MANUFACTURING
THE TELSTRA BLUEPRINT

IT'S HOW
WE CONNECT

SMARTER MANUFACTURING FOR A SMARTER AUSTRALIA

ADVERSE EXCHANGE RATES. SKILL SHORTAGES. PRESSURE TO INNOVATE. HOW CAN MANUFACTURERS SUCCEED IN TODAY'S ENVIRONMENT?

Global competition, challenging terms of trade and the strong Australian dollar – combined with complex supply chains, environmental pressures and ever increasing compliance requirements – create challenges right across the supply chain.

TELSTRA MANUFACTURING VISION AND BLUEPRINT

To address these mounting challenges, we have designed the Telstra Manufacturing Blueprint – an ICT infrastructure connecting manufacturers with seamless collaboration and communication between machinery, workers, suppliers and customers.

The following pages show how this blueprint could provide automated processes, remote asset monitoring and visibility across your operations and those of customers and suppliers. And how deploying Telstra's ICT manufacturing solutions can help you improve control of your product life cycle, break into new revenue streams through innovation, automate your supply chain and reduce cost.

TAILORED TO YOUR NEEDS

One size does not fit all, so Telstra manufacturing experts work closely with you to help solve your specific challenges and realise this blueprint's benefits in your organisation. With proven whole-of-business solutions and award-winning integration services, we can help you deploy game-changing technologies now and identify what you'll need down the track.

SMART PEOPLE, SMART NETWORKS

Working with one of Australia's most knowledgeable teams and most powerful networks, you can connect machinery, supply chain partners and mobile workers more reliably in more places. Cutting-edge wireless technology, quality of service and Application Assured Networking™ (available only in Australia on the Telstra Next IP® network) keep your people and assets productive. Designed to 99.999% reliability on the Telstra Next IP® network and with experts monitoring your solutions 24/7/365, your manufacturing operations are on track.

INTERNATIONAL PRESENCE

Your global supply chain is only as efficient as the network it runs on. Telstra Global give you an international IP network with advanced synergies between voice and data services, plus satellite services that cover two thirds of the Earth's surface. We have operating licences and landing rights in most major Asian markets, the US and EMEA, and access to over 1400 Points of Presence (PoP) in 230 countries and territories. Our subsidiary CSL New World is a leading mobile network operator in Hong Kong. Through REACH, we operate one of Asia Pacific's largest and most diverse cable networks, providing a well-established communications capability to help you expand in the dynamic markets of China and Asia Pacific.

CLOUD CAPABILITIES

Telstra Connected Clouds provides access to our world-class infrastructure, software, applications and services across Australia's largest communications network. Your organisation benefits from secure ICT that's always up to date, as well as simple budget and resource management. You can scale software, servers and storage to meet changing requirements and only pay for what you use, freeing capital to invest in your business. With solutions securely backed up in the cloud, your ICT is also far more resilient. Integration and migration specialists from Telstra and Accenture® work with you to help pinpoint the best solution and deploy it seamlessly.

