

InfoSphere Information Server

DataStage client login failures



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This presentation will discuss how to troubleshoot the InfoSphere™ Information Server DataStage® client login failures.

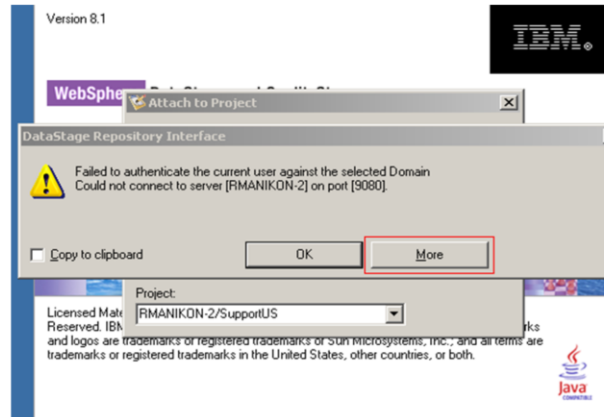
Objectives

- Possible scenarios for DataStage client login failures
- How to troubleshoot problem
- How to resolve error

The objectives of this presentation are to discuss various scenarios that can cause client login failure, steps necessary to troubleshoot these failures, and how to resolve the issue.

Scenario 1 – Could not connect to the server (1 of 4)

- Failed to authenticate current user against selected Domain
Could not connect to server [rmanikon-2] on port [9080]
- Error indicates client could not connect to Information Server server machine
- Many things can cause error
- Click “More” to see stack trace



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The error displayed on this slide means that your client could not connect to the Information Server domain machine. There are many reasons for this problem to occur. It can be as simple as an invalid server name or port number. Click the “More” button to get a stack trace of the error.

Scenario 1 – Could not connect to the server (2 of 4)

- Four things to note in stack trace
 - Error is from client
 - no message text - "Trace from server"
 - Hostname and Port are listed
 - Error comes from RegistrationHelper
 - Connection Refused error with socket connection

```

javax.security.auth.login.LoginException: Could not connect to server [RMANIKON-2] on port [9081]
at com.ascential.acs.security.auth.client.AuthenticationService.getLoginException(AuthenticationService.java:991)
at com.ascential.acs.security.auth.client.AuthenticationService.doLogin(AuthenticationService.java:370)
Caused by: com.ascential.acs.registration.client.RegistrationContextManagerException: Caught an unexpected exception.
at com.ascential.acs.registration.client.RegistrationContextManager.setContext(RegistrationContextManager.java:76)
at com.ascential.acs.security.auth.client.AuthenticationService.doLogin(AuthenticationService.java:364)
Caused by: com.ascential.acs.registration.client.RegistrationHelperException: Caught an unexpected exception.
at com.ascential.acs.registration.client.RegistrationHelper.getBindingProperties(RegistrationHelper.java:672)
at com.ascential.acs.registration.client.RegistrationHelper.getBindingProperties(RegistrationHelper.java:587)
at com.ascential.acs.registration.client.RegistrationHelper.getBindingConfigProperties(RegistrationHelper.java:566)
at com.ascential.acs.registration.client.RegistrationContextManager.setContext(RegistrationContextManager.java:173)
at com.ascential.acs.registration.client.RegistrationContextManager.setContext(RegistrationContextManager.java:73)
... 4 more
Caused by: java.net.ConnectException: Connection refused: connect
at java.net.PlainSocketImpl.socketConnect(Native Method)
at java.net.PlainSocketImpl.doConnect(PlainSocketImpl.java:391)
at java.net.PlainSocketImpl.connectToAddress(PlainSocketImpl.java:252)
at java.net.PlainSocketImpl.connect(PlainSocketImpl.java:239)

```

On this slide you see an example of a stack trace. There are four important things to note in the stack trace. First, there is no text that says "Trace from Server" so this means it is a client side issue. Next, look at the first message highlighted in red, it is giving the host name and port number. The next message in red indicates that the error happens during the RegistrationHelper call. The last thing to note is the last message in red indicates that the root cause is a socket connection error.

