

Citrix Director Failure Reasons Troubleshooting Guide

Note: The following failure reasons and recommended actions are applicable for XenApps and XenDesktop 7.12 and later.

Connection failure errors:

Category	Reason	Issue	Action
	[0] Unknown This error code is not mapped.	The Monitoring Service could not determine the reason for the reported launch or connection failure from information shared by the Brokering Service.	Collect CDF logs on the controller and contact Citrix support.
[0] None	[1] None	None	n/a
[2] MachineFailure	[2] SessionPreparation	<p>Session prepare request from the Delivery Controller to the VDA failed.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • Communication issues between the Controller and the VDA, or • issues experienced by the Broker Service while creating a prepare request, or • network issues resulting in the VDA not accepting the request. 	Refer to troubleshooting steps listed in Knowledge center article, Troubleshooting Virtual Desktop Agent Registration with Delivery Controllers in XenDesktop for common problems that cause communication issues between the Controller and the VDA.
[2] MachineFailure	[3] RegistrationTimeout	The VDA was powered on, but a time-out occurred while it was attempting to register with the Delivery Controller.	Verify that the Citrix Broker Service is running on the Delivery Controller and that the Desktop Service is running on the VDA. Start each if stopped.
[1] ClientConnectionFailure	[4] ConnectionTimeout	<p>The client did not connect to the VDA after the VDA was prepared for session launch. The session was successfully brokered, but a time-out occurred while waiting for the client to connect to the VDA.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • Firewall settings, or • network interruptions, or • settings that prevent remote connections 	<p>Check the Director console to see if the client currently has an active connection, which means no user is currently impacted.</p> <p>If no session exists, review the Event logs on the client and on the VDA for any errors. Resolve any issues with network connectivity between the client and the VDA.</p>
[4] NoLicensesAvailable	[5] Licensing	<p>The licensing request failed.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> • Insufficient number of licenses, or • the license server has been 	<p>Verify that the license server is online and reachable. Resolve any network connectivity issues to the license server and/or reboot the license server if it appears to be malfunctioning.</p> <p>Verify that there are sufficient licenses in the environment and allocate more if necessary.</p>

Category	Reason	Issue	Action
		down for more than 30 days.	
[1] ClientConnectionFailure	[6] Ticketing	<p>A failure occurred during ticketing, indicating that the client connection to the VDA does not match the brokered request.</p> <p>A launch request ticket is prepared by the Broker and delivered in the ICA file. When the user attempts to launch a session, the VDA validates the launch ticket in the ICA file with the Broker.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> ICA file is corrupt or the user is attempting to make an unauthorized connection. 	<p>Verify that the user has access to the application or desktop based on user groups defined in the Delivery Group(s).</p> <p>Instruct the user to relaunch the application or desktop to determine whether this is a one-off issue. If the issue occurs again, review the client device Event logs for errors.</p> <p>Verify that the VDA to which the user is attempting to connect is registered. If unregistered, review the Event logs on the VDA and resolve any registration issues.</p>
[1] ClientConnectionFailure	[7] Other	A session has been reported as terminated from the VDA after the client has initially contacted the VDA but before it completed the connection sequence.	<p>Verify if the session was not terminated by the user before launch.</p> <p>Try re-launching the session, if the problem persists, collect CDF logs and contact Citrix support.</p>
[1] ClientConnectionFailure	[8] GeneralFail	<p>The session failed to launch.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> A brokered launch was requested while the Broker was still starting up or initializing. Internal error during the brokering phase of a launch. 	Verify that the Citrix Broker Service is running and re-try launching the session.
[5] Configuration	[9] MaintenanceMode	The VDA, or the Delivery Group to which the VDA belongs, is set in maintenance mode.	Determine whether maintenance mode is required. Disable maintenance mode on the delivery group or machine in question if it is not needed and instruct the user to attempt to reconnect.
[5] Configuration	[10] ApplicationDisabled	The application cannot be accessed by end users because it has been disabled by the administrator.	If the application is intended to be available for production use, enable the application and instruct the user to reconnect.
[4] NoLicensesAvailable	[11]	The feature being used is not	Contact a Citrix sales

