

onair

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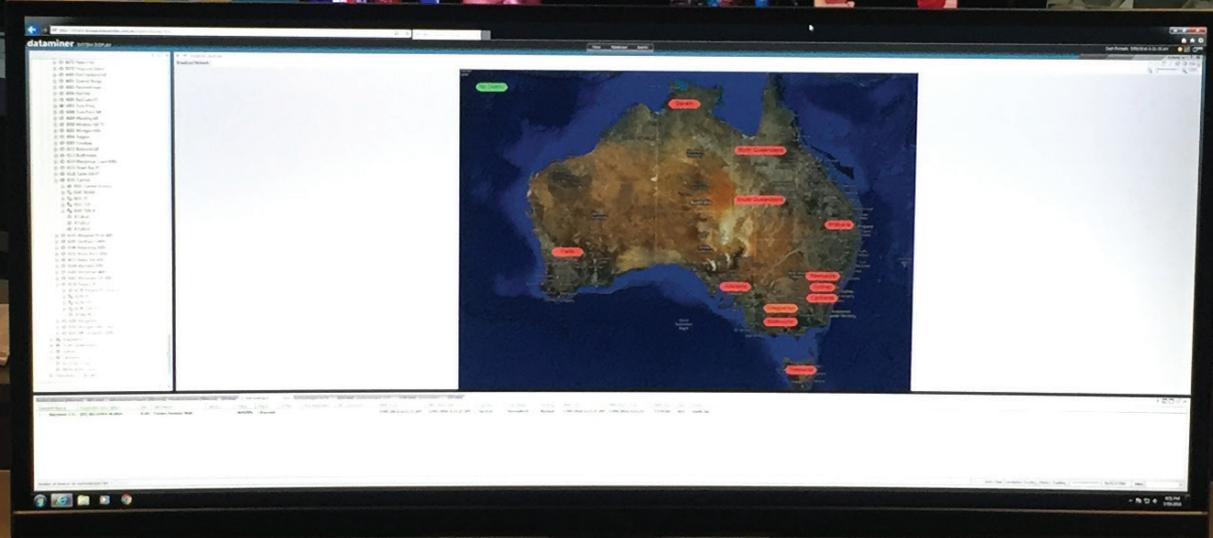
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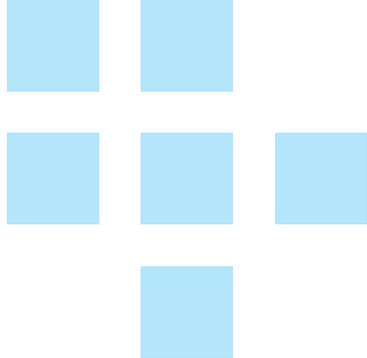
FEATURE

WILD WEATHER NO MATCH FOR BROADCAST AUSTRALIA TEAM

South Australia kept in the know



South Australia's wild weather no match for Broadcast Australia team



Broadcast Australia faced its biggest challenge to date after a 1000 kilometre storm front hit South Australia on 28 September 2016, resulting in a state-wide power outage.

The weather system, which saw approximately 80,000 lightning strikes recorded, took out 22 electricity network towers carrying 275Kv power lines after being hit with twin tornadoes. The damage impacted 200 television and radio services across 45 sites in South Australia.

Broadcast Australia's team has faced a number of natural disasters such as floods and bushfires; however, this was the first event which saw power affected across the entire state. Within minutes the team had sprung into action to limit the impact to the network and ensure stakeholders and the community would continue to have access to timely information.

Cooperation and ongoing information sharing between the National Operations Centre (NOC) and field staff were key to keeping broadcasters informed and 'on air', plus providing ongoing updates regarding plans to restore services to areas without power.

Broadcast Australia Operations Manager Sash Petreski said the team's coordinated response resulted in stakeholders receiving regular reports and updates on the status of every single service across South Australia.

"Information was particularly dynamic throughout this period," Mr Petreski said.

"However with the local team and NOC working together and utilising the telemetry that was being gathered, we were able to provide timely reports on every single service within the state to our stakeholders.



