

# Jeremy Schneider

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**ORACLE®**

**10g Certified Professional**

*Managing Oracle on Linux Certified Expert  
Administering Real Application Clusters Certified Expert  
Oracle 9i Certified Professional*

## SUMMARY

Jeremy is a passionate technologist with broad IT experience and distinctive depth in database (especially Oracle), linux and cluster technologies. He is a talented communicator who is experienced with architecting, implementing and troubleshooting many software and database systems. Jeremy has been involved in the Computer Science field in academic, professional and volunteer capacities and has worked with small and large organizations in many industries including finance, media, manufacturing, automotive, energy, biotech, healthcare, insurance, education, public and non-profit.

## EXPERIENCE: OVERVIEW

- I first worked in the mid-90s at a small business in Michigan (Way Corp: <20 employees). I worked at a medium-sized company (ASU) before moving to Chicago to work with GE, UBS and an international consulting firm (IT Convergence).
- My first job was on the Microsoft stack (Way Corp). At ASU, I started developing on the J2EE stack and remain a fan.
- I was a Linux hobbyist in the late 90s but didn't expect to use it at work. ASU made a major strategic move toward Linux, and I was asked to lead planning and implementations. The projects were very successful; when I moved to Chicago there were as many Linux servers as Netware servers.
- I started working with Oracle at ASU and was quickly enamored by its architecture and capabilities – especially around clustering. As ASU expanded its investment in Oracle, I took training and project lead opportunities. The following six years of my career had a special focus on Oracle database technology.
- BS in Computer Science from DePaul University (2009).

## TECHNICAL SKILLS

- **Software Engineering:** Project management: timelines & estimates, coordination with multiple dependencies. Application lifecycle management: requirements gathering, development, testing & release cycles/strategies. Naming and versioning best practices. Source protection and revision control best practices. Team collaboration techniques and tools for both local and global teams. Conflict management and cultural dynamics of global teams.
- **Database Administration:** Oracle RDBMS 7,8i,9i,10g,11g,RAC. Architecture, schema/application design, installation, backup/recovery (RMAN and user-managed), instance/database performance tuning, healthchecks, migrations/upgrades, disaster recovery, patching, Data Guard, Enterprise Manager, Grid Control, SQL and PL/SQL tuning, security. E-Business Suite/Applications 11.5.9 and 11.5.10. Sybase, MySQL, PostgreSQL, Advantage Database Server, etc.
- **Systems Administration:** RHEL 2.1, 3, 4, 5. SLES 8, 9, 10. Solaris 8, 9, 10. AIX 5.2, 5.3. Knoppix, Debian. Novell Netware 3.x-6.x, DOS, Windows 3.11-XP. Distributed and cluster computing: Globus, Torque, Oracle Clusterware, RedHat Cluster, cluster filesystem administration. Tivoli Storage Manager (TSM). Hardware configuration, backup/recovery, disaster recovery planning, capacity planning and performance monitoring, networking, configuration deployment/management, virtualization, Linux-based clustering, application support and troubleshooting. HP Insight Manager, iLO features, etc. Novell Groupwise, GW WebAccess, eDirectory, user account management, file/print services, Linux integration. Sparc, Power, x86 platforms.
- **SAN/NAS Administration:** Hardware architecture and configuration, EMC Clariion, Symmetrix DMX, Powerpath, Navisphere, NetApp Filers, IBM DS-series, architecture/design, LUN administration, client installation and configuration, HBA configuration, performance monitoring/tuning.
- **Network Administration:** Topology planning/analysis, low-level packet trace analysis, connection load balancers, cable wiring/termination and testing, link aggregation. Oracle Internet Directory (OID), Oracle Virtual Directory (OVD), Cisco PIX, Radius, RSA SecurID, NIS, NFS, BIND, DNS, sendmail, samba, DHCP, SNMP, LDAP, IPChains/IPTables, TCP/IP, UDP, FC/AL and Fabric Login, Big-IP, F5, etc.
- **Programming:** CASE tools, UML, J2ee Java, Oracle Fusion, Oracle ADF/BC, UIX, Struts, JSF, JSP, EJB, Web Services (SOAP), SQL, PL/SQL, JDBC, ODBC, Ant, Shell Scripting, DOS Batch Scripting, Awk, C++, PL/SQL, XML, HTML, Basic, MS VB, Pascal, Perl, PHP, content management solutions, web portals, etc. Clearcase, CVS, Subversion. Multiple development environments; Eclipse, Oracle JDeveloper, SQL Developer, MS Development Studio, Macromedia Frontpage, Borland JBuilder, "vi". Project management, prototyping, usability, etc.
- **Application Server Administration:** Oracle Application Server, Oracle HTTP Server, Oracle Web Cache, Oracle Business Intelligence (BI/Discoverer), Oracle Portal, Oracle SSO, Application Express (ApEx/HTMLDB), Tomcat, Apache, Stoneware Portal. Installation, backup/recovery, Application deployment, monitoring, upgrades, security, identity management, etc.