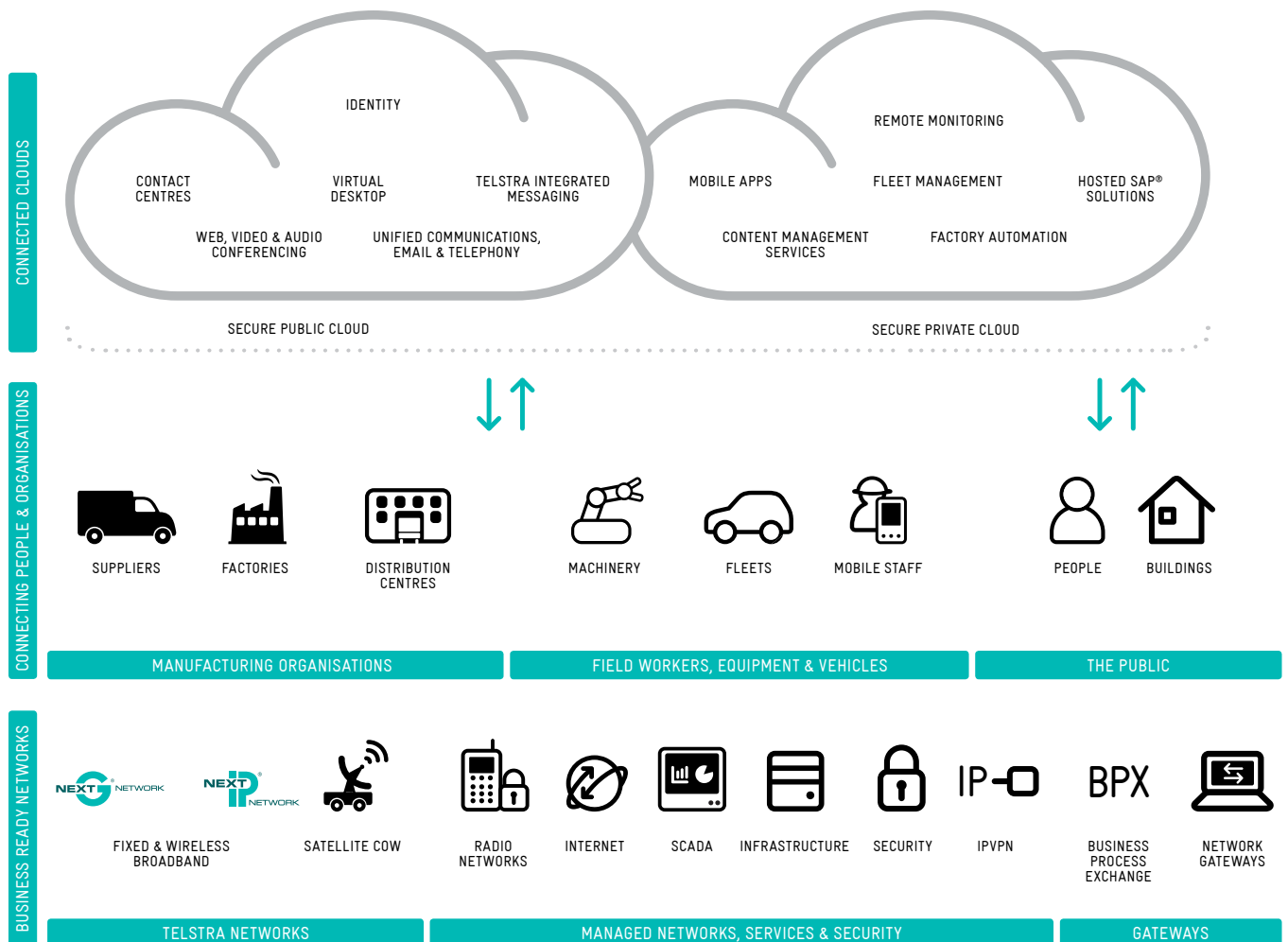### A SMOOTH PATH TO INNOVATION

Every manufacturer faces unique challenges. Whether you're looking to improve market intelligence, automate production and distribution or boost productivity, Telstra can work with you to help you innovate with minimal risk. In partnership with industry leaders Accenture, Cisco® and Microsoft – and M2M technology companies – we're focused on bringing you innovations sooner. We rigorously test in our Innovation Centre to deliver mature, proven, reliable solutions. And with an impressive track record of successfully deploying innovative solutions, we've helped our customers trim costs, differentiate their products and compete globally.

THE TELSTRA MANUFACTURING BLUEPRINT

CONNECTING YOUR SUPPLY CHAIN TO ENABLE AGILE, DEMAND-DRIVEN MANUFACTURING

The Telstra Manufacturing Blueprint connects partners via a high-speed IP WAN to secure cloud services, their workers, machines and fleets. The result is a holistic environment that trims costs at every stage of the supply chain.

Telstra manufacturing experts can work with your organisation to identify where efficiencies can be obtained and develop a roadmap to a more connected, automated future.

CONNECTED CLOUDS

IDENTITY

REMOTE MONITORING

CONTACT CENTRES

VIRTUAL DESKTOP

TELSTRA INTEGRATED MESSAGING

MOBILE APPS

FLEET MANAGEMENT

HOSTED SAP® SOLUTIONS

WEB, VIDEO & AUDIO CONFERENCING

UNIFIED COMMUNICATIONS, EMAIL & TELEPHONY

CONTENT MANAGEMENT SERVICES

FACTORY AUTOMATION

SECURE PUBLIC CLOUD

SECURE PRIVATE CLOUD

CONNECTING PEOPLE & ORGANISATIONS

SUPPLIERS

FACTORIES

DISTRIBUTION CENTRES

MACHINERY

FLEETS

MOBILE STAFF

PEOPLE

BUILDINGS

MANUFACTURING ORGANISATIONS

FIELD WORKERS, EQUIPMENT & VEHICLES

THE PUBLIC

BUSINESS READY NETWORKS

NEXT G NETWORK

NEXT IP® NETWORK

FIXED & WIRELESS BROADBAND

SATELLITE COW

RADIO NETWORKS

INTERNET

SCADA

INFRASTRUCTURE

SECURITY

IP-

IPVPN

BPX

BUSINESS PROCESS EXCHANGE

NETWORK GATEWAYS

TELSTRA NETWORKS

MANAGED NETWORKS, SERVICES & SECURITY

GATEWAYS

STREAMLINE PRODUCTION

Improve asset utilisation with greater automation and visibility.