Broadcast Australia Operations Manager, Sash Petreski



It's been fantastic to receive positive feedback from stakeholders on our responsiveness...

"Providing regular updates allowed stakeholders to keep the community in the know about when power was expected to come back on, and be kept up to date with ongoing weather warnings.

"We had a number of Broadcast Australia staff who volunteered extra time and gave up scheduled leave to continue working to make sure our services were operational and that stakeholders such as ABC News and the Department of Emergency Services could continue to get information out.

"Our team always works well together, however this situation really highlighted the unity of the entire Broadcast Australia team and its commitment to ensuring the community always has access to key information – even under the toughest of circumstances.

"The sheer size of this weather event was one we hadn't seen before, and the team will be taking the lessons learned and strengthening our critical response procedures even more. It's been fantastic to receive positive feedback from stakeholders on our responsiveness and overall management of this event."

The storm front wasn't the only challenge facing the team, with the wild weather continuing for another two days, cutting off access to some Broadcast Australia sites due to fallen trees and flood waters.

Broadcast Australia's network stood up extremely well during the events with the only major damage recorded at Mt Olinthus, where a direct lightning strike destroyed the phone lines, power meter and two pole mounted electrical supply transformers.

Broadcast Australia South Australia District Supervisor Paul Pyatt said the weather event highlighted the importance of keeping Broadcast Australia's stakeholders informed, so they could do their job of keeping the community informed.

"Everyone knows the important role local TV and radio play during significant weather events to keep people informed, prepared and out of harm's way," Mr Pyatt said.



“Our real challenge came two hours after the initial power outage once the Optus and Telstra networks began shutting down as battery power ran out – this made communicating with people in the affected areas impossible.

“Once communication was lost with our Adelaide office, our First in Maintainers (FIMs) were committed to making sure sites in their local area were ok and that the generators had enough fuel to keep running.

“Pimpala MF saw the lunch room quickly turned into the main “control centre” for the district to monitor the 891 Local Radio service, digital radio and television services during the event to facilitate planning, co-ordinating and reporting.

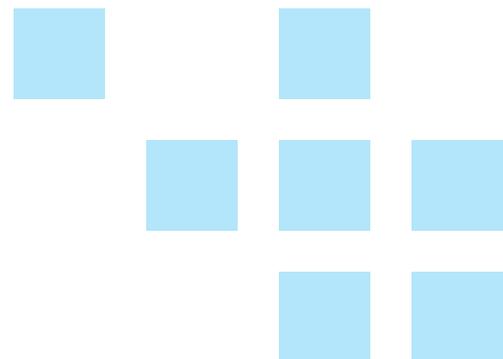
“We also had Broadcast Australia staff manning Mt Lofty and Pimpala MF sites for the duration of the outages in Adelaide while the generators were running, with staff also ensuring Crystal Brook MF stayed ‘live’ as it is the backup ABC Local Radio service to Pimpala MF.

“This event really highlighted the capability of Broadcast Australia’s services and its team. When broadcasters aren’t contacting you for information on what’s happening with the services, you know you are providing timely and relevant advice.”

Broadcast Australia received great feedback from broadcasters regarding regular updates and information sharing which contributed to keeping South Australia informed and ‘on air’ during this state-wide weather event.



Broadcast Australia South Australia District Supervisor, Paul Pyatt





Telecommunications Infrastructure – A New Paradigm

By Malcolm Keys, Director BAI Communications

Modern lives are lived online. People expect high speed and uninterrupted connectivity, whether at home or on the move. Telecommunications networks are increasingly viewed as an essential pre-requisite of modern life, with fast data speeds and seamless connectivity underpinning productivity while enriching people's personal and professional lives.

However, some places have traditionally been an exception to this trend of increasing connectivity, with public transport networks and large scale venues with a lack of connectivity being identified as a key issue that impacts customer satisfaction.

Telecommunications infrastructure also brings the added challenge of exponentially rising demand for data, continuous technology upgrades, and constantly evolving uses for networks. Deploying a network that can not only meet the demands of today but is flexible enough to meet the demands of tomorrow, is costly.