## EXPERIENCE: DETAILS

### **Large State University; Illinois**

9/2009

- Worked with university to create customized Oracle training.
- Delivered 3-day class for university staff: "RAC Attack: Cluster Database Hands-on Workshop"
- Fielded questions and spent one-on-one follow-up time with students.

### **UBS; Chicago, IL**

6/2008-8/2009

#### *Responsibilities*

- Senior database engineer on UBS's global Oracle team. External subject-matter expert for RMAN and ASM technologies, internal expert resource for Linux and RAC technologies.
- Fix defects and code new features for assigned projects. Provide estimates, timelines, detailed designs, testing strategies, and documentation in addition to coding.
- Coordinate with multiple independent groups to drive projects through quality control processes.
- Mentor peers on Oracle topics; assist peers with challenging projects.

#### *Projects*

- Global, organization-wide Oracle database deployment design for Linux (RH5), including migration strategies to ASM and RMAN.
- Full automation of database cloning for new Linux and Solaris environments; total 3600 LOC in perl and ksh.
- Global ASM deployment for all platforms and multiple storage technologies (SAN, SATA, local RAID, SSD). Designed and coded an extensive system administration toolkit to ease deployment. Planning, getting buy-in from stakeholders, design, coding and implementation, testing, documentation, training, roll-out and production support.
- Innovative "synthetic backup" project. Played lead role in design and proposal, research and development, proof of concept, pilot and documentation for this project.
- Software engineering improvements and best practices. Worked internally with global Oracle team to improve practices around lifecycle management, testing and release cycles, revision control and naming/versioning for the many toolkits that were maintained internally by the group.
- Benchmarks, lab maintenance and troubleshooting, vmware assistance and wiki maintenance. Visited teammates in Hyderabad (India) office.

### **IT Convergence; Chicago, IL**

11/2006-3/2008

- Resource for contract writing and pre-sales technical discussions.
- Accepted as a presenter at UKOUG and Collaborate.
- Setup and maintained multiple lab environments including Oracle 8i, 9i, 10g, 11g and RAC on RHEL, SLES, OEL and Solaris with ASM, OCFS and NFS. Utilized both physical clusters and VMWare virtualization environments. Also tested automated bare metal provisioning based on Grid Control and RHEL.
- Wrote IT Convergence deliverable document templates for RAC implementations and for tuning engagements.
- Published step-by-step cookbook for RAC on AIX and in-depth research study on database services.
- Wrote dozens of short tech tips, best practices and articles.
- Mentored peers on RAC and Linux topics; assisted peers with challenging problems during client engagements.

### **Large Hospital; Pennsylvania**

3/2008

- Coordinate multiple teams to implement custom Grid Control deployment built on Data Guard and HACMP as architected during prior engagement.
- Train DBA staff to replicate custom environment implementation.
- Deliver detailed documentation for next phases of business continuity plan based on new Grid Control environment.

