BUILDING A SMART CITY

TELSTRA AUSTRALIA

MIKE WRIGHT, EXECUTIVE DIRECTOR NETWORKS
M2M TRENDS ARE EXPLOSIVE
...WHY NOW?

Enabling Innovation and Opportunity
For the Smart City
WE HAVE THE SMART CITY BUILDING BLOCKS

“THE NETWORKS”
The Telstra Network: Broad and Deep Wireless Broadband to underpin M2M and Smart Cities

Network performance stats are based on Telstra's National Field Testing #9 conducted in July 2012

Rankings based on Q1 2013

23 Million Population
2.3 Million km² Coverage
99% Population Coverage
✓ 99% HSPA/ 66% LTE1800 @ June 2013

High performing Network
✓ Multi-Gigabit capable Ethernet fibre to sites covering >93% of pops.
✓ Well under 1% voice drop rate
✓ World’s largest HD Circuit Voice footprint
✓ Low band 850 MHz HSPA for wide and deep coverage, LTE 1800 to 66% pops
✓ New APT700 Band for LTE

High performing business
✓ Low churn rate
✓ > 2.1M 4G services.
✓ 230% growth 6M to Q1 13
✓ 13% PostP H/H, 17% MBB pen of LTE

4G (LTE) capable devices seamlessly operate across Telstra’s 4G and 3G coverage areas including 3G HSPA+ and Dual Channel which are available in selected areas.


• Network performance stats are based on Telstra’s National Field Testing #9 conducted in July 2012

Rankings based on Q1 2013
SPECTRUM & TECHNOLOGY ROADMAP TO SUPPORT SMART CITY DEMANDS

- **2500 MHz**: Available for use
- **2100 MHz**: HSPA+/DC-HSPA 2x15 MHz, PARTIAL LTE
- **1800 MHz**: 2GSM, LTE 2 x 15-20 MHz
- **900 MHz**: 2GSM, Partial LTE / LTE-A
- **850 MHz**: HSPA+/DC-HSPA 2x15-20 MHz
- **700 MHz (APT)**: Available for use
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“THE EMERGING APPLICATIONS”
Monitoring Ingredients for Bread

Monitoring The Great Barrier Reef 100km to Sea

M2M HELPS BAKERS PROTECT THE QUALITY OF THEIR DOUGH
VIDEO MONITORING & DISTRIBUTION

M2M PUTS FARMERS IN CONTROL

Video Monitoring for Remote farming

Video Media Distribution To signage
ASSET & FLEET TRACKING

M2M HELPS TRACK AND MANAGE TRAILER AND UTE HIRE ACROSS THE COUNTRY

CASE STUDY
M2M – PROCON

TELSTRA CONTROL CENTRE PUTS PROCON IN THE DRIVER’S SEAT

Tracking commercial Hire

Tracking & Monitoring Fleets
ENABLING CONSUMERS TO INTERACT WITH LOCAL COUNCIL
CITY OF PERTH – SMART TICKETING

THE SOLUTION
Deployed smart ticketing machines equipped with SIM cards and modems that connect directly with the Telstra M2M Control Centre.
- Proactive management of equipment
- Improved customer experience
- Increased productivity and efficiency

“Previously, we had to go and check each and every one, but now that it’s automated we just get the information sent to us and we just react in a more efficient manner.”

City of Perth, Field Technician, Surindar Singh

THE CHALLENGE
- 120,000 people/day parking
- Antiquated meter technology
- Up to 200 fault reports/day
- Long down times
WE HAVE THE SMART CITY BUILDING BLOCKS

“THE VISION”
INTELLIGENT TRANSPORT SYSTEMS

- Traffic flow
- Environment

- Location
- Traffic flow
- Environment

External server

Road environment data

- Traffic flow management
- Alerts
- Collision avoidance
- Smart transport
- Emergency response
- Traffic & transport planning
Welcome to SmartStartCity

Sharing data with entrepreneurs to create profitable new ways of addressing urban challenges.

SmartStartCity is an entrepreneurial program designed to help start-ups create profitable new business models that address urban challenges identified by the City of Melbourne.
SMARTSTARTCITY – KEY MILESTONES

1. Establish shared resolve, intent and understanding
2. We are here!
   - Create interest in the media
   - Invite organisations to participate
   - Provision of Data
3. Launch
   - 10 Week Entrepreneurship Program
4. Validated Business Models
   - Launch Ready Businesses
   - Invigorated Entrepreneurial Ecosystem in Melbourne
   - Replicable model for future collaborative development

Architecture

Telstra Technical Capability & Platform
Requirements, Business Model and Business Case

Telstra Funding Decision

- March / April / May
- June / July
- July / August / Sept / October
- November 2013
SEEDING THE NEXT GENERATION OF M2M & SMART CITY DEVELOPERS

TELSTRA M2M University Challenge with:

- Access to technical support from a Telstra Subject Matter Expert.
- An M2M Development Kit (Raspberry Pi® device)
- A Next G® USB dongle and a Telstra M2M SIM card
- Access to the Telstra Wireless M2M Control Centre
WE HAVE THE SMART CITY BUILDING BLOCKS

“THE ASPIRATION”
OUR ASPIRATIONS – ENABLING & INTEGRATING WITH A SMART CITY

- Telemetry
- Smart Meters
- Smart Grids
- Smart Transport
- Emergency Management
- Asset Management
- Environment Monitoring
- Community Engagement
- Connected Education
- Future Ways of Working
- Smart Health
- Smart Services