FIRST NATIONS DIGITAL INCLUSION ADVISORY GROUP

Who we are:

First Nations Digital Inclusion Advisory Group

- Ms Dot West OAM (co-chair)
- A/Professor Lyndon Ormond Parker (co-chair)
- Ms Talei Elu
- Ms Naomi Moran
- Professor Bronwyn Carlson
- Dr Heron Loban
- Mr Jerome Cubillo

Digital Inclusion Expert Panel

- Ms Gillian Mailman
- Ms Lauren Ganley
- Dr Scott Winch
- Mr Che Cockatoo-Collins
- Mr Neil Turner
- Professor Ellie Rennie
- Dr Daniel Featherstone
- Ms Cheryl Bailey
- Mr Dan Lloyd

What is Target 17?

Target 17:

By 2026, Aboriginal and Torres Strait Islander people have equal levels of digital inclusion

Outcome 17:

Aboriginal and Torres Strait Islander people have access to information and services enabling participation in informed decision making regarding their own lives

Why is it important:

Digital inclusion is not about forcing everyone online, it's about ensuring all Australians can share the benefits of being connected and not be excluded from an increasingly digitised world.

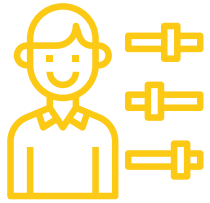
The Index construction is based on three dimensions

Access

How often, and through how many services and devices people are connecting to and using the Internet

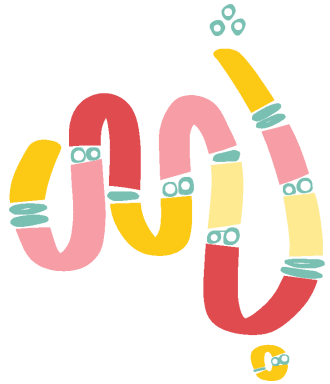
Affordability

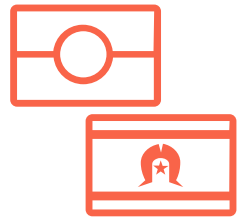
The percentage of household income required to gain a good quality service with reliable connectivity



Digital Ability

What people can do online, and their confidence in doing it





73.4
National average
(exc. First Nations)

65.9
-7.5
First Nations
(national average)

71.6
-1.7
First Nations
(major cities)

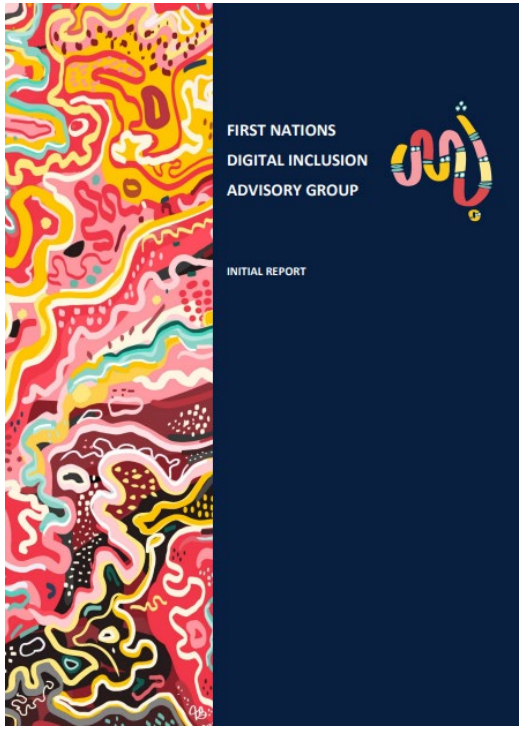
61.4
-12.0
First Nations
(outer regional)

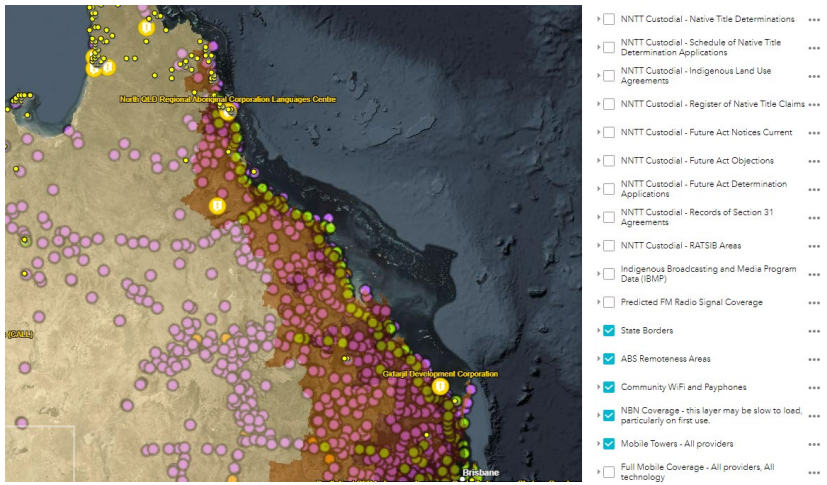
49.0
-24.4
First Nations
(remote)

48.0
-25.3
First Nations
(very remote)

Key milestones to date

- Publication of initial report calling for:
  - Improving all elements of digital inclusion
  - Addressing the lack of data on digital inclusion levels for First Nations Australians
  - And genuine engagement and collaboration with First Nations Australians in addressing the digital divide
- First Nations Data Map
- Stakeholder and community engagement with communities, First Nations organisations, government, industry, and advocacy groups
- Delivery of community Wi-Fi in up to 20 remote communities
- Submissions on Better delivery of universal services, Digital ID and Regional Connectivity Program





A roadmap to First Nations digital inclusion

- We are seeking feedback on key considerations to include in a long-term roadmap towards **First Nations digital inclusion**

Key Principles for the Roadmap:

- the importance of **place-based** approaches
- moving from closing the gap to **innovation** and **excellence**
- First Nations **representation**
- remaining **technology-agnostic**
- centering First Nations **consumer preferences**

infrastructure.gov.au/have-your-say/roadmap-first-nations-digital-inclusion

Hearing from you and working together

- Sharing knowledge and data
- Digital initiatives must not leave Australians behind
- No Australian, is disadvantaged, unfairly treated or unable to access emergency and essential services irrespective of the technology used
- Improve products and services
- Ensure basic consumer protections that can adapt with new technologies
- Communities, government, industry and organisations need to work together to close the gap. This will benefit all

Mapping the Digital Gap Co-researcher Audrey Shadforth doing a survey with Tyresha Gore in Djarindjin

www.digitalinclusion.gov.au

Contact:
FirstNationsDigitalInclusion@infrastructure.gov.au

Universal Service Obfuscation: Policy principles to deliver modern telecoms services in regional Australia

Wednesday 1 May 2024

Luke Coleman

Vocus Head of Government And Corporate Affairs, Enterprise & Government

xenith IG

xenith IG

CommsDay Summit, Sydney

April 2024

Dan Whitford
EVP Sales - Australia

CommsDay Summit 2024

Broad range of topics

Do we all understand the depth of the content?

