Kwik-Fit achieves high availability and performance with Oracle Database Appliance and ZFS storage appliance

Key points

1	Rapid Deployment
2	Blueprinted Delivery
3	Proactive Monitoring

Upon acquisition by the Itochu Corporation in 2011, Kwik-Fit was charged with introducing a new Point of Sale system to be used both within the company and elsewhere within the Itochu group. With an urgent need to assess and evaluate their architecture options, upgrade the Oracle infrastructure, refresh hardware and provide a high availability strategy, Kwik-Fit approached Cintra,for architectural guidance.

> " Cintra's rapid delivery of our new Oracle architecture has provided us with a high performance and high availability architecture suited to supporting business-critical systems. The pre-optimized benefits of the appliances provide us with improvements in performance allowing us to meet our clients' demands. I've been very impressed with Cintra's skills, commitment to results and professionalism "

Andy Corley, Head of IT,
Kwik Fit Road

The Customer and the Challenge

Kwik-Fit is Europe's market leader in the fast fit, car repair and field replacement market, operating from almost 850 service points across Europe. The company services the requirements of more than 7.5 million motorists a year in the UK alone and solves a motorist's problem every eight seconds.

Upon acquisition by the Itochu Corporation in 2011, Kwik-Fit was charged with introducing a new Point of Sale system to be used both within the company and elsewhere within the Itochu group, such as Stapletons Tyres. With an urgent need to assess and evaluate the architecture options, upgrade the Oracle infrastructure, refresh hardware and provide a high availability strategy, Kwik-Fit approached Cintra, a Specialized Platinum Oracle partner and Oracle's Global Database partner of the year, for architectural guidance.

Cintra's Approach and the Oracle Solution

Cintra performed a detailed assessment of both Kwik-Fit's existing production architecture and the Point of Sale application requirements. Focusing on performance, workload and business metrics for the new architecture. The key drivers were upgrades, performance, availability, scalability and consolidation. Cintra proposed an overall multi-site redundant architecture based on the Oracle Database Appliance. To facilitate rapid backups, provide future scope for an Information Lifecycle Management policy and database cloning, Cintra proposed the ZFS Storage Appliance as a key element of the solution.

A comprehensive architecture roadmap was developed by Cintra, which met the business requirements whilst managing hardware and software costs. The recommended architecture provided the value of an appliance based architecture, which enabled a fast deployment timeline

Customer snapshot

- European Tyre Replacement Business

Solution snapshot

- Rapid Deployment
- Blueprinted Delivery
- Engineered System
- High Availability
- DR Redundancy
- License Cost Management
- Proactive Monitoring
- Implementation Support

Products implemented

- Oracle Database Appliance
- ZFS Storage Appliance
- Oracle Database 11gR2
- Oracle Linux
- Oracle Grid Control EM
- Oracle Direct NFS

Key differentiators

- Cintra is the only Oracle Platinum Partner specialized on the Database Appliance
- Cintra's blueprinted delivery ensured a low risk deployment
- Cintra's expert knowledge ensured a complete and accurate configuration first time
- Cintra's expert knowledge of Oracle ensured a high performance, highly available solution
- Cintra's balance of benefits, cost and blueprinted approach provided the optimal solution complimented by expert services

while ensuring high quality and best practices for the new platform.

The architecture was based on three Oracle Database Appliances, with the primary cluster dedicated to Production databases, the second cluster serving as a non-production environment for Development and Test purposes and the third cluster providing disaster recovery capabilities using Oracle Active Data Guard. All environments were configured using Oracle RAC in an active/active mode, with workload segregated into reporting and transactional workloads via RAC Services to optimise performance and availability. The ZFS Storage Appliance was connected directly to the Production Oracle Database Appliance via 10Gb connectivity configured over Oracle Direct NFS providing fast backups.

Cintra's ZFS Storage and Oracle Database Appliance delivery blueprints provided a rapid low risk implementation based on proven best practices for Oracle RAC 11gR2 on Oracle Linux. The Database Appliance CPU cores were configured to manage license costs while providing the capacity and the required performance. The architecture included Oracle Enterprise Manager 12c Cloud Control for real-time monitoring and alerting.

The new architecture design contributed towards the overall goal of providing a high performance, highly available architecture deployed in a short time frame.

The new architecture was deployed over a single three-day period, at the end of which all three Database Appliances were configured and running RAC databases. With daily backups configured to the ZFS Storage Appliance.

This would not have been possible with anything other than an engineered system and was complimented by Cintra's blueprinted implementation approach. This ensures that deployments are well planned and that risks and unknown elements are captured and dealt with in advance, maximising the effectiveness of the on-site team.

Following the successful implementation, Cintra continues to provide support for the entire architecture, including assistance to create and test a Disaster Recovery process, database cloning using the ZFS Storage Appliance and developing an overall Consolidation Strategy to move legacy systems to the new environment.

Value to Kwik-Fit

Cintra's upfront architecture design assessment provided Kwik-Fit with a complete understanding of costs and benefits in order to fully justify the investment in the new architecture. Cintra also conducted a performance review of the legacy architecture to produce a recommendation for the appropriate number of CPU cores to activate.

Cintra's blueprinting low risk deployment methodology ensured that the new architecture was correctly implemented first time without any issues. The architecture provided a highly available, robust and high performance set of clusters which provide real business benefit for end users. Cintra's expertise with the Oracle Database Appliance, Oracle RAC and the ZFS Storage Appliance provided an optimized architecture, complimented by Grid Control to provide the Kwik-Fit team with round the clock monitoring.

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

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