



EBS - Exadata Migration (Bruce George & Karina Garayar)



To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.

A proud history... a bright future

On the 1 March 2011 the formation of a new Northern Region shared services organization provided opportunity to provide efficient and effective delivery of non-frontline support services for Northland DHB, Waitemata DHB, Auckland DHB and Counties Manukau DHB.

Building on the strong foundation and vision of hA that has existed since 2000 – healthAlliance is jointly owned by the four DHBs and Health Benefits Ltd.

healthAlliance is the most significant shared services organisation in New Zealand.

To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.



Problem / Opportunity

Increasing Complexity



Network Resilience



Performance Degradation



An Oracle Engineered stack



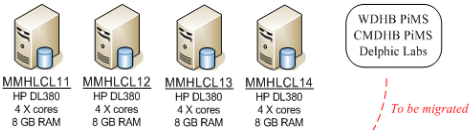
To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.

Original Oracle Architecture

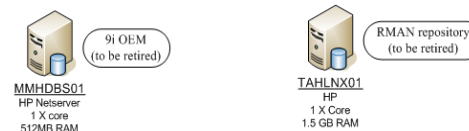
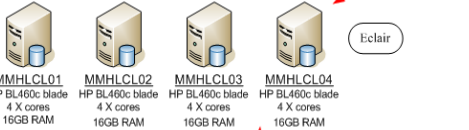
Production

Middlemore hospital

(9i RAC – To be retired)



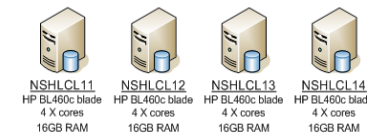
(11g RAC)



Note: All processors are Intel processors

North Shore hospital

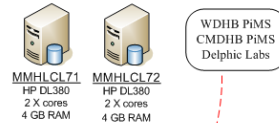
(9i RAC – e-business suite)



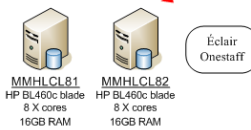
Middlemore hospital



(9i RAC – To be retired)



(11g RAC)

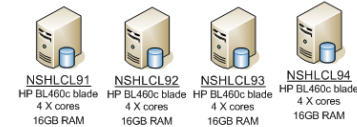


Note: All processors are Intel processors

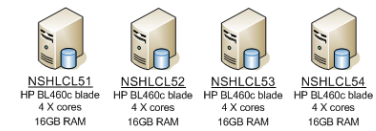
Test / Development

North Shore hospital

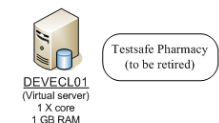
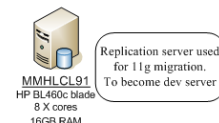
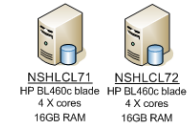
(9i RAC e-business suite – IT Development)



(9i RAC e-business suite – Test)



(9i RAC e-business suite – Development)



To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.

Business Demand

- Reduce cost
- Improve capacity to support future growth
- Improve performance
- Improve resilience
- Support regional infrastructure programme
- *Support ADHB EBS R12 migration*

Exadata Business Case

Business Benefit	Exadata Technology
Reduced cost	Platform for consolidation; workload management; compression, prebuilt, delivered and certified by Oracle
Growth	Correctly sized but can add if needed
Faster	Smart scan, flash cache, Infiniband
Resilience	Oracle RAC, ASM, redundant components. No single point of failure
Infrastructure	Committed decisions and build programme
<i>ADHB R12</i>	<i>Additional capacity & performance</i>

Proposal

healthAlliance will provide a single technology platform, hosted, managed and supported by a single centralised infrastructure with added resilience and failover.

Provided over two sites (Grafton = ADHB & Middlemore = CMDHB)

To support EBS four regional DHBs, plus TDHB, plus hA, HBL, NDSA, North and a suite of clinical applications.