Wouldn’t it be nice if we did?

Time to dial it back *just* a bit

Let’s talk about Dark Fibre!

The importance of securing this critical infrastructure

xenith IG

Agenda

1. The Early Days: Sharing the Pipes and the Pain

2. The Rise of Private Highways: Lock it Up and Speed Up!

3. Why is This So Critical? The Importance of Dark Fibre

4. Challenges and the Road Ahead

5. The Essential Link: Data Centre to Data Centre Connectivity

6. The Future is Intelligent: AI and the Rise of Smart Dark Fibre Networks

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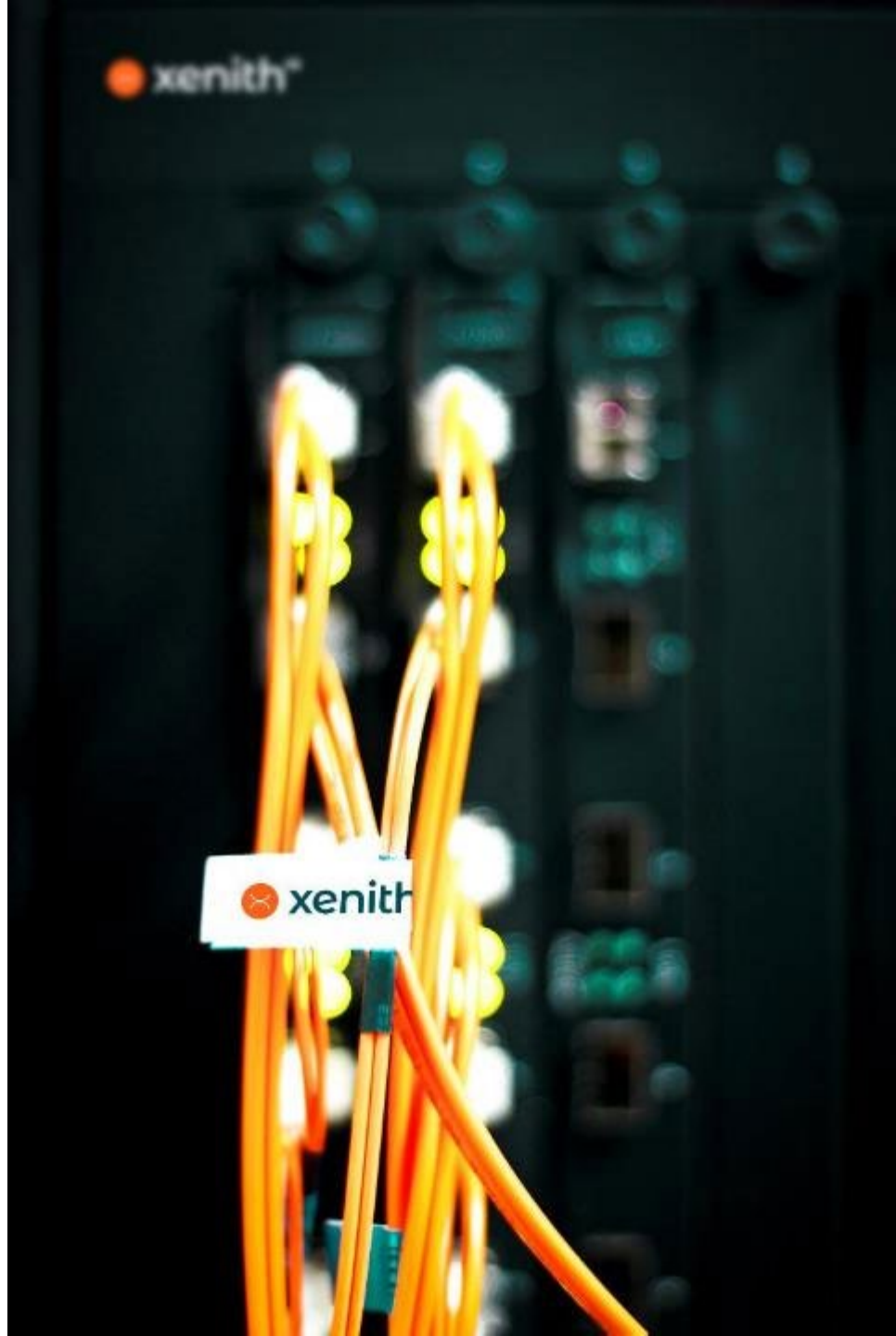


The Early Days: Sharing the Pipes and the Pain

“Highways” & “Tunnels”

3rd party duct infrastructure

- Cheaper than digging yourself
- Faster to deploy services for customers, specifically on new routes

“Highways” & “Tunnels”

Problems arising

- Limited Control and Frequent Outages: Impacts on maintenance & unforeseen issues
- Vulnerability and Security Concerns: Anyone can access multiple Carrier infrastructure

Incidents that have arisen because of using 3rd Party Duct Infrastructure: AUD$1.8 billion annually

The Rise of Private Highways: Lock it Up and Speed Up!