A new model has emerged; promoting private investment and one which allows government agencies to focus efforts on core functions, while at the same time preserving public funds. This model also allows specialist third parties to work with public bodies to manage the commercialisation and operation of infrastructure.

Key to the success of this model is alignment of incentives; governments and public authorities must ensure these third parties are committed to providing high service levels to all people, so that the commercial benefits of the infrastructure are shared by all.

An example of the private sector delivering new infrastructure at no cost to the taxpayer would be the deployment of wireless telecommunications infrastructure in the New York subway. BAI Communications (BAI) is delivering a high quality, high availability network that benefits the passengers who use the iconic Subway to the tune of 1.6 billion journeys a year.

This significant investment is funded and delivered entirely by BAI via its subsidiary Transit Wireless, committing hundreds of millions in capital in exchange for a 28-year licence to operate and commercialise this infrastructure.

Return on investment is driven by the users of this network, with a high capacity common network backbone utilised for multiple applications (e.g. public cellular, Wi-Fi, Help Points). In addition, the Metropolitan Transport Authority (MTA) will take part in the commercialisation of telecommunications assets on their network and the revenue streams they generate, receiving an annual revenue distribution.

**BAI Communications
is delivering a
high quality, high
availability network
that benefits the
passengers who use
the iconic Subway...**

BAI manages the unique challenges that deploying equipment in complex environments brings, while also operating and maintaining the network on behalf of all of its users (the Transit Authority, government agencies, and all four Mobile Network Operators) at no cost to subway users or the government.

By the end of 2016 all 278 underground stations will have full cellular and Wi-Fi coverage, and we expect the massive increases in network usage to continue well into the future. From the underground and beyond, this tested commercial model provides endless opportunities to improve people's ability to communicate.

Broadcast Australia appoints new Chief Technology Officer

Broadcast Australia has appointed Stephen Farrugia to the role of Chief Technology Officer (CTO), following his highly successful five-year tenure as General Manager – Engineering.

As CTO, Stephen's focus will be on new technology and the implications for the industry and organisation. He will also be providing a greater range of advice to the executive team and BAI Communications Board on technology matters.

A key member of Broadcast Australia since its inception, Stephen was instrumental in the business' transition from government agency through to private ownership, and has spearheaded key programs including the terrestrial digital roll-out, options for use of the Digital Dividend and the Spectrum Restack program.

Mr Farrugia said he was looking forward to commencing the new role, and was particularly excited to re-engage with the industry on new technologies which industry could embrace.

"It's been 17 years since I first started at Broadcast Australia, and I can't wait to get the next chapter of my career underway," Mr Farrugia said.

The rate at which consumer technologies are becoming available is greatly increasing, and it's vital for the industry to be across the changes and understand when and what to implement.

Stephen's 17 years' at Broadcast Australia included a consultancy role with UK communications infrastructure company, Arqiva, to provide senior level guidance to the Digital Switch Over (DSO) Design team, assist with the integration of the Arqiva and National Grid Wireless DSO teams and conduct a procurement review for high power transmitters in 2008.

Broadcast Australia welcomes Stephen to the role of CTO, Broadcast and his continued involvement at the forefront of broadcasting on behalf of the BAI Communications group.

I can't wait to get the next chapter of my career underway...



Broadcast Australia Chief Technology Officer, Stephen Farrugia

FIVE MINUTES

with
Josh MacKinnon



*BAI Director - WiFi Technologies,
Josh MacKinnon*

As BAI's Director - Wi-Fi Technologies, what goals have you set for yourself in this role?

My primary aim is to develop cutting-edge Wi-Fi solutions that allow for greater capacity, speeds and reliability for the clients we serve. Bettering the customer experience is extremely important in the work we do. In my role, I've set out to evangelise BAI Communications to the world as well as cross-pollinate our innovative technological solutions across business units.

What are the biggest industry changes you have seen in the past 5-10 years?

