What is the error message you are receiving?  
Send screen shot of error message
- Where did you install your license server files?  
See the “Obtaining Your License Files” section in the Getting Started with Citrix Licensing Guide.
- Who are you logged in as when installing the License server?  
It is recommended that you are logged on as a domain or local administrator when installing the license server. The user that installs the license server automatically has full access to the License Management Console.

#### Configuration

- What is the exact error message you are receiving?
  - Send screen shot of error message
  - Check the Windows event log on the license server.
- Did you allocate your license following the instructions in the “Obtaining Your License Files” section in the Getting Started with Citrix Licensing Guide?
- Did you license your product correctly?
  - See your product’s administrator’s guide
  - Are you upgrading from an earlier version? See [CTX108655](#), [CTX110840](#) and [CTX118202](#) for details.
- Make sure you enter the correct case-sensitive hostname of the license server
- See the “Obtaining Your License Files” section in the Getting Started with Citrix Licensing Guide.
- Clients or Servers Consume Multiple Licenses from the Citrix License Server



- To determine the correct number of licenses that a given installation is supposed to use, see the section “Determining the number of licenses required” in page 5 of [CTX108657 - Licensing: Planning Your Deployment](#)
- See Citrix Article [CTX103626](#) for more information

### License Server Clustering

- Are all four License Server Resources installed and online?
  - See the Troubleshooting Cluster-Enabled License Servers section in [CTX108663](#) for details.
  - If you move the Resources to another Node, do you still see the issue?
- If you see the same issue on another node, then the problem might lie on the resource itself. To troubleshoot this, try uninstalling and reinstalling the resource.
- If the problem does not occur on another node, then the problem is on the active node. Compare it to a working node to troubleshoot.
- Uninstall and reinstall the License Server Resource `ctxlsclustres.dll`
- See the Uninstalling Licensing from a Clustered License Server section in [CTX108663](#) for details.

### Troubleshooting Tools

- [CTX108664](#) LMSTAT: Shows what licenses are in use
- [CTX103920](#) Troubleshooting Connectivity Issues between a Computer Running Citrix Presentation Server and its License Server using NETSTAT
- [CTX103916](#) LMDIAG: Diagnose License Check out Issues
- [CTX112730](#) - License Files Do Not Work When Moving a Citrix Licence Server between Cluster Groups
- [CTX108662](#) Troubleshooting
- [CTX108658](#) Firewalls and Security Considerations

### Citrix Presentation Server 4.5

<http://www.citrix.com/English/ps2/migration/path.asp?contentID=20984>  
<http://www.citrix.com/English/ps2/products/subfeature.asp?contentID=164027>

### 33.4 What's new with Citrix XenApp 5.0

#### Upgrade to XenApp 5.0

- <https://www.citrix.com/English/ps2/products/feature.asp?contentID=1680712>

#### XenApp 5.0 Feature Pack

- <https://www.citrix.com/English/ps2/products/feature.asp?contentID=1680575>

#### New license server version:

Citrix License Server for Windows (v11.6 released 3/24/2009)

- [CTX112587](#) – How to Determine the Version of the Citrix License Server

You can download the License Server Component from here:

<https://www.citrix.com/English/ss/downloads/details.asp?downloadId=1688507&productId=1679389>

### 33.5. Related Knowledge Base Articles

- [CTX103626](#) Clients or Servers Consume Multiple Licenses from the Citrix License Server
- [CTX103980](#) There are no licenses installed for the use of this Citrix Presentation Server
- [CTX108663](#) Setting Up the License Server on a Microsoft Cluster
- [CTX110097](#) Error: Installation ended prematurely when installing License Server 4.0 in a Clustered Environment
- [CTX107765](#) Microsoft Clustering for the Citrix License Server 4.0
- [CTX108659](#) Configuring Backup Servers
- [CTX118202](#) How to fulfill/convert a MetaFrame XP license into a Presentation Server/XenApp license using MyCitrix
- [CTX118203](#) How to resolve a red alert message on the License Management Console
- [CTX118324](#) How to return/re-host a license using MyCitrix
- [CTX118362](#) License file not recognised by License Server/License Management Console
- [CTX118564](#) How to retrieve Not-For-Resale/Internal Use licenses
- [CTX118634](#) How to generate one single license file and how to implement it accordingly
- [CTX118787](#) How to assign a CSA using MyCitrix
- [CTX118788](#) XenServer licenses in MyCitrix
- [CTX119354](#) MyCitrix Error: There are no items to fulfill
- [CTX120102](#) How to check the current status of Subscription Advantage using MyCitrix
- [CTX120645](#) MyCitrix Error: Invalid host when allocating XenApp Platinum

