

# FDT Server

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The FDT User Guide can be found here:

- [http://www.internet2.edu/ion/docs/FDTAgent\\_Usage\\_Dynes\\_v03.pdf](http://www.internet2.edu/ion/docs/FDTAgent_Usage_Dynes_v03.pdf)

The DYNES project uses the [Dell R510](#) as the Disk Server running FDT software. The configuration information for this server is available [dynes:here](#).

Recommended Server specs are:

- Dual Intel Xeon E5620
- 24GB DDR3 RAM
- 12 x 1 TB Near Line SAS Disks, configured as RAID5, for data storage
- 2 x 146GB SAS Disks, configured as RAID-1 for Operating system
- Intel X520 DA2 Network Adapter
- Dell IDRAC Enterprise Management Card

The R510 environmental specifications are:

R510: 2xE5620, 24GB (6x4GB), 2x146GB, 12x1TB, PERC H700, Raid0+Raid1				
Input Power:	439	watt s	1497.9	btu /h
Input Current:			4.1	amp s
Sound Power Level:			6.4	bels
Airflow Rate:	26.5	l/s	56.1	CFM
Weight:	34.5	kg	76.1	lbs
Air Temperature Rise:	14.1	°C	25.3	°F

DYNES uses CentOS 5.6 Linux moving to Scientific Linux 6. A new Linux kernel is also made available which outperforms the standard kernel that comes with CentOS in terms of storage throughput. Kernel can be [downloaded](#) here.

We recommend using RAID-5 on 12 disks (Strip Size 128KB, WriteThru, ReadAheadNone, XFS File system) and have done extensive testing to achieve the maximum performance. See [dynes:Document](#) and section 4 of the disk tests.

## Dell iDRAC

Every DYNES supplied FDT server (Dell R510) comes equipped with Dell's iDRAC6 Enterprise. "The Integrated DellITM Remote Access Controller6 (iDRAC6) is a systems management hardware and software solution that provides remote management capabilities, crashed system recovery, and power control functions for Dell PowerEdgeTM systems." The iDRAC capability can be accessed via a web interface at the address you supplied with the configuraion information for your DYNES equipment (e.g., <https://your-idrac-address> or <https://your-idrac-name.yoursite.edu>. Documentation for the iDRAC can be found [here](https://www.dell.com/support/manuals/dell-r510/dell-r510-manuals/1372271680614). Please note that both the IDC and the FDT server supplied with DYNES are configured with iDRAC capability. If you use Firefox to access iDRAC you should be aware that you can only access one of the servers at a time. The certificate Dell supplies with their iDRAC hardware uses the same serial number and Firefox won't accept a cert with a duplicate serial number. Firefox currently does not give you the option to continue meaning that you can only view the iDRAC on the first server you access. A workaround is to remove the certs (see this [link](#) for details) or use a different browser

## To install/replace the CERT on the FDT server

The cert and the key are stored under:  
/home/dynes/FDTAgent/conf/OSCARS.jks

To import a new certificate and the key:

- 1) Go to /home/dynes/FDTAgent/bin
- 2) Import the certs using the `dynesfdt cert` command:

```
./dynesfdt cert -import -key </path/to/private/key> -cert </path/to/cert>
```

The certs will be imported under a new file  
(in case the user wants to backup the previous one):

/home/dynes/FDTAgent/conf/OSCARS.jks.NEW

This file must be copied over:

/home/dynes/FDTAgent/conf/OSCARS.jks

- 3) To list the certificate currently installed in the OSCARS.jks file:  
./dynesfdt cert

should print the certificate and the validity.