Enhanced Reliability

The industry is witnessing a shift towards private infrastructure, offering reduced outages, enhanced reliability, greater control, and unprecedented security through lockable pit lids

Limited Adoption in Australia

Despite the benefits, the adoption of private infrastructure remains limited in Australia, highlighting the need for increased security and benefits for all

Why is This So Critical?
The Importance of Dark Fibre

Fast-Paced Operations and Unmatched Bandwidth

Lightning Speed Information

Dark fibre enables lightning-fast information travel, essential for processing large datasets with unmatched bandwidth and consistent high performance

Fast-Paced Operations and Unmatched Bandwidth

Enhanced Security

Deployment through private duct infrastructure ensures superior security, increasing operational efficiency and revenue while addressing vulnerability and security concerns

Challenges & the Road Ahead

Cost, Collaboration, and Awareness

Cost & Time Investment

Significant capital and time investment, along with the crucial need for collaboration between government and private entities

Raising Awareness

The importance of education and utilization of industry bodies to promote sustainable construction practices and environmental considerations

The Essential Link: Data Centre to Data Centre Connectivity

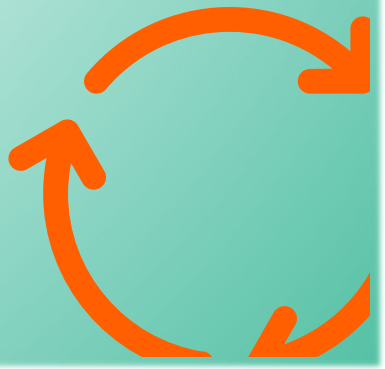
Powerhouses and Security Vulnerabilities

Critical Connectivity

Data centres require large connectivity for access to the internet and content, emphasizing the need for enhanced security through dark fibre in private duct infrastructure.

Uninterrupted Flow and Fort Knox Security

Private duct infrastructure offers unmatched speed, uninterrupted flow, and security, aligning with the security ratings of data centres.

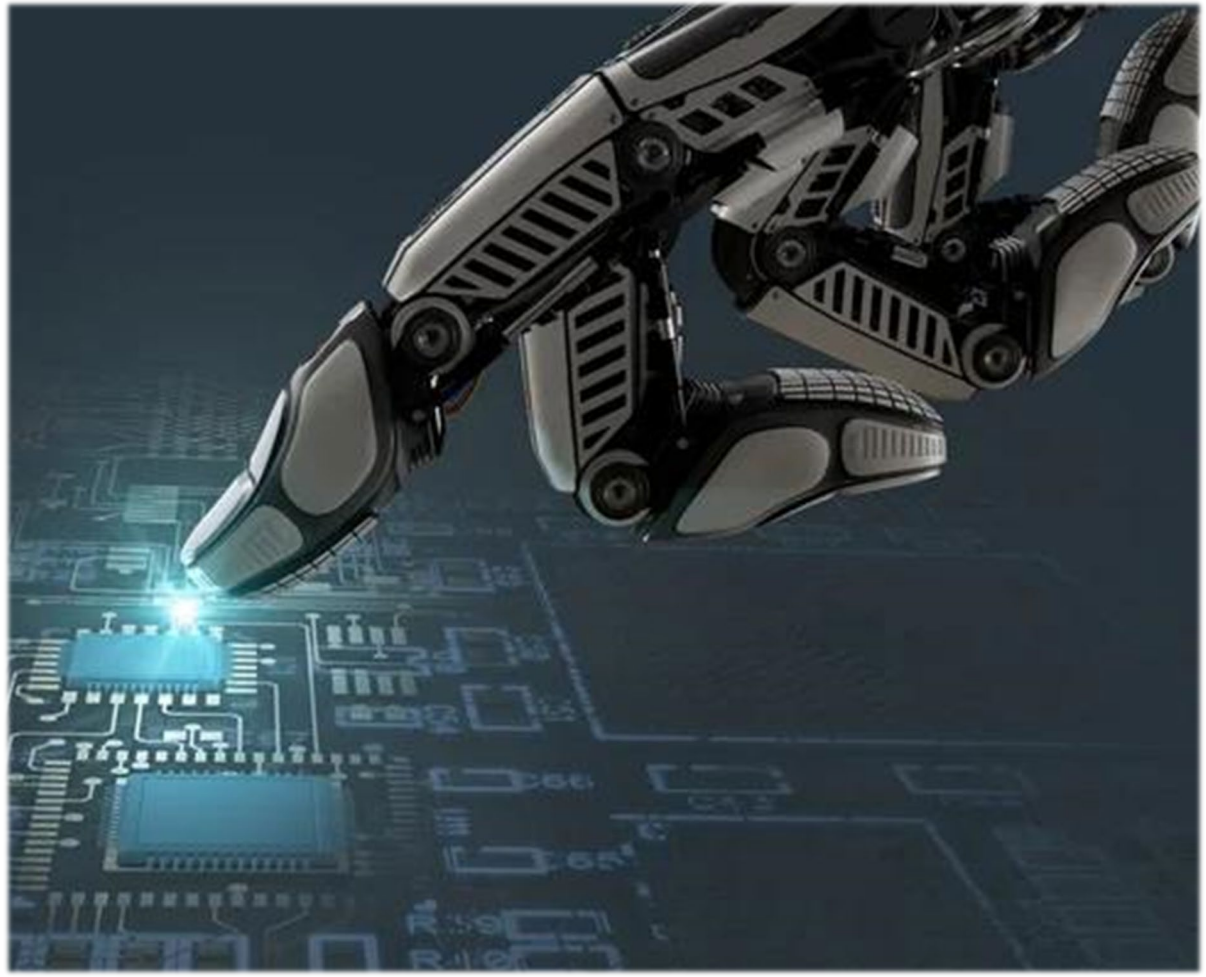


The Future is Intelligent: AI and the Rise of Smart Dark Fibre Networks

AI's Game-Changing Role and The Road to Intelligent Networks

AI’s Impact

- Self-healing networks
- Enhanced security
- Predictive maintenance
- Requirement for collaboration between network providers, AI developers, and data scientists



AI's Game-Changing Role and The Road to Intelligent Networks

Data Security and Privacy

The undeniable impact of AI and machine learning necessitates guidelines and regulations for responsible data management

Thank you

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superloop

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Lead at the Edge:

Redefining Possibilities with Edge Computing

Dr. Arul Dharmalingam

APJ Head of Solution Engineering – Edge, SASE, Telco

VMware by Broadcom

CommsDay 1st May 2024

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Distributed Everything: The Shift in Data Gravity

"The Edge Computing Market is currently sized at $16.45 billion and poised to grow to approximately **$155.9 billion by 2030** with a **CAGR of 37.9%** between 2023 and 2030."

