



# Driving business continuity excellence with seamless managed hybrid cloud solution.

Dairy Farm Singapore is a customer-facing, multinational, multi-format retail business whose ageing IT infrastructure needed to be future proofed. To successfully complete this digital transformation they required a solution that cut across department models and a migration to the new system that was seamless and incident-free. Dairy Farm Singapore made use of Managed Hybrid network to operate across public, private and co-location platforms.

## Executive Summary

### Company Name

Dairy Farm Singapore

### Industry

Retail

### Business Challenges

- Legacy IT infrastructure running multiple applications posed risks to business continuity
- Any IT outage directly affected customer's shopping experience
- High cost of replacing servers and no guarantee all applications could run on new operating systems
- Migration to the new IT structure in the quickest time frame with minimal downtime

### Singtel Solution

Singtel Managed Hybrid Cloud

### Business Value

- A robust IT infrastructure that can provide a continuous strong customer shopping experience
- A reduced lead time when it comes to offering new initiatives or services
- Cost effective solution for all IT maintenance

### Future Plans

- Business innovation supported by an infrastructure allowing for testing of new systems

# Dairy Farm Singapore

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## About Dairy Farm Singapore

Dairy Farm Singapore, with its 115-year history in Singapore, is the city state's pioneering retail group with over 7,500 employees and 630 stores island-wide. Over the years, each of its retail banners - Cold Storage, Market Place, Jasons, Giant, 7-Eleven and Guardian – has played a vital role in shaping Singapore's retail scene with innovative concepts aimed at providing consumers with exciting retail experiences that meets a wide range of lifestyle needs.

As a multinational and multi-service organisation, Dairy Farm has developed a complex IT structure. It needs to handle store inventory and point-of-sale systems, various online portals, and enterprise systems for merchandising, finance and human resources.

Each one of these applications was in a different lifecycle, meaning older applications required a different IT solution to run correctly. As a customer-facing business, if any of these systems experienced downtime it ultimately cost Dairy Farm revenue.

"One of the pressing issues was the need to refresh the IT infrastructure – the top priority for me was to source a new infrastructure that is more future-ready," says Mr Eu Kwang Chin, IT Director, Dairy Farm Singapore.

## Business Needs

For large organisations with multiple business units that have been acquired over the years, problems arising from legacy applications and structures can become a major issue. This legacy equipment poses a high risk to an organisation, as older IT structures are more prone to crash, disrupting business. This was the scenario Dairy Farm was facing.

"In audit reports and enterprise risk assessments, the existing infrastructure presented high risks around business continuity," says Mr Eu. "Most of the servers and network equipment were old and near or past end of support. In fact, some of them were more than 10 years old. For a business this size, it's not uncommon to try to maximise the life of infrastructure, but the situation presented a good opportunity to examine and re-baseline it."

As a retail business, customer experience is one of Dairy Farm's key concerns. Any server downtime can have an adverse effect on shopping experience. "We're in the consumer business, meeting customers' needs and providing them with best in class shopping experience is of utmost importance," says Mr Eu. "Any server downtime is a costly

issue and affects service to our customers, IT stability is one of the operations that just cannot afford to go wrong."

The multi-business nature of Dairy Farm meant that all areas of the business would be affected by outages. "We've had cases in the past where the network switch was down, and as a result it created some connectivity challenges," explains Mr Eu. These connectivity problems resulted in a loss of productivity and customer service issues.

Simply replacing the old servers wasn't an option. New hardware isn't cheap and there was no guarantee that older, but still vital, applications could run on a new system. "Replacement costs are extremely high," says Mr Eu. "Some legacy applications were not compatible with newer operating systems and hardware equipment. It didn't make sense to incur costly maintenance charges for outdated equipment."



## Solution

To find the right solution, Dairy Farm began a request for proposal process with several major suppliers participating. "We needed a solution that cut across department models, from public cloud, private cloud, to co-location," explains Mr Eu. "A hybrid cloud model, where some of the systems that were ready could be put into a public cloud. The majority of the systems would need to be put into a private cloud. And for the rest of the systems that were not virtual machine ready we would need to work on a relocation model, to move the servers to a better and more reliable data centre location."

Dairy Farm also required a partner with an equal focus on both network connectivity and cloud. While other providers had a competitive cloud option, they were lacking when it came to connectivity and the ability to solve deployment issues. "I think it's a combination of the network connectivity and the cloud that allows the Singtel team to be able to identify risks, and undertake the right plan as part of our deployment," says Mr Eu.

