Managing Your Database
In a Wireless World

NYOUG - September 12, 2001

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www.pocketdba.com
Agenda

• Introduction
• A DBA’s life
• Handheld Overview
• Today’s Business Needs
• PocketDBA / PocketSA Demo
• Wireless Technology Architecture
• Wireless and Database Resources
• Q&A
Introduction to Ari Kaplan
Introduction to Ari Kaplan
Introduction to Ari Kaplan
A DBA’s Life

Traits of a DBA

• Tenacity
• Self starter
• Detail oriented
• Curiosity
• Self confidence
A DBA’s Life

- 100,000 Oracle DBAs in United States
- 4th fastest growing occupation
- Oracle global installed base 200,000 companies
- Oracle 2000 revenue: $10 billion
A DBA’s Life

DBA workload demands are increasing:

- Businesses expect more of current staff
- 30% of DBAs report an excessive workload

—Oracle Professional Survey
Almost 30% of DBAs report an excessive workload

<table>
<thead>
<tr>
<th>Workload</th>
<th>Percent</th>
<th>Average salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough work</td>
<td>4.0%</td>
<td>$47,954.54</td>
</tr>
<tr>
<td>Steady flow of work</td>
<td>63.7%</td>
<td>$59,409.72</td>
</tr>
<tr>
<td>Excessive workload</td>
<td>29.7%</td>
<td>$66,250.00</td>
</tr>
<tr>
<td>Not Answered</td>
<td>2.6%</td>
<td></td>
</tr>
</tbody>
</table>
## A DBA’s Life

### DBA salaries

<table>
<thead>
<tr>
<th>Salary Range</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $30,000</td>
<td>11.5%</td>
</tr>
<tr>
<td>$30,000-$39,999</td>
<td>7.9%</td>
</tr>
<tr>
<td>$40,000-$49,999</td>
<td>14.2%</td>
</tr>
<tr>
<td>$50,000-$59,999</td>
<td>12.9%</td>
</tr>
<tr>
<td>$60,000-$69,999</td>
<td>17.8%</td>
</tr>
<tr>
<td>$70,000-$79,999</td>
<td>11.3%</td>
</tr>
<tr>
<td>$80,000-$99,999</td>
<td>11.5%</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>6.9%</td>
</tr>
<tr>
<td>Not answered</td>
<td>5.9%</td>
</tr>
</tbody>
</table>
A DBA’s Life

Difficult environment for workers...

• “Dawn of the IT sweatshop” says the Meta Group

• Long hours

High burnout rate / job hopping
According to the Meta Group, the average DBA works more than 50 hours, including six hours on the weekends.

<table>
<thead>
<tr>
<th>Number of employers over the past five years</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>22.1%</td>
</tr>
<tr>
<td>2</td>
<td>34.3%</td>
</tr>
<tr>
<td>3</td>
<td>21.5%</td>
</tr>
<tr>
<td>4</td>
<td>7.9%</td>
</tr>
<tr>
<td>5 or more</td>
<td>5.6%</td>
</tr>
<tr>
<td>N/A—freelance</td>
<td>2.3%</td>
</tr>
<tr>
<td>Not Answered</td>
<td>6.3%</td>
</tr>
</tbody>
</table>
Handheld Overview

Who are these CEOs?

Carl Yandowski  
CEO Palm Computing

Jeff Hawkins  
Founder and Chairman of Handspring

Donna Dubinsky  
Founder and CEO of Handspring

Mr. Kouji Ohboshi  
President of NTT DoCoMo
Handheld Overview

How many of you have handhelds?

How many of you have wireless handhelds?

How many of your companies bought the handhelds for you?
Handheld Overview

Handheld Sales

• Last year, nearly 10 million PDAs were sold
• Almost double of 1999’s sales
• By 2004, everyone from executives to hairdressers will buy some 33 million PDAs
Handheld Overview

Evolution

• Once clunky, overpriced

• Only stored phone numbers and addresses

• Rebirth as sleek wireless accessories

• PDA is now cell phone, electronic wallet and personal entertainment system all rolled up in one
Handheld Overview

Evolution

- Movement to enterprise sales, where corporations order thousands of devices
- Palms given to workers like a tool, much like a training manual
Handheld Overview

- Palm has 60% of market
- Handspring has 30% of market
- Windows CE has 10% of market (Compaq, Casio and HP)
New Palm OS models launching now

- Each with 8 megabytes of memory
- 33-megahertz processors
Handheld Overview

Handspring Edge ($400)
• Thin metallic casing like the Palm Vx

Sony Clie N710C ($500)
• Packs four-times as many illuminated dots 320 x 320 pixels into Palm.

• Although screen can only show 256 colors at once

• Thumb wheel for navigating

• Memory sticks
Handheld Overview

HandEra Era 330 ($350)
• Higher resolution screen
• Screen stretches into the Graffiti writing area
• Built-in mike and speaker
• 2 expansion slots
Handheld Overview

Palm m500 ($400)
• Excellent grayscale screen

Palm m505 ($450)
• Color Palm V
Today’s Business Environment

• Need for monitoring, managing, and development of databases wirelessly

• Huge business inefficiencies

• Staff currently must conduct work on fixed-line computers

• Lost business when staff is not onsite

• Business are “always open” all day, all night, across time zone
Today’s Business Environment

Six Costly Database Challenges: Summary

• DBA 24 x 7 Access
• DBA Response Time
• DBA Productivity
• DBA Retention
• DBA Replacement
• Database Availability
Today’s Business Environment

1. The Challenge of DBA Remote Access

• Businesses are “always open”