Scenario 1 – Causes and resolution (3 of 4)

- Invalid server name or port
 - Verify server name in datastage login screen
ping <DataStage Server>
 - Verify port number is correct
 - View registered-servers.xml file
InformationServer/ASBNode/eclipse/plugins/com.ibm.isf.client_configuration_<is_version>/registered-servers.xml
 - Find “<asb-server”
<asb-server name="RMANIKON-2"
host-name="RMANIKON-2"
port="9080"
is-primary-server="true" />
- Client has invalid entry in hosts file for DataStage server
 - Check Windows\System32\drivers\etc\hosts
ds_ip_address host_short_name host_long_name

There are several scenarios that can cause an error “could not connect to the server”. The first issue can be an invalid server name or port. Verify that the server name is entered correctly in the DataStage login screen. Ping the DataStage server name from the client machine to be sure it is a valid host name.

Next, be sure that the Information Server port number you are using in the DataStage login screen is correct. To check this, open the registered-servers.xml file in the directory referenced on this slide. Look for the string <asb-server> and check the port number in the asb-server tag.

Another issue could be that the client has an incorrect entry in the client hosts file. For example, the ip_address for the DataStage server in the host file may be wrong or the client does not have a valid entry for the server. If this is the case, correct the entry in the hosts file for the DataStage server.

Scenario 1 – Causes and resolution (4 of 4)

- Server listening port may be blocked by firewall
 - telnet <DataStage server> <port number>
 - Linux®
 - nc -v -z <host> <port>
 - Check with network administrator to see if port 9080 is blocked
- Information Server not running
 - Windows
 - Check IBM WebSphere® Application Server status => Started
 - UNIX® or Linux
 - ps -ef | grep java
 - root 25468 1 0 May 02 ? 33:33 /u1/IBM/WebSphere/AppServer/java/bin/java ...

The screenshot shows the Windows Services console for a local machine. The service 'IBM WebSphere Application Server V6 - rmanikon-2Node01' is highlighted in blue. Its status is 'Started', startup type is 'Automatic', and it logs on as 'Local System'. Other services like 'HID Input Service', 'HTTP SSL', and 'IBM Content Delivery Service' are also visible.

Name	Description	Status	Startup Type	Log On As
IBM WebSphere Application Server V6 - rmanikon-2Node01	Controls th...	Started	Automatic	Local System
HID Input Service	Enables ge...	Started	Automatic	Local System
HTTP SSL	This servic...	Stopped	Manual	Local System
IBM Content Delivery Service	Enables wi...	Stopped	Manual	Local System
IBM InfoSphere Business Info...	IBM InfoSp...	Stopped	Automatic	Local System
IBM Standard Asset Manager ...		Started	Automatic	Local System
IBM WebSphere Application S...	Controls th...	Started	Automatic	Local System
IMAPI CD-Burning COM Service	Manages C...	Stopped	Manual	Local System
Indexing Service	Indexes co...	Stopped	Manual	Local System
InstallDriver Table Manager	Provides s...	Stopped	Manual	Local System
IPSEC Services	Manages I...	Started	Automatic	Local System

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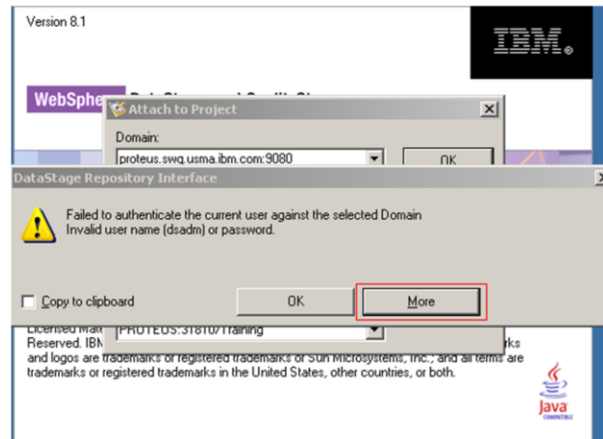
Another issue may be that the port may be blocked by a firewall. You can do a quick test by trying to telnet to the host and port number. Use the command “telnet <DataStage host> <port number>”.

If the telnet fails, then the port is most likely blocked. If you are on Linux, you may also use the nc command to see if the port is open. If the port is blocked, your administrator will need to open the port.

