Before You Contact Support

Managing your Voyager System Series
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Agenda

• Why this session?
• Terminology
• Stuff you should know
• Killing your server
• When things go right
• When things go wrong
• You’re not alone
• Recap
Why This Session?

- There is nothing worse than feeling helpless
- Or hopeless
- Or useless
- Or clueless

- Know your limits!
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Terminology

• File – bits on disk or tape
• Program – executable, binary
• Script – ASCII file (editable) talks to shell
• Shell – command interpreter (UI); talks to kernel
• Kernel – core or key components of the O.S.; talks to hardware and includes process management
Terminology

- Database – a system that organizes, stores, and retrieves large amounts of data.
- Oracle – RDBMS
- VGER instance – Oracle application
- Tablespace – logical data; comprised of files
- Schema – collection of logical structures (tables, indexes, views) that directly refer to the database’s data
Terminology

• / – “root” directory of the server
• /m1 – base directory for Voyager
• /m1/voyager – all Voyager files on the Unix server are under this directory
• /m1/voyager/xxxdb – database directory containing all database-specific files
• Use WinSCP to look around the file structure
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Stuff You Should Know

• Basic O.S. and shell commands
• vi Unix editor; vi = “visual”
• Starting and stopping Very Important Things (handouts)
• PuTTY (secure “Telnet”)
• WinSCP (secure “FTP” for uploading/downloading files and more!)
• WinMerge (file comparison)
• Your configuration, software versions, etc.
Detecting Versions

• **Solaris/Linux** version plus patch level of the OS. Will also tell you what type of server you are running:
  • `uname -arv`

• To find out **Oracle**, you simply can run `sqlplus`:
  • `/export/home/voyager => sqlplus`

• For **Voyager version check** `voyager.env` file

• **Apache**: `cd /m1/shared/apache2/bin`
  • `httpd -v`
Our Major Players

- Apache – Web Server
- Tomcat – Java virtual machine
- Voyager – ExLibris ILS software
- Oracle - rdbms (database software)
- Operating System - Solaris, Linux, Windows...
- Clients - Cataloging, Acquisitions, Circulation...
voyager 1445 16213 0 07:08 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u tellertidb/Vtellertidb -c /m1/voyager
voyager 1662 16213 0 11:10 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 5675 16213 0 11:20 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 9315 16213 0 11:31 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 10825 16213 0 09:01 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 12231 16213 0 10:16 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 15609 14812 0 13:04 pts/4 00:00:00 grep -i catsvr
voyager 15952 16213 0 11:49 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u tellertidb/Vtellertidb -c /m1/voyager
voyager 19349 16213 0 10:36 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 21705 16213 0 12:12 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 29510 16213 0 08:19 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 31963 16213 0 09:49 ? 00:00:00 /m1/voyager/bin/2008.0.0/catsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager

voyager 370 16213 0 08:31 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 1992 16213 0 11:11 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 4580 16213 0 11:16 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 4676 16213 0 11:17 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 5206 16213 0 11:18 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 6303 16213 0 11:22 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 8365 16213 0 11:28 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 15676 16213 0 07:48 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 15681 16213 0 07:48 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 15707 14512 0 13:04 pts/4 00:00:00 grep -i circsvr
voyager 18429 16213 0 11:55 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 20545 16213 0 09:19 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 23007 16213 0 09:24 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager
voyager 30431 16213 0 11:03 ? 00:00:00 /m1/voyager/bin/2008.0.0/circsvr -d VGER -u csmdb/Vcsmdb -c /m1/voyager

/m1/voyager/csmdb => ps -ef | grep -i catsvr
/m1/voyager/csmdb => ps -ef | grep -i circsvr
Agenda

• Why this session?
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• **Killing your server**
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Intentionally Killing Your Server

- It’s useful to see what “death” looks like in the browser, in the client, and when you do a `ps -ef` command on the server.
- You can kill Oracle, Apache, Tomcat, Voyager.
- Scripts located in `/etc/init.d`.
- See the handout with list of commands.
- Run `ps -ef` when server is up for baseline comparison purposes.
- I don’t suggest you kill your O.S. 😊
Apache HTTP Server

