

Significant Savings for Not-For-Profit Aged Care Facility with Cisco Unified Wireless

EXECUTIVE SUMMARY	
CUSTOMER NAME	<ul style="list-style-type: none"> Samarinda Lodge
COUNTRY	<ul style="list-style-type: none"> Australia
INDUSTRY	<ul style="list-style-type: none"> Healthcare
BUSINESS CHALLENGE	<ul style="list-style-type: none"> Inefficient resident-to-staff communications Inefficient staff-to-staff communications Unable to scale for more users
NETWORK SOLUTION	<ul style="list-style-type: none"> Cisco Unified Wireless infrastructure, running Vocera Communications System
BUSINESS VALUE	<ul style="list-style-type: none"> Better resident-to-staff communications produce savings of AU\$65,000 Improved staff-to-staff communications Secure, high performance network

Investment in a Cisco Unified Wireless infrastructure solution provides time savings and expansion possibilities for aged care facility Samarinda Lodge.

Company Description

Situated in Victoria, Australia, Samarinda Lodge is a fully accredited, not-for-profit aged care facility, providing essential, round-the-clock care to 40 residents.

Samarinda aims to enhance the quality of life of the aged in the local community by setting standards of excellence in residential care, with a special focus on individual and personalised attention.

“Communication has long been recognised as a critical factor in healthcare - there really are few service organisations that require the extensive degree of interaction between staff members as is required a healthcare environment like Samarinda’s,” explained Ms. Tanya Connor, Chief Executive Officer (CEO) of Samarinda Lodge.

“So while we ensure ongoing education and training to maintain standards of care that are always reflective of contemporary best practice principles, we also believe that keeping up with technology is an integral step in the process of providing excellent care,” said Ms. Connor.

Business Challenge

Inefficient resident-to-staff communications

According to Ms. Connor, responding to resident needs was often an inefficient process, as the traditional nurse call system did not afford staff the opportunity to prioritise resident requests appropriately.

“In a situation where two staff members are required to attend to a resident’s care needs, they may not be able to immediately respond to another resident’s call, thereby causing concern to the resident that the call may not have been heard. If a nurse

responded over two-way communication to say, ‘I’m with Mrs. Jones right now, I’ll be with you shortly’, it would set the resident’s anxiety at rest. That’s often all that’s required, and our traditional communication system could not cater to that need,” she said.

Apart from having challenges in dealing with residents’ needs quick and efficiently, the old system of walkie-talkie communication often meant that nurses had to carry out duties with a heavy ‘tool belt’ attached, said Ms. Connor. Bulky communication devices made the care of residents who often needed physical assistance awkward and uncomfortable.

Inefficient staff-to-staff communications

With a walkie-talkie system that did not provide private lines of communication, Ms. Connor often encountered

difficulties in exchanging information with specific individuals or groups of staff. “I would sometimes need to speak privately with certain people, but found it difficult over the system. I would then have to search for staff and speak with them face-to-face, which created daily disruptions in their schedule and mine.”



Hands-free communication made possible by the Cisco Unified Wireless Solution

“The whole process was seamless. We were very pleased with the implementation. We didn’t encounter any major issues thanks to the professionalism and support provided by the technical teams.”

- Tanya Connor, CEO, Samarinda Lodge

Unable to scale up for more users

The legacy PABX phone system employed by Samarinda, according to Ms. Connor, also created limitations to future plans for expansion. “While moving into home care and independent was a rather attractive option, we realised that whatever plans we had for expansion would be limited by a communications system that wouldn’t be able to scale easily or cost-effectively,” explained Ms. Connor. “We were aware that expanding on communications would require a tedious process of installation and re-configuration, which would no doubt cost us dearly in time and money.”

According to Ms. Connor, the inefficiency of internal communications and the significant expansion costs served as obstacles to growth. “We realised the deployment of leading-edge technologies in our infrastructure was a necessity above all else. So when the Cisco Unified Wireless Solution was offered to us as part of Cisco’s Connected Real Estate infrastructure, we took the opportunity to resolve the current problems and move into the next phase of development.”

Network Solution

Samarinda’s ongoing search for a communications solution led to the discovery of the Vocera Communications System in February 2007. The solution included the software and communications badges, and a set of applications that worked on the Cisco wireless platform to provide hands-free voice communications.

After a careful evaluation of various vendors’ solutions, Samarinda decided upon the Vocera system and Cisco’s Unified Wireless solution to provide the mobility support for Vocera. “Cisco’s solution had the availability, security and mobility we were looking for in a secure and trusted environment. We understood these factors as essential in contributing to lowered total operational costs. Our experience since implementation has proven that Cisco does deliver,” said Ms. Connor.

Within two months, the network and related applications were up and running. “The whole process was seamless,” said Ms. Connor. “We were very pleased with the implementation. We didn’t encounter any major issues thanks to the professionalism and support provided by the technical teams. There were also no problems integrating the wireless infrastructure with the Vocera application.”

