



Enkitech Exadata Implementation & POC Success Stories


enkitech

Who Am I

Started working with Oracle in 1983
(Oracle version 2)

Became a consultant around 1987
(through no fault of my own)

I'm primarily a DBA
- Focused on Internals and Tuning

Never worked directly for Oracle

Not certified in anything
(except Scuba Diving)



Enkitech: What We Do

**Complex
Database
Solutions**

**Exadata
Solutions**

**Business
Intelligence
& Data
Warehouse**

**SOA,
Integration, &
Modernization**

**Identity &
Security**

**Custom
Applications**

Application Development and Middleware Services

Database Implementation and Management Services



Enkitech Exadata Service Offerings

Feasibility Assurance

Exadata Workshop,
POC, and Architecture

Full Exadata Life Cycle Services

Exadata 11gR2 Upgrade

Exadata Migration, Re-Platforming, and
Implementation

Exadata Performance and
Tuning

Exadata Backup/
Recovery/DR

Production Operations

Enkitech Exadata Managed Services





Why Exadata?

Better

- Reduced Implementation Time
- Balanced, Scalable Configuration

Faster

- Performance, Performance, Performance

Lower Cost

- Consolidation and Simplification
- Lower TCO Across-the-Board



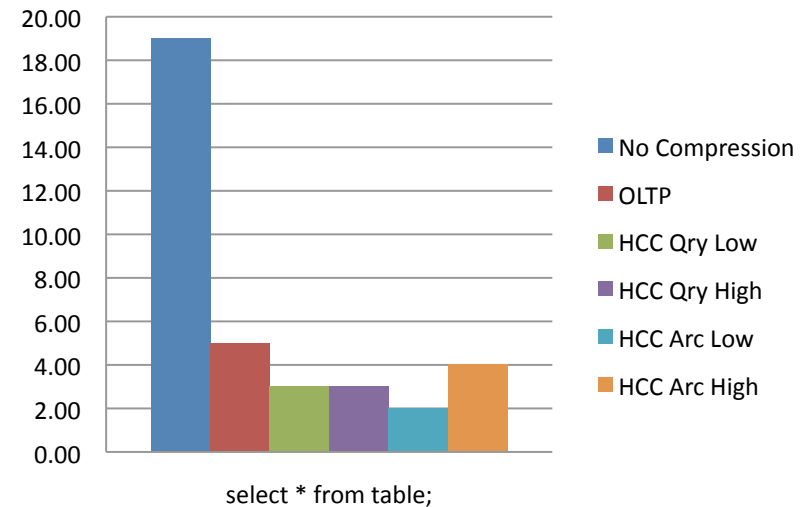
Fast Deployment Example: Targetbase

“No
Assembly
Required”

Took Delivery of first ¼ Rack Exadata in late April, and fully in Production in less than a month

Took delivery of second ¼ Rack Exadata in late May, and configured as DataGuard standby for Prod in less than a week

No Changes Necessary.
Transparent to current
applications, tools, etc.