- Web server software
- Typically runs on UNIX-like operating systems but there are Windows versions
- Open source
- Public domain
```bash
/home/voyager => ps -fu nobody
UID   PID  PPID  C STIME TTY           TIME CMD
nobody  19320 18816 0  00:05 ?  00:00:00 /m1/shared/httpd/2.2.20/bin/httpd -k start
nobody  19321 18816 0  00:05 ?  00:00:00 /m1/shared/httpd/2.2.20/bin/httpd -k start
/home/voyager =>
/home/voyager =>
/home/voyager => ps U nobody
   PID  TTY STAT TIME COMMAND
 19320  ?  S1   0:00 /m1/shared/httpd/2.2.20/bin/httpd -k start
 19321  ?  S1   0:00 /m1/shared/httpd/2.2.20/bin/httpd -k start
/home/voyager =>
```
Apache – the Web Server

• If broken you’ll get a browser display error
• Check Apache using the command:
  • `ps -ef | grep -i httpd`
• If it is **running** you’ll see six or so lines of identical httpd processes for each database
• If you only see your grep process try to restart Apache:
  • `/etc/init.d/httpd2 start`
Apache Logs

- /m1/shared/httpd/.../logs
- /m1/shared/httpd/.../logs/xxxdb
- apache2 is a symbolic link to httpd
- access_log
- error_log
Apache Access Log

219.232.238.19 - - [31/Jan/2011:08:06:15 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64342&v3=1 HTTP/1.1" 200 576
219.232.238.19 - - [31/Jan/2011:08:06:15 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64343&v3=1 HTTP/1.1" 200 12678
219.232.238.19 - - [31/Jan/2011:08:06:18 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64345&v3=1 HTTP/1.1" 200 576
219.232.238.19 - - [31/Jan/2011:08:06:18 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64346&v3=1 HTTP/1.1" 200 576
219.232.238.19 - - [31/Jan/2011:08:06:19 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64347&v3=1 HTTP/1.1" 200 576
219.232.238.19 - - [31/Jan/2011:08:06:20 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64348&v3=1 HTTP/1.1" 200 12210
219.232.238.19 - - [31/Jan/2011:08:06:23 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64351&v3=1 HTTP/1.1" 200 12590
219.232.238.19 - - [31/Jan/2011:08:06:25 -0800] "GET /cgi-bin/Pwebrecon.cgi?BBRecID=64353&v3=1 HTTP/1.1" 200 11373
Apache Down!

Internet Explorer cannot display the webpage

What you can try:

- Diagnose Connection Problems
- More information
Apache Tomcat

- An application server that renders web pages.
- Do not confuse with Apache!
- Catalina is a component of Tomcat.
- Tomcat’s configuration files include web.xml and server.xml
- The catalina.out Tomcat log file can be important for troubleshooting webvoyage.
/home/voyager => ps -ef | grep -i tomcat
voyager 19267 1 0 02:15 ? 00:00:27 /ml/voyager/csmdb/tomcat/ews/java/bin/java -server -Xms64m -Xmx512m -Xs
voyager 20279 1 0 02:15 ? 00:01:42 /ml/voyager/comindb/tomcat/java/bin/java -server -Xms64m -Xmx512m -Xss
voyager 20486 1 0 02:15 ? 00:00:23 /ml/voyager/csm_traindb/tomcat/java/bin/java -server -Xms64m -Xmx512m -Xs
voyager 20679 1 0 02:15 ? 00:04:14 /ml/voyager/csmdb/tomcat/java/bin/java -server -Duser.timezone=America/
voyager 20884 1 0 02:15 ? 00:01:40 /ml/voyager/csmphotosdb/tomcat/java/bin/java -server -Xms64m -Xmx512m -Xs
voyager 21298 1 0 02:16 ? 00:01:42 /ml/voyager/ropewaydb/tomcat/java/bin/java -server -Xms64m -Xmx512m -Xs
voyager 21597 1 0 02:16 ? 00:01:40 /ml/voyager/tellertldb/tomcat/java/bin/java -server -Xms64m -Xmx512m -Xs
voyager 22802 19004 0 11:44 pts/4 00:00:00 grep -i tomcat
/home/voyager =>
Tomcat – Java Virtual Machine

• Apache hands off requests to the vwebv Tomcat process.