The last issue may be that WebSphere Application Server is not running. For Windows, go to Services in the control panel and see if the service IBM Websphere Application Server is started. For UNIX and Linux use the command “ps -ef | grep java” and check to be sure the WebSphere process is running.

Scenario 2 version 8.1 – Server call back failure (1 of 3)

- Failed to authenticate current user against selected Domain
 - Invalid user name (dsadm) or password
- Server callback failure



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The next client connect error you may see is “Failed to authenticate the current user against the selected Domain. Invalid user name or password.”

This error indicates that there is a server call back failure. Click the More button to get a stack trace.

Scenario 2 version 8.1 – Server call back failure (2 of 3)

```

Failed to authenticate the current user against the selected Domain:
CORBA MARSHAL 0x4942f89a No; nested exception is:      org.omg.CORBA.MARSHAL: Trace from server: 119877258 at host
PURPLE1 >>
org.omg.CORBA.MARSHAL: Unable to read value from underlying bridge : initial and forwarded IOR inaccessible:Forwarded IOR failed
with: java.net.SocketException: Operation timed out: connect could be due to invalid address: host=10.38.86.83, port=3953 Initial IOR failed with:
java.net.SocketException: Operation timed out: connect could be due to invalid address: host=10.38.86.83, port=3953 vmcid: IBM minor
code: 89A completed: No
at com.ibm.rmi.iiop.CDRInputStream.read_value(CDRInputStream.java:1993)
at
com.ascential.acs.security.auth.server._EJSRemoteStatelessAuthenticationService_e0d03809_Tie.login(_EJSRemoteStatelessAuthentication
Service_e0d03809_Tie.java:146)
at
com.ascential.acs.security.auth.server._EJSRemoteStatelessAuthenticationService_e0d03809_Tie._invoke(_EJSRemoteStatelessAuthenticati
onService_e0d03809_Tie.java:92)
at com.ibm.CORBA.iiop.ServerDelegate.dispatchInvokeHandler(ServerDelegate.java:614)
at com.ibm.CORBA.iiop.ServerDelegate.dispatch(ServerDelegate.java:467)
at com.ibm.rmi.iiop.ORB.process(ORB.java:439)
at com.ibm.CORBA.iiop.ORB.process(ORB.java:1761)
at com.ibm.rmi.iiop.Connection.respondTo(Connection.java:2376)
at com.ibm.rmi.iiop.Connection.doWork(Connection.java:2221)
at com.ibm.rmi.iiop.WorkUnitImpl.doWork(WorkUnitImpl.java:65)
at com.ibm.ejs.oa.pool.PooledThread.run(ThreadPool.java:118)
at com.ibm.ws.util.ThreadPool$Worker.run(ThreadPool.java:1475)
<< END server: 119877258 at host PURPLE1
vmcid: IBM minor code: 89A completed: No
javax.security.auth.login.LoginException: CORBA MARSHAL 0x4942f89a No; nested exception is:
org.omg.CORBA.MARSHAL:

```

On this slide, you see an example of the stack trace. There are three important things to note here from the stack trace. The first message in red, “Trace from server”, indicates this is a server call back failure. You will then see a message that says “initial and forwarded IOR inaccessible” and you will then see the client IP address. The last message in red indicates the exception is thrown from “com.ibm.rmi.iiop.CDRInputStream.read_value”.

Scenario 2 version 8.1 – Server call back failure (3 of 3)

- Resolutions
 - Client IP listed in stack trace is not reachable from server
 - Ping client from server machine using ping command
ping <machine_name>
- Client's port blocked
 - Telnet from server machine to client using client's port
telnet <client_machine_name> <client_port_number>
- Client firewall or multiple IP addresses – version 8.1 only
 - For Information Server 8.1, follow workaround described in TechNote
<http://www.ibm.com/support/docview.wss?rs=14&uid=swg2131911>

There are three scenarios that can cause this issue. The first issue can be that the client IP address listed in the stack trace is not reachable from the server. Try pinging the client from the DataStage server using the ping command to see if it is in fact reachable.

Next, the client's IP port could be blocked. Use the telnet command to try to make connection from the DataStage server to the client machine with the port listed in the stack trace.