Category	Reason	Issue	Action
	LicenseFeatureRefused	covered by the existing licenses.	representative to confirm the features that are covered by the existing XenApp/XenDesktop license edition and type.
[3] NoCapacityAvailable	[13] SessionLimitReached	<p>All VDAs are in use and there is no capacity to host additional sessions.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> All VDAs are in use (for desktop OS VDAs), or all VDAs have reached the configured maximum concurrent sessions allowed (for Server OS VDAs). 	<p>Verify if there are any VDAs in maintenance mode. Disable maintenance mode if it is not needed, to free up additional capacity.</p> <p>Consider increasing the value of Maximum Number of Sessions in the Citrix policy setting to allow more sessions per server VDA.</p> <p>Consider adding additional Server OS VDAs.</p> <p>Consider adding more Desktop OS VDAs.</p>
[5] Configuration	[14] DisallowedProtocol	The ICA and/or RDP protocols are not allowed.	<p>Run the Get-BrokerAccessPolicyRule PowerShell command on the Delivery Controller and verify that the AllowedProtocols value has all the desired protocols listed.</p> <p>This issue occurs only in case of a misconfiguration.</p>
[5] Configuration	[15] ResourceUnavailable	<p>The application or desktop to which the user is attempting to connect is not available. This application or desktop might not exist, or there are no VDAs available to run it.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> The application or desktop has been unpublished, or the VDAs hosting the application or desktop have reached maximum load or the application or desktop is set in maintenance mode. 	<p>Verify that the application or desktop is still published and the VDAs are not in maintenance mode.</p> <p>Determine whether the Server OS VDAs are at full load. If so, provision additional Server OS VDAs.</p> <p>Verify that there are Desktop OS VDAs available for connections. Provision additional Desktop OS VDAs if necessary.</p>
[5] Configuration	[16] ActiveSessionReconnectDisabled	The ICA session is active and connected to a different endpoint. However, because the Active Session Reconnection is disabled, the client cannot connect to the active session.	On the Delivery Controller, verify that Active Session Reconnection is enabled. Verify that the value of DisableActiveSessionReconnect in the registry, under HKEY_LOCAL_MACHINE\Software\Citrix\Desktop\Server is set to 0.
[2] MachineFailure	[17]	The client attempted to reconnect	Retry the workspace control

Category	Reason	Issue	Action
	NoSessionToReconnect	to a specific session but the session was terminated.	reconnection.
[2] MachineFailure	[18] SpinUpFailed	The VDA could not be powered on for session launch. This is a hypervisor reported issue.	If the machine is still powered off, attempt to start the machine from Citrix Studio. If this fails, review the hypervisor connectivity and permissions. If the VDA is a PVS-provisioned machine, verify in the PVS Console that the machine is running. If not, verify that the machine is assigned a vDisk, log in to the hypervisor to reset the VM.
[2] MachineFailure	[19] Refused	The Delivery Controller sends a request to the VDA to prepare for a connection from an end user, but the VDA actively refuses this request.	Verify via ping, that the Delivery Controller and the VDA can successfully communicate. If not, resolve any firewall or network routing issues.
[2] MachineFailure	[20] ConfigurationSet Failure	The Delivery Controller did not send required configuration data, such as policy settings and session information, to the VDA during session launch. Possible causes: <ul style="list-style-type: none"> • Communication issues between the Controller and the VDA, or • issues experienced by the Broker Service while creating a configuration set request, or • network issues resulting in the VDA not accepting the request. 	
[3] NoCapacityAvailable	[21] MaxTotalInstancesExceeded	The maximum number of instances of an application has been reached. No additional instances of the application can be opened on the VDA. This issue is generally related to the application limits feature.	Consider increasing the application setting, Limit the number of instances running at the same time to a higher value if licensing permits.
[3] NoCapacityAvailable	[22] MaxPerUserInstancesExceeded	The user is attempting to open more than one instance of an application but the application is configured to allow only a single instance of the application per user. This issue is generally related to the application limits feature.	Only one instance of the application is allowed per user by default. If multiple instances per user are required, consider clearing the Limit to one instance per user setting in the application setting.
[1] ClientConnectionFailure	[23] Communication	The Delivery Controller attempted to send information to the VDA,	If already started, restart the Desktop Service on the VDA to