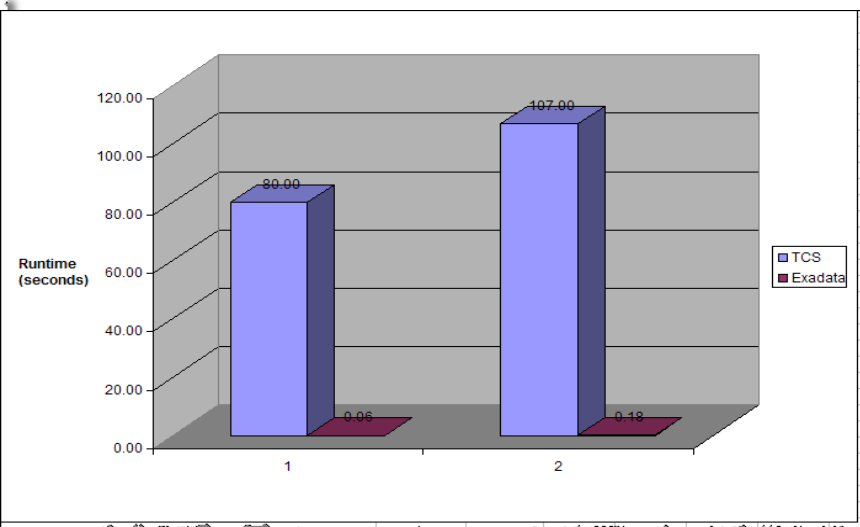
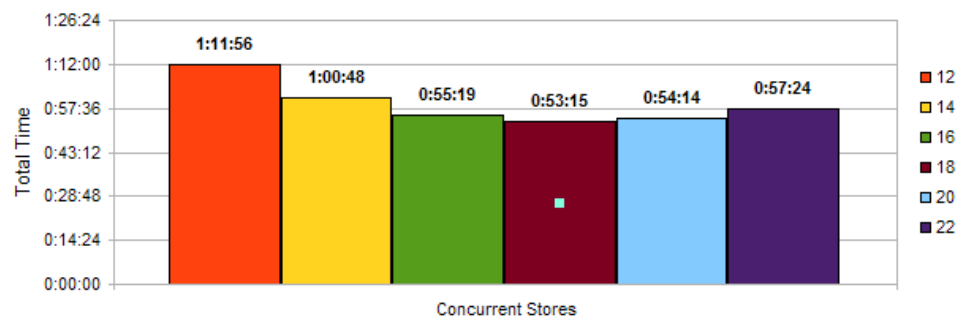


Compression Ratios		
Compression Type	GB	Compression Ratio
None	33.49	0%
Advanced Compression	10.51	219%
HCC For Query Low	5.05	563%
HCC For Query High	3.04	1002%
HCC For Archive Low	2.67	1153%
HCC For Archive High	2.29	1360%

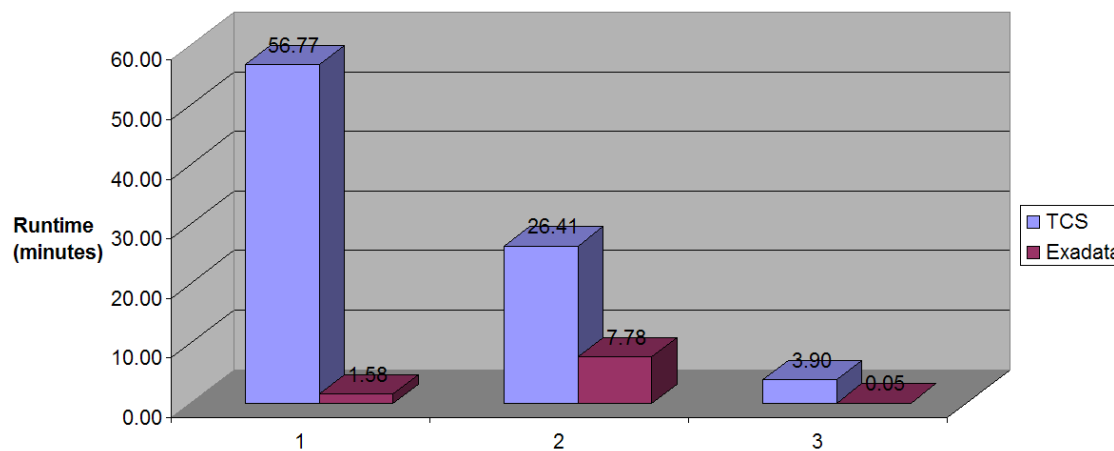


Performance Example: Container Store POC

**Time To Complete All Ladder Plans
(with indexes)**



Query Performance Tests



Performance Example: Container Store POC

Current Situation:

M5000 32 Core Sparc

- Test 1: Nightly forecast runs multithreaded **4 stores at a time**, and typically takes **2.75 hours** to complete
- Test 2: PO Build Plan process which runs approx **90-120 seconds**
- Test 3: Three ad hoc queries
 - **56 minutes**
 - **27 minutes**
 - **4 minutes**

Exadata Results:

¼ Rack 16 Core Xeon

- Test 1: Parallel factor of **18 stores at a time**, Best forecast run approx **53 minutes** for all stores
- Test 2: PO Build Plans completed in approx **.2 seconds**
- Test 3: Queries completed in:
 - **4.5 minutes**
 - **8 minutes**
 - **3 seconds**



Consolidation Example: KBM

Current Situation

- Non-scalable business model
- New customers required dedicated hw/sw platforms
- Slow complex onboarding
- High TCO

29 different DB instances

21 different servers

3 different OS versions

7 different versions of Oracle

6 different BI/Analytics apps

3 different ETL tools

Exadata Results

- Shared “multi-tenant” platform for end user customers
- Rapid onboarding of new customers
- Centralized management/staffing
- Lower TCO

Consolidated into two Full Racks

Carved out ¼ Rack for Dev/Test/UAT

Used Resource Managers to perform “Instance Caging” segmentation

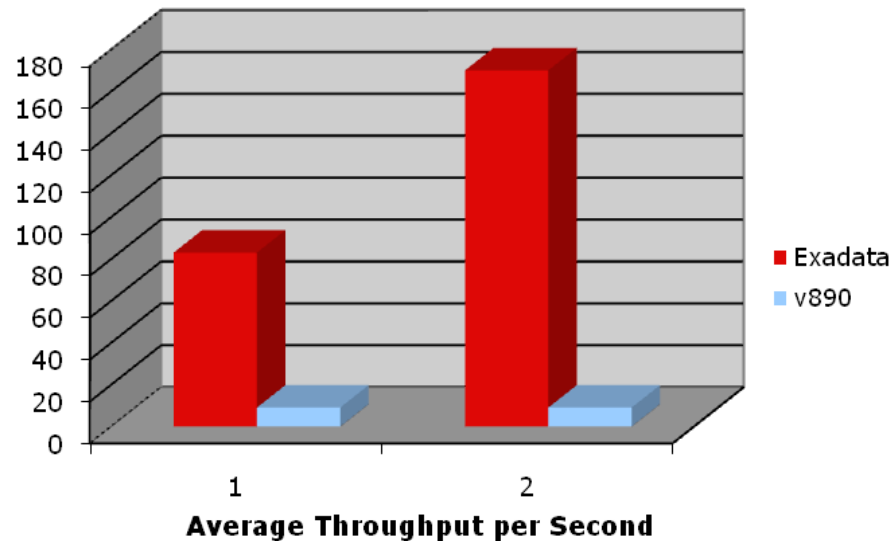
One version of HW/SW/OS

Single vendor for Support



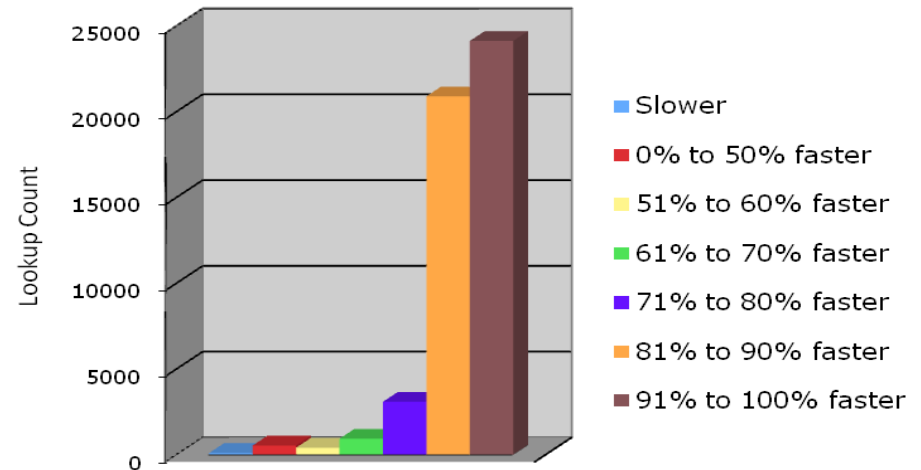
Performance Example: Brierley Partners POC

