BUILDING A SMARTER

BROKEN HILL

AUSTRALIA'S FIRST HERITAGE LISTED CITY

"Making Broken Hill an even better place to live, work, play and invest"

MESSAGE FROM THE MAYOR

DARRIEA TURLEY, MAYOR

We live in exciting times where our lives are being transformed by digital technology, offering huge opportunities for the community of Broken Hill.

Council will capitalise on the opportunities presented in this digital age for the benefit of everyone in Broken Hill – our residents, businesses and visitors alike, to make our region more connected and innovative, with enhanced liveability, workability and sustainability.

We are grateful to the residents, businesses, and representatives from several key industries who have contributed to getting Broken Hill ready to commence our *Smart Community Journey.*

" Council will capitalise on the opportunities presented in this digital age for the benefit of everyone in Broken Hill"

MESSAGE FROM THE GENERAL MANAGER

" Investing in Smart Technologies will make Broken Hill an even better place to live, work, play and invest"

JAMES RONCON, GM

Digital technology is evolving quickly, with a rapid growth in mobile devices, high-speed Broadband and open data (information that is available for anyone to use, for any purpose, at no cost).

The opportunities offered by *smart* technologies will enable Broken Hill to think differently about how individual, business and community services can be delivered, by leveraging the internet, mobile apps and social media.

Adopting smart initiatives for our region and investing in smart technologies will help advance the goals and vision of our Community, and make Broken Hill an even better place to live, work, play and invest.

WHAT DOES IT MEAN TO BE A SMART COMMUNITY ?

A Smart Community implies a connected, technology enabled environment, where data is used to inform community leaders on how to improve service delivery, community planning and local commerce, to enhance each resident's quality of life.

A Smart Broken Hill commits to making improvements to quality of life, economic growth and environmental sustainability through the implementation of smart technologies.

These technologies may gather data, increase efficiency, provide new services, improve safety, and foster a culture of informed innovation.

WHAT DOES IT MEAN TO BE A SMART COMMUNITY ?

Seen as a key competitive advantage for our region, enabling Broken Hill to become a smarter community by utilising smart, integrated technologies will promote synergies and growth across the region, with the aim of making Broken Hill an even more attractive place to grow a business, expand skills, raise a family and lead a productive, fulfilling life.

Making Our Community Smarter Means...

Increasing quality of life and wellbeing through access to a healthy, safe, engaged and clean lifestyle

Enhancing economic development to create more and better jobs, increase regional output, and foster innovation and prosperity

Enabling the responsible and efficient use of natural, human and economic resources

WHY DO WE NEED A SMARTER BROKEN HILL ?

Successful cities and communities have a long history of adjusting to changes in society and to the requirements and wishes of their citizens. The fact that these cities have continued to function, through repeated financial crises and other challenges, demonstrates that they have always been able to change and re-invent themselves in order to continue to meet the needs of their citizens and businesses.

Cities and communities today compete for business, residents, visitors, and private and public spending, and in so doing face enormous challenges. It is no longer acceptable to simply make token changes to the way communities are managed. Instead, community leaders are faced with the task of maintaining sustainable services, reducing the impact on the environment and creating an attractive economic and social environment.

WHY DO WE NEED A SMARTER BROKEN HILL ?

Fortunately, fresh approaches to community management and developments in technology are providing new and useful tools for community leadership, and creating greater opportunities for residents and businesses in the community to actively participate in implementing the changes that need to take place. This gives rise to becoming a *Smart Community*.

Smart Communities provide real opportunities to build a new economy, develop a stronger community, and improve services to residents, businesses and visitors.

"Fresh approaches to community management and developments in technology are providing new and useful tools for community leadership"

HOW ARE WE GOING TO BUILD A SMARTER BROKEN HILL ?

In 2016, Broken Hill City Council partnered with Telstra and Metamorph Consulting to develop a *Smart Community Framework* for Broken Hill.

Telstra and Metamorph are addressing challenges and creating opportunities for communities across Australia by leveraging the benefits that smart technologies can provide. Together, they are able to offer a broad range of innovative solutions and services for our Community.

Broken Hill's Smart Community Framework, created in collaboration with various community stakeholders, provides a blueprint that will guide the planning and delivery of smart and connected community services across our city.

HOW ARE WE GOING TO BUILD A SMARTER BROKEN HILL ?

Smart communities can take many shapes and not all solutions make sense in all communities and regions. The blueprint helps Council understand how to deliver the greatest impact per dollar invested and will make Broken Hill more sustainable, viable and robust.