Category	Reason	Issue	Action
	Error	such as a request to prepare for a connection, but an error occurred during the communication attempt. This can be caused due to network disruptions.	restart the registration process and verify that the VDA registers successfully. Confirm that the Delivery Controllers configured for the VDA are accurate via the details in the Application Event log.
[3] NoCapacityAvailable	[100] NoMachineAvailable Monitoring Service converts [12] NoDesktopAvailable to this error code.	The VDA assigned to launch the session is in an invalid state or is unavailable. Possible causes: <ul style="list-style-type: none"> Power state of the VDA is unknown or unavailable. The VDA did not reboot since the last user's session. Session sharing is disabled while the current session requires it to be enabled. The VDA was removed from the delivery group or from the site. 	Verify that the VDA is in a Delivery Group. If not, add it to the appropriate Delivery Group. Verify that there are sufficient VDAs registered and in ready state to be able to launch the published shared desktop or application requested by the user. Verify that the hypervisor hosting the VDA is not in maintenance mode.
[2] MachineFailure	[101] MachineNotFunctional Monitoring Service converts [12] NoDesktopAvailable to this error code.	The VDA is not operational. Possible causes: <ul style="list-style-type: none"> The VDA was removed from the Delivery Group, or the VDA is unregistered, or the VDA power state is unavailable, or the VDA is experiencing internal issues. 	Verify that the VDA is in a Delivery Group. If not, add it to the appropriate Delivery Group. Verify that the VDA shows as powered on in Citrix Studio. If the power state is Unknown for several machines, resolve any issues with connectivity to the hypervisor or host failures. Verify that the hypervisor hosting the VDA is not in maintenance mode. Restart the VDA once the above issues have been addressed.

Machine failure type:

Error Code	Error Code ID	Issue Description	Action Description
Unknown	-	-	-
Unregistered	3	-	-
MaxCapacity	4	The load index on the hypervisor is at its maximum capacity.	Ensure that all hypervisors are powered on. Add more capacity to the hypervisor.

Error Code	Error Code ID	Issue Description	Action Description
			Add more hypervisors.
StuckOnBoot	2	The VM did not complete its boot sequence and is not communicating with the hypervisor.	<p>Ensure that the VM booted successfully on the hypervisor.</p> <p>Check for other messages on the VM, such as OS issues.</p> <p>Ensure that the hypervisor tools are installed on the VM.</p> <p>Ensure that the VDA is installed on the VM.</p>
FailedToStart	1	The VM experienced issues when trying to start on the hypervisor.	Check the hypervisor logs.
None	0	-	-
VirtualMachineNotFound	6	This virtual machine is not reachable or is deleted.	<p>Check your hypervisor and ensure that the virtual machine exists.</p> <p>Ensure that the virtual machine is powered on and is able to register itself with the Delivery Controller.</p>

Machine deregistration reason (applicable when failure type is Unregistered/Unknown):

Error Code	Error Code ID	Issue Description	Action Description
AgentShutdown	0	The VDA experienced a graceful shutdown.	Power on the VDA if you do not expect it to be off based on existing power management policies. Review any errors in the event logs.
AgentSuspended	1	The VDA is in hibernation or sleep mode.	<p>Take the VDA out of hibernation mode.</p> <p>Consider disabling hibernation for XenApp/XenDesktop VDAs via power settings.</p>
IncompatibleVersion	100	The VDA cannot communicate with the Delivery Controller due to a mismatch in the Citrix protocol versions.	Align the VDA and Delivery Controller versions.

