# Communication ports used by Citrix Technologies

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Overview

Introduction

This document provides an overview of ports that are used by Citrix components and must be considered as part of Virtual Computing architecture, especially if communication traffic traverses network components such as firewalls or proxy servers, where ports must be opened to ensure communication flow.
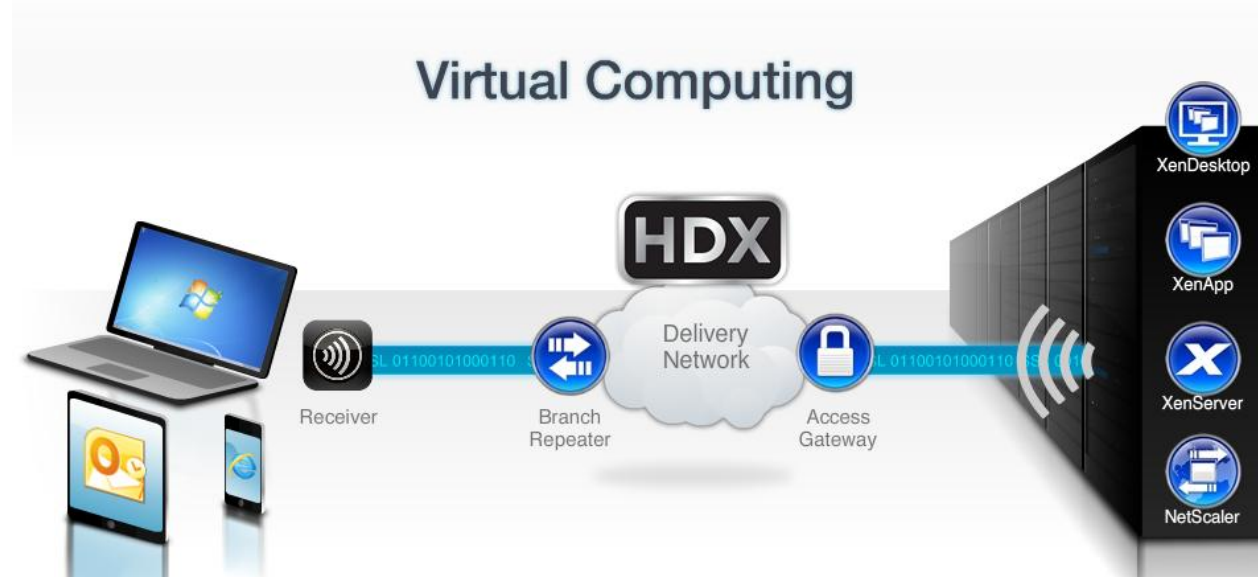
References

The assignments are listed by the Internet Assigned Numbers Authority (IANA), updated regularly, and revised when new information is available and new assignments are made. The specific location of the port numbers list is available at the following Web site:
http://www.iana.org/assignments/port-numbers.

Microsoft Article "Network Ports Used by Key Microsoft Server Products".

Microsoft Article ID 832017 "Service overview and network port requirements for the Windows Server system".

Ports

Component	Type	Port	Details
Citrix License Server			
License Manager Daemon	TCP	27000	Handles initial point of contact for license requests (Lmadmin.exe)
Citrix Vendor Daemon	TCP	7279	Check-in/check-out of Citrix licenses (Citrix.exe)
License Management Console	TCP	8082	Web-based administration console (Lmadmin.exe)
Common Citrix Communication Ports			
Citrix Receiver	TCP	80/443	Communication with Merchandising Server
ICA / HDX	TCP	1494	Access to applications and virtual desktops
Session Reliability	TCP	2598	Access to applications and virtual desktops
IMA	TCP	2512	Independent Management Architecture (IMA)
Management Console	TCP	2513	Citrix Management Consoles
Application / Desktop Request	TCP	80/8080/443	XML Service
STA	TCP	80/8080/443	Secure Ticketing Authority (embedded into XML Service)
XenApp			
Offline Plug-in	SMB	445	Communication with Application Hub (File Server / Share)
	HTTP/S	80/443	Communication with Application Hub (Web Server / File Server / Share)
Power & Capacity Management Agent	TCP	11161	Communication with Concentrator
Database	TCP	1433	Microsoft SQL Server
	TCP	1434	Microsoft SQL Server. **Note**: Named instance connection requires UDP 1434
XenDesktop			
Virtualization Infrastructure			
Citrix XenServer	TCP	80/443	Communication with XenServer infrastructure
Microsoft Hyper-V	TCP	8100	SCVMM Administrator Console
VMware vSphere	TCP	443	VMware Web Services communication
Broker	TCP	80/443	Used by process BrokerService.exe for WCF communications to VDA, SDK, XML Service
Active Directory Identity Service	TCP	80	Used by Citrix.ADIdentity.SdkWcfEndpoint.exe
Configuration Service	TCP	80	Used by Citrix.Configuration.SdkWcfEndpoint.exe
Host Service	TCP	80	Used by Citrix.Host.SdkWcfEndpoint.exe
Machine Creation Service	TCP	80	Used by Citrix.MachineCreation.SdkWcfEndpoint.exe