### 33.6. Other Relevant Information

- [CTX107059](#) Advanced Concepts Guide for Citrix Presentation Server 4.0
- [CTX114746](#) Advanced Concepts Guide – Citrix Presentation Server, Platinum Edition
- [CTX112221](#) Getting Started With Citrix Presentation Server 4.5
- [CTX112276](#) Welcome to Citrix Presentation Server 4.5
- [CTX113701](#) Upgrading Citrix Presentation Server 4.5 to Feature Pack1 License File Changes
- If customers have not retrieved a new Presentation Server license file since August 1, 2006, they must retrieve the Application Streaming feature enablement license file with Enterprise or Platinum
- New license file contains CL = ENT, ADV, STD, AST
- LICENSES ARE NOT VERSION SPECIFIC
  - There is no such thing as 4.0 and 4.5 license files.
  - Date in the file allows the product to function or NOT (Example: 2009.0131)
- Licensing services in Windows 2003 run under the Local Service account:
- For details on licensing services logon accounts, see [CTX112595](#) – User Accounts Used by the Licensing Services for Version 4.5 of the Citrix License Server



### 33.7 Application streaming licensing notes:

Application Streaming is both to Presentation Servers and to the desktops and is available in Enterprise and Platinum.

[CTX112636](#) – Application Streaming Licensing Explained

#### License logic:

- Using any ONE component of Presentation Server checks out a license for ALL components
- Using OFF-LINE applications (through Application Streaming) checks out a license for ALL components
- For added off-line application capacity, buy Application Streaming for Desktops add-on licenses
- If using ONLY streaming, the licensing system always checks out add-on licenses before using Presentation Server licenses

### 33.8 Relevant Articles

- [CTX112143](#) How to Gather Log Files to Troubleshoot a Licensing Problem
- [CTX111775](#) Event Viewer Error on the License Server: Client/server comm. Version mismatch...
- [CTX107980](#) License Files with Expired Subscription Advantage Dates Prevent Connections to Newer Versions of Citrix Products
- [CTX111618](#) Citrix Product Eligibility Dates
- [CTX112794](#) Renaming of the Citrix License Server
- [CTX112594](#) License File Product-specific Codes Defined
- [CTX112771](#) There are Two Instances of Lmgrd.exe Running on Your Citrix License Server.
- [CTX108655](#) Licensing: Migrating, Upgrading, and Renaming
- [CTX111854](#) Users Cannot Launch the Citrix License Management Console from a Windows Server 2003 64-bit Server



## 34. Contacting Citrix Technical Support

### 34.1 Your Citrix Technical Support Checklist

The Citrix Technical Support Team is dedicated to helping resolve your IT issues quickly and accurately. To facilitate prompt service, we ask that you keep this checklist of required information close by for reference when you call. Refer to your Citrix Technical Support ID Card for specific contract information and contact numbers for the support center in your region.

- PIN Number (was service agreement number)
- Description of issue
- Product version
- Service pack level
- Hotfixes
- ICA Client or Plugin version and operating system version, service pack level, and Hotfixes
- Server operating system version, service pack level, and Hotfixes
- Steps to reproduce issue and troubleshooting diagnostic steps taken
- Last changes made to server and server farm
- Network configuration

In the event that remote access by one of our Citrix Technical Support Engineers is necessary, the following might speed up the troubleshooting process:

- An account with administrative rights  
We might leverage GoToAssist to speed up the troubleshooting and resolution of your issue.

### 34.2 Citrix Technical Support Uses Citrix GoToAssist

Citrix® GoToAssist®, the #1 remote desktop support solution, is an online service that enables support staff to view, control, and troubleshoot user desktops, increasing user satisfaction and productivity and reducing support costs. The service requires no client software or additional resources, works automatically and securely through virtually every firewall, performs well even over dial-up connections, and integrates into existing infrastructure.

