Bendigo Community Telco Turns to IBM for Effective Network Service Assurance, Control

Executive Summary

Service growth is a "good problem to have" by most accounts; however, growth does not come without real challenges. Operational support systems that are adequate at one point in time may not be up to task when subscriber growth reaches the next level. They may also be unable to support new demands, such as regulatory compliance. When growth and change become disruptive, threatening service quality and customer satisfaction, the time may be right to move towards integrated, automated, modern OSS solutions. This ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) case study examines how one provider, Bendigo Community Telco, reached such a decision point, how a transition to IBM's Tivoli Netcool solutions met its needs today and put the operations team in position to be ready for what comes tomorrow.

A Different Sort of Telecommunications Company

Most telecommunications companies arise based on a business opportunity for delivering communications services at a profit. These organizations focus on leveraging technology to provide profitable services at competitive levels of cost and quality. Bendigo Community Telco shares many of those same objectives, but has a much different history than the typical service provider.

Bendigo and Adelaide Bank recognized that in order to serve a healthy and growing regional community, it needed to take steps to facilitate stability and growth in the local economies it served. While physical infrastructure remains the domain of local government, the bank recognized that it could leverage its operational expertise in networking and communications to modernize the communications infrastructure and provide a level playing field for regional businesses and communities, allowing them to prosper alongside large urban centers such as Melbourne and Sydney.

The result was Bendigo Community Telco, which was founded with the mission to deliver high-quality, cost-effective telecommunication services to the city of Bendigo and beyond. By pooling the needs and demand of local communities and businesses, Bendigo Community Telco has found the leverage it needed to establish a world-class communications network that could more effectively mediate with national and multinational vendor suppliers and communications providers.

Bendigo Community Telco now services banks and other businesses across the entirety of Australia, providing a mix of fixed and mobile services. Most popular is its managed MPLS Private Network service, provided to organizations needing as little as a single link to those with over 2000 end points. True to its original vision, Bendigo Community Telco serves nearly 80% of businesses in the Bendigo region.

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EMA spoke with Matt Hillman, manager of technical innovation for Bendigo Community Telco. "We are very serious about delivering high-quality services," he said. "When you are a community provider, you are responsible for the health and growth of your city and your customers. We all want a vital, successful community, and it is our role to do what we can to make that happen."

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The Challenge

In its early days, Bendigo Community Telco managed its network and services using a mixture of open source and "in-house" tools. That was fine for the first few customers, but began to fall short of needs as growth continued. "The open source tools were working, but they weren't scaling. We realized that we could not afford to keep hiring expensive engineers with each new customer we added," said Hillman. "We needed automation within our management tools to help us scale up, to deal with a growing volume of operational events, and to get ahead of service-impacting situations."

The situation became more urgent when Bendigo Community Telco landed a very large customer contract. "That was the tipping point," continued Hillman. "We came quickly to the conclusion that we had to make a move towards a proper service assurance solution. We could not afford to drop the ball and risk missing our service quality targets. You can't buy back brand damage easily, and everyone here understood that we were putting ourselves up against the best-known telecoms providers in the country, so we needed the best possible answer."

Bendigo Community Telco was also faced with a new set of compliance requirements in the form of PCI regulations. "We knew for a while that (PCI) was coming, but this was also something we could not handle with our current tools," said Hillman. "People don't care how big or small you are, they expect all the same bells and whistles (within their telecoms services)."

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The Solution

Bendigo Community Telco needed to move quickly to put itself in position to meet the needs of its expanding business. Following the guidance of its technology provider partners and a quick review of solutions available in the market, the team chose IBM's Netcool OMNIbus, Netcool Impact, and Tivoli Network Manager, IP Edition. Deployment of these solutions was completed in 2008, and IBM Tivoli Netcool Configuration Manager (ITNCM) was added to the deployment late in 2011.[1]

"Our initial deployment went very smoothly," stated Hillman. "Our systems integrator planned and executed the rollout in less than 2 months from start to finish. Since that time, we've continued to grow nonstop. As a result, we have had to revisit the initial designs, and expand the monitoring tools a couple of times."

The team has seen all of the results they expected, and then some. "The alert management has been top notch," said Hillman. "Overall, the system has allowed us to keep pace with growth without sacrificing quality. Without Netcool, that would not have been possible."

The recent deployment of IBM Tivoli NCM has been an important incremental step for the networking team. "Before we deployed ITNCM, we were using an enterprise-type, low-end tool, but it was disconnected from the rest of our management tools and processes. Plus, there were no means to support multi-tenancy," said Hillman. "We were surprised by the richness of ITNCM features. We really love the auditing logs and the granularity of role-based controls. The compliancy auditing is very

[1] IBM has since introduced (late 2011) a new offering, Netcool Network Management, which includes all of these components in a single solution.

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powerful as well, allowing us to define, directly monitor, and receive alerts to any changes that knock devices out of compliance."

ITNCM has become an essential part of Bendigo Community Telco's PCI compliance capabilities as well. "Once again, the auditing features were essential here," continued Hillman. "With the ability to regularly run audit checks we could prove that we were adhering to compliant configuration templates. The compliance reporting was also very easy to build and rollout."

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Finally, the workflow engine and API within ITNCM has helped mitigate the impacts of growth. "Originally, we were only adding a few new private network customers each year," said Hillman. "Now we are deploying almost 10 times that number. We have turned to the workflow engine to orchestrate the provisioning tasks, lining them up with approvals, and automating the dozens of device touches needed to define and provision an MPLS link across the country."

Looking ahead, Bendigo Community Telco expects to gain more value out of its investment in the IBM solution. "With the depth of APIs and orchestration possible, we see lots of possibilities for using ITNCM even more broadly than we are today," related Hillman. "We will be steadily migrating manual, business-as-usual processes into automated, orchestrated workflows, so we can hand more tasks directly to the support and provisioning teams. This sort of approach will be essential as we continue to expand our growing wholesale business."

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EMA Perspective

Enterprise Management Associates research consistently underscores the ongoing need of integration and automation in the management technologies tier. If done correctly, the result paves the path for providers to support subscriber growth without risking service quality. And even further, properly integrated, automated management tooling can open the door for expanding the service portfolio efficiently, effectively, and with minimal risk to existing service capacity and quality. Bendigo Community Telco's experiences with the IBM Tivoli Netcool portfolio are an excellent example of just such a case.

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