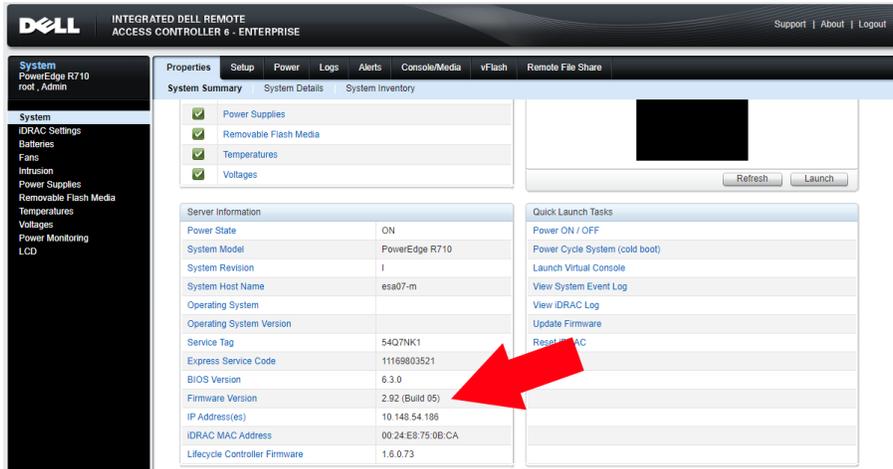


Preparing a Dell server with an iDRAC6 management card for remote administration

Initial setup and check

Login to the iDRAC6 web interface for your server.

In the System > Properties > System Summary view, verify the firmware version is 2.92:



The screenshot shows the Dell iDRAC6 web interface. The left sidebar contains navigation options: System, iDRAC Settings, Batteries, Fans, Intrusion, Power Supplies, Removable Flash Media, Temperatures, Voltages, Power Monitoring, and LCD. The main content area is titled 'System Summary' and includes a 'Server Information' table. A red arrow points to the 'Firmware Version' row in the table, which displays '2.92 (Build 05)'. Other rows in the table include Power State (ON), System Model (PowerEdge R710), System Revision (1), System Host Name (esa07-m), Operating System, Operating System Version, Service Tag (5407NK1), Express Service Code (11169803521), BIOS Version (6.3.0), IP Address(es) (10.148.54.106), iDRAC MAC Address (00:24:E8:75:0B:CA), and Lifecycle Controller Firmware (1.6.0.73). A 'Quick Launch Tasks' panel on the right includes buttons for Power ON / OFF, Power Cycle System (cold boot), Launch Virtual Console, View System Event Log, View iDRAC Log, Update Firmware, and Reset iDRAC.

Server Information	
Power State	ON
System Model	PowerEdge R710
System Revision	1
System Host Name	esa07-m
Operating System	
Operating System Version	
Service Tag	5407NK1
Express Service Code	11169803521
BIOS Version	6.3.0
Firmware Version	2.92 (Build 05)
IP Address(es)	10.148.54.106
iDRAC MAC Address	00:24:E8:75:0B:CA
Lifecycle Controller Firmware	1.6.0.73

If it is, skip to **Browser settings**. If not, do the **firmware update** described below.

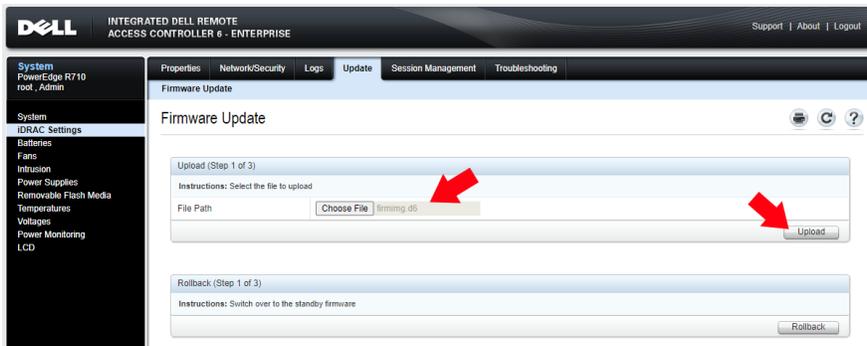
Firmware update to 2.92

Because Dell distributes firmware updates as Windows executables and not everyone has Windows, pre-extracted firmware binaries are provided here:

<http://people.duke.edu/~tkb13/courses/ece566/drac/>

Download the `firming.d6` file.

