
Managing the new DataFax 3.8 EDC Server

Craig Dilks
CDSI



What is DFedcservice?

- A process that is automatically started by DFbootstrap
 - `ps -ef | grep DFedcservice`
- Similar to a Web Server – uses the http protocol
- Listens to port 443 (remember running DFcertReq?)
- Must be correctly configured and running in order for DFsystem or iDataFax to work
- Passes requests received from DFsystem to DataFax
- Passes result received from the DataFax back to DFsystem
- Does the same thing for the iDataFax client

What does DFedcservice need for it to work?

- A valid DFedcservice.cf
Created when DataFax is installed and stored in \$DATAFAX_DIR/lib
- A signed SSL certificate
Requested as part of the installation process, typically installed as edccert.pem in \$DATAFAX_DIR/lib

Tracking DFedcservice

- Uses syslog logging facility (part of Solaris)
- Under control of /etc/syslog.conf
- Writes to the daemon log
- By default, only reports messages that are notice level and up to /var/adm/messages
Connections opening and closing, requests for authorization are reported at warning level
Individual requests are not logged

More Details, please!

- Edit syslog.conf to decrease the message level (aka “criticality”) e.g. add the following line to syslog.conf to log activity at the info level and up and write all messages to /var/adm/daemon.log

```
daemon.info      /var/adm/daemon.log
```
- Restart syslogd – e.g. Solaris 10

```
svcadm restart system-log
```

What do I do with all this data?

- DFedcservice is similar to a Web Server
- Numerous vendors and open source solutions are available for analyzing web server activity
- AWstats (awstats.sourceforge.net) is a good example of a flexible, free tool distributed under GNU GPL

Example of AWStats Output

Authenticated users (Top 10) - Full list - Last visit

| Authenticated users (Top 2) | Pages | Hits | Bandwidth | Last visit |
|-----------------------------|-------|------|-----------|---------------------|
| google | 133 | 133 | 140.54 KB | 19 Feb 2007 - 11:56 |
| cmg | 49 | 49 | 104.04 KB | 19 Feb 2007 - 12:25 |

Visit duration

Number of visits: 4 - Average: 230 s

| Number of visits | Number of visits | Percent |
|------------------|------------------|---------|
| 00-30s | 1 | 25 % |
| 300-21m | 1 | 25 % |
| 21m-51m | | |
| 51m-151m | 1 | 25 % |
| 151m-301m | | |
| 301m-1s | | |
| 1s+ | | |
| unknown | 1 | 25 % |

HTTP Status codes

| HTTP Status codes | Hits | Percent | Bandwidth |
|-------------------|------|---------|-----------|
| 403 Forbidden | 21 | 77.7 % | 0 |
| 502 Server busy | 4 | 14.8 % | 0 |
| 401 Unauthorized | 2 | 7.4 % | 0 |

* Codes shown here gave hits or traffic "not viewed" by visitors, so they are not included in other charts.

Study Connections

| Study Number | Hits |
|--------------|------|
| 251 | 1 |

What you can summarize

- Visits by month, week, day of the month, day of the week, hour of the day
- Visit duration
- Visits by domain
- Top 10 (configurable) clients
- Top 10 (configurable) users
- HTTP status codes (server busy, unauthorized, etc...)
- Add your own summary tables

What I did to get this to work...

- Downloaded and installed AWstats from the download page – perl required!
- Wrote an awk script to reformat the log slightly, making it compatible with AWStats
- Edited the AWStats configuration file to select the reports I wanted, plus I added my own report to summarize connections by study number

Can I try this at home?

- Sure you can – I'll even email you the awk script I used to reformat the log output (on request) – send your request to craig@datafax.com

ANY QUESTIONS?