Telecommunications is a continuously evolving industry, with no end in sight. Some of the biggest changes I've witnessed in this industry involve the sheer magnitude of technological integration in every aspect of our lives. Technology shapes the human experience. With that, there are limitless opportunities to develop applications that help people do things previously thought impossible.

Being able to keep in touch with all five of my children while I'm away from home, has been completely enabled by recent technological advances in this field. Many of the applications that didn't exist a few years ago, now allow me to see my daughter get tucked in at night when I can't be there.

I've set out to evangelise BAI Communications to the world as well as cross-pollinate our innovative technological solutions across business units.

What approach do you take to challenges or issues when they present themselves?

Keeping up with an industry that's continuously advancing is a challenge all on its own. Being aware of new technologies and having a good understanding of trends in the industry can help predict certain challenges before they arise.

But when challenges do present themselves, I'm fortunate to be surrounded with such incredibly smart, committed colleagues to lean on for support. We really do harbour such great talent throughout this group.

What is the best advice a mentor has ever given you?

When I was younger I worked at a chain restaurant. My manager explained that the consistency of the food we served, was just as important as the quality. While I think that it's very important to build high performing networks, we must keep in mind that every time a user interacts with our network, they form an expectation for their next engagement. Much of the frustration that users experience when dealing with Wi-Fi networks is based on a lack of consistency in terms of performance. That is why our focus must be on building networks that perform well under all conditions. As praised by Metro News reporter Luke Simcoe in his 2015 investigative piece about public Wi-Fi in the city, "I log on to the TTC's Wi-Fi at Union Station. I'm pleasantly surprised to find you can access it from outside the fare-paid area. Throughout the day, TCONNECT proves to be one of the most reliable Wi-Fi networks in town."

We build in the niche transit market, which experiences consistent fluctuations in terms of network demands. We must ensure that these are our challenges to solve, not for our customers to accept.

Q Coney Island-Stillwell Av 1 min
 N Coney Island-Stillwell Av 4 min
 R Bay Ridge-95 St 6 min



09:39 AM ☁ 75 °F | Queensboro Plaza and Times Sq-42 St ● ● ●

NYC Underground subway stations on schedule for countdown

New York City subways are set to enter the digital age, following New York Governor Andrew M. Cuomo’s announcement that the Metropolitan Transportation Authority (MTA) has commenced trialling countdown clocks for the N, Q and R lines.

The 90-day trial sees initial testing occurring in eight stations across the lettered subways lines, with the view to install the clocks across all 268 lettered stations, if successful.

Governor Cuomo said these actions were the latest steps toward rebuilding and transforming the MTA into a unified, state-of-the-art transportation network that would meet the needs of current and future generations of New Yorkers.

“With this new and updated technology, we’ll help ensure riders have the information they need to get where they need to go,” Governor Cuomo said.

MTA Chairman and CEO Thomas F. Prendergast said Governor Cuomo had challenged the MTA to develop an aggressive approach to putting countdown clocks on the lettered lines, and the technology team’s response has been phenomenal.

“In very short order they developed an easy to deploy, cost-effective system that we think will play a central role in bringing this essential service to more and more of our customers. We look forward to learning from this test, as well as to developing a roll out plan based on our findings.”

Countdown Clocks – the how and where:

WHERE

- 23rd Street
- 28th Street
- 34th Street
- 42nd Street
- 49th Street
- 57th Street
- 5th Avenue/59th Street
- Lexington Avenue/59th subway stops

WHAT

Each location will be fitted with two countdown clocks with enhanced LCD screens. The screens will exhibit public service announcements and other commuter-relevant content.

THE TECHNOLOGY

Using the existing Transit Wireless network in each station, plus cloud computing, four Bluetooth receivers are placed in each station – two at either end of the platform. The platform receivers communicate with Bluetooth devices installed in the first and last cars of each train.

Arrival and departure time is calculated as the train enters and leaves a station, and this information is then displayed on the LCD screens at each station delivered through the Transit Wireless network.