In the iDRAC6 interface, navigate to iDRAC Settings > Update > Firmware Update and upload this file:



The screenshot shows the Dell iDRAC6 web interface with the 'Update' tab selected. The 'Firmware Update' section is active, showing 'Upload (Step 1 of 3)'. The instructions are 'Select the file to upload'. The 'File Path' field contains 'firming.d6', with a red arrow pointing to the 'Choose File' button. Another red arrow points to the 'Upload' button. Below this, the 'Rollback (Step 1 of 3)' section is visible with the instruction 'Switch over to the standby firmware' and a 'Rollback' button.

Wait a bit and it will reboot with the new version.

Browser settings

These servers are pretty old, so their management cards use a version of Transport Layer Security (TLS, which underlies HTTPS) that is considered insecure in most modern browsers. Therefore, to access them, use Firefox, and enable older TLS as follows:

- In Firefox, go to the url “about:config”
- Find the setting “security.tls.version.min” and set it to 1
- If you use Firefox regularly and are concerned about the impact of this, you can revert this setting back to its default when not accessing the server’s remote management interface.

Java setup

These servers are pretty old, and their remote access requires Java settings that modern systems consider insecure. Directions for compensating for this are provided below for Windows and Mac.

Prepare local Java on [Windows](#)

Install Java 8 on your OS: <https://java.com/en/download/>

The web interface works plainly in your browser, but the remote console and virtual media requires a Java applet. This facility is used to interface with the physical keyboard/mouse/display and attach local storage devices to the remote server, and we need it if we’re going to manage this server remotely.

Unfortunately, these iDRAC6 cards are a bit old and use forms of cryptography for security that are now considered outdated by modern Java runtimes.

This video will walk you through editing your Java settings to allow the remote console to work:

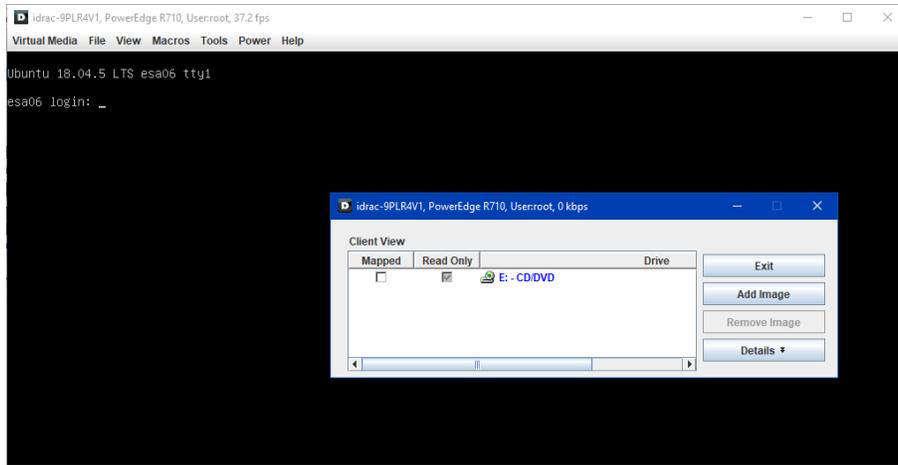
<https://www.youtube.com/watch?v=drhSo9XI9M0>

If you still have issues, check out this follow-up video by the same person:

<https://www.youtube.com/watch?v=qxOk-AbIk9Y>

Once you’ve done this, you should be able to launch the remote console, and from within that, the virtual media tool. It will ask you to save a .jnlp file; this file, when launched, runs with Java to start the remote console.