• The vwebv Tomcat process hands off to the vxws process. The vxws process takes the data from opacsvr and hands it back to vwebv.

• If this “tech flow” is broken you’ll see a page with a 500 or 502 or 503 error code, or a WebVoyáge-branded error page.

• `ps -ef | grep -i tomcat` (database specific and owned by the voyager user)
Tomcat Logs

• /m1/voyager/xxxdb/tomcat/logs

• Note logs are **OVERWRITTEN** at Tomcat restart!
  • (there are ways you can prevent that from happening)
Tomcat Down!

Service Temporarily Unavailable

The server is temporarily unable to service your request due to maintenance downtime or capacity problems. Please try again later.
Voyager – ILS Software

- If down you’ll get a page with a 50x error in your browser.
- You’ll get a connection refused or some other error when attempting to login to a client.
- You won’t see opacsvr, keysvr, catsvr processes running.
Voyager Important Directories

- /m1/voyager/bin/200x.x.x – Binaries
- /m1/voyager/lib/200x.x.x – Libraries
- /m1/voyager/xxxdb/sbin – “The Scripts”
- /m1/voyager/xxxdb/ini – The configuration files, including voyager.env
- /m1/voyager/xxxdb/data – The keyword files
- /m1/voyager/xxxdb/mfhd.data – The holdings keyword files
- /m1/voyager/xxxdb/log – The log files for the specific database
Don’t Touch

• /m1/voyager/bin/xxx – The server binaries (including WebVoyáge & WebAdmin binaries)
• /m1/voyager/lib/xxx – The server libraries
• /m1/voyager/xxxdb/sbin – The server scripts
Voyager Logs

• Voyager Server Logs
  • /m1/voyager/xxxdb/log/log.voyager
  • /m1/voyager/xxxdb/log/z3950svr_access.log

• Voyager Deleted Records Logs
  • /m1/voyager/xxxdb/rpt/delete.item
  • /m1/voyager/xxxdb/rpt/delete.bib
  • /m1/voyager/xxxdb/rpt/delete.mfhd

• Locations of upgrade/patch logs vary; check the doc
Voyager Housecleaning

• Things to clean up, IF files are no longer needed
  • Directories:
    xxxdb/rpt
    xxxdb/log
    xxxdb/edi
    xxxdb/tmp
  • /m1/incoming
  • /m1/upgrade/v<version>/voyYYY
Voyager Down!

Service Temporarily Unavailable

The server is temporarily unable to service your request due to maintenance downtime or capacity problems. Please try again later.
login as: lguy
lguy@csm-voyager-test.hosted.exlibrisgroup.com's password:
Last login: Tue Mar 27 13:53:38 2012 from systemslibr.mines.edu

* * * * * * * * * * * * *: WARNING:* * * * * * * * * * * * * *
* THIS SYSTEM IS RESTRICTED TO AUTHORIZED EX LIBRIS SUPPORT STAFF *
* AND CUSTOMERS ONLY. *
* UNAUTHORIZED ACCESS IS STRICTLY PROHIBITED AND MAY BE PUNISHABLE BY LAW. *
* * * * * * * * * * * * *: WARNING:* * * * * * * * * * * * * *

Other names for this server:

[lguy@dc02vg0179na ~]$ sudo su -
[sudo] password for lguy:
[root@dc02vg0179na ~]# /etc/init.d/voyager stop

Oracle

- A relational database system
- Uses both memory and permanent storage
- Consists of an Oracle database and an Oracle instance
- Database: physical files
- Instance (aka: VGER): memory structures and background processes
Oracle Listener

• A named process that listens for connection requests.