TEST PHASE

During the 90-day trial, any issues with the system will be identified and corrected. The MTA’s goal is to evaluate the location data’s accuracy, optimize performance via the Transit Wireless infrastructure, performance of the LCD displays, physical and network security of Bluetooth devices, security of data being transmitted, and internal access and use of data being generated.



Farewells and festivities: a night at Bangarra Dance Theatre, Sydney

BAI Communications bid farewell to retiring Chairman Gerry Moriarty and treated key clients to an evening of festivities and culture, including a performance by Australia's leading Indigenous contemporary dance company, Bangarra Dance Theatre.

Group CEO Jim Hassell provided guests with an overview of BAI's global projects and recent achievements – not least of which is Broadcast Australia signing new 15 – 20 year contracts with the ABC and SBS.

Jim reflected on Gerry Moriarty's career and thanked him for his fine stewardship of BAI over the past 14 years. Gerry shared his key industry learnings with guests, drawing on his many years in the broadcast industry. BAI's Chairman Deena Shiff gave a brief address to thank Gerry and to thank BAI's customers for attending and taking the opportunity to build new and foster old relationships.

Guests were treated to a performance by Bangarra Dance Theatre...



Among the guests were Michelle Guthrie, Managing Director, ABC; Jim Spigelman, Chairman, ABC; Michael Ebeid, Managing Director, SBS; Rod Gilmour, Chairperson, NSW Telco Authority Board; Ray Owen, Head of Singapore, Philippines, Australia & NZ, Nokia Networks; and many others.

Guests were treated to a performance by Bangarra Dance Theatre, showcasing the troupe's current show, OUR land people stories, which had a successful season at the Sydney Opera House in June and is now making its way around the country and the world.



Subway Reads a hit in New York City subways

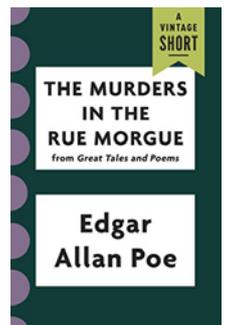
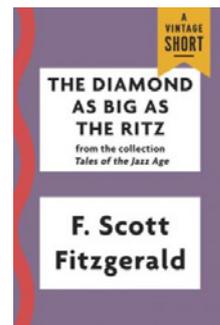
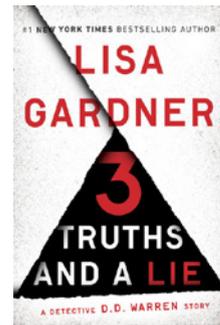
Wi-Fi access in New York City subways provided commuters with free access to a selection of e-books as part of the Subway Reads campaign.

The initiative by Transit Wireless ran for eight weeks, and was started after witnessing a similar e-book promotion in the London Underground. To celebrate wireless connectivity in 175 underground subway stations, Transit Wireless teamed up with Penguin Random House and the Metropolitan Transportation Authority (MTA) to get New Yorkers reading while they rode the subway!

Using Transit Wireless WiFi™, commuters could download a chapter or short story to read on the train. Riders could use their

travel time to assist with their selection – for example, selecting a 10 page read for a 10-minute trip. The site was available above ground as well, enabling readers to have access via www.subwayreadsny.com. The campaign also included more than 1,400 posters located in thousands of subway cars across the city promoting Subway Reads and the Wi-Fi network.

The authors and titles all had a New York centric tie-in, plus excerpts from a range of genres.



BAI Canada bolsters online access for commuters

Seven new Toronto Transit Commission (TTC) subway stations are now online, thanks to BAI Canada.

TTC commuters are able to access BAI's Wi-Fi network at Dufferin, Runnymede, Jane, St Clair, Eglinton, North York Centre and Glencairn stations – all via their smartphone, tablet or PC device.

Wind Mobile customers are also able to tap into the Wi-Fi network on their smartphones at an additional five new stations, including Keele, Ossington, Dufferin, Dundas West, Lansdowne, Downsview, Summerhill, Rosedale and Greenwood. A full list of Wi-Fi serviced stations is available at www.tconnect.ca.