Borders POS API



	Exadata (Results)	Sun v890 (Results)	Metric
Single Config	83	9	Avg Throughput / second
Dual Config	170	9	Avg Throughput / second
Single Config	4,150,000	450,000	Lookups Per Second
Dual Config	8,500,000	450,000	Lookups Per Second

of Look-Ups Performed Faster



Range	# of "Look-Ups"
Slower	91
0% to 50% faster	527
51% to 60% faster	396
61% to 70% faster	922
71% to 80% faster	3,075
81% to 90% faster	20,880
91% to 100% faster	24,109



Performance Example: Telecom Company POC

SQL	Current	Exadata	Times Faster
Select ECDR_EVENTS (Six Months of Data)	52 minutes	19.5 seconds	160 x
Select ECDR_EVENTS (Three Months of Data)	51 minutes	11.5 seconds	269 x
Select ECDR_EVENTS (One Year of Data)	50 minutes	37.5 seconds	81 x
Select ECDR_EVENTS (Two Months of Data)	48 minutes	9.4 seconds	308 x
Update SCN_CALL_PARTY_LOG	13 minutes	1.05 seconds	744 x
Update SCN_CALL_PARTY_IDENT_LOG	7 minutes	.23 seconds	1871 x
Select SCN_CALL_PARTY_EXTDATA_LOG	6.75 minutes	.47 seconds	868 x

- **None of the queries tested were less than 73 times faster**
- **No indexes necessary to support adhoc queries**