The focus of the Framework is to build a smarter Broken Hill that enhances quality of life, stimulates economic development, secures sustainability and crafts social engagement into the fabric of our community.

PUTTING TOGETHER THE SMART COMMUNITY FRAMEWORK

Developing a Smart Community Framework for Broken Hill meant listening to and incorporating feedback from a diverse group of stakeholders representing the community. Local organisations, businesses and different areas of Council responsibility all contributed to this process.

We captured peoples' views on the Council and community and discussed opportunities and benefits that smart technologies can provide to the region.

We built up valuable insights into the challenges, drivers, needs and expectations of the community, enabling us to illustrate what a Smart Broken Hill looks like and means to the Council and the community.

Who Did We Speak To ?

24 Council Representatives

10 Businesses, Industries & Organisations

8 Subject Matter Experts

- GM, Mayor & Councillors
- Planning & Economic Dev
- Infrastructure & Assets
- Tourism, Culture & Media
- Corporate, Customer & Community Services

- Business Chamber
- Mining & Manufacturing
- Tourism & Hospitality
- Retail & Local Businesses
- Sport & Recreation
- Regional Development

- Health & Family Services
- Law Enforcement
- Education
- Disaster Management
- Media

PUTTING TOGETHER THE SMART COMMUNITY FRAMEWORK

Through community engagement and mapping of Broken Hill's needs, wants and motivations to the capabilities of various smart technologies, we developed the Smart Community Framework. The result, summarised below, is a portfolio of 16 Smart Community Services.

Together, the Smart Community Services provide the means to develop a stronger and better Broken Hill community, build and support the local economy and improve services to residents, businesses and visitors.
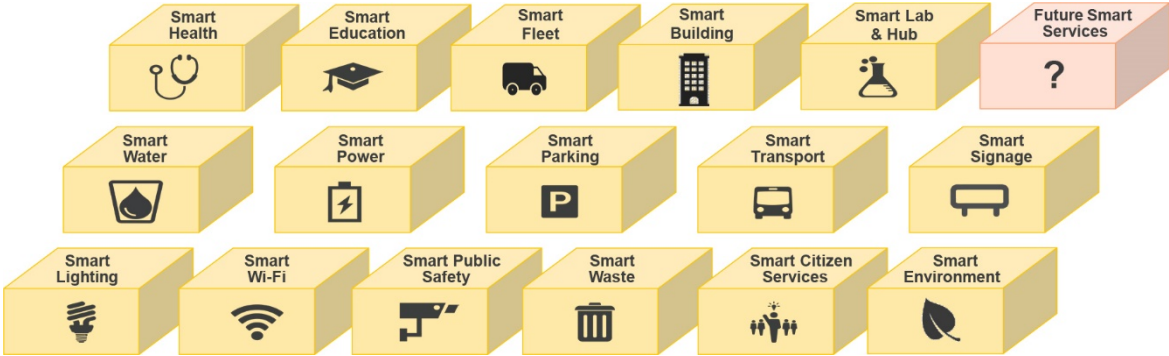
BUILDING A SMARTER BROKEN HILL OVER TIME & LOCATIONS

Building a Smarter Broken Hill is a journey rather than a destination that requires conviction and commitment from both the Council and community and the willingness to keep moving forward in small steps that build incremental value.

Council is the central sponsor and facilitator, empowering and supporting the residents and businesses to actively shape our city and broader community, in partnership with the Council.

There is often a temptation to do everything quickly but doing so foregoes the opportunity to take advantage of falling costs and regular technological advances. Moreover, rapid introduction of new technologies can make it very difficult for the Council and the community to adapt to the impact this would have, and would very likely prevent our residents from embracing new smart services.
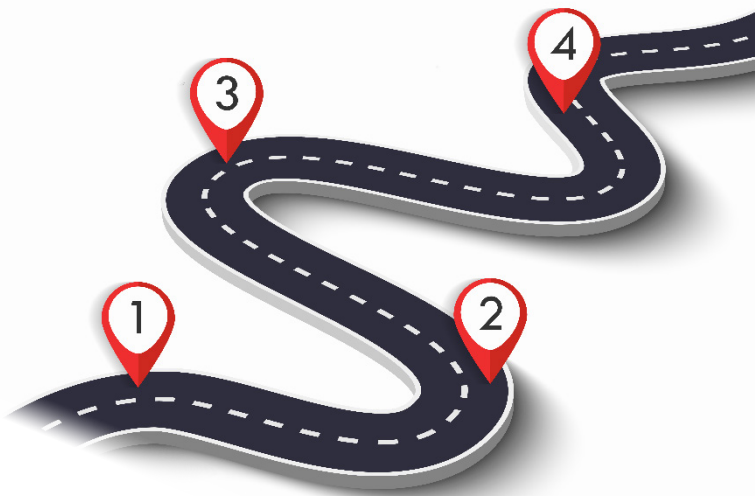
BUILDING A SMARTER BROKEN HILL OVER TIME & LOCATIONS

As noted earlier, not all smart services are relevant in all locations. Broken Hill's CBD and outer areas all have distinct characteristics that shape which services should be introduced and where.

