

The future of communication networks: embracing infrastructure-free communications solutions

Peter Scarlata, CEO Australasia, Simoco Wireless Solutions

What are the challenges in Australia?

Cyclones



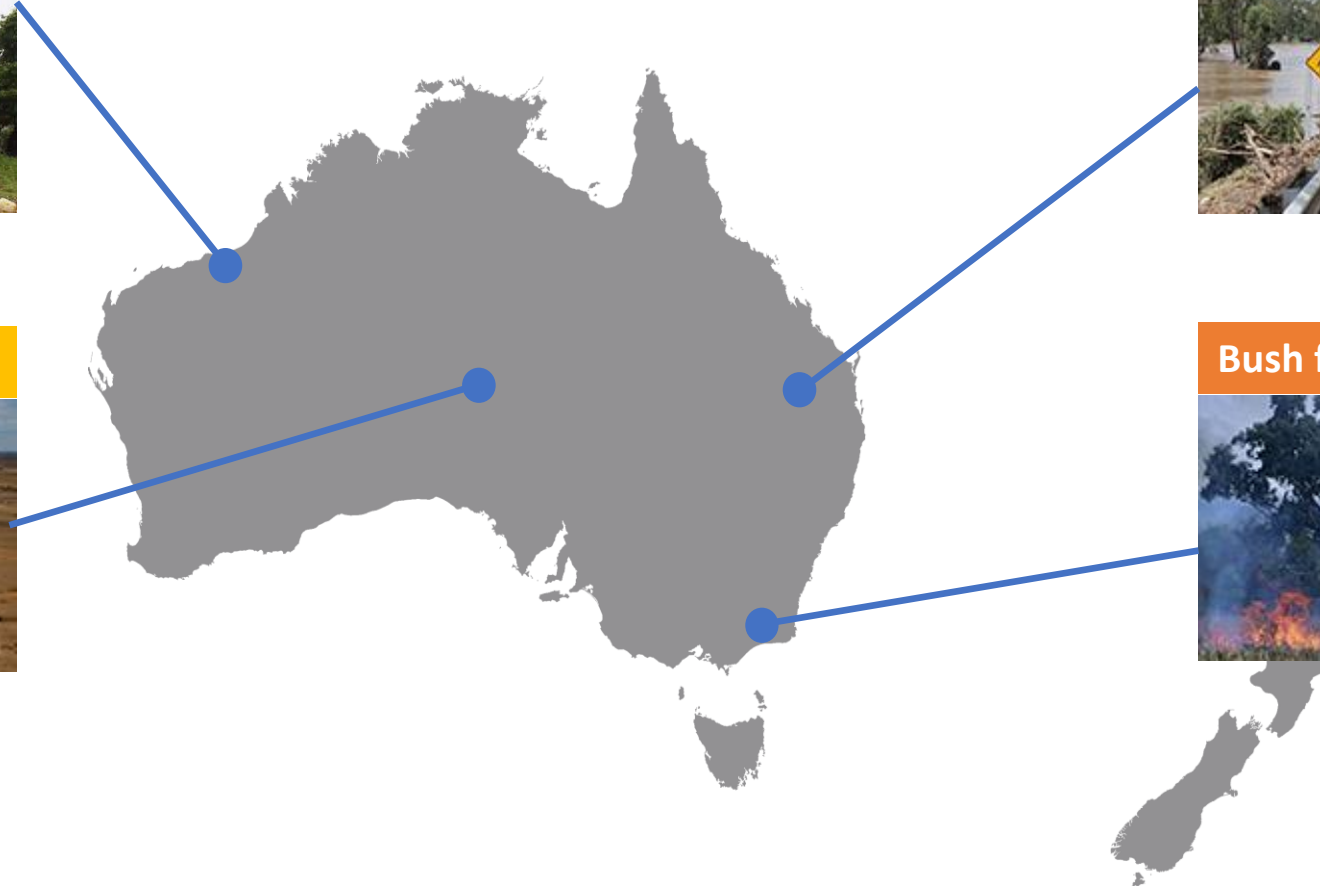
Flooding



Isolated areas



Bush fires



What is the market now asking for?



New technological advancements

LEO Satellite

- ✓ Provides coverage into non-existent signal areas
- ✓ Now provides broadband connectivity
- ✓ Easy accessibility

4G/5G availability

- ✓ Readily available
- ✓ Growth into regional areas
- ✓ Use of multiple radio networks and bearers

Mesh Radio

- ✓ Quick deployment of an ad-hoc network
- ✓ Increased reliability and resilience
- ✓ Low power and high speed



Technological
Advancements

Embracing infrastructure-free communications solutions

Requires no fixed infrastructure
unlike conventional networks



Utilisation of existing public domain services



Automatic seamless switching to best available bearer



Never out of range
with two-way voice and data coverage





Mission Critical Broadband data
for rich application use



Terrestrial networks vs Infrastructure-free

Balancing the cost and benefit of installing terrestrial networks vs infrastructure-free communications solutions

-  Higher cost
-  Lower cost

Costs involved installing terrestrial networks vs infrastructure-free

Terrestrial Networks

Infrastructure-free

Initial Investment



Site rental



Backhaul



Operational & maintenance costs



Spectrum costs



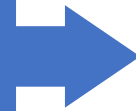
Power costs



Serco Case Study - Challenges

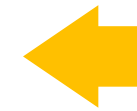
STATEWIDE MOBILE RADIO (SMR)

Was set to be discontinued
in June this year.