Grandview Research, Edge Compute Market, 2023

"By 2025, more than **50%** of enterprise-managed data will be created and processed outside the data center or cloud"

Gartner Research, Edge Computing

In IDC Research's EdgeView 2022 survey, analysts predicted a continued increase in investment for edge solutions over the next two years. According to the survey, **75%** of enterprises planned to increase their edge investments by an average of **37%**.

"The **22%** growth rate of spend in Edge Computing compared to 4% growth in spending on enterprise networking equipment and 6% on overall enterprise IT within 2022."

Deloitte, Edge Computing Battle for The Enterprise Edge, 2023

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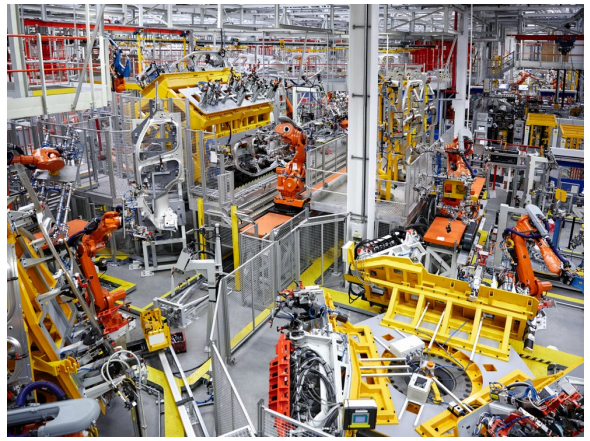
Industry Disruption Forces Change

With transformation comes innovation

Manufacturing



- Predictive Maintenance
- AR/VR Enabled Remote Operations
- Maximize production uptime and operating efficiency

Retail

- Loss & fraud prevention
- Personalized Shopping
- Immersive Retailing
- Improve compliance & safety

Logistics/Transportation

- Real-time inventory tracking
- Improved fleet operations
- Safety & security
- Efficiency improvement

Energy

- Increase production visibility and efficiency
- Reduce unplanned downtime
- Maintain regulatory compliance

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Mission Specific Edges: Field Learnings

Requirements

Flying Medical Services

Hospital On Wheels

Coast Guard Ops

Payload Specific Workloads

High Service Velocity

Personification of Edges to suite Mission

Remote Offline Serviceability

Zero Trust Network Model

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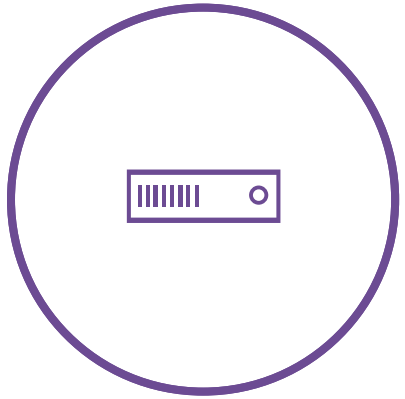
Edge Has Unique Challenges

Which are different to a datacenter or cloud



Limited Compute

Inelastic. Most deployments are 1–3 nodes

Limited Network

High latency, low bandwidth, extended outages, firewall, proxy, NAT

Many sites

Different than cloud, must run many near-identical sites

Limited IT

Few trained IT at the edge locations, few dedicated to Edge in Central IT

Privacy and Security

Need to protect data and IP from cyber and local risks

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Our Approach to the Software-Defined Edge

Enterprises

Right-Size Infrastructure

Zero-Touch Orchestration

Network Programmability

Service Providers

Modernize

Monetize

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VMware Edge Compute Stack (ECS)

A Purpose-built platform for running Edge Native Apps

Edge Runtime

Edge-optimized runtime for VMs, K8s and virtual storage

Industry-leading, robust edge runtime for real-time and non-real-time workloads

Pull-Based Orchestration

Desired state-based fleet management

Edge compute provider with experience managing 100,000s of endpoints

Telemetry

Insight and visibility into edge workloads, IoT devices

VMware Edge Network Intelligence (ENI) auto discovery, contextual analytics & problem resolution (self-healing)

AI Platform

Edge AI inferencing optimization and federated learning

Edge AI performance leader with AI HW- agnostic sharing for learning and inferencing

End-to-End Security

Secure onboarding, continuous OT security monitoring

Powerful security portfolio protecting edge native applications and infrastructure

Services Platform

Easy to add VMware or 3rd party services

Comprehensive edge services covering connectivity, security, telemetry and analytics

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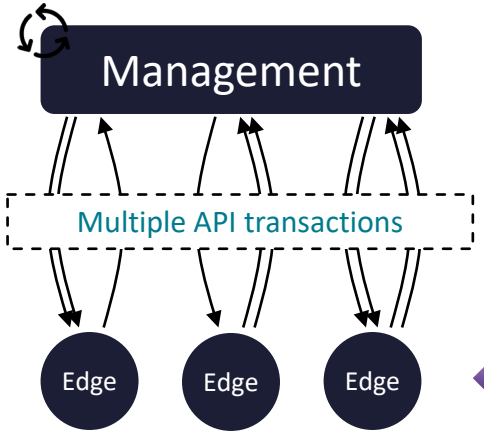
Edge Management Needs a Different Approach

Push Mode Approach

Work well in a controlled environment such as Data Center

Management system maintains states and keeps track of transactions and states of every edge nodes

