Cintra at work

Airline significantly improves TRAX availability and performance with the Oracle Database Appliance

Key points

1	Cintra architecture design provides a roadmap to an Oracle Engineered Systems platform
2	Oracle Database Appliance provides improved service levels for availability & performance
3	Oracle Database Appliance supports the Airline while managing complexity & software costs

A leading Cargo Airline Carrier has been serving the freight airline industry for over 15 years. This Airline Carrier relies on the TRAX Airline Fleet management software platform, a key element of the TRAX architecture is the Oracle database.

Cintra provides focused Oracle architecture design, implementation and managed services to TRAX customers to achieve the best possible result for an optimal MRO ERP platform

Cintra and TRAX Alliance

The Customer and the Challenge

Cintra has provided Oracle DBA support to TRAX customers for over 5 years. Providing blueprinted Oracle architectures complemented by a proactive fast response support program to ensure the availability and performance of mission critical aircraft maintenance and support systems at all times.

The Airline Carrier was faced with the need to upgrade and evolve the database architecture supporting their TRAX platform, upgrading the current Oracle Standard Edition Failsafe Cluster on Windows to Oracle Enterprise Edition on RAC and Linux.

The new architecture was required within a short time period to meet upcoming application release schedule, and to provide a higher level of redundancy, uptime and performance.

The migration to the new architecture had to be achieved with minimal downtime to the business within a limited downtime maintenance window.

The existing architecture ran Oracle Standard Edition 11gR1 on a Windows FailSafe Cluster platform. With this release being de-supported by Oracle, and the hardware on which it was running becoming end-of-life, a new architecture roadmap was required with a complete understanding of the benefits and cost to allow the Carrier to make an informed decision on the new architecture.

Cintra and the Oracle Solution

Cintra performed a rapid, detailed architecture assessment, quickly providing the client with a view of the risks and issues with the current architecture and the recommended architecture roadmap towards a new Oracle RAC architecture based on the Oracle Database Appliance platform.

The architecture assessment concluded that the Oracle Database Appliance would provide the Carrier with the optimal combination of benefits including Oracle Enterprise Edition benefits, RAC clustering mission critical redundancy, high performance and

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Customer snapshot

- Global Airfreight
- Purchase, NY

Solution snapshot

- Oracle 11gR2 Upgrade
- Enterprise Edition
- RAC Clustering
- Oracle Linux
- Rapid Migration
- Rapid Deployment
- High Availability
- High Performance
- Proactive Monitoring
- 24x7 DBA Support

Products implemented

- Oracle DB Appliance
- Oracle 11gR2
- Oracle Linux 5.8
- Active Data Guard
- RMAN Backup
- EM Grid Control

Key differentiators

- Cintra's database architecture roadmap provided a clear plan with a complete view of benefits and costs
- Cintra's blueprinted delivery ensured a low risk deployment within aggressive timescales
- Cintra's balance of benefits, cost and simplicity provided the customer with a platform that supports the business while managing complexity and cost

hardware and software cost management.

Cintra laid out a roadmap which included recommendations for a migration to an architecture based on multiple Oracle Database Appliances running RAC One Node, Data Guard and Enterprise Manager for monitoring and management, the roadmap included a detailed migration plan to minimize downtime through the migration process.

Value to the Customer

Cintra's database appliance architecture delivery blueprint ensured that the new architecture was deployed in an aggressive timescale, significantly faster than could have been achieved with a custom built architecture.

One of the key benefits to the customer was the ability to upgrade to the Oracle Enterprise Edition database, which allowed the Carrier to reach a higher degree of uptime and reliability with Enterprise features such as Oracle RAC Clustering, online maintenance features and in-depth monitoring, this was only feasible due to the "Capacity on Demand" CPU core cost management feature of the Oracle Database Appliance.

The optimized Oracle Database Appliance configuration provided a significant performance increase by a factor of 2X to 10X for key elements of the TRAX application. The database performance benefits were documented as below.

Category	Task / Transaction	Prior Run Time in Seconds	New Run Time in Seconds	Improvement Factor
TRAX	Mx Planning Query	475	129	4x
TRAX	Work Order Print	193	20	10x
TRAX	E/C Print	78	19	4x
TRAX	A/C Component Print	172	88	2x
Database	Datapump Export	28800	8400	3x
Database	RMAN Backup	8100	3780	2x
Database	Collect Statistics	6300	1200	5x

Cintra's Complete Managed Services

Cintra continues to provide 24x7 remote monitoring and management of the database architecture, supporting the complete hardware, operating and database elements of the new appliance infrastructure.

Delivered on a fast response basis, Cintra's managed database services provide proactive and reactive database administration services, including 24x7x365 database monitoring and emergency support delivered from Cintra's UK and US locations.

As an established Global Oracle Platinum Partner, Cintra specializes in providing, highly available, high performance, blueprinted Oracle database platform for users of the TRAX MRO ERP applications. Cintra's established Oracle reference architecture blueprints for TRAX result in rapid, predictable, reliable installations.

To find out more about Cintra and how we can help you:

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