Less downtime

Telstra machine-to-machine (M2M) solutions help you monitor and manage machinery and vehicles, remotely and automatically, from a centralised control centre. Identify and remedy potential problems with predictive maintenance alerts and diagnostics, or keep track of drivers to ensure delivery and supply schedules are kept to.

Better oversight

Cost-efficient IP surveillance lets you monitor your facilities centrally, improving security. By verifying that factory equipment is operating properly and that workers on your production line are following safe practices, you can minimise hazards and disruptions.

Accurate forecasts

Telstra Business Process eXchange lets you exchange data with global supply chain partners in the cloud. With visibility of sales, pricing, freight costs and other external factors, you can forecast demand and step up production when the market is set to spike.

IMPROVE CUSTOMER SERVICE

Improve the customer experience throughout the product life cycle.

Smarter customer communications

With automated inventory updates and multi-channel communications, contact centre agents have full visibility of customer orders and can advise them via email, SMS, instant message or voice alert.

Compelling product information

Telstra Content Management Services enable you to manage all your digital assets across multiple platforms so that customers, sales staff and technicians can easily access demonstration videos, product images and machinery manuals online.
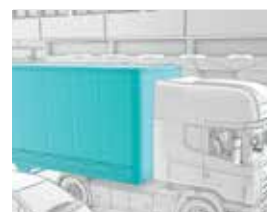
Proactive after-sales service

With Telstra Integrated Messaging your customers can sign up for automated product information, updates and maintenance alerts by SMS – deepening relationships with them and helping to ensure that they enjoy an optimum experience.

REDUCE OVERHEADS

Trim costs across your operations – and improve profitability.

Right-sized infrastructure

Easily scale ICT capacity up and down to match demand fluctuations with Telstra cloud solutions providing immediate access to the latest technology, including servers, storage and applications, on a pay-for-use basis.

Streamlined logistics

Telstra fleet management solutions provide a timely view of vehicles, driving conditions and freight volumes so you and your logistics partners can synchronise shipping, improve safety and optimise deliveries to reduce fuel consumption.

MAKE THE MOST OF YOUR WORKFORCE

Combat the skills shortage by improving productivity.

Stretch scarce expertise

Link via video to managers, engineers, mechanics, sales executives and other experts to resolve technical faults or business issues – and make the most of your skilled people.

More productive and safe

Help make workers more effective with SMS job updates, online training and mobile apps that integrate catalogue, stock, pricing, ordering and billing systems. Keep isolated or night shift workers safe with wireless distress lanyards.

GAIN A COMPETITIVE EDGE

Innovate cost-effectively.

Better planning

Help your people spot waste, inefficiencies and opportunities to innovate with integrated financial, management, sales and customer information via Telstra's powerful cloud-based SAP® Enterprise Resource Management solutions.

Get ideas across the line faster

Plant suppliers, designers, engineers, marketers and buyers can use video, audio and web conferencing to pitch ideas, discuss prototypes and fine-tune sales and service – while reducing cost- and time-intensive travel.

MOVING IN THE RIGHT DIRECTION

THE TELSTRA MANUFACTURING BLUEPRINT INTEGRATES SUPPLY CHAIN PARTNERS, INFORMATION, PEOPLE, FLEETS AND MACHINERY

1. BUSINESS READY NETWORKS

A unified IP network is the cornerstone of the Manufacturing Blueprint. To simplify processes and information exchange across your organisation, Telstra proposes a single converged IP Wide Area Network (IP WAN) providing wired and wireless broadband access, as well as public Internet, securely connecting your staff, partners and customers. At the same time, Application Assured Networking™ provides visibility of your network and applications (in Australia on the Next IP® network), so you can configure policies for optimal performance and plan for growth.

Sensors can transmit data from machines 24/7 via the Next G® network to trigger events – from order restocks to predictive maintenance – increasing uptime and ensuring productive asset utilisation. With the ability to manage assets online through our Wireless M2M Control Centre, it's easy to keep your staff safe and your assets productive. With analysis and predictive modelling you can collect and analyse data to identify inefficiencies and optimise operations.