How my job in tech is creative and like interior design

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Krishna Devarapalli's job is to bring ideas to life through technology. And she loves it. Technology provides the means for her to get creative in a fluid and agile way, and combine a fulfilling career with a young family and finding time for herself.

Working in a career that's taken her all over the world, she's the latest to answer our #womenintech Q&A.

Tell us about the kind of work you do and the career you're pursuing?

I am a software developer working at an Australian managed services and digital media company Hostworks. My role is to bring ideas to life through technology. My work is quite complex and varied, and while it sounds tech heavy, it's actually a very creative role that sees me work closely with clients to create new and exciting platforms for them.

More simply, I get under the skin of a brief through requirement gathering and consultation with the client to understand their needs. From here I plan and develop their application and software according to their desires and current market trends / standards.

What qualifications (if any) do you have that support you in this role?

I have a Bachelor Degree in computer science, and further post-university training in stakeholder and business management. My majors were project management and agile software development. On paper, there's no escaping I'm a techie.

Do you know any coding languages, is this relevant to your career?

Yes, several! I know PHP, MySQL, HTML, and Drupal. I also have experience in working with frameworks.

What's your proudest achievement so far in terms of your work?

I've had a few but my proudest would be when I was thrown in the deep end as a junior developer and managed to complete a big project on my own from start to finish. In this project I learned a lot while on the go, I also kept all the stakeholders happy which was an awesome feeling!

What made me proud is that typically in this type of environment there is a lead that guides the team, however in this instance, as this was a start-up brief, all the project requirements and development fell on me. There were many late nights involved and it was a struggle at times, but the end product turned out exactly as I had envisioned. This taught me to trust my intuition and to take on tasks that are daunting with courage. It was a big stepping-stone for me professionally.

How does technology enable you to do what you do?

Outside of work, arts and crafts are a huge passion of mine. Technology gives me the power to express myself and my creative side, in a very fluid, agile and undefined way. I see technology as a fantastic outlet to explore design and implement ideas.

Personally, it enables me to test new concepts and bring to life the ideas I create with my clients. It's unlike any other medium I've worked with as it's constantly changing and can be constantly changed. It really is a fantastic way to express and challenge yourself at the same time.

What do you want all girls and young women to know about careers in tech?

Two key things:

1. They're not boring!
2. And don't close your mind off to technology! The opportunities and role variances technology presents are numerous. There are plenty of ways to make it work for you.

Some people think that technology is an industry that focuses purely on numbers and that there isn't much creativity involved - the reality couldn't be further from the truth! Recently I was fortunate to enough to work on a music portal for the famous Vanda and Young song writing competition. As part of this brief, I was talking to musicians and well-known music icons about what they need in an online format to express themselves. To ensure everyone was happy I had to combine multiple visions with practicality, while keeping everything simple and attractive at the same time. Briefs like this make my job full of colour and design, and a little brush with fame is always a bonus!



...a career in tech doesn't mean you have to sit behind a computer all day.

I like to say that what I do is actually very similar to a career in interior design, but for the devices we use every day. I need to stay up to date with trends and coordinate where things should go, both from a usability point of view and style perspective.

I think young women also need to know is that a career in tech doesn't mean you have to sit behind a computer all day. Through my work with Vanda and Young I've come across some fantastic musicians who use technology to mix and create their music. The possibilities really are endless!

What do you personally do to raise your profile and voice as a woman in tech – use social media, speak, network, participate in industry events etc?

I use social media to network with people and I participate in events. I think getting out there and telling your story is really important so that people understand what's actually involved in software development.

How can we get more women speaking at technology-related events?

By creating more speaking platforms that showcase the many sides of technology. Technology is such a broad and constantly moving subject, but it often gets siloed as something boring. I'd like to see more examples of the incredible things people create with technology, especially women.

