

# Error tests for Arctica's nx-libs pull-request #111

This document is a brief description of some error tests that have been run to check how well behaves nxcomp 3.6.x (with the set of changes from pull-request #111) when it has to handle a situation in which an old proxy (before 3.5.0) tries to connect with a nxcomp 3.6.x based proxy.

## Test 1: fake 3.1.0 local proxy vs. nxcomp 3.6.x remote proxy

In this test the local proxy in server mode is a fake 3.1.0 proxy and the remote proxy in client mode is a 3.6.x version managed by a nxcomp 3.6.x based nxagent.

First we launch the remote 3.6.x nxagent and it waits for the first incoming connection:

```
$ export NX_CLIENT=...
$ ./nxagent.sh ./nxbuild-3.6.x :28 -ac -name NXTesting -display nx/nx,link=lan,media=1:52

NXAGENT - Version 3.6.0.0

Copyright (C) 2001, 2011 NoMachine.
See http://www.nomachine.com/ for more information.

Info: Agent running with pid '24990'.
Session: Starting session at 'Thu Apr 14 11:04:48 2016'.
Info: Proxy running in server mode with pid '24990'.
Info: Waiting for connection from any host on port '4052'.
```

Then we launch the local 3.1.0 proxy which establishes a connection with the remote proxy and sends its version to it:

```
$ export NX_CLIENT=...
$ ./nxproxy.sh ./nxbuild-3.1.0 -S media=4713 localhost:52

NXPROXY - Version 3.1.0

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See http://www.nomachine.com/ for more information.

Info: Proxy running in client mode with pid '24993'.
Session: Starting session at 'Thu Apr 14 11:04:52 2016'.
Info: Using abstract X11 socket in kernel namespace for accessing DISPLAY=:0.
Info: Connecting to remote host 'localhost:4052'.
Info: Connection to remote proxy 'localhost:4052' established.
```

At this point the remote 3.6.x proxy accepts the connection and it takes place the negotiation process to set the protocol version. As the negotiated 3.1.0 version is no longer valid for the 3.6.x proxy the process fails and it shows this message through the standard error:

```
Info: Accepted connection from '127.0.0.1'.
Error: Unable to set the protocol step value from the negotiated protocol version 3.1.0.
Error: Incompatible remote version 3.1.0 with local version 3.6.0.
Error: Failure negotiating the session in stage '7'.
Error: Aborting session with 'Unable to open display 'nx/nx,link=lan,media=1:52''.
Session: Aborting session at 'Thu Apr 14 11:04:52 2016'.
```

```
Session: Session aborted at 'Thu Apr 14 11:04:52 2016'.
```

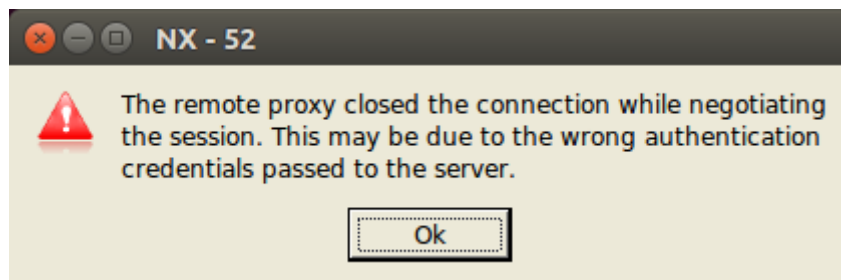
It also logs this into its errors file:

```
~/nx/C-52$ cat errors
Loop: PANIC! Unable to set the protocol step value from the negotiated protocol version 3.1.0.
Loop: PANIC! Incompatible remote version 3.1.0 with local version 3.6.0.
Loop: PANIC! Failure negotiating the session in stage '7'.
~/nx/C-52$
```

On the local side the fake 3.1.0 proxy then detects that the connection has been closed by the other side and it shows these error messages through the standard error:

```
Error: The remote NX proxy closed the connection.
Error: Failure negotiating the session in stage '7'.
Error: Wrong version or invalid session authentication cookie.
Session: Terminating session at 'Thu Apr 14 11:04:52 2016'.
Session: Session terminated at 'Thu Apr 14 11:04:52 2016'.
```

Then it opens a DialogBox by means of the program established in the NX\_CLIENT environment variable with this content:



And it also logs this into its errors file:

```
~/nx/S-52$ cat errors
Loop: PANIC! The remote NX proxy closed the connection.
Loop: PANIC! Failure negotiating the session in stage '7'.
Loop: PANIC! Wrong version or invalid session authentication cookie.
~/nx/S-52$
```

So as it can be seen in this scenario the situation is handled properly as expected.

## Test 2: nxcomp 3.6.x local proxy vs. fake 3.1.0 remote proxy

In this second test the local proxy in server mode is a nxcomp 3.6.x based proxy and the remote proxy in client mode is a fake 3.1.0 proxy managed by its corresponding nxagent.