Apart from providing a backbone for the use of Vocera badges, the wireless IP infrastructure also made possible the use of IP phones for all residents. In each resident’s room, Samarinda had Cisco 7921 IP phones with speaker capabilities installed to cater to their communication needs.

New and interesting services can potentially be added onto the network infrastructure in the future, such as wireless security cameras, the ability to control lighting and ambient controls from the IP phone, and the easy delivery of video-on-demand and high-speed Internet access throughout the facility. Known as a Cisco Connected Real Estate Infrastructure, the network essentially becomes the fourth utility, becoming as indispensable, and as ubiquitous as water, electricity and gas. “The wireless infrastructure is just the first step,” continued Ms. Connor.

Business Value

Better resident-to-staff communications produce savings of AU\$65,000

Among the most noticeable and immediate benefits of the new solution, said Ms. Connor, was an improvement in response to resident needs.

Response times to resident requests were invariably improved, as calls from the resident could go directly to the care provider’s Vocera badge. Requests, if not acknowledged or responded to, would be escalated as defined by the facility.

The wireless IP system also enabled two-way communication between care staff and residents, with carers calling residents directly via their Cisco IP telephones. This allowed caregivers to clarify the urgency of requests, helping them prioritise their duties accordingly. “Being able to verify requests by residents has been a huge help to care staff,” explained Ms. Connor. “For instance, knowing the resident was requesting food would allow a carer to make a quick detour to the kitchen and deliver the item to the resident. This process was vastly preferable to making the trip to the resident’s room, leaving to get the item requested, then returning to the room to serve it to the resident.”

“This solution has created huge savings for us,” said Ms Connor, “I would estimate that the time savings as a result of the Cisco and Vocera solutions would be in the vicinity of AU\$65,000 a year.”

Improved staff-to-staff communications

Serving as the backbone for 3rd-party applications has made the Cisco Unified Wireless infrastructure a boon to communications between staff at Samarinda.

“When a live conversation is not necessary or possible, text messages and alerts can be sent to the LCD screen on the back of the Vocera Communications Badge, and my staff can access it when they have the time or when they come to the office the next morning,” explained Ms. Connor. “It acknowledges the fact that my staff are not always available to respond to my requests,

while making sure that my message is still passed on and will be answered at a more convenient time.”

Apart from enabling the merger of data and voice on a single network, the Cisco IP infrastructure has also allowed private lines of communication between staff. “Unlike the old walkie-talkie system, it’s now possible for me to contact particular user groups or individuals, and hold private conferences with them.”

Finally, the re-assignment of duties was made more convenient – Vocera badges allowed the automatic re-direction of calls to other available staff if a caregiver was busy, or absent from work. The system is clever enough to know to re-direct the call to the next available person on the network,” explained Ms. Connor. “It makes the allocation of duties far more efficient, while making sure our residents are attended to and well cared-for.”

Secure, high performance network

With data that can now be encrypted over the wireless IP network and a firewall that protects its perimeters, users at Samarinda can enjoy conversations that suffer no interference from the outside environment.

Management of the network has improved as well. The Cisco network provides a “single-view” of all the devices on the network, giving administrators a fast and efficient way to identify bottlenecks, potential problem areas, or make configurations without the need for physical rearrangements of infrastructure. The same network will be able to cater to the expected growth of the organisation, and the addition of new services that will integrate into the network’s using open-standards links.

By providing functional scalability, the Cisco infrastructure has created savings for Samarinda. “Our IT support requirements are now far less rigorous,” Ms. Connor said. “We don’t have to worry about the needs for constant maintenance and

re-configurations every time new devices are added. It has definitely reduced our IT budget.”

Future Plans

The new scalable network has enabled plans for expansion. “We are now far more confident about embarking on possible plans for growth,” she explained. “With the new infrastructure, adding more end-user devices and applications is not a problem. We can think about moving into new areas of aged care, while expanding on our current services without worrying about the need to make tedious accommodations for the growing number of users and the communication demands of new services.”

With the successful deployment of Cisco’s wireless infrastructure, Ms. Connor is confident that the network will carry Samarinda through plans for enhanced mobility of staff throughout the organisation. “We are hoping to implement an application that will allow nurses to send back reports on residents from wherever they are on site,” she said. “The database on resident information can be automatically updated, and information is sent and received quickly and easily.”

Samarinda is also planning to use the location-based services of the Cisco Unified Wireless Network for asset tracking and to pinpoint resident locations, enabling them to streamline care services while expanding into new areas. “We are looking at investing in Frequency Identification (RFID) tags, which particular residents could wear. Riding on the wireless network, it helps us track residents wherever they are, which improves safety, and is especially useful if we were to expand into offering independent living units. If the residents were away from their rooms, we could still continue to deliver medicine or any other form of care effectively,” said Ms. Connor.

For more information

To find out more about Cisco Unified Wireless Solution, go to: www.cisco.com/go/unifiedwireless

To find out more about Samarinda Lodge, go to: www.samarinda.org.au



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