- Web-Based Social Networking Group; New York** 2/2008
- Architected 8-node 11g RAC system on InfiniBand interconnect. (Moved to redundant Gigabit-Ethernet interconnect during follow-up design discussions.)
  - Extensively benchmarked the storage subsystem with low-level tool simulating database access patterns. Tested multiple HBA parameters to determine optimal settings.
  - Provided expert guidance for troubleshooting Linux multipath and NIC bonding drivers; documented related bug in Red Hat 5.
  - Performed and documented initial implementation of database as architected.
- Global Aerospace and Engineering Conglomerate; Connecticut** 12/2007-1/2008
- Performed detailed system healthcheck of two-node RAC cluster and Data Guard configuration; made recommendations to improve performance and efficiency.
  - Created detailed system architecture and configuration diagrams to supplement healthcheck report.
  - Introduced new method of tuning based on statistical correlation analysis.
  - Assisted technical implementation of load generation strategy on staging environment.
- Large Hospital; Pennsylvania** 12/2007
- Architect custom Grid Control deployment built on Data Guard and HACMP to meet disaster recovery requirements.
  - Create project plan for phased migration of all major databases to meet business continuity needs.
- Major International Energy Corporation; New York** 12/2007
- Designed training from scratch and taught class: "RMAN and Data Pump 3 Day Training".
  - Fielded questions and spent one-on-one follow-up time with students.
- Transportation and Manufacturing Company; Indiana** 11/2007
- Assisted with installation of development, test and productions environments for Oracle Internet Directory (OID), Web Cache, SSO, Discoverer, BI Publisher, Apex and Portal.
  - Basic healthcheck of production database, troubleshoot high-profile database problems.
- Major International Brokerage; Illinois** 10/2007
- Performed system healthcheck of two-node RAC cluster and Data Guard configuration; made recommendations to improve performance and efficiency. Also diagnosed root cause of several node crashes.
  - Performed in-depth analysis of all storage paths and subsystems for production environment.
  - Assisted with peripheral issues including ISQLPlus crashes and Java application configuration for failover.
- Multinational Telecommunications Corporation; Illinois** 9/2007
- Assisted system architecture of high-volume cluster database for telecommunications network.
  - Configured OS, installed/patched clusterware and 9i Oracle RAC software on extremely tight timetable. Also created database, tested failover and configured backups within very short project timeframe.
- Leading Global Internet Advertising Network; New York** 9/2007
- Performed healthcheck of six node high-performance RAC cluster (Sun platform) which was operating near capacity. Investigated high number of cluster-related wait events (gc buffer busy) and identified configuration change to significantly improve performance.
  - Diagnosed root cause of cluster-wide crash and delivered analysis.
  - Extensively discussed database internals and best practices with DBA staff (e.g. proved theories about index mechanics).

**Web-Based Social Networking Group; New York**

9/2007

- Planned and executed benchmarks on six platforms to compare Oracle Database performance – including one TPC-C style test. Compared Opteron and Xeon architectures from Dell, Sun, Silicon Mechanics and IBM.
- Assisted OS configuration, built database environment and executed benchmarks; reported methodology and results as inputs for purchasing decisions.
- Diagnosed ASM disk corruption; analyzed and reported root cause. Assisted rebuilding environment.

**Large State University; Virginia**

8/2007

- Performed in-depth health check of production SunGard Banner database (Oracle 10g on Solaris/SunFire/3par). Analyzed potential impact and risk of all recommendations.
- Performed in-depth analysis of all storage paths and subsystems for production environment. Analyzed potential impact and risk of all recommendations.
- Delivered 10g performance tuning training sessions to staff.
- Extensively discussed best allocation of resources with senior DBA staff; assisted with department strategy and goal-setting.

**International Publisher and Media Broadcaster; D.C.**

6/2007

- Investigated performance problems in Peoplesoft environment (Oracle 10g on AIX/p590/DMX). Delivered root-cause analysis of specific problems and recommendations for performance improvement.
- Performed high-level health-check of storage, operating system and database tiers. Identified major performance bottlenecks and delivered recommended action items.
- Mentored and trained DBAs on best practices and performance tuning.

**National Healthcare Provider; Arizona**

6/2007

- Investigated performance problems in core business application (custom home-grown three-tier application, Oracle 10g on RHEL/NetApp). Delivered root-cause analysis of specific problems and recommendations for performance improvement.
- Performed thorough top-to-bottom health-check including storage, network, operating system, database and application tiers. Delivered high-level report card and 27 in-depth recommendations with risk and impact assessments.
- Mentored/trained DBAs and developers on best practices and performance tuning.