• Check to see if your Oracle Listener is up:
  • lsnrctl status

• Or look for the listener process in the output of:
  • ps -ef | grep -i tnslsnr

• Remember to login as the Oracle user:
  • su - oracle
Oracle Instance

• When Oracle goes down the ramifications are severe. This is where your data are stored.
• Multiple voyager databases share common instance ("VGER")
• The instance has many background processes
• VGER instance required background processes:
  SMON    PMON    CKPT    DBWx    LGWR

• `ps -ef | grep -i ora_`
Indexes

• Indexes are all about searching

• Types of Indexes
  • Voyager indexes = Primary indexes
    Actually Oracle tables (for example: bib_index, mfhd_index)
  • Oracle indexes = Secondary indexes
    (example: bib_index_code_norm_disp_idx)
  • Keyword indexes = Keyword indexes
    External to Oracle and proprietary; managed by keysvr
  • Headings keyword indexes
    Utilize special Oracle feature
When to Regen Keyword Indexes

• 2 GB file size limit of dynamic.dc
• Soft threshold (formula):
  If size of your dynamic.dc file compared to your xxxxdb.1.dc is 50% or greater, a keyword regen probably is needed!

• Run this command:
  /m1/voyager/xxxxxdb/data ls -la
Why Regen

- Corrupted keyword files
- You see keysvr error messages in log.voyager
- Degraded performance in keyword searching (the formula)
- Opac, cat, bulkimport issues
- Regen ETA = 1 hour per 100,000 records.

- NEW! Voyager 8.1 UTIL Menu
Other names for this server:

Welcome to dc02vg0179na.hosted.exlibrisgroup.com
/home/voyager => dlib csmdb
/home/voyager => util
Loading /m1/utility/util/util
Selecting Voyager database csmdb

Library Utilities: Voyager database csmdb
=================================

I. Index Maintenance
O. ORACLE Management
S. Linux Maintenance activities
SP. Voyager Service Pack Utilities
W. WebVoyage Utilities

Please select [exit]:
Oracle Logs

- Instance-level logging
  - Solaris/AIX/Linux:
    - $ORA_LOG/alert_VGER.log

- Oracle networking logs
  - $ORACLE_HOME/sqlnet.log
  - $ORACLE_HOME/listener.log

- (Notice the aliases we’re using!)
Oracle Listener Down!

You may not have entered your institution id and name correctly. Retry your request or ask for help at the Circulation or Reference Desk.

Students, Members, Faculty & Staff Log In

Log in using my Institution I.D.

Id: [Input field]

Last Name: [Input field]

Log in

*Mines* users enter your 8-digit I.D. and Last Name, then click the *Log in* button (call 303-273-3022 for help).

*Guests* who want to request an item should contact Interlibrary Loan at 303-273-3899.

Microsoft Access

ODBC--call failed.

[OK] [Help]
Oracle Down via dbora

Service Temporarily Unavailable

The server is temporarily unable to service your request due to maintenance downtime or capacity problems. Please try again later.
Oracle Down via shutdown
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When Things Go Right – The OPAC

1. Web Client Starts
2. Connect to server at known port
3. Apache Daemon communicates with vwebv (Tomcat)
4. vwebv communicates with server at known port
5. Apache Daemon communicates with vxws
6. JDBC Connection is made to Oracle
7. Connection to Oracle made via Oracle Listener
8. Dedicated connections are made btw Listener and Oracle Database
9. Connection to Opac Server Pool
10. Individual Opac Server makes separate connection
11. Binary logs into Oracle
12. Oracle spawns a server process
13. Control returned to the client
When Things Go Right – The Client

1. Start a client (like cat.exe)
2. Next connect to server via voyager.ini
3. INETD (Internet Daemon) runs the Script
4. The Script runs the binary
5. Binary logs into Oracle
6. Oracle spawns a server process
7. Successful connect returned to binary
8. Binary attempts to start a keyserver
9. Control returned to the client
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When Things Go Wrong

