Customer Spotlights

Telstra charts a course into the 5G Advanced era with Ericsson

ERICSSON

In partnership with

Telstra

Telstra charts a course into the 5G Advanced era with Ericsson

Customer case:
Telstra

Industry:
Telecom

Introduction

Australia's leading communications service provider (CSP) is pushing the boundaries again, embracing 5G Advanced to unlock new opportunities for itself and users. Channa Seneviratne, Telstra's Executive for Technology Development and Innovation, explains how the company is building on recent transformations to deliver more flexible, intelligent and sustainable networks.

A remarkable transformation

Leading Australian CSP Telstra has been on a remarkable journey of change over the past decade. When Australia switched from a copper to a fibre network in the 2010s, it was a turning point for Telstra and compelled the telco to reimagine its role in the telecommunications ecosystem. Determined to evolve, the company embarked on major transformation programs – radically simplifying its business and embracing digitalisation.

Now, Telstra is again stepping boldly into a new era. Through its ambitious Connected Future 30 strategy, the company is radically innovating in the core of its business and reinventing how it captures value. Part of that includes working with Ericsson towards a fully autonomous network.

Channa Seneviratne, Telstra's Executive for Technology Development and Innovation, says the next five years could see the company's network transition from level two autonomy – where workflows such as configuration are automated but human intervention is still required – to level four.

"Level four is true autonomy where our networks are truly declarative, intent-driven, with actions derived at run time," says Seneviratne from his office in Brisbane. "Where our wireless networks are self-optimizing and self-healing. Where we've got real-time optimization of the RAN going on with the Service Management and Orchestration SMO layer and flexible constructs around creating these customer opportunities."