While 'smarts' do not make a smart community on their own, the right services delivered progressively can help the Council do a better job of serving the community, supporting people as they pursue their own goals and producing incremental returns for Council and businesses.

Each smart service has been assessed, taking into account location, benefits and costs and the recommended spread of services across Broken Hill is summarised in the table opposite.

	Smart Community Service	Central Business District	Whole of Broken Hill
Infrastructure & Utilities	Smart Lighting	●	◐
	Smart Wi-Fi	●	◐
	Smart Transport	◐	◐
	Smart Energy	●	●
	Smart Water	●	●
Safety & Environment	Smart Public Safety	◐	●
	Smart Waste	●	●
	Smart Environment	◐	◐
Property & Assets	Smart Parking	●	◐
	Smart Building	◐	◐
	Smart Fleet	●	●
Community & Social	Smart Citizen Services	●	●
	Smart Health	●	●
	Smart Signage	◐	◐
	Smart Education	●	●
	Smart Lab & Hub	●	●

THE BENEFITS OF A SMARTER BROKEN HILL

With the right planning and investment, Broken Hill's leaders can make our community more liveable, more workable and more sustainable. These are the ultimate goals on which our Smart Community journey must focus. Our people must feel they are part of a place where things happen, where opportunities exist and where they are shareholders.

Lifestyle and Wellbeing
✔ a better quality of life for residents

Enhanced liveability means a better quality of life for our residents. In the Smarter Broken Hill, people have access to a comfortable, clean, engaged, safe and healthy lifestyle. Some of the most highly valued aspects include lower energy costs, convenient transport, good schools, faster emergency responses, clean water and air, low crime and access to diverse entertainment and cultural options.

Economic Growth and New Investment
✔ creation of employment opportunities and increased economic activity

Enhanced workability means accelerated economic development. Put another way, it means more jobs, better jobs and an increase in local production. In the Smarter Broken Hill community, people have access to the foundations of prosperity – the fundamental infrastructure services that let them compete in the digital economy.

Environmental Sustainability
✔ maintain and manage ecological and resource balance

Enhanced sustainability means giving our people access to the resources they need without compromising the ability of future generations to meet their own needs. The Smarter Broken Hill community enables the efficient use of natural, human and economic resources.

WHAT ARE OTHER CITIES DOING TO BECOME SMARTER ?

To succeed in the 21st Century economy our cities, including Broken Hill, not only need to be productive and accessible, creating jobs and supporting growth, they also need to be liveable with a clear focus on serving their residents.

Outlined below are some examples of what regional cities are doing to become smarter.

Lake Macquarie City Council, NSW
- Better internet infrastructure and application technology means it is now easier for people to connect and innovate
- Five strategic objectives – online government and participation, connected communities, innovation and investment, digital literacy and great places – are the foundation for key Smart Community initiatives to be actioned over 4 years

Tamworth Regional Council, NSW
- Tamworth is an early adopter of smart technology to better improve and enhance the region
- The Tamworth Regional Playground has state of the art technology including smart sensors in the bins, smart lighting coupled with smart cctv, smart parking and free Wi-Fi access

City of Greater Geelong, VIC
- G21 Geelong Region Alliance – an alliance of government, business and community organisations working together to improve the lives of people within the Greater Geelong region focusing on the environment, land use and the economy
- Council plans to convert 24,000 globes across the municipality to energy efficient smart LEDs within the next 5 years

BENEFITS OF SMART COMMUNITY SERVICES

Each Smart Service offers key benefits to Broken Hill and can make substantive direct and indirect contributions to our community.