- Determine what is **actually** wrong (PC or server?)
- Are there error messages?
- What changed?
- Can you replicate it?
- Test (check cables, different PCs, different Windows users, etc.)
- Experience helps
- Common sense helps too
When Things Go Wrong

- Ex Libris recommends **weekly** server reboot.
- If you are having problems and your uptime is over 30 days, do a reboot.
- Use `df -k` command to check available disk space.
- Use the `free` command for free/used/swap memory
- Look at last night’s backup log!
• Can you tracert and PuTTY into the server?
• Is Oracle running? `ps -ef | grep -i ora_`
• Can you log into sqlplus?
  • Look at voyager.env for USERPASS
• Can you run: `tnsping VGER 3`
• Look for errors in log.voyager, the Oracle alert_VGER.log, the tomcat/apache logs, etc.
• Check dir/file permissions for: sbin,bin,rpt,data
• Try the ASCII OPAC (config issue?)
Client Problems?

- What changed? What happened?
  - Application Timed Out
  - Connection Refused
  - Unable to save this record
  - Run time error
- Check voyager.ini file on the PC (timeout value!)
- Try a different PC
- Try a different Windows user
- Is the server up? (yikes!)
Browser Problems?

• The browser on your PC connects to most web servers on port 80; that is probably the port it uses to get to your production WebVoyáge.

• If you get an error that you can’t reach the server, make sure it isn’t your PC’s Internet connection or the network itself.
Report/Reporter Problems?

- access.mdb:
  - Are the ODBC drivers installed correctly?
  - Did you test the install?
  - Is net manager configured properly?
  - Is the listener up?

- Reporter:
  - Did the batch jobs run?
  - Is the client configured properly?
  - Are you using the right location?
Log files

• In general logs are more useful for diagnosis than prevention.
• Default output often voluminous and includes spurious errors and warnings, and may simply be not meaningful.
• There are O.S. logs, Oracle logs, Apache logs, Voyager logs, Tomcat logs....
• If you’re having problems, make copies of logs.
The Most Important Logs

- log.voyager
- alert_VGER.log (Oracle Instance-level log)
- /var/log/messages (Linux O.S. log)
  - grep -i warning /var/log/messages*
- error_ and access_ logs (Apache)
- catalina.out (Tomcat)
- Upgrade logs if post-upgrade
- /var/log/secure (for su and sudo attempts)
- z3950svr_access.log
Using Tail in *Real Time*

- `tail -f log.voyager`
- press Enter key twice
- replicate your issue
- review `log.voyager` in “real time”
- look for WARNING, ERROR, UNABLE
More About Logs

• Software logs
  • /m1/voyager/xxxdb/tomcat/vwebv/logs/catalina.out
  • /m1/voyager/xxxdb/tomcat/vxws/logs/catalina.out
  • /m1/voyager/xxxdb/log/log.voyager
  • $ORA_LOG and $ORA_HOME

• Upgrade logs (version dependent)
  • /m1/incoming/v720/vik/logs/voyager_installation.log
  • /m1/incoming/patch/voy723_SFiles/logs/PatchLog.voy723
  • /m1/voyager/upgrade/2007.2.0/xxxdb/upgrade/log.xxxdb.upgrade
  • /m1/voyager/utility/2007.2.0/xxxdb/log.xxxdb.regen
  • /m1/incoming/v720/voy<VER>_SFiles/logs/PatchLog.voy<VER>

• Find Command
  • find $ORA_LOG -iname "*log*" 2>/dev/null (avoids permission denied messages by sending standard error to null)
  • sudo find / -iname "alert_VGER.log"
root@dc02vg0179na:

/home/voyager => whoami
voyager
/home/voyager => sudo su -
sudo] password for voyager:
[root@dc02vg0179na ~]# whoami
root

[root@dc02vg0179na ~]# find / -iname "alert_VGER.log"
exlibris/oracle/app/oracle/diag/rdbms/vger/VGER/trace/alert_VGER.log
/exlibris_real/oracle/app/oracle/diag/rdbms/vger/VGER/trace/alert_VGER.log
[root@dc02vg0179na ~]#
Example of a Log Doctor at Work

• Symptom
  • Get "an error occurred while attempting to process discharge request" for ALL discharges (every item type), right after scanning in the item barcode

• Diagnosis
  • Do a tail on the log.voyager (this shows you the most recent activity recorded in the file):

    /m1/voyager/xxxdb/log

    tail -f log.voyager
Diagnosis Continued...