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Component	Type	Port	Details
Machine Identity Service	TCP	80	Used by Citrix.MachineIdentity.SdkWcfEndpoint.exe
License Configuration Service	TCP	80	Used by Citrix.LicensingConfig.SdkWcfEndpoint.exe
Desktop Director	TCP	80/443	
Virtual Desktop Agent 5	TCP	80	Communication between Desktop Delivery Controller and Virtual Desktop Agent
	TCP	135 3389	Communication between Desktop Director and Virtual Desktop Agent for Remote Assistance
	TCP	16500 16509	Used port range for HDX Audio
	TCP	80	Communication between Desktop Director and Virtual Desktop Agent for WinRM 1.1
	TCP	5985	Communication between Desktop Director and Virtual Desktop Agent for WinRM 2.0
Virtual Desktop Agent (previous versions)	TCP	8080	Communication between Desktop Delivery Controller and Virtual Desktop Agent
Citrix Desktop Service	TCP	80	Used by process WorkstationAgent.exe for communicating with Broker
Database	TCP	1433	Microsoft SQL Server
	TCP	1434	Microsoft SQL Server. **Note**: Named instance connection requires UDP 1434
XenServer			
XenCenter	TCP	22	SSH
	TCP	443	Management using XenAPI
	TCP	5900	VNC for Linux Guests
	TCP	3389	RDP for Windows Guests
Resource Pool	TCP	22	SSH
	TCP	443	Management using XenAPI
Infrastructure	TCP/UDP	123	NTP
	TCP/UDP	53	DNS
	TCP	389	Active Directory
	TCP/UDP	139	ISO Store: NetBIOS Session Service
	TCP/UDP	445	ISO Store: Microsoft-DS
Storage	TCP	3260	iSCSI Storage
	TCP	2049	NFS Storage
	TCP	21605	SOAP over HTTP StorageLink Gateway traffic
Lab Manager			
End-Device to Lab Manager Server User Interface	TCP	8443	End device communication with Lab Manager Server User interface
End-Device to Virtual	TCP	3389	RDP for Windows Guests

Component	Type	Port	Details
Machines	TCP	5900	VNC for Linux Guests
End-Device to Virtualization Host	TCP	5900 – 5999	Connections for XenServer
	TCP	2179	Connections for Microsoft Hyper-V
VMAgent to Lab Manager Server	TCP/UDP	35110 - 35112	Server Discovery ports for VMAgent
	TCP	8443	Secure (HTTPS) Server Discovery ports for VMAgent
Lab Manager Server to Active Directory	TCP	389	LDAP
	TCP	636	LDAP over SSL (LDAPS)
StageManager			
End-Device to StageManager Server User Interface	TCP	9443	End device communication with StageManager Server User interface
End-Device to Virtual Machines	TCP	3389	RDP for Windows Guests
	TCP	5900	VNC for Linux Guests
End-Device to Virtualization Host	TCP	5900 – 5999	Connections for XenServer
	TCP	2179	Connections for Microsoft Hyper-V
VMAgent to StageManager Server	TCP/UDP	35110 - 35112	Server Discovery ports for VMAgent/GuestAgent
	TCP	9443	Secure (HTTPS) Server Discovery ports for VMAgent/GuestAgent
StageManager Server to Active Directory	TCP	389	LDAP
	TCP	636	LDAP over SSL (LDAPS)
StorageLink			
StorageLink Service	TCP	21605	Communication of StorageLink Manager to StorageLink Service
Database	TCP	1433	Microsoft SQL Server
NetScaler / Access Gateway Enterprise Edition			
Administration			
SSH	TCP	22	CLI Administration (encrypted)
HTTP/S	TCP	80/443	GUI Administration
Java	TCP	3008	GUI Administration (encrypted)
	TCP	3010	GUI (no encryption)
Authentication			
LDAP	TCP/UDP	389	LDAP connection
	TCP/UDP	636	LDAP SSL connection
	TCP	3268	LDAP connection to Global Catalog
RADIUS	TCP/UDP	1812	RADIUS connection
DNS	TCP/UDP	53	DNS name resolution