Singtel proposed a Managed Hybrid Cloud solution. This solution meant Dairy Farm's different applications could run effectively on the best platform – public, private or co-location. The hybrid model also sets the business up for future growth.

The group was planning a multi-year IT transformation process, but nothing could be started until the re-baseline of its IT infrastructure was completed. Migrating to the new set-up in the shortest time-frame with the strongest risk mitigation was vital to Dairy Farm's future plans.

"We needed a team that would roll up their sleeves and discover any issues we were unaware of," says Mr Eu. "Singtel went into our data centre and did a very thorough site survey, to look at the actual cabling and worked out a low-risk migration plan."

## Benefits

### An incident-free and quick migration

Understanding the importance of the impending migration, Singtel spent a lot of time planning and testing. During the migration there were no incidents or interruptions in Dairy Farm's day-to-day business.

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Mr Eu Kwang Chin, IT Director, Dairy Farm Singapore

"There was a very thorough dry run that was done before the actual implementation," says Mr Eu. "The Singtel team almost did it by stopwatch, timing how long it took to do step A, step B, and so on. When we did the first round, it was all within the estimated time. Then they managed to optimise the overall migration time. The downtime was well within what was allocated, and after the third and fourth rounds of migration, it was less than the original estimates."

### Robust IT infrastructure

Singtel's Managed Hybrid Cloud means Dairy Farm's IT infrastructure can provide continuous customer service of the highest standard. As a customer orientated business, drop outs have a negative impact on the shopping experience. The risk of this occurrence has been reduced dramatically.



"Improved infrastructure resiliency and availability are the top benefits," says Mr Eu. "This means that our business continuity risk due to infrastructure is greatly mitigated. This solution also offers a lower cost of infrastructure replacement, due to higher utilisation of shared system resources through virtualization. A 5-year TCO for the Hybrid Cloud is at least 20% lower than full server replacement of existing legacy infrastructure."

### Reduced lead time for new initiatives

Today, Dairy Farm can roll out new business initiatives in a dramatically shorter timeframe. "Previously, we needed to size up the server, in order to add in a new application," explains Mr Eu. "Typically, we had to allow somewhere between six to eight weeks to procure additional hardware, get it installed, and then get it ready for the application. With the hybrid cloud, we are able to provision new computing power quickly, and remove the six to eight weeks of lead time. The creation of such resources can now be carried out within an hour."

## Future Plans

Business innovation will be a big part of Dairy Farm Singapore's future plans. They now have a sturdy infrastructure where they can easily test new applications and ideas.

"With this hybrid cloud, it gives us an added advantage, where we can have more flexible use of infrastructure to test things short-term," says Mr Eu. "That's something we plan to leverage."

Singtel will be an important part of this process. "Currently there are a few other infrastructure-related opportunities that we are talking to Singtel about, some of which are linked to innovation related work," concludes Mr Eu.

# About Singtel

Singtel is Asia's leading communications technology group, providing a portfolio of services from next-generation communication, technology services to infotainment to both consumers and businesses. For consumers, Singtel delivers a complete and integrated suite of services, including mobile, broadband and TV. For businesses, Singtel offers a complementary array of workforce mobility solutions, data hosting, cloud, network infrastructure, analytics and cyber-security capabilities. The Group has presence in Asia, Australia and Africa and reaches 670 million mobile customers in 22 countries. Its infrastructure and technology services for businesses span 21 countries, with more than 428 direct points of presence in 362 cities.

## Awards

### Asia Communication Awards

Best Enterprise Service - Connectivity as a Service (2013)  
Best Cloud Service (2011 & 2012)  
Project of the Year - G-Cloud (2014)

### Cloud & DevOps Awards 2016

Best Cloud Computing Adoption Project (G-Cloud)

### Computerworld SG Readers' Choice Awards

Best Data Centre and Hosting Services Provider  
(2007 & 2009 - 2013)  
Best Managed Connectivity Services Provider  
(2006 - 2013)

Computerworld Singapore Customer Care Award  
Cloud Services (2012 - 2013)

### Frost & Sullivan Asia Pacific ICT Awards

Telecom Cloud Service Provider of the Year (2012, 2016)

### Frost & Sullivan Best Practices Award 2017

Singapore Managed Cloud Service Provider of the Year

### IDC MarketScape in Asia Pacific 2013

A Leader for Datacenter and Hosted Cloud Services

### NetworkWorld Asia Readers' Choice Product Excellence Awards (2013)

Managed Infrastructure Services  
Cloud Infrastructure Provider

### Telco Cloud Forum Awards 2016

Telco Cloud of the Year