Key Benefits Of Smart Service

Smart Wi-Fi
- Always-available network access to everyone
- Provides a platform for efficient delivery of services, eg. public safety, council services, social sharing
- A service that residents and visitors expect in a city

Smart Lighting
- 70%+ reduction in energy, reduces carbon emissions
- Lowers electricity and maintenance costs
- Improves lighting conditions facilitating more flexible hours
- Lowers crime rate and increases property values

Smart Public Safety
- Connects day/night cctv cameras with smart lighting to enhance public safety and emergency management
- Dramatic reduction in crime rates (up to 20%)
- Improvements to use of parks, playgrounds, paths, trails

Smart Waste
- Bins have sensors that send messages requesting service
- Up to 30% reduction in collection costs, productivity improvements, optimised scheduling of garbage trucks
- Contributes to greater urban cleanliness

Key Benefits Of Smart Service

Smart Citizen Services
- Provides convenient access through smartphones and the web to council information and services
- Reduction in administrative costs by automating services
- Simplifies interaction with council, reduces cost to serve

Smart Parking
- Guides motorists to car parking spots through a mobile app
- Provides multiple payment options: cards, cash, mobile app
- Resident's 'smart card' can be utilised to apply different parking fees to residents (lower) and visitors (higher)

Smart Signage
- Smart Signage includes all types of digital displays from large billboards, indoor TV panels, to ornamental displays
- Improvements in way-finding for residents, visitors, tourists
- Can incorporate sensors to tailor messaging experiences

Smart Building
- Enables real-time centralised monitoring and control of heating, ventilation & air con, lighting, security, lifts, etc
- Delivers energy savings and operational efficiencies, reduces carbon emissions

BENEFITS OF SMART COMMUNITY SERVICES

Smart and Connected Services bring in tremendous benefits for example; improved public safety, reduced carbon emissions , improved service delivery and reduced cost through sustainability.

Key Benefits Of Smart Service

Smart Environment
- Sensors monitor in real-time environmental factors such as, air quality, soil moisture, solar radiation, daylight, noise, wind, humidity, temperature, flood & tide, water quality, etc
- Helps achieve an optimal urban environment for residents

Smart Water
- Smart meters inform people & businesses about how they consume water (often reducing consumption by up to 10%)
- Sensors accelerate identification & repair of leaks, lowering water loss (which can be 30% in some areas)

Smart Energy
- Smart meters inform people & businesses about how they consume power (often reducing consumption by up to 10%)
- Reduces manual meter reading improving workforce efficiency

Smart Transport
- Real-time tracking allows operator to monitor service and users to retrieve location information via mobile app
- In-bus Wi-Fi services improve travel experience, which can help increase use of public transport (higher revenues)

Key Benefits Of Smart Service

Smart Health
- Allows people in remote areas to get access to medical specialists without having to travel
- Improves health outcomes, better management of chronic conditions, reduced travel time for patients and physicians

Smart Education
- Leverages trends in flexible learning, technology-enriched environments, distributed learning techniques and high-end video and 3D technologies that actively engage students whether they attend classes on campus or from elsewhere

Smart Fleet
- Encompasses real-time management of vehicles & routes using smart technologies - vehicle tracking, telematics and surveillance, will include future vehicle types eg. drones
- Council can optimise use of fleet, reduces operational costs

Smart Lab & Hub
- A multi-purpose space for Council & technology partners to showcase smart technologies or use as a Digital Work Hub
- A laboratory for experimenting and testing ideas whether physical (eg. smart meters) or virtual (eg. mobile apps)

OUR NEXT STEPS

Broken Hill has the strong potential to be a leader among smart communities. The region is a good value proposition for residents, businesses and visitors and for people looking for a "tree change" with the opportunity for connectedness and community engagement.

Broken Hill is fortunate to have many of the fundamental elements for lifestyle, economic growth, sustainability and social cohesion in place.

As cities around the world – and those down the road – move to deliver their smart community visions, a desire to lead should encourage
Broken Hill to realise its vision of being recognised as Outback Australia's leading Smart Community.

OUR NEXT STEPS

Council will progress our Smart Community journey by undertaking the following key activities:

❑ Engage the wider-community through consultation around the benefits of a Smarter Broken Hill to build local support, and interest from partners

❑ Establish a Smart Community Steering Committee and a Coordination Group, made up of representatives from the Council, residents and businesses. (A smarter Broken Hill must be shaped by the community's participation)

❑ Establish a roadmap and timeline for the initial wave of smart services

❑ Begin to identify key technology/solution providers and select priority technologies

❑ Inform residents on Smart Community initiatives already underway or in planning;
- public Wi-Fi
- civic centre audio-visual technology
- public safety (smart lighting & smart CCTV)
- smart parking
- smart bins
- way-finding
- Living Museum + Perfect Light projects

BROKEN HILL

CITY COUNCIL