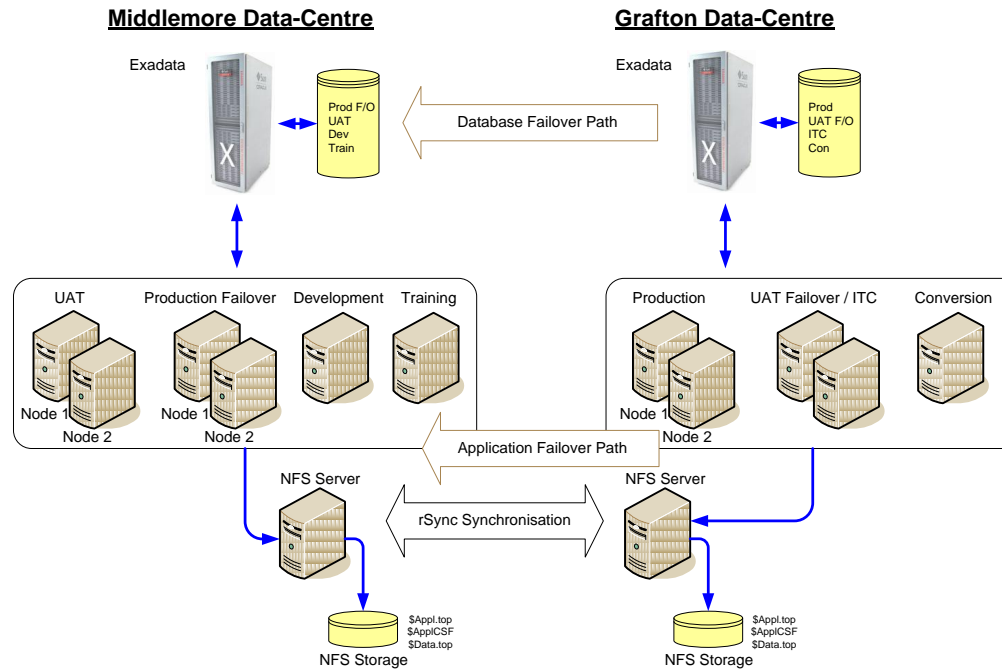
Proposal

The solution delivers a platform comprised of fully supported current technologies at the:

- operating system
- database,
- middleware
- application levels

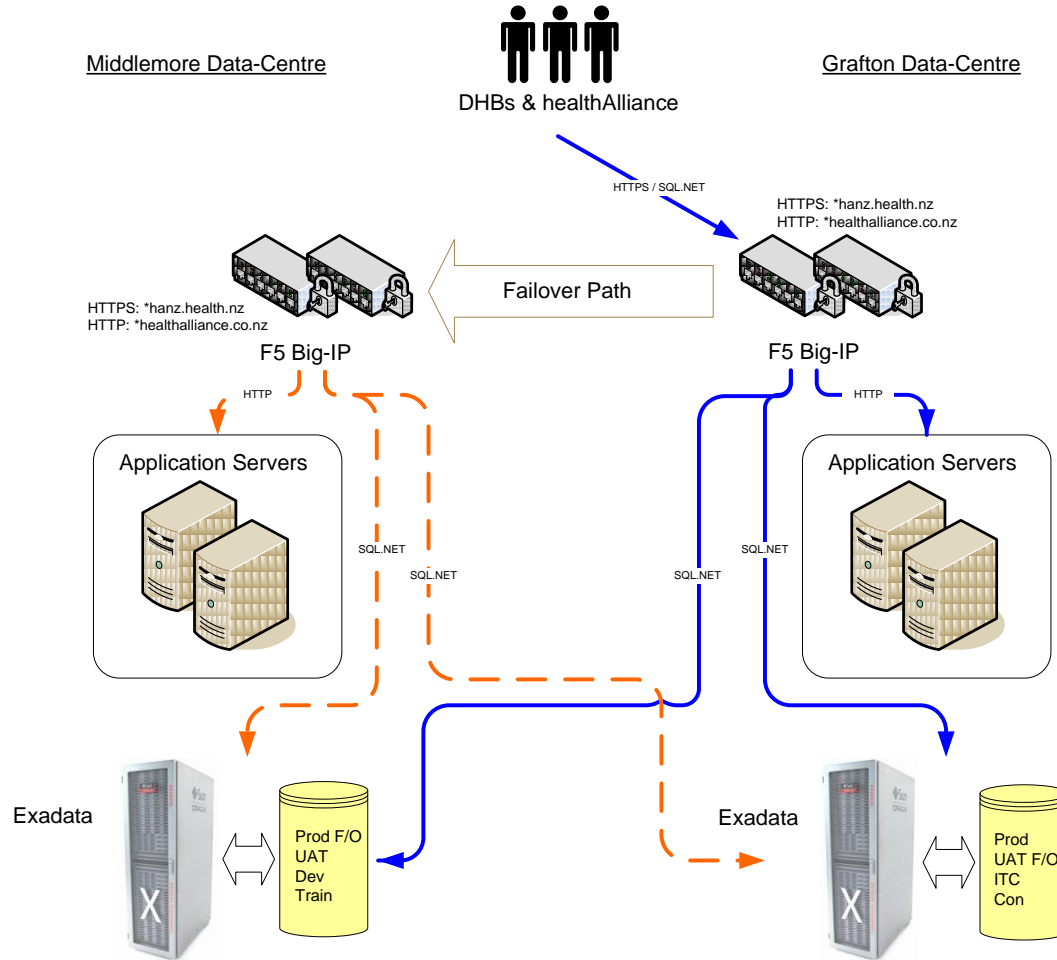
reducing the risk of unplanned outages due to security breaches and technology failures.

