



AWS WorkSpaces ‘desktops in a hurry’ ease Bega Cheese ERP availability challenge

The headlines in financial markets talked excitedly about Bega Cheese taking the Vegemite brand back to Australian ownership, but for the IT teams responsible for making the ownership transfer run smoothly, it meant there was much work to be done. During the finalisation of negotiations with Mondelez, a clear need arose to provision a Virtual Desktop Infrastructure (VDI) environment that could enable staff from the newly acquired MDLZ Grocery Business to securely access Bega Cheese’s systems.

A further complexity to allow a number of staff transferring to Bega Cheese, to access the respective ERP software systems of both parties during the transition phase, had to be successfully addressed.

The envisaged VDI environment would need to be able to be scaled up and down quickly and provide secure and stable access and the underlying architecture would need to mesh with Bega Cheese's existing technology environment. The platform needed to provide resiliency and availability, and enable further expansion as business demands increase without incurring any immediate overhead.

AWS WorkSpaces was deemed the 'perfect solution' and the proposed model had good appeal to the Finance team as it potentially provided an alternative to providing significant capital expenditure for purchases of desktop machines that could be adopted more widely across the business on a case by case basis.

The WorkSpaces Project was completed within 6 months

The key steps were:

- Conceptual and high level design of the WorkSpace architecture and integration with other key systems (such as Active Directory)
- Creation of a suitable Virtual Private Cloud (VPC) environment in which to instantiate the WorkSpaces with secure links to other organisational systems with which it shared dependencies (DNS, WSUS, AntiVirus etc)
- Create and test Automated Code systems to ensure the full benefits of a 'devops' environment could be realised for this critical infrastructure
- Standardised Operating Environment (SOE) conformant image tailoring and documentation

The Project outcomes

- Instantiation of 220 AWS WorkSpaces has been the largest single AWS WorkSpaces cluster ever in Asia PAC
- The business was fulsome in its praise of the outstanding result and seamlessness of the transition
- Staff fell in love with WorkSpaces and their high uptime de-risked connection loss with production systems due to any internet disruption experienced at Bega Cheese's geographically dispersed factory locations. Additionally the high data transfer rates to other cloud systems proved a welcome surprise in comparison with linked on-prem systems.
- Costwise, there was a significant saving on physical infrastructure
- Solution testing in the virtual environment was greatly simplified in comparison to carrying out equivalent analysis on physical systems
- Bega Cheese enjoyed the more general benefits of using WorkSpaces
 - Reduce the costs and administration effort involved in the typical enterprise desktop (so called thick clients) refresh cycle (e.g. typically 3 yearly)
 - Transition to a thin client device environment. Thin client devices cost less, can be readily standardised, and require less installed software.
 - Deliver, in an increasingly thin client environment, improved mobility characteristics, potentially reduced space consumption and lowered maintenance overheads for retained physical computer hardware assets.
 - Free employees to use a wide range of secure mobile and remote devices to enable more flexible employment arrangements including working from home
 - Empower field staff with greater access to high value software and/or data that would normally require physical access on allocated Bega Cheese office desktops

The working relationship between 2pi Software and Bega Cheese in respect of AWS

Bega Cheese Amazon AWS VPC creation and set-up and WorkSpaces deployment

Bega Cheese is an enterprise undergoing rapid transformation due to flux in the agricultural sector, and recent acquisitions and divestments in their business. Towards modernising their IT infrastructure, adoption of the Infor ERP solution, and the need to cover an increasing geographic area with offices right across Australia and overseas, a decision to migrate significant portions of their traditional physical server and desktop infrastructure to the AWS cloud was taken. 2pi Software are assisting with this and have contributed to this process in several ways:

- Oversight of AWS management and implementation
- Design of the AWS cloud architecture
- Drafting and adoption of Best Practice cloud infrastructure support policy documents
- AWS Cloud Training
- Migration of costly physical systems to the tailored AWS environment including a number of high profile websites, for instance the Vegemite.com.au website.
- Cost management and reduction through 'right-size' selection of AWS virtual instances and auto-scaling enablement as a low cost solution to 'demand spike' control
- Implementation of the WorkSpaces VDI (virtual desktop infrastructure)
- Automation of virtual system and network creation and configuration using using AWS tools, third-party tools and custom scripting

Bega Cheese Amazon AWS Automated website cluster Devops Implementation

Taking full advantage of the power of the Infrastructure As Code capabilities available on the Amazon AWS platform, 2pi Software successfully migrated a cluster of Bega Cheese websites (i.e. Vegemite, Bega Cheese, Bega Bio, Bega Food Service, Tatura) to Amazon AWS from traditional on-premises environments.

As a scalable, secure and resilient cloud platform, Amazon AWS is the ideal environment in which to ensure that these high-profile marketing assets comfortably meet high web traffic demands, are cyber-attack resistant, and are supported by sound disaster recovery policies and practices.

The migration benefited significantly from adoption of the Infrastructure as Code approach, including usage of Cloud Formation Templates, delivering high-levels of workflow automation for the purposes of site instantiation in addition to ongoing updates and maintenance. Additionally Bega Cheese websites now adhere to a series of standardisation requirements which ensure consistency of site implementation across multiple business units as well as centralised management of key intellectual property such as domain names and DNS routing.

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