

Restoring An Unreachable JACE



Date: Sep 20, 2014
Product: All QNX Based JACEs
Revision: All Ax Revision 3.2 and Later

Problem

It is possible that the JACE can enter a state in which platform and station connections can not be made. This can result from a mismatch between the operating system and NRE version. The mismatch can result from failure to initially commission the JACE prior to installing a station, improper software upgrade/downgrade or inappropriately copying files to the JACE.

Solution

For the following process a physical connection will need to be made to the JACE with a null modem cable. An FTP connection will also need to be made through the Ethernet port.

1.) Locate the appropriate clean.dist file.

Each JACE model has a unique clean.dist file that contains the correct OS image for that model. The directory of clean.dist files is found in the /cleanDist folder of a Niagara installation. The following dist files correspond to the indicated JACE model :

Note

The clean.dist file for the JACE-7 (javelina_booke) is only available in Niagara version 3.4 and later.

The clean.dist file for the JACE-6E is only available in Niagara versions 3.6.47 and later.

Once these JACE models have had the files installed from the clean.dist, the JACE **must** be commissioned using a version of Workbench that contains the clean.dist files.

JACE-200/202-XPR ---- qnx-jace-npm2xx-etfs512-clean.dist
JACE-3E ----- qnx-jace-npm3xx-etfs2048-clean.dist
JACE-403 ----- qnx-jace-york-etfs512-clean.dist
JACE-404/545----- qnx-jace-james-etfs512-clean.dist
JACE-600/602-XPR ---- qnx-jace-npm6xx-etfs2048-clean.dist
JACE-6E ----- qnx-jace-npm6e-etfs2048-clean.dist
JACE-7 ----- qnx-jace-javelina_booke-etfs2048-clean.dist

Note

If the JACE contains the extended memory feature then use the etfs-2048 dist instead of the etfs-512.

2.) Extract the needed OS image file (*.image) and clean.tar.gz file.

Once the correct clean.dist file has been established from the above list it can be unzipped using Winzip or a similar program (it may be necessary to make a copy of the dist file and then change the extension to .zip and extract using Windows Explorer). The .image file and clean.tar.gz file need to be extracted to the computer that will be making the FTP connection to the JACE.

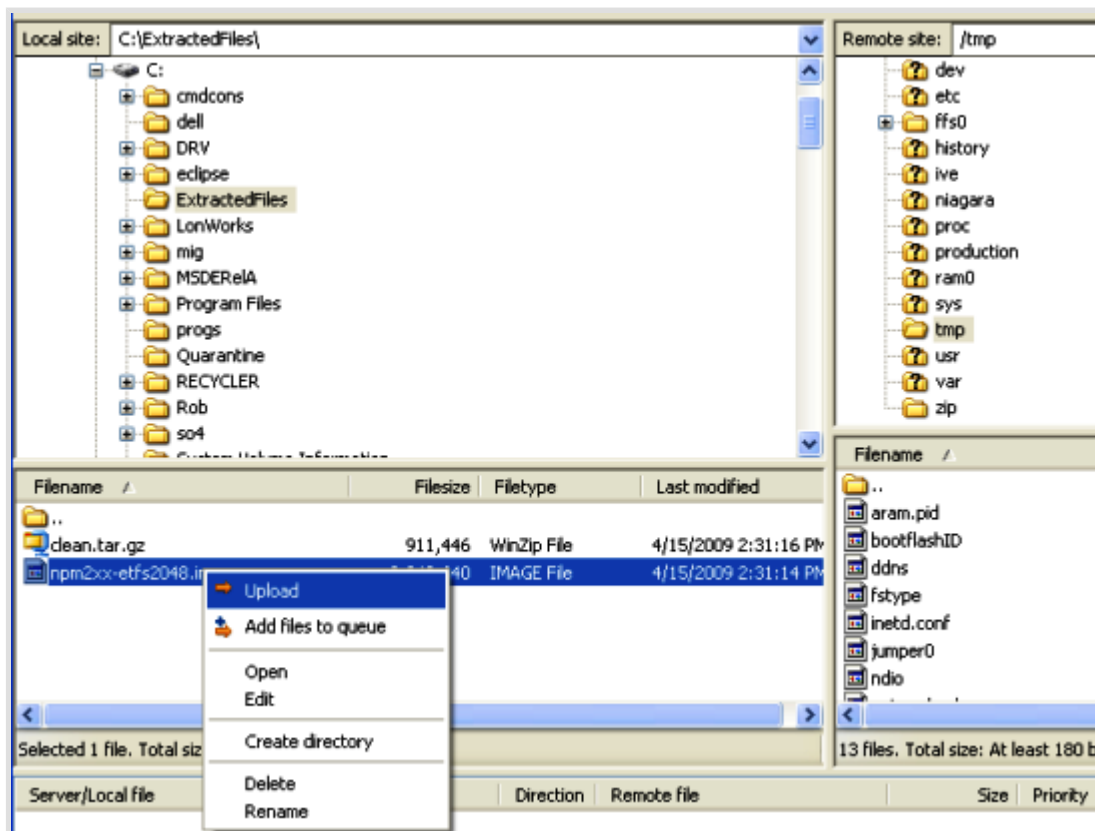
3.) Make a serial shell connection to the JACE.