The last possible cause for this error is only seen in the generally available release of version 8.1. The problem may be an issue with the client firewall or the client may have multiple IP addresses. The Technote listed on this slide contains more information about this issue and a work around to resolve it.

Scenario 3 - Server callback failure with localhost (1 of 2)

- Similar stack trace
- host=localhost

Trace from server: 1198777258 at host issn2 >>

org.omg.CORBA.MARSHAL: **Unable to read value from underlying bridge : initial and forwarded IOR inaccessible:**

Forwarded IOR failed with: java.net.ConnectException: Connection refused:host=localhost,port=33507

Initial IOR failed with: java.net.ConnectException: Connection refused:host=localhost,port=33507 vmcid: IBM minor code: 89A completed: No

at com.ibm.rmi.iiop.CDRInputStream.read_value(CDRInputStream.java:1993)

at

com.ascential.xmeta.shared.repository.core_EJSRemoteStatefulSandboxRemoteStatefulService_4baa4bb1_Tie.executeQuery_CORBA_WStringValue_CORBA_WStringValue_com_ascential_xmeta_crud_InternalQueryOptions_com_ascential_xmeta_crud_InternalQueryCompileOptions_java_util_Map(Unknown Source)

at com.ascential.xmeta.shared.repository.core_EJSRemoteStatefulSandboxRemoteStatefulService_4baa4bb1_Tie.invoke(Unknown Source)

at com.ibm.CORBA.iiop.ServerDelegate.dispatchInvokeHandler(ServerDelegate.java:614)

at com.ibm.CORBA.iiop.ServerDelegate.dispatch(ServerDelegate.java:467)

at com.ibm.rmi.iiop.ORB.process(ORB.java:439)

at com.ibm.CORBA.iiop.ORB.process(ORB.java:1761)

at com.ibm.rmi.iiop.Connection.respondTo(Connection.java:2376)

at com.ibm.rmi.iiop.Connection.doWork(Connection.java:2221)

at com.ibm.rmi.iiop.WorkUnitImpl.doWork(WorkUnitImpl.java:65)

at com.ibm.ejs.oo.pool.PooledThread.run(ThreadPool.java:118)

at com.ibm.ws.util.ThreadPool\$Worker.run(ThreadPool.java:1475)

<<END>>

The next issue has a similar stack trace with a server call back failure. This is similar to scenario 2 where the error happened during “initial and forwarded IOR”. The difference in this scenario is the error also includes host=localhost.

Scenario 3 - Server callback failure with localhost (2 of 2)

- Cause
 - WebSphere is not right level Java SDK 1.4.2 SR10
- Resolution
 - Upgrade to WebSphere Java SDK 1.4.2 SR10
- Download from
 - <http://www-01.ibm.com/support/docview.wss?uid=swg24018628>

This is a unique symptom and the root cause for this is that the WebSphere is not at a right Java level. To resolve this issue, Websphere Java needs to be upgraded to Java SDK 1.4.2 SR10 which can be downloaded from the link displayed on this slide.

Scenario 4: Server callback failure - ORB failure (1 of 2)

- Stack trace similar to Scenario 2
- Unique message
“read beyond end of data. No fragments available”

```
Trace from server: 1198777258 at host green.bocaraton.ibm.com >>
org.omg.CORBA.MARSHAL: Unable to read value from underlying bridge : No available data: Request 18:read beyond
end of data. No fragments available. vmcid: IBM minor code: 89A completed: No
at com.ibm.rmi.iiop.CDRInputStream.read_value(CDRInputStream.java:1993)
at
com.ascential.acs.security.auth.server_EJSRemoteStatelessAuthenticationService_e0d03809_Tie.login(_EJSRemote
StatelessAuthenticationService_e0d03809_Tie.java:146)
at
com.ascential.acs.security.auth.server_EJSRemoteStatelessAuthenticationService_e0d03809_Tie._invoke(_EJSRem
oteStatelessAuthenticationService_e0d03809_Tie.java:92)
at com.ibm.CORBA.iiop.ServerDelegate.dispatchInvokeHandler(ServerDelegate.java:614)
at com.ibm.CORBA.iiop.ServerDelegate.dispatch(ServerDelegate.java:467)
at com.ibm.rmi.iiop.ORB.process(ORB.java:439)
at com.ibm.CORBA.iiop.ORB.process(ORB.java:1761)
at com.ibm.rmi.iiop.Connection.respondTo(Connection.java:2376)
at com.ibm.rmi.iiop.Connection.doWork(Connection.java:2221)
at com.ibm.rmi.iiop.WorkUnitImpl.doWork(WorkUnitImpl.java:65)
at com.ibm.ejs.oa.pool.PooledThread.run(ThreadPool.java:118)
at com.ibm.ws.util.ThreadPool$Worker.run(ThreadPool.java:1475)
```