• Need for continual monitoring, managing & development of databases and server environment

• But. . . DBAs are restricted by the wired technology of the last century
Today’s Business Environment

1. The Challenge of DBA Remote Access

DBA’s are often unavailable to dial in:

- Commuting
- Trade Shows
- Training
- Lunch
- Little League Games
- Traffic

- Illness
- Vacations
- Personal Life
- Meetings
Today’s Business Environment

2. The Challenge of DBA Response Time

DBA quick response needs are increasing:
• User expectations
• Customer demands
• Competitive pressures
• Management requirements
• Service level agreements
• Mission-critical systems
• High availability needs
Today’s Business Environment

3. DBA productivity

4. DBA retention
5. The Challenge of DBA Replacement

DBAs are costly to replace:
• Average cost to hire one person in I.T.:
  $25,000 to $35,000

• Does not include:
  – Salary
  – Cost to bring candidates in
  – Lost unbilled hours of time spent in process.

—CEO of I.T. Recruitment Firm
Today’s Business Environment

6. Database Availability

Unscheduled Downtime is Costly:

<table>
<thead>
<tr>
<th>Application</th>
<th>Cost per Minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Warehouse</td>
<td>$6300</td>
</tr>
<tr>
<td>SCM</td>
<td>$6600</td>
</tr>
<tr>
<td>eCommerce</td>
<td>$7800</td>
</tr>
<tr>
<td>ERP</td>
<td>$7900</td>
</tr>
</tbody>
</table>

–Standish Group International Inc., 1999
PocketDBA Demo

PocketDBA Systems is the only provider of software enabling comprehensive management of Oracle databases, servers, and networks from a wireless device.
PocketDBA Demo

Endorsed by Rich Niemiec

“PocketDBA Systems has broken new ground with a robust wireless product that can make organizations and DBAs more effective through increased system availability.”

— Richard J. Niemiec, CEO of TUSC, President of International Oracle Users Group
PocketDBA Demo

Wireless Database Management Now!™

Control your Oracle® Databases from wireless devices ®
PocketSA Demo

Wireless Database Management Now!™

Control your servers from wireless Palm OS devices
Wireless Architecture

**Compatibility:**
Oracle 8.0.x, 8.1.x, 8i, [9i], 7.3.x*

**OS:**
Palm OS, [WinCE] ; Solaris, LINUX, Win NT/2000

**Supported Devices:**
Palm V, Vx, VII, VIIx
Handspring Visor Platinum & Prism
Kyocera QCP 6035 Smartphone

[ Compaq iPaq, HP Jiordana]
## Oracle Wireless Technology Options:

### IAS Components

- Apache JServ
- Oracle HTTP Server
- SQLJ (use SQL directly in Java applications)
- mod_plsql / mod_perl / mod_ssl / mod_jserv
- OracleJSP (Java Server Pages)
- Oracle PL/SQL Server Pages
- Oracle 8/9i JVM (Java Virtual Machine)
- Oracle 8/9i PL/SQL
- Oracle XML Developer’s Kit
- Oracle LDAP Developer’s Kit
- Oracle Forms Services (Enterprise Edition Only)
- Oracle Reports Services (Enterprise Edition Only)
- Oracle 8/9i Cache (Enterprise Edition Only)
Wireless Architecture

Wireless Handheld Device

Data is encrypted (using DESX, ECC) and compressed

MOBITEX (or CDPD)

Carrier's Wireless Base Stations

Encrypted communication using SSL (128 Bit / RSA)

Cingular, Verizon, or other provider

Wireless Proxy Servers

3COM, OmniSky or other provider

Encrypted communication using SSL using your certificate

Databases

JDBC

Your PocketDBA Server

Firewall

Encrypted communication using SSL using your certificate

Internet

Encrypted communication using SSL / HTTPS

SSL / HTTPS

Encrypted communication using SSL / HTTPS

SSL / HTTPS

Encrypted communication using SSL / HTTPS

SSL / HTTPS
Wireless Architecture—Security

Incorporates or Supports:

• Automatic session timeout

• No proprietary data or passwords reside on PDA

• Elliptical curve encryption SSL (HTTPS 128-bit Secure Socket Layer)
Wireless Architecture—Security

Incorporates or Supports:

• Mandatory password authentication

• Oracle roles to limit access to specific users or areas of database

• Read-only permission option

• Encryption maintained on proxy server; no data caching
Wireless Benefits

• Speed up remote access and emergency troubleshooting

• Increase productivity by enabling more proactive monitoring

• Decrease costs by decreasing unplanned downtime
Wireless Benefits

• Provide inexpensive 24x7 insurance against DBA unavailability

• Reduce staff turnover by improving job satisfaction

• Gain fuller control over mission-critical systems
Wireless and database resources

Oracle Discussion Newsgroups:

- comp.databases.oracle.server
- comp.databases.oracle.tools
- comp.databases.oracle.misc

These can be accessed through a newsgroup program or “www.deja.com”

- Ari’s free Oracle Tips web page at: www.arikaplan.com

Over 400 tips and answers to questions.
Wireless and database resources

- Other good sites with links:
  www.ioug.org
  www.lazydba.com
  www.orafaq.org
  www.orafans.com
  www.orasearch.com
  www.revealnet.com
  www.dbdomain.com
Wireless and database resources

Wireless News:
• www.planetit.com
• www.mobileinsights.com
• www.mobileinfo.com
• www.pdabuzz.com
• http://www.thestandard.com/subject/technology/

Handheld Discussion Newsgroups:
• comp.sys.handhelds.palmpilot
• comp.sys.palmtops
• comp.handheld
Questions and Answers