A serial shell connection can be made to a JACE through the RS-232 COM1 port. The 4 pin jumper will need to be in "Serial Shell" mode, and the JACE must be rebooted with the jumper in the right position before it will communicate. More details can be found on page 26 of the "JACE Niagara Ax Install & Startup Guide" found in the /docs/docJaceStartup folder of a Niagara installation. Type the platform credentials of the JACE when prompted for "login:" type username, when prompted for "password:" type the platform password, characters will not echo. Once successfully logged in, a menu will be displayed and option 4 will allow you to enable FTP. Be sure that FTP is enabled before going to the next Step.

4.) Make an FTP connection to the JACE.

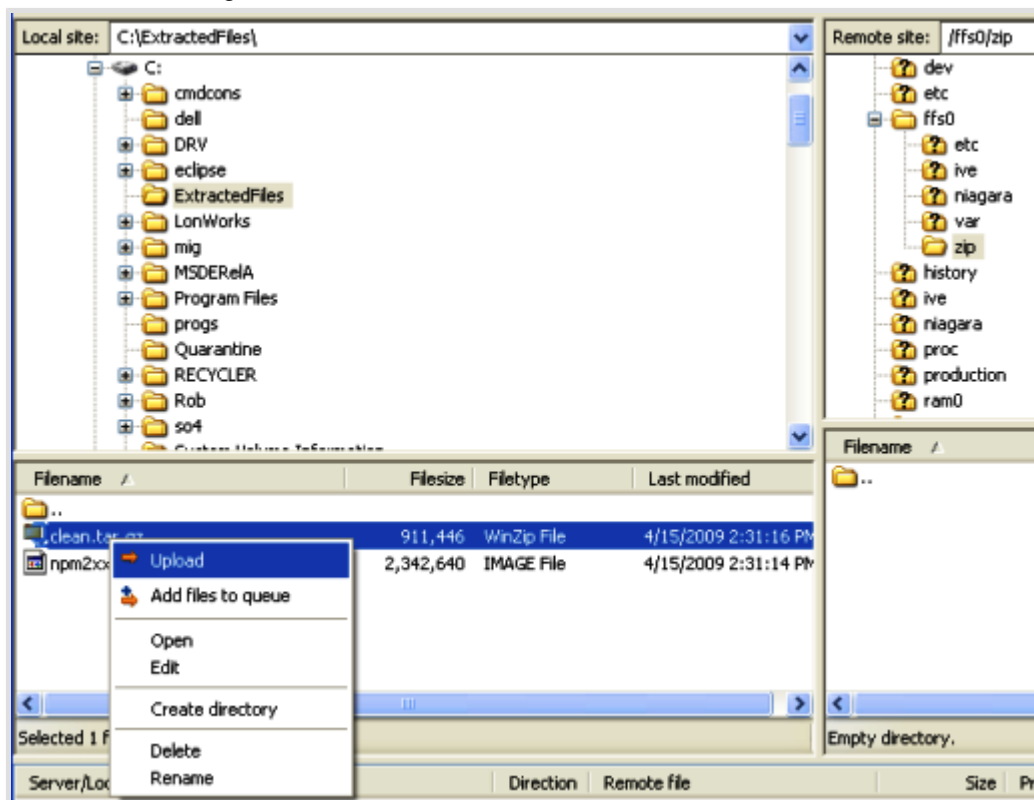
Using an FTP client such as FileZilla or Windows FTP connect to the JACE. The platform credentials should be entered when prompted for a username and password. Once connected to the JACE, transfer the image file that was extracted from the clean.dist file to the /tmp directory of the JACE

Transfer OS Image



and transfer the clean.tar.gz file to the /ffs0/zip directory of the JACE.