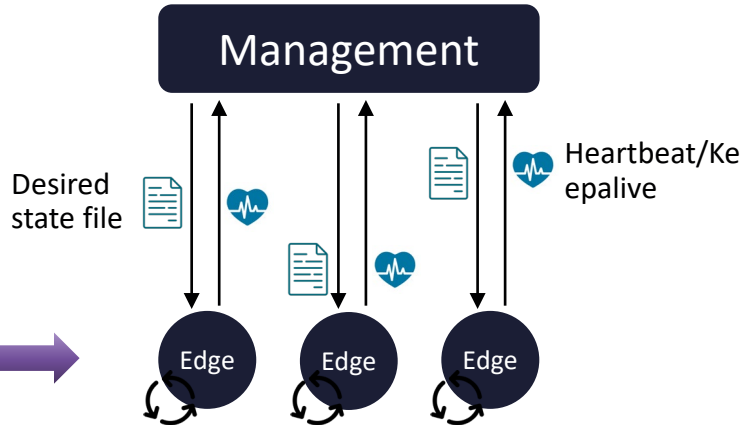


Edge is outside the Data Center or even outside of enterprise prem

Pull Mode Approach

Proven approach for distributed deployment environment such as Edge (like managing iPhone)

Management system waits for edge node to check in through a heartbeat/keepalive



Edge nodes check in with the management plane, download the updated desired state files, and perform reconciliation to get to the desired state

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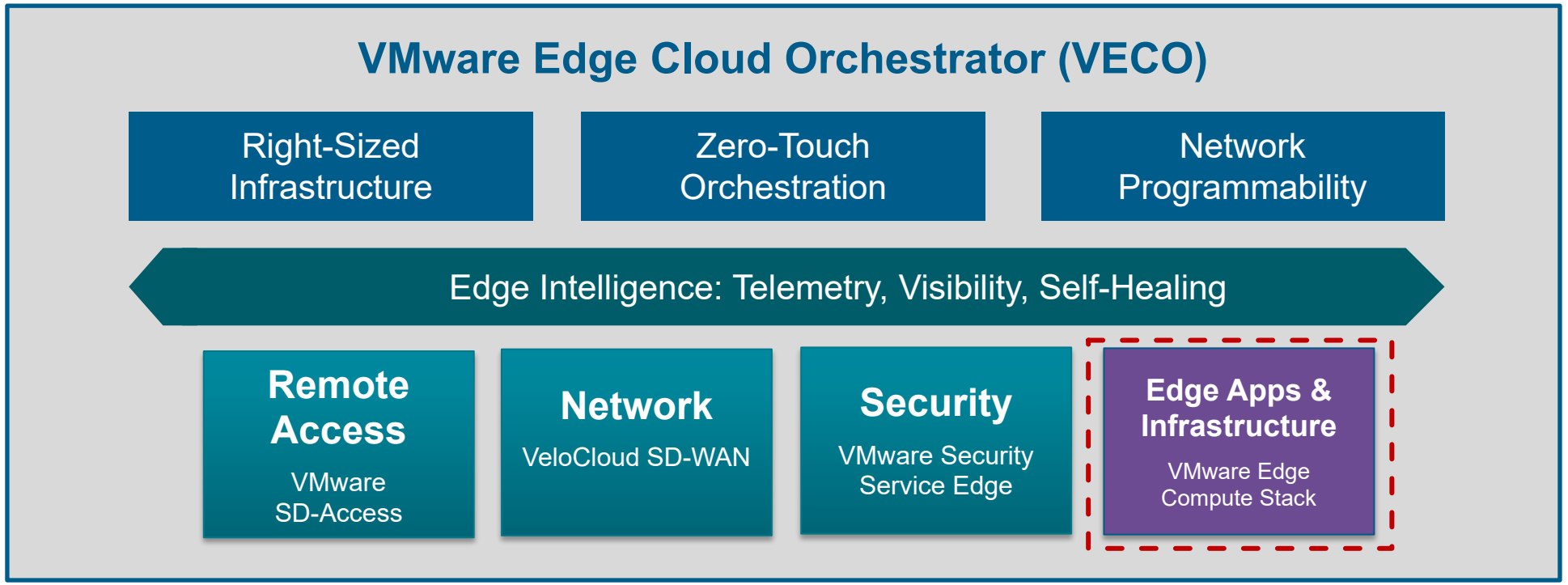
Unified Orchestration for the Software-Defined Edge

The Software-Defined Edge is the distributed digital Infrastructure for running workloads across dispersed locations, placed close to end points producing or consuming data.



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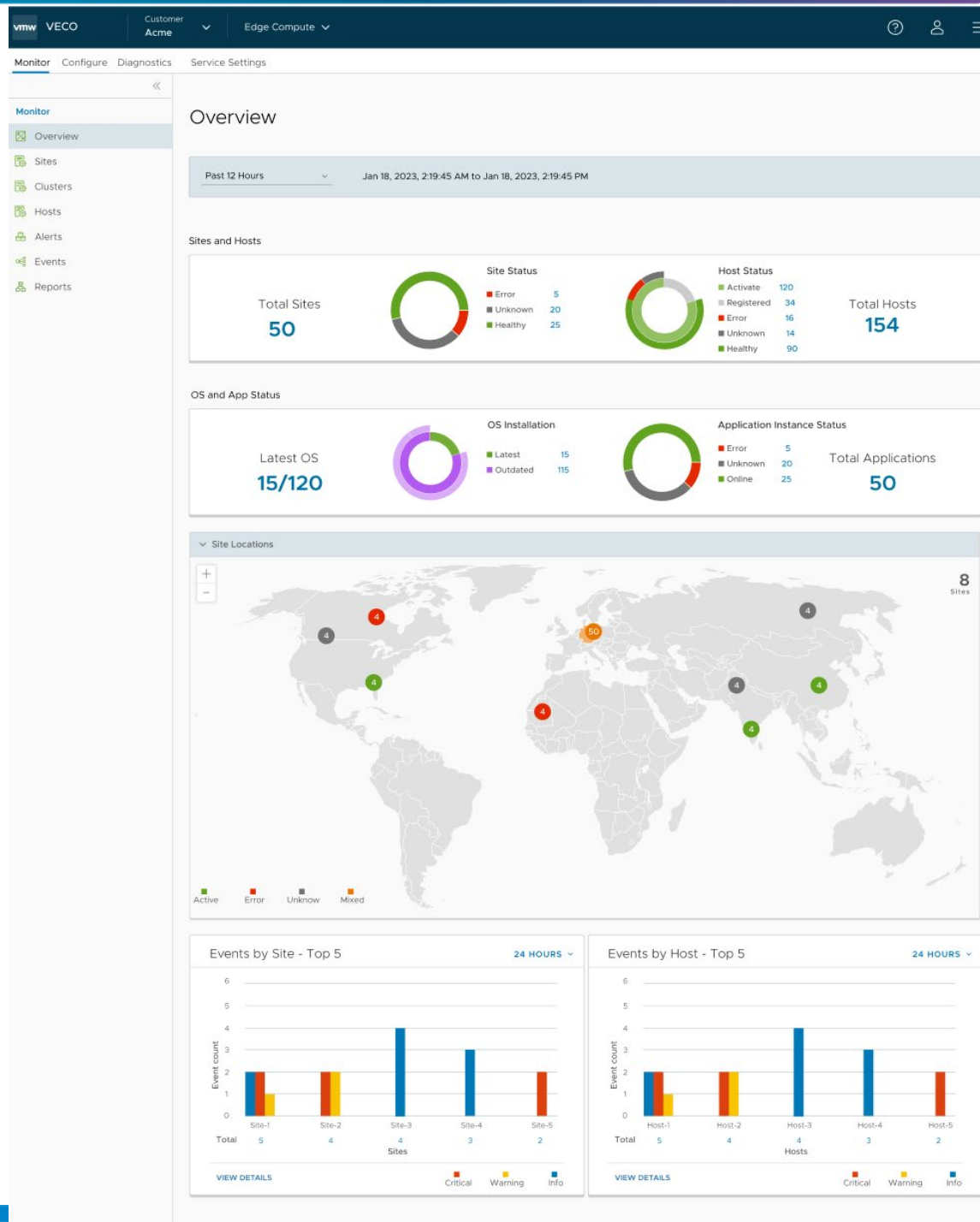
Orchestrator
Command and Control