**Medical Research Organization; North Carolina**

4/2007

- Provided technical expertise for installation of Oracle Applications E-Business Suite 11.5.10.2 on RAC. Validated hardware cluster configuration and installation of Oracle/RAC, ASM, Database Control on RHEL.
- Produced detailed step-by-step procedure for RConfig-based conversion from single-instance/filesystem to RAC/ASM in their specific environment.
- Worked with Apps DBA team during apps tier cloning, RAC configuration and node failure tests.
- Mentored and trained DBAs on RAC administration.
- Provided careful documentation of procedures followed and hours billed.

**Major Energy Corporation; Texas**

3/2007

- Tailored training for this organization and taught class: "10g New Features and SQL Tuning for Developers".
- Fielded questions and spent one-on-one follow-up time with students.

**Large Public Agency; Nevada**

3/2007

- Tailored training for this organization and taught class: "Database Administration for Developers".
- Fielded questions and spent one-on-one follow-up time with students.

**Large State University; California**

1/2007

- Validated hardware cluster configuration and installed Oracle/RAC, ASM, Database Control on AIX/DS4800. Configured and tested application failover and database backups.
- Mentored and trained DBAs on RAC administration.
- Produced detailed step-by-step procedure for installing RAC in their specific environment.
- Provided careful documentation of system configuration and billed hours.

**Major Medical Manufacturer; California**

12/2006

- Validated hardware cluster configuration and installed Oracle/RAC, ASM, Database Control on RHEL/NetApp. Configured and tested application failover and database backups.
- Mentored and trained DBAs on RAC administration.
- Worked closely with application team and third party Manufacturing Execution System vendor on application integration with RAC.
- Provided careful documentation of system configuration and billed hours.

**Illinois Bio-Grid; Chicago, IL**

8/2006-11/2006

- Assist Globus/Torque cluster installation and configuration.
- Propose database schema for metabolomics research project.

**GE Healthcare; Barrington, IL**

8/2005-5/2006

*Responsibilities*

- Senior platform engineer (Oracle, Linux, and Solaris related technologies) on GE's global RIS – Radiology Information System – team.
- Fix defects and code new features related to the Database and Platform tiers of GE's RIS. Provide estimates, timelines, detailed designs, testing strategies, and documentation inputs in addition to coding.
- Coordinate with multiple independent groups at GE to drive projects through regulatory design control processes.
- Support GE Professional Services and Support Services in customer issues that are escalated to Engineering.

*Projects*

- Designed and wrote software to transparently upgrade GE Radiology Information System installations from Oracle 7 to Oracle 10. Software involved 166 files and 7234 lines of code. Only 3 defects were found in this code by quality teams during testing.
- Leveraged Oracle knowledge to re-design EMC Clariion replacement plan at Hawkes Bay Radiology in New Zealand. GE Professional Support Services' original plan involved 12 hours of downtime; new procedure required only 30 minutes of downtime. Wrote and published procedure internally at GE for future re-use.
- Corrected EMC Clariion data corruption at Cincinnati Children's Hospital Radiology. UNISYS recommended action required 8-12 hours of downtime – but the new Engineering-provided plan resolved it with no downtime.
- Solved multiple Oracle locking issues at various global sites; determined root cause of locks down to the IP addresses of the workstations holding tables open.
- Worked with management team to plan first local Technology Fair. Increased participation of all fair attendees by suggesting and managing fair "passports". Additionally managed RIS Engineering fair involvement. Received management award for highly successful results.

*Note: On 4-Jan-2006 GE completed a \$1.2 billion acquisition of IDX which changed their RIS strategy from being Oracle-based to being Microsoft-based. RIS management had not anticipated this acquisition and resultantly I could no longer best pursue my long-term Oracle-based interests and goals at GE.*

**The ASU Group; Okemos, MI**

12/2001-8/2005

*Responsibilities*

- Develop IT strategy based on Oracle and Linux with CIO/upper management.
- Authority for corporate-wide IT policies and procedures on Oracle and Linux installations.
- Senior administrator for 14 production Linux installations (7 Red Hat, 7 Novell Suse) and 3 production Oracle databases (one version 10g RAC on two-node Linux cluster, one version 9i RAC on two-node Linux cluster, and one single-instance version 7 on Netware 3) – plus many additional support and test installations of Linux and Oracle.
- Senior administrator for EMC Clariion CX400. Responsible for server installations, SAN monitoring/performance, LUN management and coordination of EMC service visits.
- Monitor system messages and alert logs daily, install or assist installation of all new Linux or Oracle related software.
- Internal SLA's for maintenance windows and business continuity (disaster recovery).
- Monitor latest security risks and patches for Linux and Oracle. Review corporate firewall code (Cisco PIX) as needed (at least every two months or so).