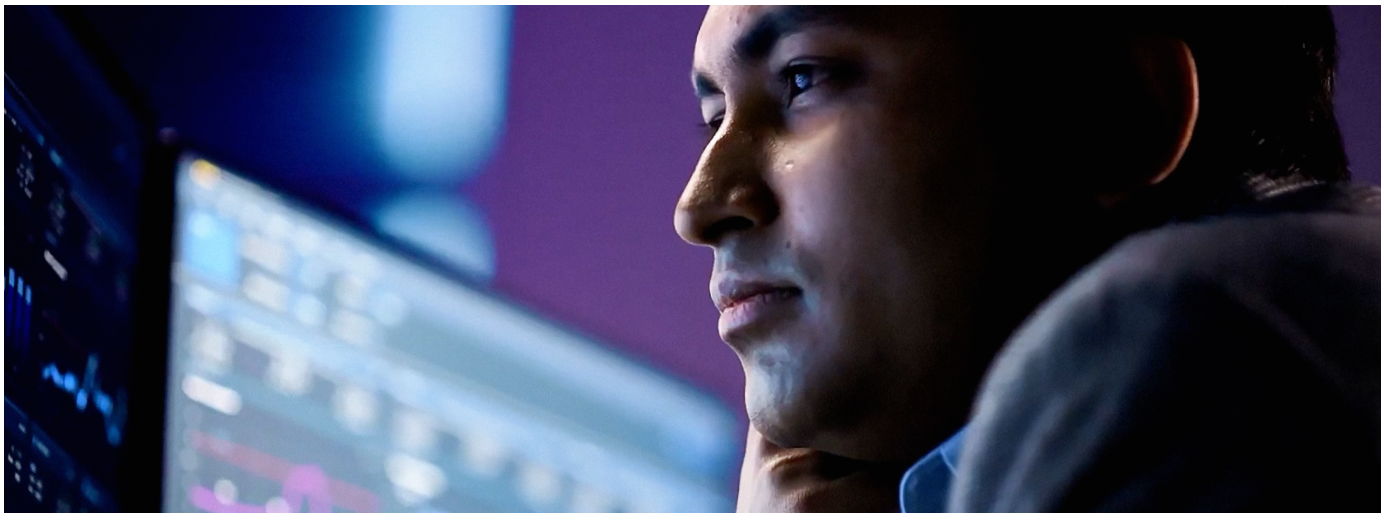
At a glance

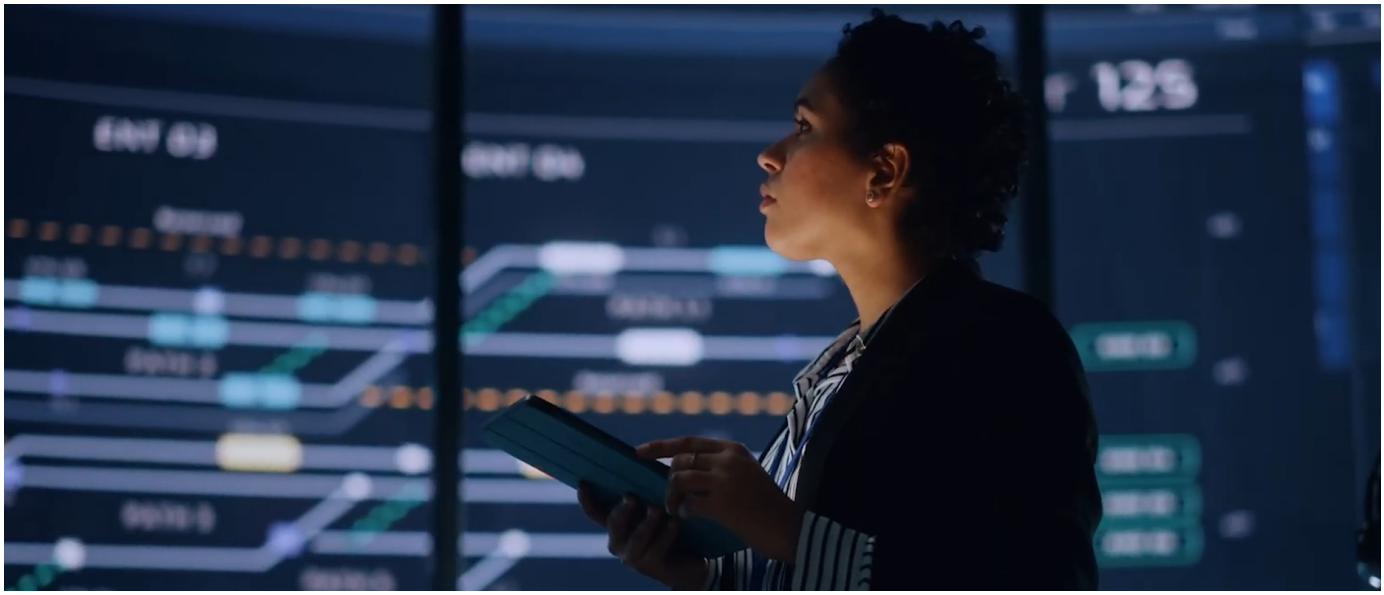
Goal:
Telstra is working with Ericsson to transform its network into a fully automated, programmable platform to deliver premium customer experiences, support new enterprise services, and help achieve its 2030 sustainability targets.

Approach:
- Keep executing on its Connected Future 30 strategy
- Deploying Ericsson's programmable network architecture and Service Management and Orchestration (SMO)
- Introducing dynamic network slicing and uplink enhancements

Results:
- Clear path from level 2 to level 4 network autonomy
- New revenue streams through network-as-a-product and on-demand slicing
- Enhanced uplink performance enabling advanced gaming, XR, and broadcasting
- Energy savings supported by Automated Energy Saver features
- Greater flexibility in product and pricing models for enterprise customers

Featured solutions:
Ericsson 5G Advanced RAN software; Service Management and Orchestration (SMO); Automated Carrier Aggregation; Automated Energy Saver; and Programmable network APIs.





More flexible solutions and business models

By introducing more programmability into its network, Telstra can introduce more differentiated services and flexible pricing models and monetise new capabilities such as uplink and on-demand slicing. The other benefit is that customers could spin up new services quickly and dynamically – driving more value for customers who can access network attributes on demand.

Seneviratne says Telstra is already taking advantage of the new network and IT architecture it has invested in. The decoupled architecture of Ericsson's programmable network solutions enables Telstra to separate the network from the IT systems, open up parts of its network through APIs and then use its IT systems to build new, more flexible products and pricing models quickly.