On this slide, you see another example stack trace where there is a server call back failure. In this case, the error states “No available data: Request 18:read beyond end of data. No fragments available”. This error is caused by a known ORB bug.

Scenario 4: Server callback failure - ORB failure (2 of 2)

- Cause
 - Caused by known ORB bug
- Resolution
 - Upgrade WebSphere Application Server with iFix (PK76826)

To resolve the issue, WebSphere Application Server needs to be upgraded with iFix PK76826.

Scenario 5: Bad host file on server (1 of 2)

- Authentication service error
 - com.ascential.acs.security.auth.client.AuthenticationService.doLogin**
- Error during server lookup
 - com.ibm.ws.naming.jndicos.CNContextImpl.doLookup(CNContextImpl.java:1784)**

```

com.ascential.asb.util.invocation.EntryPointInstantiationException: An error occurred trying to instantiate an object of the entry point client implementation
"com.ascential.acs.security.auth.ejb.EJBAuthenticationService"
    at com.ascential.asb.util.invocation.ejb.EJBServiceCreator.<init>(EJBServiceCreator.java:125)
    at com.ascential.acs.security.auth.ejb.EJBAuthenticationService.<init>(EJBAuthenticationService.java:39)
    at com.ascential.acs.security.auth.JAASAuthenticationService.getAuthService(JAASAuthenticationService.java:401)
    at com.ascential.acs.security.auth.JAASAuthenticationService.loginImpl(JAASAuthenticationService.java:381)
    at com.ascential.acs.security.auth.JAASAuthenticationService.login(JAASAuthenticationService.java:160)
    at com.ascential.acs.security.auth.client.AuthenticationService.doLoginImpl(AuthenticationService.java:879)
    at com.ascential.acs.security.auth.client.AuthenticationService.doLogin(AuthenticationService.java:365)
Caused by: javax.naming.NamingException: Error during resolve [Root exception is org.omg.CORBA.INTERNAL: initial and forwarded IOR inaccessible vmcid: IBM minor code:
58C completed: No]
    at com.ibm.ws.naming.jndicos.CNContextImpl.doLookup(CNContextImpl.java:1784)
    at com.ibm.ws.naming.jndicos.CNContextImpl.doLookup(CNContextImpl.java:1707)
    at com.ibm.ws.naming.jndicos.CNContextImpl.lookupExt(CNContextImpl.java:1412)
    at com.ibm.ws.naming.jndicos.CNContextImpl.lookup(CNContextImpl.java:1290)
    at com.ibm.ws.naming.util.WsninitCtx.lookup(WsninitCtx.java:145)
    at javax.naming.InitialContext.lookup(InitialContext.java:363)
    at com.ascential.asb.util.invocation.ejb.EJBServiceCreator.<init>(EJBServiceCreator.java:120)

```

In the last scenario, there is an example stack trace from the client with an error that is caused by a bad hosts file on the server. The first message in the red indicates that the error is caused at the login time by the authentication service and the last red message indicates that this happened during the server lookup.

Scenario 5: Bad host file on server (2 of 2)

- Possible cause (Linux)
 - /etc/hosts entry for localhost
**127.0.0.1 localhost.localdomain localhost machine_long_hostname
machine_short_hostname**
- Resolution
 - Change hosts entry to two lines
**127.0.0.1 localhost.localdomain localhost
<real ip address> machine_long_hostname machine_short_hostname**

Some Linux machines automatically configure the hosts file with an entry where the 127.0.0.1 local host entry includes the long and short name of the server. To fix this issue, break the entry in the hosts file into two lines where local host is on one line and the machine name has its own line that includes the real IP address of the machine.

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