- Details of the log.voyager
  - You may notice circ server errors such as these:

    DischargeItem - trns_sql.ppc[2031]
    DischargeItem():: Failed in SQL_DischargeItem()
Diagnosis Continued…

• What’s in the alert_VGER.log?
  
  $ cd $ORA_LOG
  $ tail -f alert_VGER.log

• Details in alert_VGER.log
  
  Fri Aug 4 10:41:02 2003
  ORA - 1653: unable to extend table
  XXXDB.CIRC_TRANS_ARCHIVE by 492 in
  tablesapce XXXDB
Will the Patient Survive?

• Diagnosis = Surgery

  Have a Support Analyst extend a datafile or add a new data file in order to extend table space.

• Retest
/home/voyager => sudo find / -iname "alert_VGER.log"
[sudo] password for voyager:
/exlibris/oracle/app/oracle/diag/rdbms/vger/VGER/trace/alert_VGER.log
/exlibris_real/oracle/app/oracle/diag/rdbms/vger/VGER/trace/alert_VGER.log
/home/voyager =>
/home/voyager => sudo find /m1/shared/httpd -iname "*log*"
/m1/shared/httpd/2.2.17/bin/rotatelogs
/m1/shared/httpd/2.2.17/bin/logresolve
/m1/shared/httpd/2.2.17/modules/mod_logio.so
/m1/shared/httpd/2.2.17/modules/mod_log_conf.so
/m1/shared/httpd/2.2.17/modules/mod_log_forensic.so
/m1/shared/httpd/2.2.17/conf/modules.conf/mod_log_conf.conf
/m1/shared/httpd/2.2.17/man/man8/rotatelogs.8
/m1/shared/httpd/2.2.17/man/man8/logresolve.8
/m1/shared/httpd/2.2.17/logs
/m1/shared/httpd/2.2.17/logs/clients_access_log
/m1/shared/httpd/2.2.17/logs/cognos8/cognos_access_log
/m1/shared/httpd/2.2.17/logs/cognos8/cognos_error_log
/m1/shared/httpd/2.2.17/logs/csmphotosdb/access_log
/m1/shared/httpd/2.2.17/logs/csmphotosdb/error.log
/m1/shared/httpd/2.2.17/logs/csmphotosdb/error_log
/m1/shared/httpd/2.2.17/logs/csmphotosdb/access.log
/m1/shared/httpd/2.2.17/logs/access_log
FYI: The Oracle High Water Log

• Linux doesn’t have the ORA high water log (yet)

• sqlplus (as sysdba):
  • `select sessions_max, sessions_warning, sessions_current, sessions_highwater from v$license;`

• grep:
  • `grep -i high $ORA_LOG/alert_VGER.log`
Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> select sessions_max, sessions_warning from v$license;

SESSIONS_MAX  SESSIONS_WARNING
--------------  ---------------
       175              165

SQL>
Agenda

• Why this session?
• Terminology
• Stuff you should know
• Killing your server
• When things go right
• When things go wrong
• You’re not alone
• Recap
You’re Not Alone: Resources

- Voyager-L
  - http://voyager.ship.edu/voyagerl/
  - http://listserv.nd.edu
- Voyager Administrators’ List
  - voyager-administrators@googlegroups.com
- eService Knowledgebase
  - http://support.exlibrisgroup.com
You’re Not Alone: Support

- Voyager client build number.
- Windows OS and service pack.
- Username/password for module as well as server.
- Specific replication steps (including examples).
- Exact error messages.
- Date and time problem occurred.
- Server address (IP#) you are pointing to.
Agenda

• Why this session?
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Recap

• Knowledge is power.
• But with great power comes great responsibility!