Note: if it tries to save the file with a bunch of junk after the file extension, rename it so it ends in the extension .jnlp so it launches with Java properly.



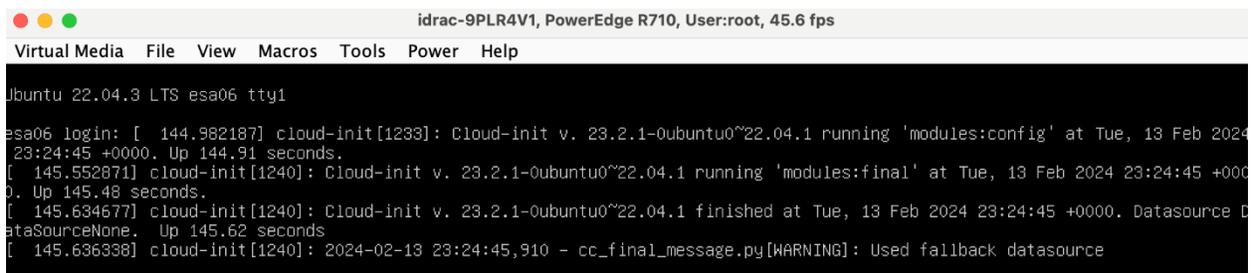
Prepare local Java on [Mac](#)

(Credit to Jason Liu for these directions)

To get iDRAC6 working with MacOS:

1. Download and install OpenWebStart from <https://openwebstart.com/download/>
2. Add your server to OpenWebStart whitelist:
add a line `deployment.security.whitelist=<server IP>` to
`~/config/icedtea-web/deployment.properties`
3. OpenWebStart will download a JVM, or you can pick your own in the OpenWebStart Settings app. Modify the security settings for the JVM, stored at
`<JAVA_HOME>/conf/security/java.security` in recent Java versions. I found that removing
", SHA1 denyAfter 2019-01-01" and ", RC4" is sufficient
4. Rename awfully named .jnlp* file to something reasonable like "viewer.jnlp"

Now you should be able to connect, even if it complains about keyboard driver/library.



```
idrac-9PLR4V1, PowerEdge R710, User:root, 45.6 fps
Virtual Media File View Macros Tools Power Help
Jbuntu 22.04.3 LTS esa06 tty1
esa06 login: [ 144.982187] cloud-init[1233]: Cloud-init v. 23.2.1-0ubuntu0~22.04.1 running 'modules:config' at Tue, 13 Feb 2024
23:24:45 +0000. Up 144.91 seconds.
[ 145.552871] cloud-init[1240]: Cloud-init v. 23.2.1-0ubuntu0~22.04.1 running 'modules:final' at Tue, 13 Feb 2024 23:24:45 +0000.
Up 145.48 seconds.
[ 145.634677] cloud-init[1240]: Cloud-init v. 23.2.1-0ubuntu0~22.04.1 finished at Tue, 13 Feb 2024 23:24:45 +0000. Datasource D
ataSourceNone. Up 145.62 seconds
[ 145.636338] cloud-init[1240]: 2024-02-13 23:24:45,910 - cc_final_message.py[WARNING]: Used fallback datasource
```

Using the remote console to set up a new server

The remote console gives you the same access you'd have if you were physically touching the machine, including display, keyboard, mouse, and the ability to attach storage (e.g. insert a DVD or USB stick).

If you need to edit boot-time firmware settings, you can reboot the server and do so from the console.

If you need to install a new OS, you can use virtual media to attach the OS install disc ISO file. Then you can reboot, and have the BIOS boot off the virtual media. Then you can proceed as normal.

NOTE: If you get an error talking about virtual media not being "attached", in the web interface, go to System > Console/Media > Configuration, and change the Virtual Media Status to "Auto Attach".