CASE STUDY OVERVIEW

In January 2016, Queensland Government's Department of Treasury completed a migration from legacy ICT to a state-of-the-art flexible, scalable and on-demand cloud platform with Digital Sense. Importantly, the risk adverse nature of government, combined with the mission critical services that Treasury provide, created unique challenges to ensure minimal downtime occurring during the transition and that mission critical services were always protected, both during and after the migration.

PROJECT OUTCOMES

100%				
Project Success	Scalable ITC	Cloud Migration	Managed Security	Incident Free

THE CHALLENGE

Queensland Treasury faced many day-to-day challenges that are experienced by large enterprises and government agencies. The flexibility, agility, and time-to-execute of typical ICT systems, means that business requirements move faster than the information technology platforms that support it. Queensland Treasury faced many challenges that were addressed as key outcomes:

- Migrate away from aging data centre facilities
- Avoid further large hardware CAPEX costs
- Overcome network security limitations and complexities
- Flexibility, scalability, and time-to-provision services
- In-house skills limitations
- Seasonal ICT workloads.

Digital Sense tendered and won the bid to provide Queensland Treasury with a flexible and scalable ICT system. Digital Sense also proposed to mitigate existing challenges while ensuring:

- A complete migration with minimal downtime
- Risk-rollback - The ability to instantly revert back to the original operating state
- Compatibility with existing backup solutions as well as updating the backup solution
- Provide a hot / cold DR site with near real-time data replication
- Provide professional services and assistance during the migration
- Be elastic and expand / shrink as per Queensland Treasury requirements.

THE SOLUTION

Digital Sense proposed a full cloud solution that included a full active-active, multi-site cloud architecture, and redundant links into government, core network services, and best-of-breed firewall services.

Digital Sense proposed its enterprise class cloud platform built on VMWare vCloud Suite, providing full automation and self service capabilities.

Servers	Storage	Security	HyperVisor

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Redundant Cloud Architecture

The Digital Sense cloud model uses trusted technologies, in trusted data centre facilities combined with high speed networks and best-of-breed software defined toolsets. All components both physical and software proposed were setup in a full highly available architecture and included disaster recovery capabilities for applications that supported active-active (on-on), active-passive (on-standby) and active-cold (on-off) applications to ensure that all applications are protected in the event of a site failure.

Cloud Agility

A key requirement of the project was to ensure that

Queensland Treasury remained in control of their architecture in the cloud. This included the ability to scale up and down cloud resources to align with business requirements, seasonal demand and election cycles. Importantly, Queensland Treasury are empowered with a self-service portal, enabling them to deploy, manage and scale on demand without limits.

Cloud Monitoring and Optimisation

Digital Sense provides as part of the solution, toolsets to monitor, analyse and optimise the environment. These tools enable Queensland Treasury to ensure that SLAs are being met and provide a decision support system that automatically identifies opportunities to increase performance or decrease costs.
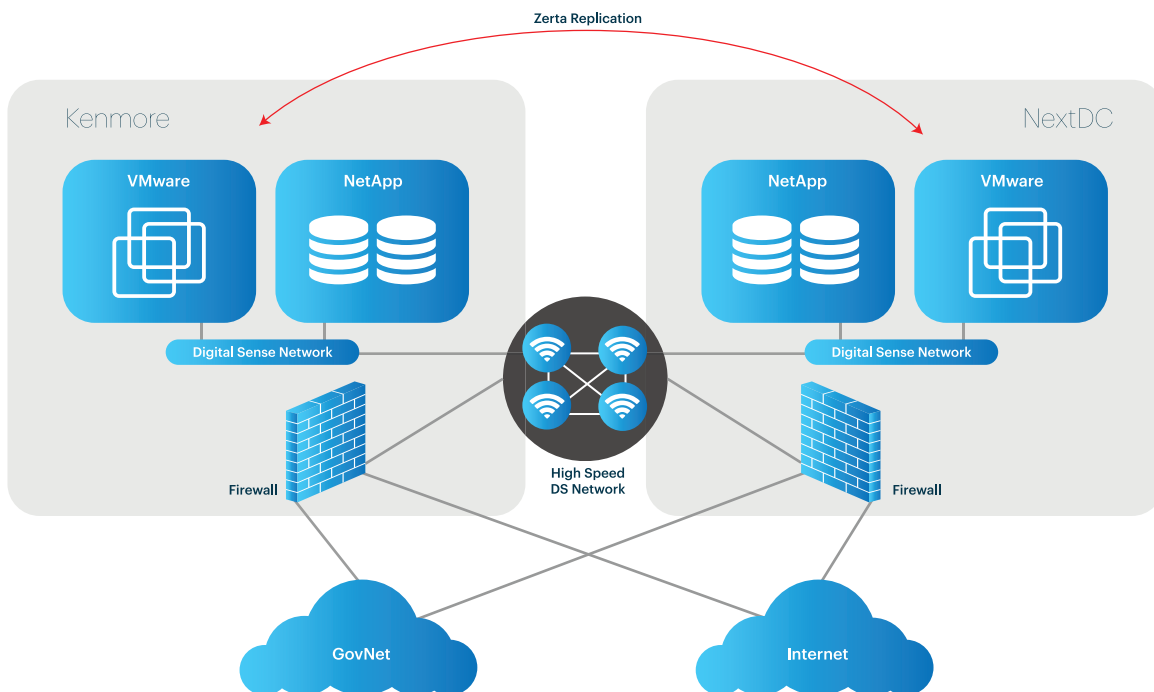
THE MIGRATION