PRIVATE NETWORKS

Not viable for us to setup
our own private network
across the entire state.



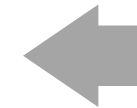
STATE OF VICTORIA

We needed a solution
that spanned the whole
state of Victoria.

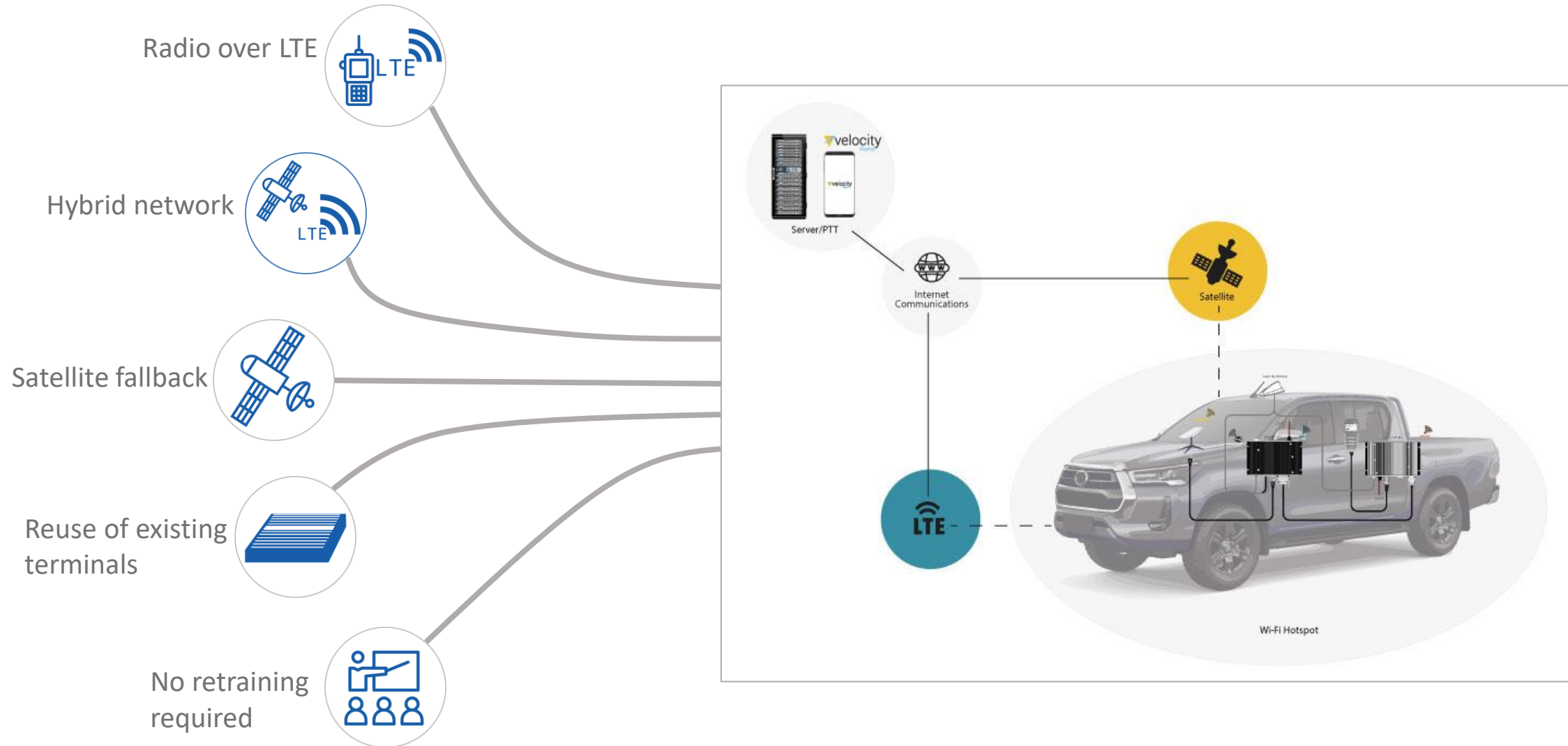


RETRAINING

We did not want to retrain
our staff to use a new
system which could cause
confusion.



Serco Case Study - The Solution



Serco Case Study – Customer testimonial

**“ What we don’t
Know, We Don’t
know ”**

“The evolution from a radio replacement system to an infrastructure-free, seamless transition has empowered Serco operators, enhancing efficiency with automated processes”.

Steven Crawcour

Operations Support Manager

Serco Traffic Camera Services (Vic) Pty Ltd



Summary and key takeaways

Infrastructure – free communications will:



Be suitable for low population and regional networks in the future



Be a great alternative when excellent LTE is available with / without Satellite



Natively allow for new levels of broadband access



Provide resilience comparable to PMR networks with multi-bearer technology