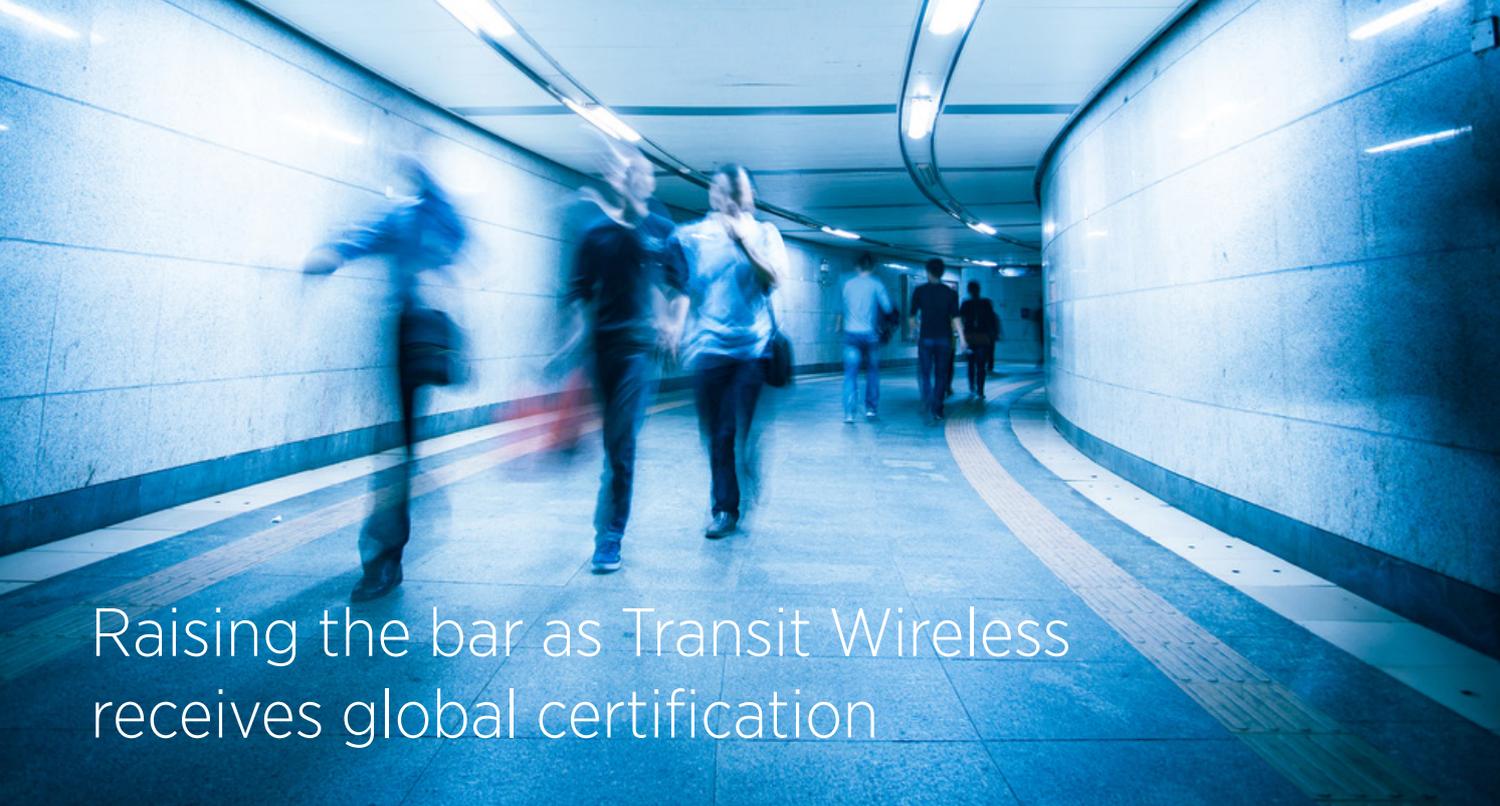
What does your 'daily juggle' look like?

My day starts bright and early by watching Sunrise at 6.30am – this is my me time and I absolutely love it! Once my family stirs (I have a young, very angelic daughter), I prepare breaky and lunch and pack school bags. I then drop her at school and head into the office.