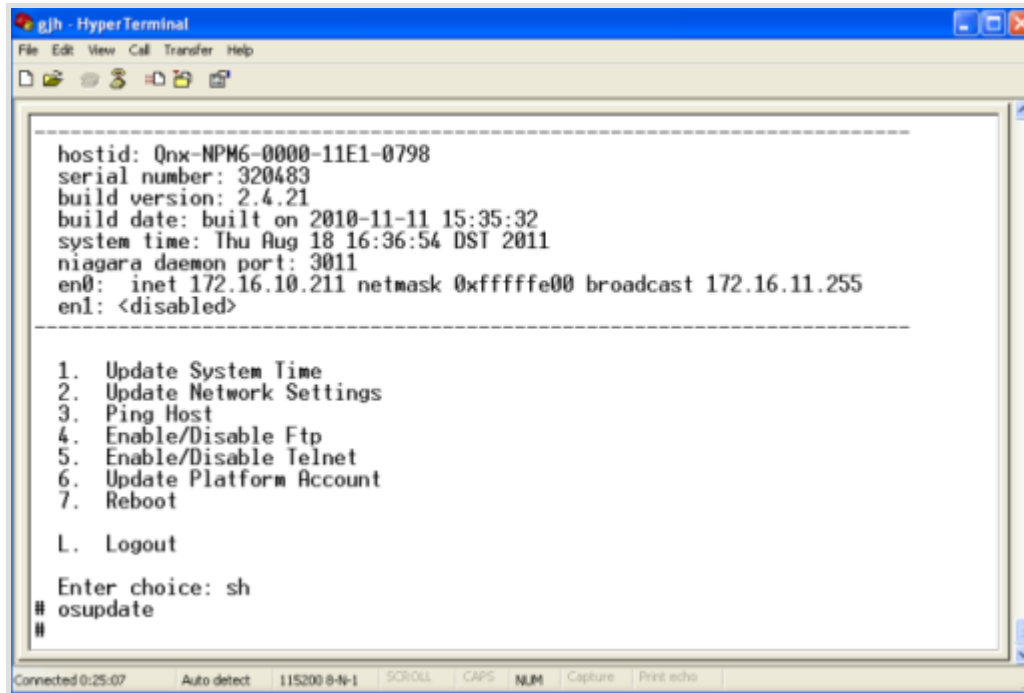
Transfer clean.tar.gz



5.) Run osupdate in the serial shell.

Return to the serial shell connection and type "sh" at the prompt of the menu screen and hit enter. This should produce a # prompt. Type "osupdate" and hit enter. There will be no confirmation message, but another # prompt should appear on the next line. Type "exit", and then reboot the JACE with option 7.

Run OS Update



The screenshot shows a HyperTerminal window titled 'gjh - HyperTerminal'. The window displays the following text:

```
-----  
hostid: Qnx-NPM6-0000-11E1-0798  
serial number: 320483  
build version: 2.4.21  
build date: built on 2010-11-11 15:35:32  
system time: Thu Aug 18 16:36:54 DST 2011  
niagara daemon port: 3011  
en0: inet 172.16.10.211 netmask 0xfffffe00 broadcast 172.16.11.255  
en1: <disabled>  
-----  
  
1. Update System Time  
2. Update Network Settings  
3. Ping Host  
4. Enable/Disable Ftp  
5. Enable/Disable Telnet  
6. Update Platform Account  
7. Reboot  
  
L. Logout  
  
Enter choice: sh  
# osupdate  
#
```

At the bottom of the window, the status bar shows 'Connected 0:25:07', 'Auto detect', '115200 8-N-1', 'SCROLL', 'CAPS', 'NUM', 'Capture', and 'Print echo'.

Once the JACE reboots, it will install the clean.dist file and the JACE will be restored to factory default condition. A platform connection should be made and the JACE should be commissioned in the intended Niagara version before anything else is done.

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