2. CONNECTING PEOPLE AND ORGANISATIONS

Collaboration and Communication

Product sales service teams, executives and supply chain partners can collaborate with ease using IP telephony, unified communications, audio, video and web conferencing.

Mobility Solutions

Telstra can tailor solutions that help you connect workers securely to your systems from many locations, so you can streamline operations from the factory right across your supply chain. We can also connect salespeople and asset inspectors to forms, stock, pricing and order data.

Fleet Management Solutions

Telstra's Mobility Partner Program lets you track vehicles and products, estimate arrival times and provide wireless time and date stamping, eliminating manual data entry. With near real-time visibility of vehicles, speeds and rest stops via GPS satellites and the Next G® network, you can help improve the efficiency of your fleet and the safety of your workers.

Enterprise Messaging

Telstra Integrated Messaging (TIM) helps keep customers and retail partners in the loop and coordinate logistics more smoothly with automatic SMS product updates, orders and delivery times.

Telstra Content Management Services (CMS)

Telstra CMS provides intelligent content management and automated workflow to help you easily manage large volumes of video, photos and other digital media and repurpose for use across multiple platforms and applications.

3. CONNECTED CLOUDS

Many of the solutions in the Telstra Manufacturing Blueprint are available as affordable cloud services, providing fast access to servers, storage, software and applications – from anywhere there's an Internet connection. Size your ICT precisely to changing business needs and enjoy flexible pay-for-use pricing. Our Connected Cloud services include:

1. Infrastructure as a Service: scalable computing power and highly secure data storage with compliant archiving and retrieval in our enterprise-grade data centres.

2. Software as a Service: the latest software from Microsoft and other developers, as well as unified communications, video and web conferencing.

3. Hosted contact centres: set up a web contact centre to track order status and see timely supply chain data. Telstra can also set up skills-based routing and provide multi-channel support via phone, email, fax, live web chat and web call-back.

By choosing Connected Cloud services, you are spared ongoing capital investment while ensuring continual technology updates. Plus you benefit from innovative solutions with a predictable pay-for-use model.

THE TELSTRA ADVANTAGE

MANUFACTURING EXPERTS WORKING FOR YOU

When you work with Telstra, you have the benefit of experts who know the manufacturing industry inside out.

Your dedicated enterprise account management team can help address your specific business challenges and provide a solution roadmap tailored to your company. This team is fully supported by manufacturing experts who will rigorously scope, define and design the solutions you require, helping you achieve your goals on time and within budget. We're also a proud member of the Australian Logistics Council.

LOCAL KNOWLEDGE, GLOBAL EXPERTISE

Telstra Network Applications and Services combine skilled professionals, cutting-edge capabilities and Telstra's smart networks to help you evolve your ICT so it supports your business strategy.

Delivered by accredited professionals using best-practice methodologies, your service is backed by one of Australia's largest and most qualified field and technical workforces. We have 2500 communication technicians, over 700 maintenance technicians and 1600 field technicians Australia-wide, enabling us to manage your solutions across the complete ICT life cycle.

LESS RISK, STRONG GOVERNANCE

With Telstra, your organisation is in safe hands. We have one of the lowest risk profiles in the Australian telecommunications market. Our experienced consultants can help you navigate smoothly to the future, with proven deployment models helping to reduce risk, and ongoing expert consultancy to help keep your ICT efficient and effective. We're one of the few organisations that has selected IP products and associated security processes certified to ISO 27001 and the AS/NZS 13000:2009 Risk Management Standard. We also work collaboratively to shared governance processes.

WORLD-CLASS CUSTOMER SERVICE

Our customer service standards specify what you can expect from us. They're so exacting, we've earned the prestigious International Customer Service Standard certification at the highest level. We listen closely to your feedback – and act on it.

RELIABILITY, COVERAGE AND REACH

Your business will operate over Telstra core networks designed to 99.999% availability. Carrying thousands of customer private networks, we provide diversity with sub-second failover and recovery for your mission-critical services. We protect your business continuity 24/7 with advanced systems, monitoring and maintenance from dedicated centres.

Recognised as a market-leader by Gartner and Ovum, Telstra's international multiprotocol (MPLS) platform enables you to deploy new technologies rapidly. Combined with the Telstra Next IP® network, it provides extensive international coverage and reach and fast, resilient services across 45 countries to support your supply chain expansion into new locations.

AN INVESTMENT IN THE FUTURE

We continue to invest substantially in new technology so you don't have to risk your own investment to keep your network and organisation at the leading edge.

TELSTRA GLOBAL

NEXT G® NETWORK | NEXT IP® NETWORK

IT'S HOW WE CONNECT