Open Source Tools for Oracle DBAs
Introduction

- New technology and possibilities
- Community
- Exchange of ideas
- Freedom from licensing issues
A Short History

- 1992 – First Linux Distro, Oracle v7
- 1997 – SCO Comp Lib + Oracle 7.3
- 1997 – Oracle releases v8 on Linux
- 2001 - Mod_plsql, Apache – Oracle AS
- 2003 – All Oracle products run on Linux
System Monitoring with Nagios

- various interfaces - browser, pda
- *nix platforms
- uses Apache
- authorization + security
- Customizable
- historical data
- http://nagios.org

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System Monitoring with Nagios
System Monitoring with Nagios
Monitoring Files with Fetchlog

- Monitor listener.log, alert.log, backup logs, etc
- Matches regular expressions
- Bookmarks where you were last in file
- Specify logfile, bookmarks file, pattern on cmd line
- Integrates easily with Nagios
Version Control with CVS

- Win32 or *nix clients
- Source code, config files, docs
- Easy setup
- Multiple repositories
- Branches, commit, checkout etc.
- http://www.cvshome.org
Security

- Like backups, sometimes ignored at your own peril
- File permissions
- Buffer overflows, vulnerability alerts
- SQL Injection
- Passwords
- Spoofing packets, eavesdropping
- Ex. Dblink buffer overflow to SYS privileges
Security

- Integrit (http://integrit.sourceforge.net/)
  - Creates checksums on files on initial run
  - Monitor ORACLE_HOME directories
  - Check for changes, patches, relinking, deleted files
  - Great for auditing
Security

- Burp Intruder ([http://portswigger.net/proxy/](http://portswigger.net/proxy/))
  - Audit applications for SQL Injection
  - Run various tests against web-based applications
  - Hijacking
  - Cross-site scripting
Security

- NMap
  - scan servers for open ports
  - Oracle listener, ssh, smtp, http etc
Security

- Pete Finnigan’s site
  - default password checker
  - password cracker
  - grants + privs checking
  - filesystem vulnerabilities
  - various probes + scanners
  - listing of other tools – free + commercial
Real Application Clusters

- RedHat’s GFS vs OCFS
- CentOS for RedHat Distros w/o Support
- XenSource.com – free VMWare
Real Application Clusters

- oss.oracle.com
  - endpoint – firewire disk emulation
  - OCFS test, tools etc
  - watchdog driver patches
  - libaio – async I/O
  - ASMLib – automatic storage manager
  - compatibility – for unsupported Linux distros
  - NIC failover
Tuning Tools

- Orasrp (http://oracledba.ru/orasrp/)
  - session resource profiler, monitoring, tracing sessions
- DBTop (http://www.scaleabilities.com/tools.shtml)
  - Java tool, provides TOP like interface to the database
  - resource intensive, but interactive
Tuning Tools

  - Helps you trace a session in Oracle, by tracking down sid & serial# for you

  - For Linux, Win32, Netware, Solaris
  - Stress testing
  - Monitoring
User Interface Tools

- **rlwrap** ([http://utopia.knoware.nl/~hlub/uck/rlwrap/](http://utopia.knoware.nl/~hlub/uck/rlwrap/))
  - Provides command completion, history for applications which use the `readline()` call

  - SQL*Plus replacement

  - Based on phpMyAdmin

  - SQL*Plus replacement
Developer Tools

- orace (http://orace.sourceforge.net/)
  - Oracle Code Editor, color editing, debugging
- hammerora (http://hammerora.sourceforge.net/)
  - stress test your database
  - perform TPC-C benchmarks
  - 8i, 9i, 10g
Developer Tools

- schemadiff (http://sourceforge.net/projects/schemadiff/)
  - compare two schemas in a database
  - Perl, DBI, Oracle::DDL library
- TOra (http://sourceforge.net/projects/tora/)
  - toolkit for Oracle
  - PL/SQL debugger, editor
  - color editing
  - schema browser
Developer Tools

- LOG4PLSQL (http://log4plsql.sourceforge.net/)
  - uses autonomous transaction
  - log debug messages to files
  - no rollback, exception interruption of messages

- utPLSQL (http://utplsql.sourceforge.net/)
  - Steve Feuerstein’s unit testing framework

- ProDBA (http://prodba.sourceforge.net/)
  - java based color editor, schema browser
Miscellaneous Tools

- OraRep ([http://www.izzysoft.de/?topic=oracle](http://www.izzysoft.de/?topic=oracle))
  - Generate nice HTML formatted reports
  - HTML reports from statspack

- m2o.pl ([http://www.pythian.com/news/papers/m2o.html](http://www.pythian.com/news/papers/m2o.html))
  - Script to migrate from MySQL to Oracle
Open Source Databases

- MySQL (http://www.mysql.com/) 
  triggers, stored procs, views, ACID in v5.x
- MaxDB (http://www.mysql.com/products/maxdb/) 
  MySQL for SAP implementations
- Firebird (http://firebird.sourceforge.net/) 
  based on Interbase, runs on Win32, Linux, HPUX, Solaris, FreeBSD 
  triggers, stored procs, views, ACID
Open Source Databases

- Postgres (http://www.postgresql.org/) triggers, views, stored procs, ACID
- Ingres (http://opensource.ca.com/projects/ingres)
Open Source Databases

- Unlikely to follow the Linux path to ubiquity
- Follow a different history
- Most clients who are using MySQL want to switch to Oracle
- VLDB + Data Warehousing features very limited
- Backup, Standby, HA are non-trivial
- Will continue to feed the low-end market
Open Source Software Repositories

- [http://sourceforge.net](http://sourceforge.net)
  - cvs, downloads, homepages, forums etc
- [http://freshmeat.net](http://freshmeat.net)
  - best repository of Open Source software
  - search by keywords, categories
  - sort by popularity, relevance
  - links to homepage, contact developers
  - license details
Misc. Scripts + Tools

- Pete Finnigan (http://petefinnigan.com)
- Tom Kyte (http://asktom.oracle.com)
- Miracle (http://www.miracleas.dk/)
- OakTable (http://oaktable.net)
Various Lists

- Oracle-L (http://www.freelists.org/webpage/oracle-l)
- Lazy DBA (http://www.lazydba.com/)
- usenet: comp.databases.oracle.server
- usenet: comp.databases.oracle.misc
Recommended Weblogs

- AMIS Tech Corner (http://technology.amis.nl/blog/)
- David Aldridge (http://oraclesponge.blogspot.com/)
- Niall Litchfield (http://www.niall.litchfield.dial.pipex.com/)
- Mark Rittman (http://www.rittman.net/)
Recommended Weblogs

- Oracle + Open Source (http://oracleopensource.com)
- Pete Finnigan
  (http://www.petefinnigan.com/weblog/entries/)
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