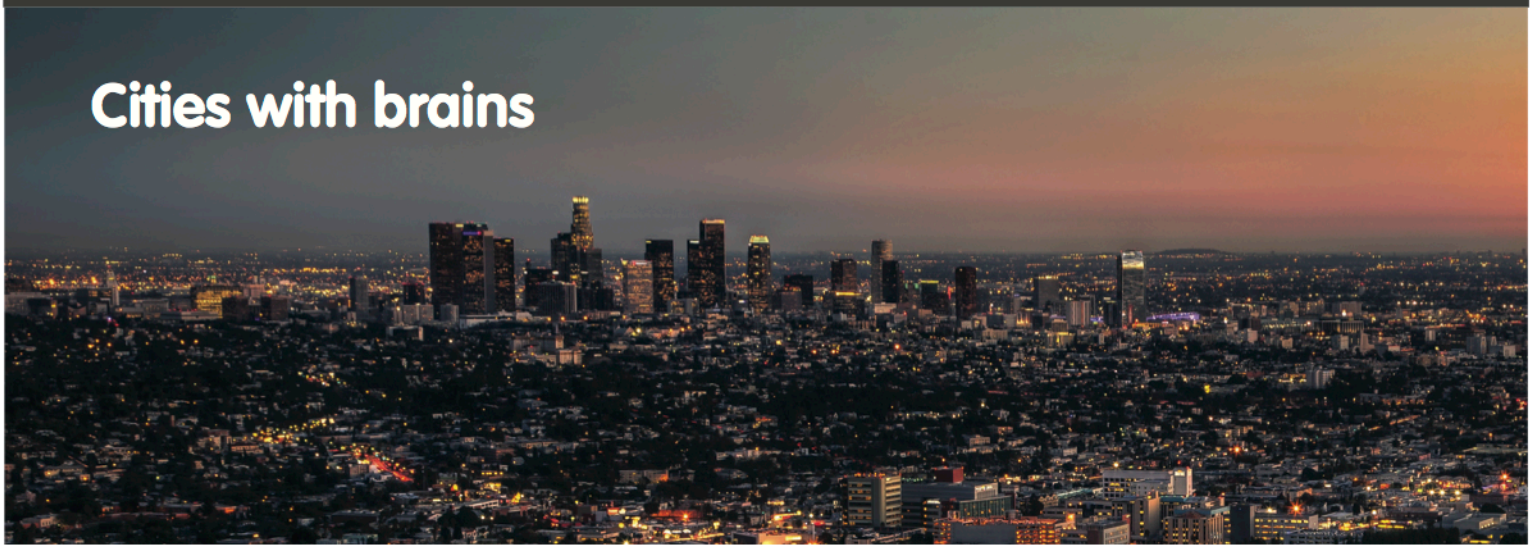
NATIONAL NARROWBAND NETWORK Co.

In collaboration with CISCO

Cities with brains



"NNNCo and Cisco share a vision to build smart cities in Australia that are more responsive, efficient and sustainable. As the narrowband network service provider, NNNCo is developing an end-to-end solution that incorporates Cisco technology"

Dean Cooper,
Head of Product and Certification, NNNCo

NNNCo and Cisco are taking a thought leadership position on what a smart city can look like. Cisco's proven ability to build enterprise-class technology, together with NNNCo's ability to build secure industrial-grade narrowband networks, is enabling applications such as smart lighting, parking and waste management to develop more connected and sustainable communities.

The Business Need

Many cities and regional centres around Australia are devising strategies to become more liveable and sustainable communities by becoming 'smart cities'. This is driven by the huge potential for connected 'things' to reduce energy consumption, decrease the cost of operations for core services, provide more reliable and timely services, prevent problems such as theft, increase safety, optimise mobility, and dramatically improve live-ability for the people who live and work in these centres.

The Solution

Using Long Range Wide Area Network (LoRaWAN) technology and low cost devices, NNNCo has the capability to connect a wide range of 'things' to the network to monitor and manage a city's resources and services, for example:

- Street lights - dim or turn lights on and off so they're only used when needed, saving energy and minimising waste
- Parking spaces - up to 40% of traffic in city centre areas is caused by drivers looking for a parking space. Smart parking spaces can reduce frustration and wasted time, facilitate traffic flow and reduce fuel consumption and pollution
- Waste bins - smart waste bins equipped with fill level sensors ensure that only full bins are scheduled for emptying
- Bicycles - GPS trackers alert to illegal movements and theft
- Buildings - temperature management, door and window opening, smart parking, smoke alarms

Smart cities needs an intelligent IoT network

A broad based network is key for IoT to operate reliably and cost effectively across multiple geographies and conditions. By providing reliable two-way communication at a low cost, the network transforms passive assets such as street lights, buildings and waste bins into active assets.

NNNCo has taken the lead in Australia and implemented LoRaWAN global standard technology together with world-leading solutions and local innovations to make a national, open, cost-effective network a reality for a wide range of IoT applications.

NATIONAL NARROWBAND NETWORK Co.

Australia's Narrowband Network

The Tech Story

- LoRaWAN gateways at high points, on small buildings and located in hard-to-reach places such as building basements
- Wide range of Smart City device solutions with up to 15 year battery life
- LoRaWAN network server controls data access and provides security and operational support
- A wide range of smart city applications can interact with multiple smart city devices
- Open standards enable the network to connect to others over time, building an ecosystem rather than a silo solution
- Individual addressability to each device / sensor enables councils and organisations to remotely configure each one with unique characteristics
- Multi-cast functionality for group communication ensures the solution is scalable from communicating with a few devices / sensors to thousands
- Bi-directional communication ensures a managed network with feedback capability from devices / sensors
- Management capability providing the ability to store, visualise and manage data and applications
- Potential to share network construction with utilities and other organisations

NNNCo – Australia's narrowband network

NNNCo is Australia's LoRaWAN network operator, dedicated to building and operating Australia's narrowband network for IoT. We're working with some of the world's leading water and energy utilities, technology providers and innovators to roll out large-scale, carrier-grade network solutions.

As Australia's Long Range Wide Area Network (LoRaWAN) operator, our vision is to support the rapid and collaborative growth of IoT in Australia by providing an end-to-end, low-cost, reliable and secure eco-system that:

- Supports more effective operation of infrastructure and services
- Enables innovation across industries as diverse as agriculture, logistics, manufacturing and health
- Shares information that can make people's lives safer, healthier and easier

Planning a smart city?

If your organisation is interested in participating, visit us at
nnnco.com.au