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N E T W O R K S

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CaseStudy

Symbio Networks' VoIP Service Grows Rapidly in Australia and Beyond

Credits Success to Voice Quality, Engineering Expertise, and Leading-Edge Products Such As the Dialogic IMG 1010 Integrated Media Gateway

⚠ CHALLENGES

By focusing on excellent voice quality, engineering expertise, and service development, Symbio Networks has become the leading provider of wholesale VoIP and managed VoIP network services in Australia and New Zealand. To make VoIP a success, Symbio required gateway functionality, but more importantly, it needed to process calls from customer networks with a wide variety of codecs and packet sizes.

💡 SOLUTIONS

Since 2006, Symbio has been using the Dialogic IMG 1010 Integrated Media Gateway to handle legacy network interconnects as well as codec mismatches while delivering high voice quality.

The Customer

Based in Sydney, Symbio Networks is a privately held Australian company, incorporated in 2002. Symbio specializes in designing, deploying, and managing next-generation networks for the highly competitive telecommunications market in Australia and the Asia-Pacific region. By leveraging its state-of-the-art voice and data network, Symbio allows Service Providers, Carriers, and Operators to deliver innovative and feature-rich converged services to its customers. Over the years, Symbio has built a team renowned for its expertise, experience, and specialist knowledge in providing managed services, systems engineering, and software development.

Business Challenges

Symbio Networks is a leading provider of VoIP services for carriers and service providers in Australia, New Zealand, and the Asia-Pacific region. With its rigorous attention to voice quality and experienced technical staff, Symbio has the perfect ingredients to make VoIP a success.

Led by managers with an engineering background, Symbio is providing a wide range of solution options for its customers while it constantly moves forward into leading-edge next-generation networks and converged services. For example, Alastair Slattery, Manager of Wholesale and Business Development at Symbio, knows Symbio's network and the business of VoIP "inside and out." It's an exciting time, and Slattery tells of an intriguing demonstration he witnessed at a recent trade show. "I wouldn't be surprised if today's equipment went away altogether, and we talked with holograms in the room instead," he speculated.

But right now, seven years after its inception in 2002, Symbio has a growing business in three areas: wholesale VoIP, Managed VoIP Platforms (MVP), and service development. In its wholesale business, Symbio carries VoIP traffic on its network for a broad range of carriers and operators – from large tier 1 international carriers to domestic tier 2 and 3 aggregators. Symbio sets up a direct Ethernet link to its wholesale customers, and they handle the connection to their subscribers.

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Symbio is also justly proud of its MVP business. In this case, Symbio not only handles VoIP traffic, but also provides back-office functions such as billing. Finally, Symbio develops converged services and is constantly exploring and adding new technology for its customers. For example, recently Symbio added "naked" ADSL support, which allows its MVP customers to detach their end customers from traditional carriers and enjoy complete VoIP service, paying only their ISP and VoIP bills each month.

To make its many VoIP solutions work as seamlessly as possible for its customers, Symbio's engineering team must choose the best network equipment to deal with the wide variety of legacy TDM networks that are still in use and the various mismatches within VoIP technology.

The Solution from Sangoma

One component, which delivers critical functionality in Symbio's diverse VoIP solutions, is the Dialogic IMG 1010 Integrated Media Gateway. Symbio originally used Dialogic Converged Services Platforms (CSP) for voice switching and as a base on which to run proprietary call control applications. When the IMG 1010 became available in 2006, Symbio began deploying it extensively in its VoIP solutions. According to Slattery, "the flexibility of the IMG gives us an edge in our market." Voice quality is extremely important in VoIP, and the IMG 1010 delivers "excellent" voice quality, and also T.38 fax support. "T.38 is a big challenge, and not many gateways do T.38 fax well." But Slattery reserves his highest praise for the IMG 1010's media handling.

"Where I think the IMG excels," says Slattery, "is in its media capabilities and the choice it allows us to offer to our customers in this area. In VoIP, different operators have preferred codecs and packet sizes, often because of the limited bandwidth available to them. The IMG lets us interconnect two parties without forcing customers to compromise and use a different codec. Because the IMG supports such a broad range of codecs, invariably we can say 'yes, we support that' when a customer asks for a particular codec."

Because of the outstanding results that Symbio has been receiving with Dialogic products, its engineers are now testing the Dialogic MSP 1010 Multi-Services Platform for call control applications when a higher level of control and advanced media processing functions are required.

The Results

Symbio's wholesale business is growing rapidly, in part because Symbio's customers "don't need to manage circuit-switched networks when sending traffic to us via VoIP. They can send us all their traffic via SIP, and we will terminate the traffic on the TDM network with the help of the IMG1010."

Serving the Managed VoIP Service Customer

Slattery points to the important role that Symbio has played in the success of one of its MVP customers, MyNetFone, the first VoIP-only service provider on the Australian stock exchange to become profitable — and only two and a half years after IPO.

"We have about 20 million people in Australia, with about 70% broadband coverage. Price is an issue here, but cost alone will not attract subscribers. Providers with the best features have the best take-up, and we have created many outstanding software services that are helping drive MyNetFone's success. For example, a call sent to a MyNetFone subscriber's home phone can be set to ring on a mobile or an office phone — and all this is managed within Symbio's network.

"And now we are helping MyNetPhone enter the SME market. Along with enabling SIP trunking service for them, we have written a portal that eliminates the need for business customers to have IP-PBXs on their premises. All the intelligence is within Symbio's network, and a customer simply connects to a web portal for VoIP services."

Further Expansion into the Future

With its solid VoIP footprint from Perth to Sydney to Melbourne to Auckland, Symbio is enjoying great success in Australia and New Zealand and is now expanding its reach internationally, especially in the Asia-Pacific market.

"We are seeing major carriers all over the world moving to an IP core, partly because this is the only way to deliver important new converged services," says Slattery. "With our excellent engineering staff, which has been solving the problems of VoIP from the days when VoIP first became commercially viable, and with solid components from partners like Dialogic, we are continuing to expand and are ready to embrace the promise and the challenges of an all-IP future."