AgentAddressResolutionFailed	101	The Delivery Controller was not able to resolve the VDA's IP address.	<p>Verify that the VDA machine account exists in AD. If not, create it.</p> <p>Verify that the name and the IP address of the VDA in DNS are accurate. If not, correct them.</p> <p>If widespread, validate the DNS settings on the Delivery Controller(s). Verify DNS resolution from the Controller by running the nslookup command.</p>
[Cloud]:	101	The Delivery Controller was not able	Verify that the VDA machine
Error Code	Error Code ID	Issue Description	Action Description
AgentAddressResolutionFailed		to resolve the VDA's IP address.	<p>account exists in AD. If not, create it.</p> <p>Verify that the name and the IP address of the VDA in DNS are accurate. If not, correct them.</p>
AgentNotContactable	102	A communication issue occurred between the Delivery Controller and the VDA.	<p>Use a ping to verify that the Delivery Controller and the VDA can successfully communicate. If not, resolve any firewall or network issues.</p> <p>Refer to troubleshooting steps listed in Knowledge Center article, Troubleshooting Virtual Desktop Agent Registration with Delivery Controllers in XenDesktop (CTX126992), for common problems that cause communication issues between the Controller and the VDA.</p>
[Cloud]: AgentNotContactable	102	A communication issue occurred between the Delivery Controller and the VDA.	<p>Refer to troubleshooting steps listed in Knowledge Center article, Troubleshooting Virtual Desktop Agent Registration with Delivery Controllers in XenDesktop (CTX126992), for common problems that cause communication issues between the Controller and the VDA. Contact Citrix support.</p>
AgentWrongActiveDirectoryOU	103	An Active Directory discovery misconfiguration occurred. The Site-specific OU (where the Site controller info is stored in AD) configured in the VDA registry is for a different Site.	Ensure the Active Directory configuration is correct, or check registry settings.
EmptyRegistrationRequest	104	The registration request sent from the VDA to the Delivery Controller was empty. This can be due to a corrupt VDA software installation.	Restart the Desktop Service on the VDA to restart the registration process and verify that the VDA registers correctly via the Application event log.

MissingRegistrationCapabilities	105	The VDA version is not compatible with the Delivery Controller.	Upgrade the VDA or remove the VDA and then reinstall it.
MissingAgentVersion	106	The VDA version is not compatible with the Delivery Controller.	Reinstall the VDA software if the issue is impacting all machines.
InconsistentRegistrationCapabilities	107	The VDA cannot communicate its capabilities to the Broker. This can be due to incompatibility between the VDA and Delivery Controller versions. The registration capabilities, which change with each version, are expressed in a form that does not	Align the VDA and Delivery Controller versions.
Error Code	Error Code ID	Issue Description	Action Description
		match the registration request.	
NotLicensedForFeature	108	The feature you are attempting to use is not licensed.	Check your Citrix licensing edition, or remove the VDA and then reinstall it.
[Cloud]: NotLicensedForFeature	108	The feature you are attempting to use is not licensed.	Contact Citrix support.
UnsupportedCredentialSecurityVersion	109	The VDA and the Delivery Controller are not using the same encryption mechanism.	Align the VDA and Delivery Controller versions.
InvalidRegistrationRequest	110	The VDA made a registration request to the Broker but the content of the request is corrupt or invalid.	Refer to troubleshooting steps listed in Knowledge Center article, Troubleshooting Virtual Desktop Agent Registration with Delivery Controllers in XenDesktop (CTX126992) , for common problems that cause communication issues between the Controller and the VDA.
SingleMultiSessionMismatch	111	The VDA's operating system type is not compatible with the Machine Catalog or Delivery Group.	Add the VDA to the correct machine catalog type or Delivery Group containing machines with the same operating system.
FunctionalLevelTooLowForCatalog	112	The Machine Catalog is set to a higher VDA functional level than the installed VDA version.	Verify that the VDA's Machine Catalog functional level matches that of the VDA. Upgrade or downgrade the machine catalog to match that of the VDA.
FunctionalLevelTooLowForDesktopGroup	113	The Delivery Group is set to a higher VDA functional level than the installed VDA version.	Verify that the VDA's Delivery Group functional level matches that of the VDA. Upgrade or downgrade the machine catalog to match that of the VDA.