First we launch the remote fake 3.1.0 nxagent and it waits for the first incoming connection:

```
$ export NX_CLIENT=...
$ ./nxagent.sh ./nxbuild-3.1.0 :28 -ac -name NXTesting -display nx/nx,link=lan,media=1:52

NXAGENT - Version 3.1.0.0

Copyright (C) 2001, 2011 NoMachine.
See http://www.nomachine.com/ for more information.
```

```
Info: Agent running with pid '25709'.
Session: Starting session at 'Thu Apr 14 13:03:59 2016'.
Info: Proxy running in server mode with pid '25709'.
Info: Waiting for connection from any host on port '4052'.
```

Then we launch the local 3.6.x proxy which establishes a connection with the remote proxy and sends its version to it:

```
$ export NX_CLIENT=...
$ ./nxproxy.sh ./nxbuild-3.6.x -S media=4713 localhost:52
NXPROXY - Version 3.6.0

Copyright (C) 2001, 2010 NoMachine.
See http://www.nomachine.com/ for more information.

Info: Proxy running in client mode with pid '25711'.
Session: Starting session at 'Thu Apr 14 13:04:03 2016'.
Info: Using abstract X11 socket in kernel namespace for accessing DISPLAY=:0.
Info: Connecting to remote host 'localhost:4052'.
Info: Connection to remote proxy 'localhost:4052' established.
```

At this point the remote 3.1.0 proxy accepts the connection and it takes place the negotiation process to set the protocol version. In this case the proxy uses the lower version 3.1.0 to set a protocol step of eight, writes a warning through the standard error asking for an update and sends its version to the local proxy on the other side:

```
Info: Accepted connection from '127.0.0.1'.
Warning: Connected to remote version 3.6.0 with local version 3.1.0.
Warning: Consider checking http://www.nomachine.com/ for updates.
```

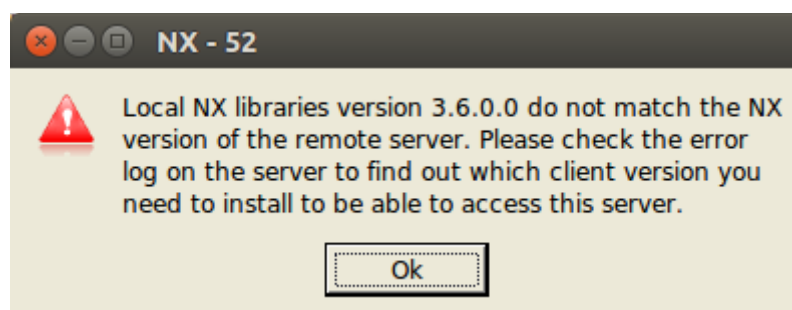
It also logs the warning into its errors file:

```
~/nx/C-52$ cat errors
Loop: WARNING! Connected to remote version 3.6.0 with local version 3.1.0.
~/nx/C-52$
```

Then on the local side the 3.6.x proxy receives the remote proxy version 3.1.0 and it detects that it's too old, so the negotiation process fails at this point and it displays these error messages through its standard error:

```
Error: Unable to set the protocol step value from the negotiated protocol version 3.1.0.
Error: Incompatible remote version 3.1.0 with local version 3.6.0.
Error: Failure negotiating the session in stage '7'.
Error: Wrong version or invalid session authentication cookie.
Session: Terminating session at 'Thu Apr 14 13:04:03 2016'.
Session: Session terminated at 'Thu Apr 14 13:04:03 2016'.
```

It also opens a DialogBox by means of the program established in the NX\_CLIENT environment variable with this content:



And it also logs this into its errors file:

```
~/nx/S-52$ cat errors
Loop: PANIC! Unable to set the protocol step value from the negotiated protocol version 3.1.0.
Loop: PANIC! Incompatible remote version 3.1.0 with local version 3.6.0.
Loop: PANIC! Failure negotiating the session in stage '7'.
Loop: PANIC! Wrong version or invalid session authentication cookie.
~/nx/S-52$
```

Finally going back to the remote proxy, it detects that the connection has been closed by the other side and it displays these error messages through its standard error:

```
Error: The remote NX proxy closed the connection.
Error: Failure negotiating the session in stage '10'.
Error: Aborting session with 'Unable to open display 'nx/nx,link=lan,media=1:52''.
Session: Aborting session at 'Thu Apr 14 13:04:03 2016'.
Session: Session aborted at 'Thu Apr 14 13:04:03 2016'.
```

And it also logs this into its errors file:

```
~/nx/C-52$ cat errors
Loop: WARNING! Connected to remote version 3.6.0 with local version 3.1.0.
Loop: PANIC! The remote NX proxy closed the connection.
Loop: PANIC! Failure negotiating the session in stage '10'.
~/nx/C-52$
```

So once again as it can be seen in this second scenario the situation is handled properly as expected.