*Projects*

- Lead technical role for implementation of eBusiness Suite 11i on two-node 9i RAC backend.
- Migrated corporate database (containing schemas for five different employee and customer-facing applications) from single-instance 8i/Solaris to two node 10g/RedHat RAC cluster.
- Submitted bug-fix patch for OCFS (Oracle's open-source cluster file system) which was accepted verbatim in version 1.0.12. One of only a handful of non-Oracle employees to write code for OCFS.
- Designed and wrote 3-tier browser-based J2EE web application to let multiple customers securely access claim information (from an Oracle 10g database) over the internet. Runs on Oracle Application Server 10g; based on Oracle Fusion Middleware. Model layer uses Oracle ADF Business Components (exposable as EJB's); view/controller layer uses Oracle UIX and Apache Struts. Security infrastructure based on Java JAAS with custom LoginModule to integrate with Novell eDirectory.
- Installed and extensively customized employee web portal based on vendor-supplied J2EE platform "Stoneware" and Novell eDirectory.
- Designed client-facing portal-based web application (CMSWeb) based on Stoneware, Novell eDirectory and Oracle 8i for securely viewing insurance claims via an internet connection and a browser. This project earned an InfoWorld 200 award in 2002.
- Designed a tunable/instrumented nightly ETL process to move data from legacy Clipper database to Oracle 10g cluster. Used bash scripting, awk, sed, cron, c++ with custom clipper libraries, and Oracle sqlldr.
- Designed and deployed nightly ETL process to move data from Oracle 7 on Netware database to clipper. Used Netware cron, Netware NCF script files, SQL\*Plus scripts, and custom Oracle database views.
- Migrated corporate website (based on Apache and Java) from Netware to Suse (100% open source, zero license cost). Also re-architected network and security layout; removed redundant proxy (additional failure point) and moved web server from internal network to DMZ while maintaining high level of security.
- Migrated database for corporate website from Sybase Adaptive Server Anywhere on Netware to Postgres (open source). Re-wrote marketing department's MS Access front-end and website JSP pages to be compatible.
- Wrote web-based front-end mockup of Help Desk application (HEAT) to allow support technicians to search for and view details of Help Desk cases through the employee web portal. Designed detail screens similar to application interface for ease-of-use and smaller learning curve/training requirements.
- Designed custom reports with associated materialized views and PL/SQL procedures to summarize backend Oracle website data.
- Designed custom reports to extract intelligence from backend Oracle data for Integrity firewall, a third-party application.

**Hebron School; Ootacamund, Tamil Nadu, South India**

7/2001-12/2001

- Volunteer leadership and teaching in a highly multiethnic environment (students/staff from 22 different countries and a variety of cultural and religious backgrounds). Coordinated a handful of large projects and events, taught three classes and tutored 30-40 individual students.

**The ASU Group; Okemos, MI**

12/2000-7/2001

*Responsibilities*

- Monitoring, management and analysis of website logs, security and updates.

*Projects*

- Improved clerical productivity by designing framework to push data into MS Word documents from legacy clipper DB. Wrote libraries that integrated with legacy core business application "CMS".
- Worked with marketing department to completely re-design and deploy new corporate website. Wrote custom database-backed content-management system to allow marketing department direct control over content and significantly reduced IS department's administrative role.

**The Way Corporation (GM Contractor); Howell, MI**

5/1996-8/1998

- Wrote program for manufacturing facilities to upload/download part programs from a CNC (Computer Numerical Control) via a fiber-connected PC.
- Designed program to run CNC part programs remotely, including search and mid-program-restart features.
- Wrote program to automate detection of PC environment and automate driver and software installation.
- Created "demo" versions of all packages that could generate dummy-feedback without attached CNC for demonstration and sales purposes.