"So, we can offer a fixed subscription-based model or we can provide consumption pricing, revenue-based, shared revenue," says Seneviratne. "We haven't got there yet, but the elements of that are starting to come into place where we can do that. And network-as-a-product is such a key layer in being able to provide that capability."

A leader in network slicing

Seneviratne points to recent achievements in network slicing and network-as-a-product as clear evidence of Telstra's investment paying off. The company recently launched a fixed wireless slicing capability to allow enterprises to prioritise their traffic. It plans to follow this, giving enterprises the capability to send their enterprise applications on a differentiated slice and the rest of their traffic on a best-effort slice.

While network slicing isn't unique to Ericsson 5G Advanced — service providers can already offer basic slicing on current 5G networks — the new standard dramatically expands what's possible. With Ericsson 5G Advanced, Telstra can automate and scale slicing in real time, bringing premium, on-demand experiences to customers.

Next, Telstra's focus will shift to handsets. Seneviratne explains that the first commercial slicing applications for handset customers are likely to be at large events, such as concerts and festivals. This is because it's relatively easy to predict user movements and infrastructure requirements – and because user demand is likely to be high. "Imagine you go to a concert event and realise when you get there the experience is not that great – the network is congested," he explains. "You want to share your videos on social media, and you can't do it. So, you subscribe to the slice for that location for a fixed time period. You pay a premium for that period, and then at the end of it, we bring the slice down."

Beyond, slicing within precincts, Telstra would like to offer end users the opportunity to take a slice with them as they move from one location to the next. That will take work, but would provide customers with extraordinary freedom, ensuring they stay fully connected wherever they go.

Ericsson 5G Advanced benefits

Slicing is not the only revenue stream that Ericsson 5G Advanced RAN software solutions are helping Telstra to unlock. Seneviratne points to uplink enhancements such as Uplink MIMO, Uplink Carrier Aggregation and Uplink TX switching, which provide more capacity on the uplink and a better quality of experience. "That gives us a better chance to monetize the uplink. We see demand that's coming from enterprises and even consumers – people who want to do advanced gaming or mixed reality, virtual reality and want to do it in a network way."

Seneviratne says another area he finds exciting is an Automated Carrier Aggregation – combining multiple frequencies for a faster, more reliable connection, something previously done manually. "And also along with that comes the SMO, the RAN orchestration, the SMO platform and the ability to start now writing our apps on top, which then interact with the baseband."

Telstra's emissions reduced by 70 % by 2030:

Ericsson's Automated Energy Saver feature is helping Telstra achieve its ambitious carbon reduction target.

70%

Meanwhile, with Telstra promising to reduce emissions by 70 percent by 2030, the Automated Energy Saver features of Ericsson 5G Advanced are highly attractive. "We have to find that sweet spot where we conserve energy but also provide the required experience without compromising that," says Seneviratne. "And we can only do that with the features that are being made available through Ericsson 5G Advanced solutions."

Telstra is also investing a lot in explaining to enterprise customers how 5G Advanced can benefit them. "The best way to do that is our customer engagement centres," says Seneviratne. "So, for example, on Queensland's Gold Coast we have a Telstra Inno-vation Centre. It's a lab where we do actual network testing, but it's also a collaboration space." A recent visitor to the lab was aeronautics firm Boeing, which explored Telstra's dedicated network options for private and defence applications.

Speaking a common language

Seneviratne says Telstra's long-lasting relationship with its network vendor, Ericsson, reflects Ericsson's ability to innovate and deliver when it counts continuously. Together, the two companies have achieved more than 60 telecommunications world firsts. "If you look at our track record and all the world firsts we've achieved, that's just an amazing record," he says. "I don't think there are many other operators around the world that can point to that type of achievement and point to a single network vendor and say, well, we've done that with these people."

Towards 2030 and beyond

With Ericsson 5G Advanced and Connected Future 30, Telstra is not just upgrading its network – it's reshaping how Australians experience connectivity. For users, that means premium performance at crowded events, smoother gaming and VR experiences, faster and more reliable uploads, including broadcasting capabilities, and, eventually, seamless coverage even in remote areas. For Telstra, it means a fully autonomous, energy-efficient platform capable of spinning up new services instantly, unlocking fresh revenue streams and strengthening its leadership at home and abroad. By 2030, the company aims to have built a network that is as dynamic and innovative as the customers and industries it serves – a bold vision that could redefine the very nature of mobile connectivity.connectivity.