GoToAssist sessions are easy and quick to setup, are secure, allow customers to ultimately keep control of their systems at all times, and improve immensely the customer experience with Citrix Technical Support.

The key features of GoToAssist that help customers and Technical Support Agents are:

- Remote Diagnostics gather a standard set of information about the end-user's environment including operating system details, total and available memory, applications and services currently running
- Remote Viewing/Control enables the support agent to – with the end-user's permission – see and control the end-user's device or applications.
- File Transfer enables the support agent to rapidly send and receive files to and from end-users. For example, the support agent can send patches, URLs, or version updates out to the end-user.
- Reboot/Reconnect enables the support agent to restart the customer's or employee's device and rapidly reconnect to the support session in progress in an automated manner.



- Management Center provides Citrix the flexibility to monitor, evaluate, and respond to real-time customer satisfaction and support operations metrics.

### 34.3 Contacting Citrix Technical Support by Telephone

<http://www.citrix.com/English/ss/supportContacts.asp>

### 34.4 Contact Details

Country	Free Phone	Country	Free Phone
Australia	1800 111 300	Netherlands	0800 022 5829
Austria	0800 292 518	Norway	800 10882
Belgium	0800 72275	Portugal	800 844 100
Denmark	80 88 46 16	South Africa	0800 99 1235
Finland	0800 117093	Spain	900 96 8942
France	0800 91 81 15	Sweden	0200 285432
Germany	0800 182 5549	Switzerland	0800 564 652
Ireland	1 800 509 215	UK	0800 587 9031
Italy	800 783981	USA + Canada	1800 424 8749
Luxembourg	800 2 3378		

### 34.5 Contacting Citrix Technical Support using the Web

My Support Portal - available to all Citrix Technical Support customers

Features of My Support Portal

- Open new Service Requests using the internet
- Add notes to existing Service Requests
- Track the status of Service Requests
- Manage your contact information
- Close resolved Service Requests

#### How to access My Support Portal

To access this service, you must log on to the MyCitrix portal at the following Web site address:

<http://www.mycitrix.com/>



Once you click on the site, you are prompted to provide your username and password. This username and password was distributed by e-mail when you first created an account on MyCitrix. If you have not received any logon information or are having problems accessing the service, you must contact Citrix Customer Care at the e-mail listed on the Web site.

### **Response Times**

- Issues are addressed during the same day business hours when a Service Request is logged
- Always log urgent issues by telephone to ensure the appropriate response

## **34.6 Citrix Technical Support Goes On Site – EMEA region only**

### **Special situations need special response**

When your business faces unexpected outages or loss of service, you sometimes require more than a remote support offering can provide. At Citrix, we understand the importance of rapid, high-quality response and availability. With the new Citrix on-site support option, we offer our customers on-demand technical assistance for your unique challenges and help you to minimize the risk of downtime by providing the right skills when you need them most.

### **Flexible Support when you need it**

All customers with an existing Citrix support contract can avail of the on-site service with a notice of three working days. Onsite Technical Support covers problem diagnosis, troubleshooting and problem resolution. To ensure an efficient on-site visit, our support engineers develop and review an agenda prior to the on-site engagement with you.

### **Contact us**

Contact your Support Account Manager (SAM) or your Technical Relationship Manager (TRM) to request on-site technical support. You must sign an onsite support agreement and forward a purchase order before the on-site visit takes place



## **About Citrix**

Citrix Systems, Inc. (NASDAQ:CTXS) is the leading provider of virtualization, networking and software as a service technologies for more than 230,000 organizations worldwide. Its Citrix Delivery Center, Citrix Cloud Center (C3) and Citrix Online Services product families radically simplify computing for millions of users, delivering applications as an on-demand service to any user, in any location on any device. Citrix customers include the world's largest Internet companies, 99 percent of Fortune Global 500 enterprises, and hundreds of thousands of small businesses and prosumers worldwide. Citrix partners with over 10,000 companies worldwide in more than 100 countries. Founded in 1989, annual revenue in 2008 was \$1.6 billion.

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