Proposed Future Architecture (DB)



To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.

Proposed Future Architecture



User Interface

Load Balancers

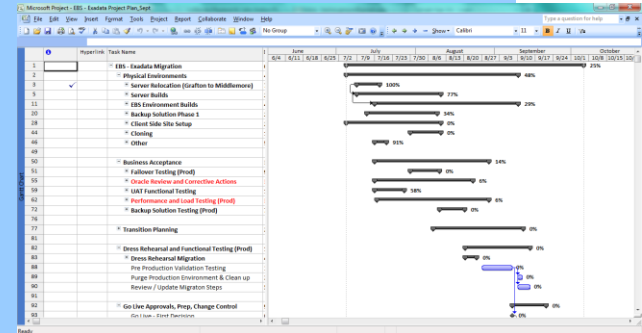
Application Servers

Exadata Database

To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.

Migration: Critical Success Factors

- Network
- Migration Preparation
- Business sponsorship
- Business and IT Sign-off
- End to End Testing
- Team Collaboration
 - Oracle ACS
 - NFS Support – Germany
 - F5 – Gen-i
 - Technical PM - Sharp Elephant
 - Technicians - Asparona
 - Internal DBA and support teams

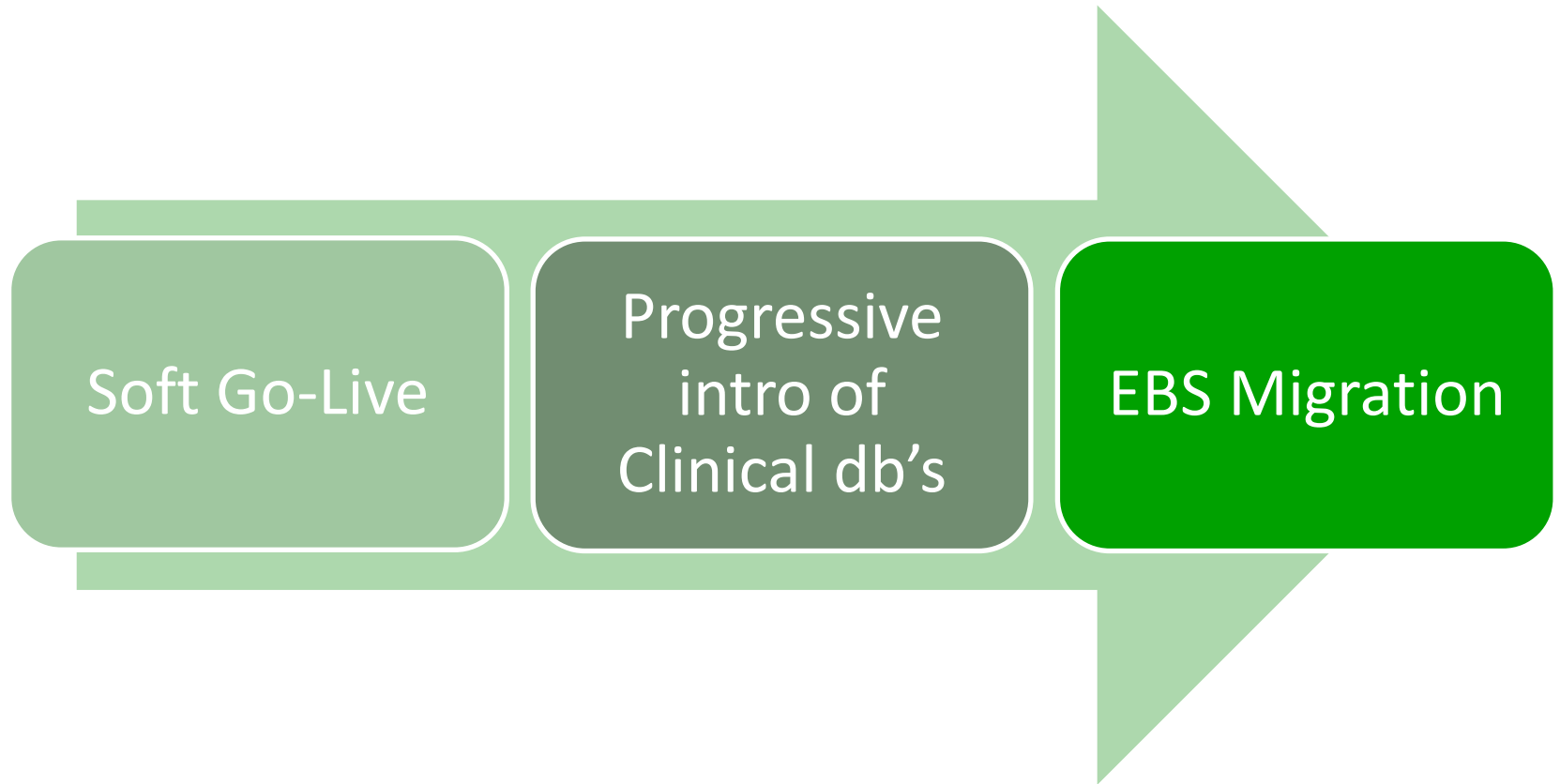


Challenges

- Additional components & correct firmware
 - NFS
 - F5
 - Switches
 - Firewall & certificates
- Skills and experience in NZ
- Migration Process
 - Database cloning
 - Importance of interfaces (existing & new)
- Testing
 - Performance
 - Memory
 - DBFS vs NFS
 - SOA
 - End to End including additional components



Go Live



Testers and Users experience must be positive from the outset

Benefits

Proposal	Business benefit
Reduced cost	32 servers reduced to 2
Growth	Enabled swift database deployments and virtualisation
Faster	Noticed by developers, not users
Resilience	Improved and standardised high availability and resilience
Infrastructure	Reduced administration, management and infrastructure costs
<i>ADHB R12</i>	<i>Delivered on time, on budget to quality</i>

Where to from here

- Complete full Disaster Recovery
- Continue to improve infrastructure
- Realise the benefits for the Northern Region DHBs

Lessons learnt

- Keep everybody informed
- Keep to plan
- Seek answers to questions
- Identify dependencies
- Be prepared to make quick decisions
- Identify requirements early & up front.
- Define roles and responsibilities.
- Don't get caught up in jargon & technology



Partners

ORACLE®

Asparona
CONSULT DELIVER SUPPORT

sharpelephant

To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.


healthAlliance

Questions



To deliver outstanding shared services that enable healthcare excellence for the Northern Region's population.