Network-as-a-product lets us deliver flexible subscription, consumption and shared-revenue models to enterprises and consumers.

Telstra and Ericsson – over 60 telecommunications world firsts

Telstra has a reputation as a global innovator thanks to a string of firsts together with Ericsson. These include delivering Australia's first commercial 5G services, providing the world's first fully automated 5G network slicing demonstration, and pioneering direct-to-mobile satellite connectivity. "I don't think there's many other operators around the world that can point to that type of achievement and point to a single network vendor," says Channa Seneviratne.

60+

telecommunications world firsts

Channa Seneviratne
Executive – Technology Development and Innovation
Telstra

Definitions

Programmable network: Programmable networks enable simplified and adaptive configuration with intents and AI, which in turn enables differentiated connectivity that can be scaled more easily and offered as multiple levels of connectivity services to consumers and enterprises. It also helps to improve network performance and user experience, and automate operational procedures supporting CSPs in their journey towards autonomous networks. Ericsson 5G Advanced is a key enabler in realizing programmable networks - built to be intent-driven, AI-powered, and service-aware.

SMO: Service Management and Orchestration is a platform concept defined by the O-RAN Alliance that provides unified service orchestration, assurance, and automation for radio access networks (RAN). SMO enables centralized management and optimization of multi-vendor and multi-domain RAN environments.

Slicing: Network slicing is a method of creating multiple virtual networks on a shared physical infrastructure, each tailored to specific business needs or services. This technology allows CSPs to dedicate radio network resources to different use cases – ensuring consistent performance and reliability.

Automated Carrier Aggregation: It increases operational efficiency and ensures optimal performance by automatically configuring cell relations for 5G Carrier Aggregation low- and mid-band without manual effort from service providers.

Automated Energy Saver: The award-winning Automated Energy Saver operates within the RAN Compute or baseband, offering distributed automation to enhance network performance while minimizing energy usage. This functionality activates or deactivates radio resources based on user throughput, ensuring energy is not wasted when not needed. It exemplifies intent-driven operations, focusing on user experience to automatically manage network resources.

Uplink MIMO (Uplink multiple input multiple output): It uses multiple antennas on the device to transmit multiple data streams to the network, enabling higher uplink speeds and increased uplink cell capacity.

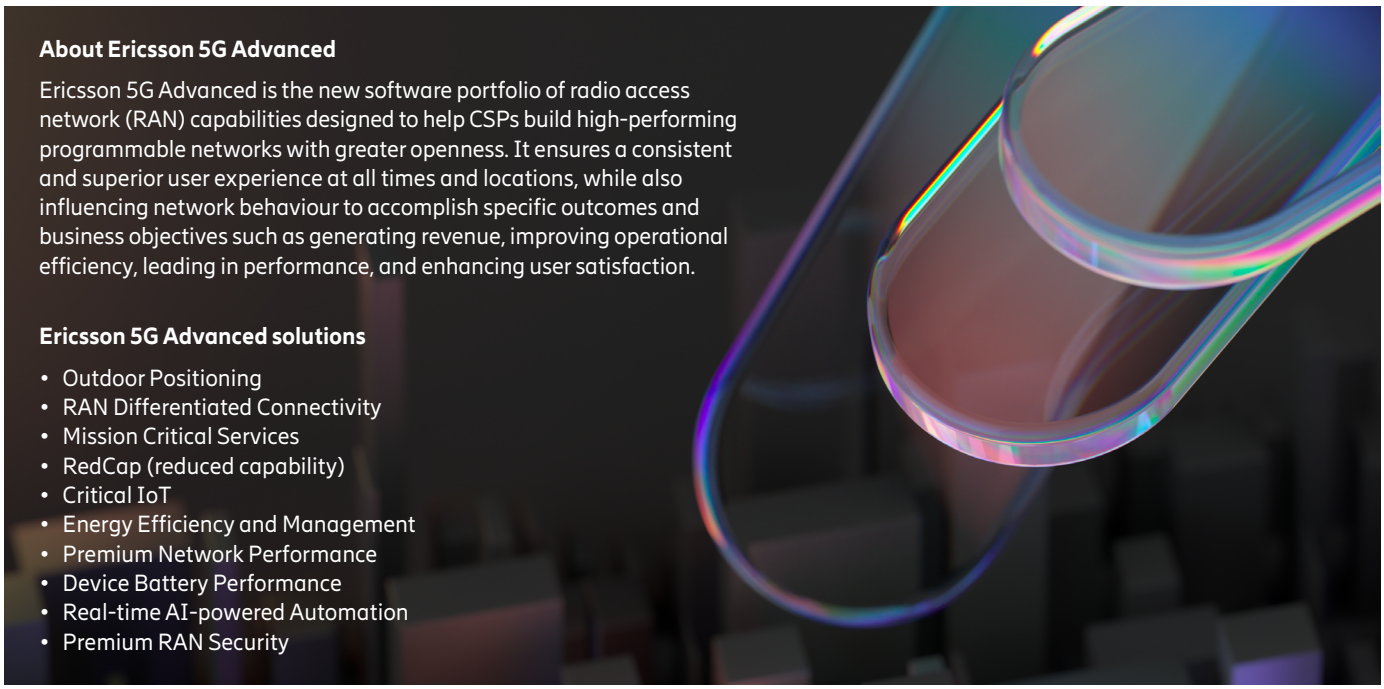
Uplink Carrier Aggregation: It achieves higher uplink user peak bitrates by aggregating three or more component carriers in frequency range 1 (FR1), below 7 GHz.