PowerOff	200	The VDA did not shut down gracefully.	<p>If the VDA is supposed to be powered on, attempt to start the VDA from Citrix Studio and verify that it boots up and registers correctly. Troubleshoot any boot or registration issues.</p> <p>Review the event logs on the VDA once it is back up to help determine the root cause of the shutdown.</p>
AgentRejectedSettingsUpdate	203	Settings such as Citrix policies were changed or updated but there was an error in sending the updates to the VDA. This can occur if the updates are incompatible with the installed VDA version.	<p>Upgrade the VDA if necessary.</p> <p>Review whether the updates that were applied are supported with the VDA version.</p>
SessionPrepareFailure	206	The Broker did not complete an audit of the sessions that are running on the VDA.	If widespread, restart the Citrix Broker Service on the Delivery Controller.
Error Code	Error Code ID	Issue Description	Action Description
[Cloud]: SessionPrepareFailure	206	The Broker did not complete an audit of the sessions that are running on the VDA.	Contact Citrix support.
ContactLost	207	The Delivery Controller lost connection with the VDA. This can be caused by network disruptions.	<p>Verify that the Citrix Broker service is running on the Delivery Controller and the Desktop Service is running on the VDA. Start each if stopped.</p> <p>If already started, restart the Desktop Service on the VDA to restart the registration process and verify that the VDA registers successfully. Confirm that the Delivery Controllers configured for the VDA are accurate via the details in the Application event log.</p> <p>Use a ping to verify that the Delivery Controller and the VDA can successfully communicate. If not, resolve any firewall or network issues.</p>
[Cloud]: ContactLost	207	The Delivery Controller lost connection with the VDA. This can be caused by network disruptions.	Verify that the Desktop Service is running on the VDA. Start if stopped.

BrokerRegistrationLimitReached	301	The Delivery Controller has reached the configured maximum number of VDAs that are allowed to concurrently register with it. By default, the Delivery Controller allows 10,000 concurrent VDA registrations.	<p>Consider adding Delivery Controllers to the Site or creating a new Site.</p> <p>You can also increase the number of VDAs allowed to concurrently register with the Delivery Controller via the HKEY_LOCAL_MACHINE\Software\Citrix\DesktopServer\MaxWorkers registry key.</p> <p>See Knowledge Center article, Registry Key Entries Used by XenDesktop (CTX117446) for more information. Note that increasing this number might require additional CPU and memory resources for the Controller.</p>
SettingsCreationFailure	208	The Broker did not construct a set of settings and configurations to send to the VDA. If the Broker is unable to gather the data, registration fails and the VDA becomes unregistered.	Check the Event logs on the Delivery Controller for any errors. Restart the Broker Service if a specific issue is not evident in the logs. Once the Broker Service is restarted, restart the Desktop Service on the affected VDA(s) and verify that they successfully register.
[Cloud]: SettingsCreationFailure	208	The Broker did not construct a set of settings and configurations to send	Restart the Desktop Service on
Error Code	Error Code ID	Issue Description	Action Description
		to the VDA. If the Broker is unable to gather the data, registration fails and the VDA becomes unregistered.	the affected VDA(s) and verify that they successfully register. Contact Citrix support.
SendSettingsFailure	204	The Broker did not send settings and configuration data to the VDA. If the Broker can gather the data but is unable to send it, registration fails.	<p>If limited to a single VDA, restart the Desktop Service on the VDA to force re-registration and validate that the VDA registers successfully via the Application event log. Troubleshoot any errors seen.</p> <p>Refer to troubleshooting steps listed in Knowledge center article, Troubleshooting Virtual Desktop Agent Registration with Delivery Controllers in XenDesktop (CTX126992), for common problems that cause communication issues between the Controller and the VDA.</p>
AgentRequested	2	An unknown error occurred.	Contact Citrix support.
DesktopRestart	201	An unknown error occurred.	Contact Citrix support.
DesktopRemoved	202	An unknown error occurred.	Contact Citrix support.
SessionAuditFailure	205	An unknown error occurred.	Contact Citrix support.
UnknownError	300	An unknown error occurred.	Contact Citrix support.
RegistrationStateMismatch	302	An unknown error occurred.	Contact Citrix support.

Unknown	-	An unknown error occurred.	Contact Citrix support.
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