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Component	Type	Port	Details
High Availability	UDP	3003	Exchange of Hello packets for communicating UP/DOWN status (heartbeat)
	TCP	3008	Secure High Availability configuration synchronization
	TCP	3009	Secure command propagation and MEP
	TCP	3010	High Availability configuration synchronization plus web-logging and audit server logging
	TCP	3011	Command propagation and MEP
Cloud Bridge	TCP	50	IPSec Encapsulating Security Protocol (ESP) traffic
	TCP	51	IPSec Authentication Header (AH) traffic
	UDP	500	Internet Key Exchange (IKE/ISAKMP) negotiation
Access Gateway 5.0			
Client Connections	TCP	443	TCP Port used for connecting to an Access Gateway Deployment
Citrix Access Controller	TCP	80/443/9002	Communication between Access Gateway and Access Control Server
Administration			
Appliance	TCP	443	Administration Website
Controller	TCP	2513	IMA-based communication
Authentication			
LDAP	TCP	389	LDAP connection
RADIUS	TCP/UDP	1812	RADIUS connection
DNS	TCP/UDP	53	DNS name resolution
Appliance Failover	TCP	694	Communication between Access Gateway appliances
Previous versions of Access Gateway Standard / Advanced Edition			
Client Connections	TCP	443	TCP Port used for connecting to an Access Gateway Deployment
Advanced Access Control (AAC)	TCP	80/443	Communication between Access Gateway Standard and Advanced Access Control Server
Administration			
Appliance	TCP	9001	Administration Website
	TCP	9002	Administrative Desktop (until 4.5)
	TCP	9005	AAC
AAC	TCP	2513	IMA-based communication
Authentication			
LDAP	TCP	389	LDAP connection
RADIUS	TCP/UDP	1812	RADIUS connection
DNS	TCP/UDP	53	DNS name resolution

Component	Type	Port	Details
Branch Repeater			
Administration	TCP	80/443	Citrix Repeater Console
	TCP	3389	RDP connection to server console (Windows)
Appliance to Appliance	TCP	N/A	Pass through of native application ports
Client to Appliance	TCP	443	Client to Appliance communication
EdgeSight			
Agent	TCP	80/443	Communication with EdgeSight Server for payloads and alerts
	TCP	9036	EdgeSight Agent internal communication (client-side database)
Web Console	TCP	9035	Communication with RSCorSvc on EdgeSight Agent
Database	TCP	1433	Microsoft SQL Server
EasyCall			
EasyCall Client	TCP	8443	PSync
EasyCall Gateway	TCP	5060	EasyCall Gateway communicates with the SIP trunk over port 5060
Admin Console	TCP	443	Administration of EasyCall
LDAP	TCP	389	Active Directory/LDAP
PBX	TCP	N/A	The PBX port depends on the vendor and varies.
Password Manager			
Password Manager Service	TCP	443	Communication with Management Console and Password Manager Agent (non-IMA)
Credential Store on			
Network File Share	TCP/UDP	445	CIFS
	TCP/UDP	135 - 139	NetBIOS
Active Directory	TCP/UDP	389	LDAP connection
	TCP/UDP	636	LDAP SSL connection
	TCP	3268	LDAP connection to Global Catalog
	TCP	3269	LDAP SSL connection to Global Catalog
Novell File Share	TCP/UDP	524	ZENworks communication
Provisioning services			
PXE	-	Broadcast	Target devices PXE booting from network
DHCP	UDP	67	DHCP Option for TFTP Server Name (Bootstrap Protocol Server)
	UDP	68	DHCP Option for Bootfile Name (Bootstrap Protocol Client)
TFTP	UDP	69	Trivial File Transfer
Console	TCP	54321 54322	SOAP Service

Component	Type	Port	Details
Active Directory	TCP	389	Communication with Active Directory services
Database	TCP	1433	Microsoft SQL Server
Target Devices	UDP	6901	Default port for Target Devices.
Streaming Services	UDP	6910 – 6930	Provisioning services Streaming Service
Server Communication	UDP	6905 - 6909	Inter-server communication
Boot Login	UDP	6910	Target Device logon at Provisioning services
Write Cache	UDP	10802 10803	Target Device communication with its Write Cache
SmartAuditor			
Components (Agent / Player)	TCP/UDP	80/443	SmartAuditor components connecting to SmartAuditor Broker
Database	TCP	1433	Microsoft SQL Server
Microsoft Message Queuing (MSMQ)			Provides reliable transport of data from SmartAuditor Agent to SmartAuditor Server using an MSMQ private message queue named CitrixSmAudData
MSMQ Service (default)	TCP/UDP	1801	MSMQ
	TCP	2101	MSMQ-DCs
	TCP	2103	MSMQ-RPC
	TCP	2105	MSMQ-RPC
	TCP	2107	MSMQ-Mgmt
	UDP	3527	MSMQ-Ping
	TCP	135	RPC
MSMQ Service HTTP/S	TCP	80/443	Secured connections
Workflow Studio			
Console	TCP	8010	Connection to remote runtime
Database	TCP	1433	Microsoft SQL Server
Citrix Online Products			
GoToMeeting GoToWebinar GoToMyPC GoToAssist	TCP	80/443/8200	Contacting GoToMeeting service broker using the Endpoint Gateway (EGW)

Revision	Change Description	Updated By	Date
1.0	Initial document	Michael Palesch Thomas Berger Tarkan Koçoğlu	August 28, 2009
1.1	Update	John Scoles	June, 2010
1.2	Update	John Scoles	November, 2010
1.3	Update	Tarkan Koçoğlu	November, 2010
1.4	Added 1434 to XenApp and XenDesktop	John Scoles	November, 2010
1.5	Updates to URLs, XenDesktop, and NetScaler sections	Tarkan Koçoğlu	July, 2011