Reduce downtime at sites with Edge Scale Management



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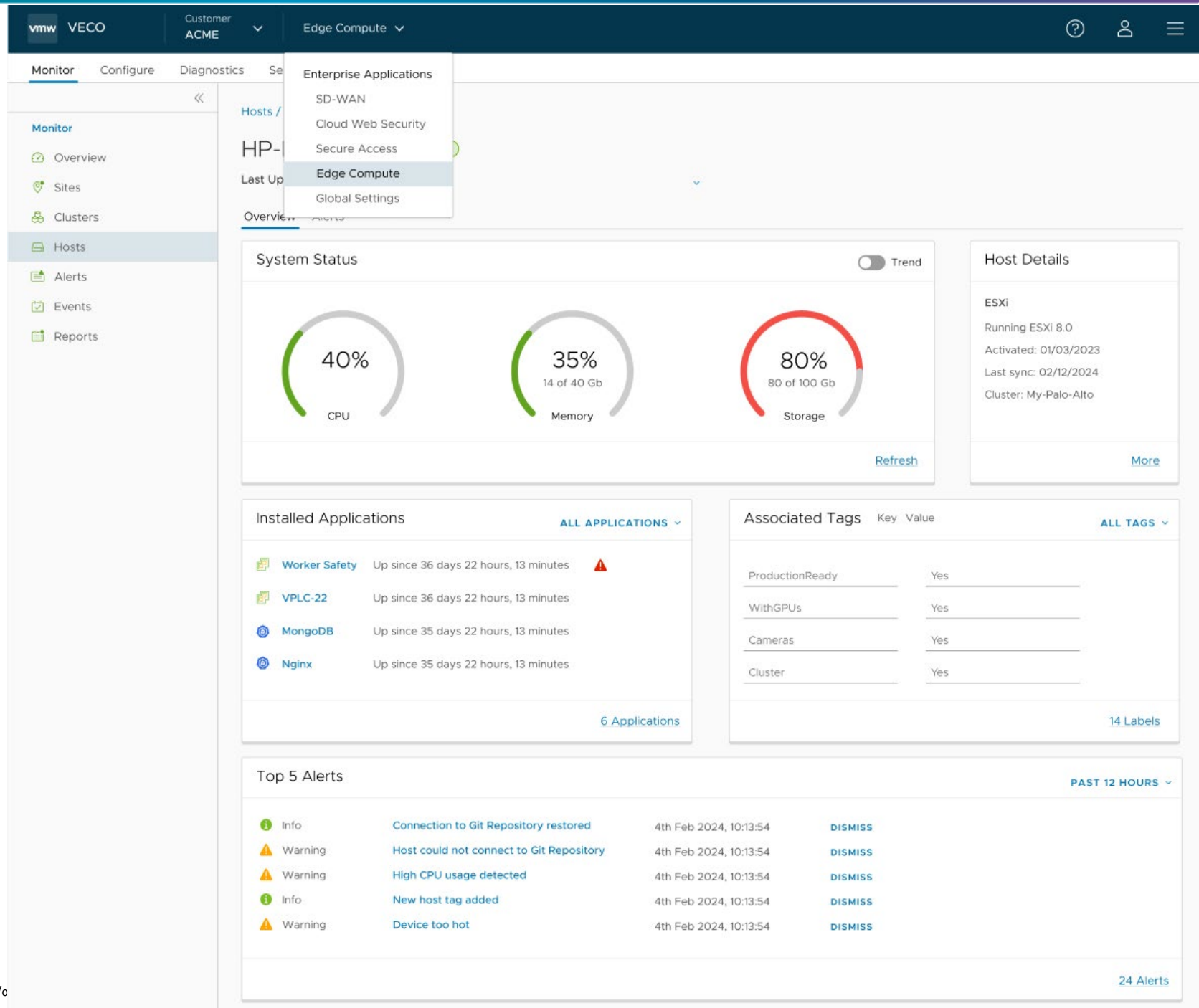
Orchestrator
Command and Control

Unified ESX and Kubernetes Visualizations for Enhanced Insights and Troubleshooting



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Orchestrator
Command and Control

Unlock unparalleled insights into ECS workloads and supercharge security vulnerabilities and issue resolution for a seamlessly optimized operational experience.