Uplink Tx Switching: It enables 2-layer uplink MIMO from both TDD (time division duplex) and FDD (frequency division duplex) bands. The device dynamically switches transmission—using 2 layers from TDD in uplink TDD slots and 2 layers from FDD in downlink TDD slots. This enhances uplink capacity, providing differentiated experiences for users who require high uplink speeds.

Ericsson 5G Advanced Real-time AI-powered Automation subscription. It enables CSP to scale network automation even in complex scenarios, with maximum network performance and efficiency thanks to AI and real-time coordination with RAN features like Automated Carrier Aggregation.

Ericsson 5G Advanced Energy Efficiency and Management subscription. It delivers optimized energy performance to drive down energy consumption in RAN and lowers operating expenses. This helps scale energy management through automation and delivers guaranteed service-level agreements (SLAs) thanks to features like Automated Energy Saver.

Ericsson 5G Advanced Premium Network Performance subscription. It offers increased coverage and capacity in the most traffic-loaded scenarios and enhances customer loyalty by ensuring an exceptional experience for flagship devices. It includes, among others, Uplink Carrier Aggregation, Uplink Tx Switching, advanced Massive MIMO technologies and Uplink-aware Advanced Multi-Layer Coordination.



About Ericsson 5G Advanced

Ericsson 5G Advanced is the new software portfolio of radio access network (RAN) capabilities designed to help CSPs build high-performing programmable networks with greater openness. It ensures a consistent and superior user experience at all times and locations, while also influencing network behaviour to accomplish specific outcomes and business objectives such as generating revenue, improving operational efficiency, leading in performance, and enhancing user satisfaction.

Ericsson 5G Advanced solutions

- Outdoor Positioning
- RAN Differentiated Connectivity
- Mission Critical Services
- RedCap (reduced capability)
- Critical IoT
- Energy Efficiency and Management
- Premium Network Performance
- Device Battery Performance
- Real-time AI-powered Automation
- Premium RAN Security

About Telstra

Telstra is Australia's leading telecommunications and information services company, with a customer base that includes consumers, businesses, large enterprises and government organisations. It provides around 22.5 million retail mobile services and 3.4 million retail bundle and data services.

About Ericsson

Ericsson enables communications service providers to capture the full value of connectivity. The company's portfolio spans Networks, Digital Services, Managed Services, and Emerging Business and is designed to help our customers go digital, increase efficiency and find new revenue streams. Ericsson's investments in innovation have delivered the benefits of telephony and mobile broadband to billions of people around the world.

www.ericsson.com

SE-126 25 Stockholm, Sweden
Telephone +46 10 719 00 00

February 2026, Rev. 1