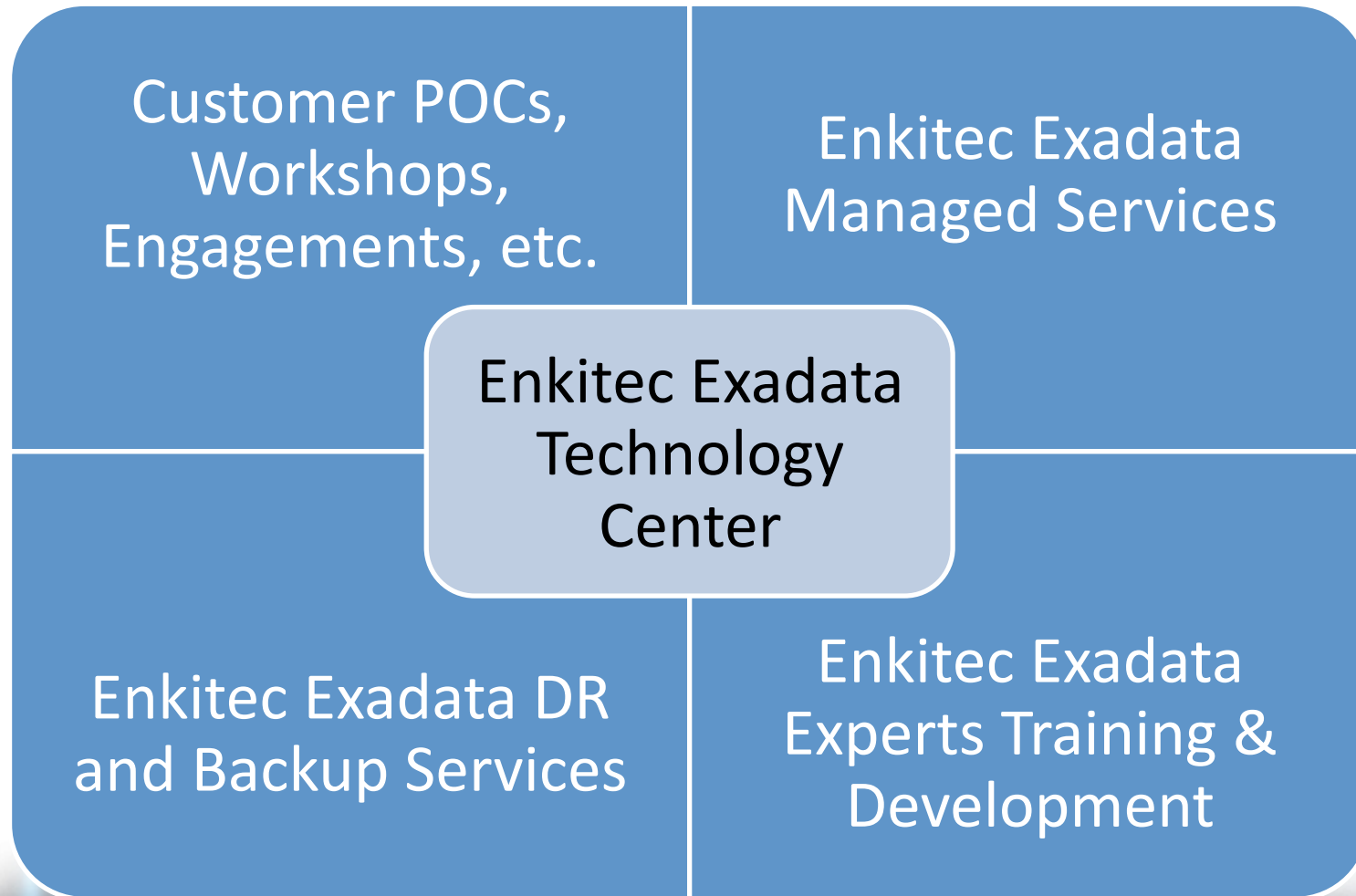
Compression Example: Telecom Company POC

SEARCH_ECDR_EVENTS Compression Test	SIZE	RATIO
Uncompressed Current Size	438GB	
Exadata Query Mode Compression	92GB	4.7 : 1
Exadata Archive Mode Compression	73 GB	6 : 1

- **Removal of indices also reduced total database size by 35-40%**
- **Query response times improve due to massive reduction in I/O**



Enkitech Exadata Technology Center



Enkitec Exadata Workshops and Training

Oracle Exadata Hands On Workshop with Enkitec - Houston

ORACLE EXADATA V2

Attend the Extreme Performance
Data Warehousing Seminar



Thursday, October 21, 2010
8:30 a.m. – 4:00 p.m.

Oracle Office – Houston, Room 15006
Houston, TX 77002

Oracle Database Machine / Exadata 1-Day Hands-On Workshop
Presented by [Enkitec](#)

Overview

Agenda

Agenda

8:30 a.m.	Registration and Breakfast
9:00 a.m.	Introductions & Welcome
9:15 a.m.	Exadata Concepts & Overview
10:45 a.m.	Break
11:00 a.m.	Exadata Configuration Basics
12:00 noon	Lunch
12:30 p.m.	Query Execution and Performance Demos/Labs
1:30 p.m.	Break
1:45 p.m.	Hybrid Columnar Compression Demos/Labs
2:45 p.m.	Additional Lab (Time Permitting)
3:45 p.m.	Summary and Wrap Up

Click on the **"Register Now"** button to register for this invitation only event.

- **Exadata One Day Workshop**
 - Scheduled every 2-3 weeks,
 - Special event for well qualified opps
- **Exadata Training Classes**
 - Three day Instructor-led Exadata training
- **Exadata XMonth Sponsor**
- **Exadata Roadshows**
- **Exadata Open House**
- **Oracle Magazine Online**
 - Exadata Success Stories



Questions / Contact Information



Questions?

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