Most of my time in office I work with clients and conduct project management and the development of campaigns. At the moment I'm also working on a big project that sees me liaise with a number of international parties. After work, I go to gym and then pick my daughter up from school before we head home together. Then it's family mealtime, studies and bed.

What more would you like to see the tech industry doing to better support women in the field?

It's simple, but I think women need more insight into the industry to understand how fascinating it can be. More stories from real people, particularly those coming up the ranks. Once the covers are lifted they'll be surprised at how interesting, different and relatable a technology career can be if they want it to be.



Raising the bar as Transit Wireless receives global certification

Transit Wireless has received its ISO 9001:2008 certification following a rigorous independent evaluation. This certification is globally recognised and supports the commitment of Transit Wireless to create and maintain a high level of quality as they deliver the most reliable service and products for customers.

Transit Wireless is designing, building, operating and financing the development of a highly resilient wireless network that supports consumer connectivity, business connectivity and public safety communications needs.

Transit Wireless Chief Executive Officer William A. Bayne said, the ISO 9001:2008 certification was globally recognized and was a testament to the hard work of the Quality Management team that helped ensure Transit Wireless received the certification.

“As the standard for which companies strive for, we are extremely proud to achieve that goal as we work to bring cellular, Wi-Fi and public safety connectivity to all 278 underground subway stations in New York City by the end of 2016.”

The launch of the Transit Wireless WiFi™ network is an initiative that has been recognised by the Wireless Broadband Alliance as the “Best Wi-Fi Deployment to Connect the Unconnected in an Urban Environment.”

Transit Wireless Director of Design and Construction Saeid Malaki said, this certification would align Transit Wireless with the same quality standards as some of the finest organisations in the world.

As a BAI Communications company, Transit Wireless is part of a global enterprise that designs, builds and operates highly accessible communications networks for customers across Australia, Asia and North America.

As the standard for which companies strive for, we are extremely proud to achieve that goal...





First Internet of Things network customer signed

Broadcast Australia, a BAI Communications company, has signed with Australia's first dedicated Internet of Things (IoT) network provider, Thinxtra, who will utilise Broadcast Australia's tower infrastructure to deploy part of the Sigfox IoT network in Australia.

BAI Communications Sales, Product and Business Development General Manager Simon McFadden said that low cost connection to the internet, via the Internet of Things, would bring many exciting applications to businesses and consumers. Thinxtra is using LPWAN as its wireless backbone.

"Sigfox is being very proactive in this segment and we are excited to be partnering with them to support their Australian network deployment," Mr McFadden said.

"We are already seeing global examples of the benefits of this type of technology, with everything from remotely monitored building elevators to crop and cattle management in the agriculture sector."

Thinxtra CEO Loic Barancourt said Thinxtra was now covering 60% of the Australian population and would expect to complete the network deployment within a year.

"The fast roll out and early availability of the Sigfox network in Australia is an enabler and a catalyst for a lot of IoT projects, which are now feasible thanks to our low cost, low power consumption, and long range solutions.

"We are excited that Broadcast Australia is contributing significantly to the deployment speed of IoT across Australia."

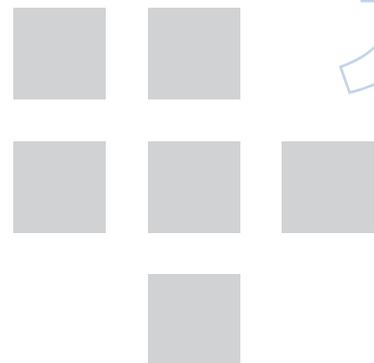
The IoT network will lay the ground for smart applications that range from:

- Smart Cities - smart lighting, waste management, and water quality monitoring
- Smart Agriculture - crop monitoring, cattle management, irrigation monitoring, and equipment tracking
- Home living applications - health monitoring for elderly residents, pet trackers and smoke alarm monitoring

As the sole distributor for communications service provider Sigfox, Thinxtra will use low power, low cost, simple and reliable connections to send data to the cloud accessible to consumers.

For more information, see: <http://www.thinxtra.com>

We are already seeing global examples of the benefits of this type of technology...





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