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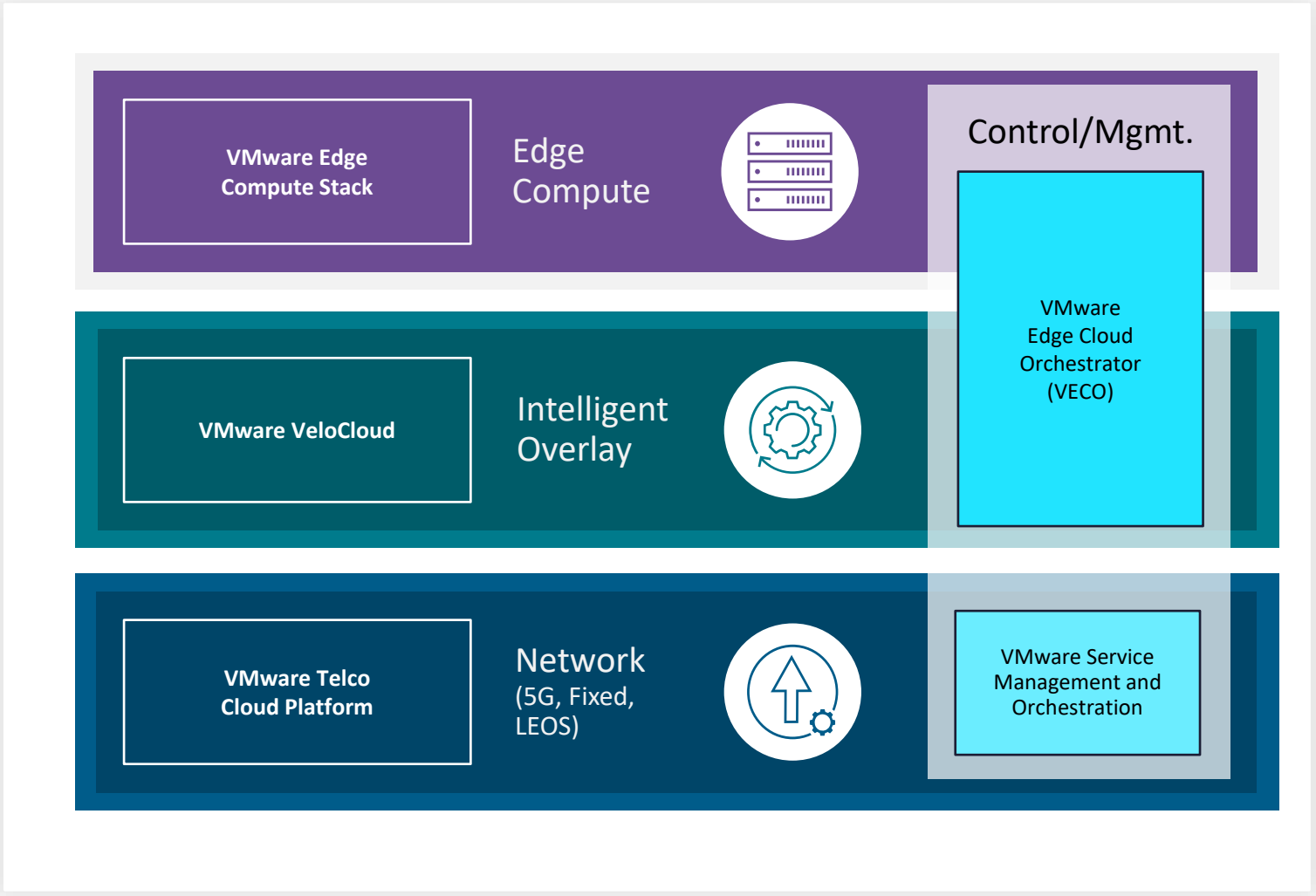
VMware's Software-Defined Edge Portfolio

7M
estimated edge workloads on VMware[1]

600K
enterprise branches deployed with VMware SD-WAN[1]

20K
ORAN sites deployed[2]

9.8M
devices assured by VMware[3]



Sources: 1 VMware Internal Analysis April 2023, 2 – VMware Internal Analysis, June 2023, 3 – VMware Internal Analysis, August 2023

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Healthcare Anywhere

Hospital on wheels

SDWAN

- DMPO & seamless failover
- Ability to aggregate terrestrial (4G/5G) and non-terrestrial providers (Satellite)
- Resilience

Mobile Edge

- Empower first responders
- Run SD-WAN, critical in-vehicle apps and modernize vehicle fleet
- Video feeds from cameras mounted in the ambulance processed locally
- Mobile Edge will be bolted on/mounted in the ambulance

Satellite Comms

- OneWeb/Eutelsat is a Low-Earth Orbit (LEO) satellite provider
- Provides global & ubiquitous connectivity
- Provides connectivity from ambulance back to the hospital
- Used in Active/Active mode alongside 4G/5G
- Satellite dish mounted on the ambulance

Terrestrial Comms

- Orange as Connectivity partner
- Used in A/A mode alongside Satellite provider and SD-WAN to do link aggregation

