



Smart Telecom

We have an opportunity to transform Australia's telecom systems to: improve the way Australia works; stimulate business growth; and provide a better customer experience.

Why?

Just as, in past centuries, our nation invested in rail, highway, and telephone infrastructure, so we now need to build up Australia's digital infrastructure. In the last century, creating a new high-speed transportation system enabled businesses to expand much more quickly, helping drive economic growth for decades.

Today, we live in a digital world, with online assets traded virtually. Smart, high-speed telecoms will deliver lasting improvements to business productivity and enduring consumer benefits that raise the quality of life by enabling telecommuting, telemedicine, entertainment, access to e-government, and a wealth of other online services.

- Australia ranks 16th in broadband penetration among OECD countries¹
- Australia has an average download speed of 1.7Mbps, against the OECD average of 9.2²
- The World Economic Forum ranks Australia 25th for accessibility of digital content, 35th for the quality of competition in the Internet Service Provider sector and 29th for the lowest cost of broadband³
- Reports estimate Australia's e-commerce as half that in the US⁴

What?

High-speed broadband alone doesn't make a network smart. As well as developing our broadband capabilities, we need to infuse new capabilities and models into our telecom systems to make it easier for devices to transmit and interpret data, provide more secure connections, and protect identities.

Smart networks need to be multidirectional instead of point-to-point. They'll have to be built on a foundation of standards and software that allow trillions of devices and objects to "talk." And we'll need next-generation digital platforms on which telecom providers can create and deliver all kinds of services.

With smart telecom we can:

- Enhance Australia's quality of life
- Improve productivity
- Engage with the digital economy

¹ OECD Information Technology Outlook 2008

² 2008 ITIF Broadband Rankings

³ World Economic Forum, The Global Information Technology Report 2008–2009, 2009

⁴ Digital Economy Future Directions, AIIA, 2009

How?

Improve the way Australia works...

by allowing smart devices to talk to each other, in the process spawning innovative new types of services that provide ease, convenience, safety, relevance and alertness to our homes, communities and daily lives.

An estimated **2 billion people** will be on the Web by 2011⁵... and a **trillion connected objects** – cars, appliances, cameras, roadways, pipelines – comprising the "Internet of Things."

By 2010, **30 billion RFID tags** will be embedded into our world and across entire ecosystems. There will be nearly **4 billion mobile phone** subscribers worldwide by the end of 2008.⁶

Numbers joining **online social networking** sites with active memberships forecast to reach **500m+** by 2012.⁷

Communication isn't just about people talking to people. It's about things talking to each other. In a smarter Australia, almost anything can become digitally aware, instrumented and interconnected. We have the connections, processors, analytics and capabilities powerful enough for trillions of devices to talk to each other and improve the way the world works. Smart houses can be programmed remotely. Smart cars talk to the traffic system. Smart phones can practically replace your wallet. Smart highways can regulate traffic flows.

But this will only happen if we infuse smart networks with intelligence, so they can identify connected, instrumented things and collect relevant data from them.

SMART IS Connecting healthcare providers, suppliers and patients with electronic records to reduce costs and improve health outcomes.

SMART IS Getting cars, roads, sensors and cameras to communicate with each other, so we can reduce congestion and carbon emissions.

SMART IS Allowing educators and students to collaborate across a national education system that utilises digital teaching resources and gives every Australian child access to world class education.

SMART IS A two-way 'conversation' between the energy grid and smart meters in homes to stop us wasting electricity.

Smart telecoms systems allow individuals, business and governments to interact and transact in new, more efficient and personalised ways.

⁵ Computer Industry Almanac

⁶ Sam Palmisano, "Smarter Planet: The Next Leadership Agenda", The Council on Foreign Relations, Nov. 6, 2008

⁷ The Outlook for Social Networks, Datamonitor, September 2007

Stimulate business growth...

with next-generation digital platforms that allow us to make better use of communications technology

Smarter telecommunications systems allow individuals, businesses and governments to interact and transact in new, more efficient and personalised ways. Companies will use fast connections to make existing processes more efficient and productive, develop innovative business models, and transform business activities through new communications-enabled work practices.

Broadband and its applications will create new business opportunities (e-commerce), spur new consumer behaviours (social networking) and create whole new industries (telemedicine).

SMART IS Using video conferencing and teleworking to reduce your corporate carbon footprint and expand your potential skills base.

SMART IS Mass-customisation through build-to-order manufacturing made possible by the internet.

SMART IS Web-enabled just-in-time manufacturing practices.

Using communications to improve parking efficiency

California is about to introduce North America's first wireless parking solution to be integrated with payment stations.

Making vital systems work better

A U.S. hospital is applying a pervasive wireless infrastructure, bar-coding and RFID to manage its assets and administer medications—helping to increase both patient safety and operational efficiency.

Creating new business models

Zipcar makes fractional ownership possible by aggregating demand for short-term rental of vehicles in one venue, providing a viable alternative to and decreasing the need for auto ownership in congested cities.

Wotif markets excess Hotel capacity, connecting consumers with suppliers they would never otherwise have found.

Doing better business

A fisherman in India can use a mobile phone as he approaches the dock to check current prices across multiple marketplaces and get the best price for his catch, boosting his income by nearly 50%.

Provide a better customer experience...

by using real-time analytics to gain deep customer insights, improving customer service and personalising offerings

Smarter telecommunications systems convert the increasingly vast amount of data into information to meet and predict the changing needs and behaviors of customers – resulting in optimised revenue, lower costs, and greater personal value to each individual.

SMART IS Converging billing and customer care to create new types of competitive service bundles and improve customer service.

SMART IS Capitalising on business analytics such as social networking to understand and respond to customer behaviour.

SMART IS Using Web 2.0 capabilities to tap into both internal and external creativity to develop next generation services.

SMART IS Introducing open standards so there is interoperability between all telecom networks and devices.

SMART IS Using industry standards such as eTOM, NGOSS and others to improve operational processes to save money and speed time to market.

Understanding customers

An Indian telco is employing social network analysis to understand social relationships of customers to provide more targeted advertising and products to improve customer satisfaction.

Accelerating innovation

A Chinese telco is using an innovative approach built on open, scalable and flexible telecommunications standards to accelerate their service creation life cycle. This has resulted in an increase in new service ideas by 122%, productised services by 800% and an overall product to market cycle that has gone from over 9 - 12 months to weeks.

When?

NOW! There's no better time to start building smarter telecom systems – to create efficient, powerful digital infrastructure to boost our economic future.

Let's work together to drive real progress in Australia.