A key requirement of the migration for Queensland Treasury was risk mitigation. Digital Sense proposed to complete the migration using specialised migration tools that would enable Digital Sense to:

1. Complete initial performance testing and benchmarks,
2. Synchronise all of Queensland Treasury's data,
3. Complete a full test migration to test applications post move ahead of time,
4. Complete network testing as part of the migration testing,
5. Migrate all servers to the Digital Sense Cloud,

6. Enable roll back of the entire system in minutes for up to 14 days post move, and
7. Clean-up and decommission the legacy ICT environment.

This migration strategy, enabled Queensland Treasury to minimise risk by ensuring that all systems could be pre-tested in the cloud, and once moved to the cloud, that they would invariably have a full rollback strategy. The strategy was completed strategically over two weekends, the first weekend a full cut over of virtual machines from on-premises to the cloud, while a week later, a full network migration to its final state.

THE BENEFIT

Today, Queensland Treasury is operating completely from the Digital Sense cloud platform. They have the ability to scale resources to align with business demand and rapidly respond to new business requests, not only for additional capacity, but as and when it is required.

Deployed in some of Brisbane best ICT facilities, the Digital Sense cloud provides Queensland Treasury with an outsourced ICT model that is dependable and reliable. The data centres are setup in a full active-active state, ensuring that disaster recovery can be initiated in a click of a button.

A New Era of ICT

Queensland Treasury have successfully removed the headache of constant ICT upgrades and outages. They now have access to a 24x7 team of experts who are constantly monitoring the platform and developing ongoing solutions. Digital Sense works with Queensland

Treasury to constantly update and maintain its platform to provide access to the latest product features and enable new products to service new workloads seamlessly.

Staff from Queensland Treasury have a full self-service portal for cloud management, which allows them to focus on business improvement, rather than break fix repairs. They can deploy virtual machines from templates and event-customise machines to their specific needs.

Run-time leases and thin-cloning, allows application developers and testers to rapidly spin up copies of the environment and test new features before deploying them into production. This ensures that business upgrades can be pre-tested with no downtime. Run-time leases can be set to ensure that development workloads are automatically powered off and removed after the test to lower costs.

Key Benefits

- Now in state-of-the-art Data Centres
- Completely OPEX paying on usage only
- Ultra-modern highly scalable, flexible network
- Best of breed security and threat prevention

- Flexibility, scalability and time-to-provision services
- Can react to seasonal ICT workloads
- Provide a hot / cold DR site with real-time data replication.

ABOUT QUEENSLAND TREASURY

Treasury is responsible for managing Queensland's revenue and expenditure in a way that drives economic growth, creates jobs, and improves prosperity now and into the future. Each year, Treasury prepares a state budget. They do this by working with other government agencies to negotiate departmental budgets that respect the fiscal, economic, and service delivery goals of the government.

As the state's central economic advisory unit, Treasury – through statistical gathering and analysis, economic analysis, and financial management expertise – is uniquely placed to advise Cabinet on the financial and economic impact of policy decisions, and to advocate for economically strong policy outcomes across government. This is done through liaising at a departmental level with other government agencies and by providing impartial, evidence-based advice to Cabinet.

Commercial Group, a specialist business unit within Treasury, aims to enhance the government's infrastructure delivery capability, ensuring public needs are met while advising on innovative commercial arrangements that maximise private investment and optimise the value of government expenditure.

Key Responsibilities

- Preparing the state budget
- Providing financial and economic advice
- Optimising public infrastructure investment
- Collecting state revenue
- Administering grants for first home buyers
- Monitoring the performance of the state's businesses
- Keeping Queensland's workplaces healthy, safe and fair.

ABOUT DIGITAL SENSE

Digital Sense (founded 2006), is a leading organisation specialising in providing world-class IT hosting infrastructure. Digital Sense has developed a purpose built data centre engineered to the highest international standards. Digital Sense has deployed a world class, best-of-breed cloud service that spans most public colocation data centres across Australia to provide a cloud network and cloud grid architected design for true high availability.

Digital Sense has adopted best-in-class equipment at all levels in the data centre and cloud platform in order to provide a superior solution. The leading technologies are integrated based on a robust architectural design which maximises the security, reliability and fault tolerance of the facility and cloud platform users.

Digital Sense's uncompromising attitude to quality and service, results in our customers experiencing an unparalleled level of service.

The benefit to your business is that you can rely on the Digital Sense hosting environment to provide your business with the maximum up-time. Digital Sense services have been designed to be resistant to a number of natural and man-made disasters. Digital Sense operates a 24-hour, 7 days a week support desk in Australia with expert professionals who are committed to providing our customers with an uninterrupted service.

DIGITAL SENSE

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