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DIGITAL INFRASTRUCTURE

superloop

Google

REFRESHMENTS

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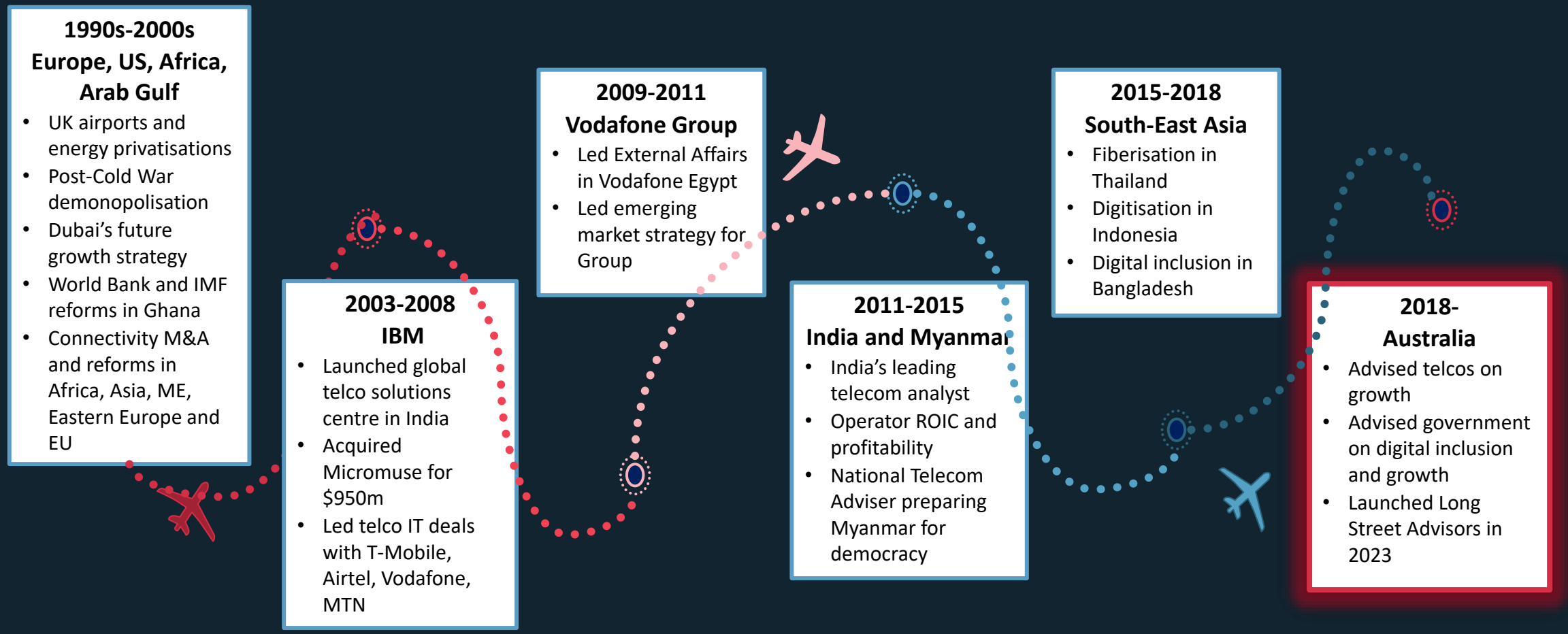
MWC24 read-out
Building the AI-ready network

Mohammad Chowdhury
Founder and CEO, Long Street Advisors

The journey to Long Street Advisors



1990s-2000s
Europe, US, Africa, Arab Gulf

- UK airports and energy privatisations
- Post-Cold War demonopolisation
- Dubai's future growth strategy
- World Bank and IMF reforms in Ghana
- Connectivity M&A and reforms in Africa, Asia, ME, Eastern Europe and EU

2003-2008
IBM

- Launched global telco solutions centre in India
- Acquired Micromuse for $950m
- Led telco IT deals with T-Mobile, Airtel, Vodafone, MTN

2009-2011
Vodafone Group

- Led External Affairs in Vodafone Egypt
- Led emerging market strategy for Group

2011-2015
India and Myanmar

- India's leading telecom analyst
- Operator ROIC and profitability
- National Telecom Adviser preparing Myanmar for democracy

2015-2018
South-East Asia

- Fiberisation in Thailand
- Digitisation in Indonesia
- Digital inclusion in Bangladesh

2018-
Australia

- Advised telcos on growth
- Advised government on digital inclusion and growth
- Launched Long Street Advisors in 2023

At MWC24 we moderated high-profile panels and sampled new tech

5 take-aways

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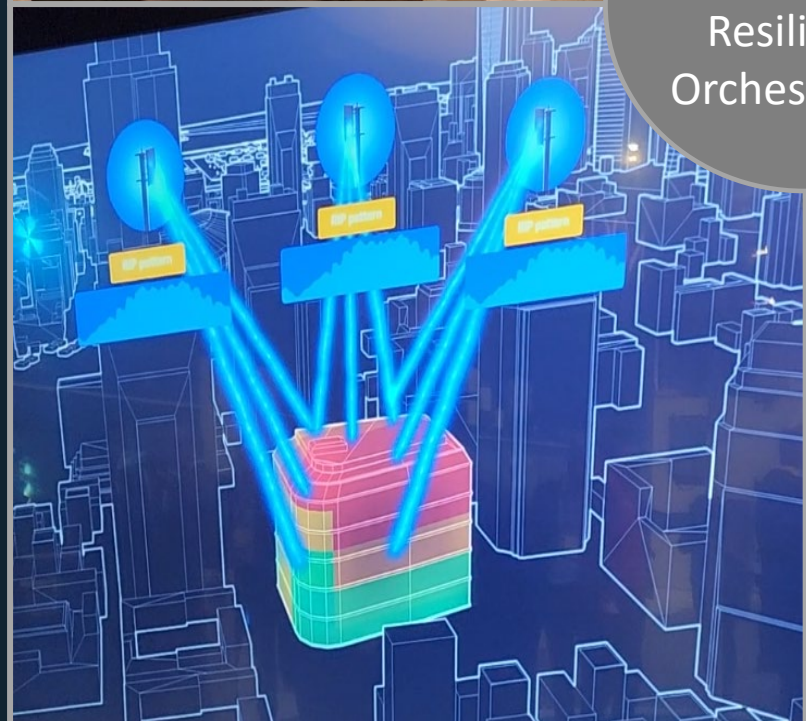
1.

AI and networks will be forever coupled

Latency
Security
Resilience
Orchestration



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2.

To do clever things, AI needs clever networks

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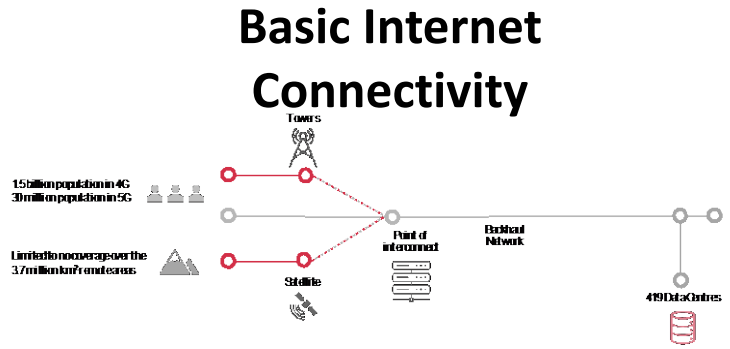
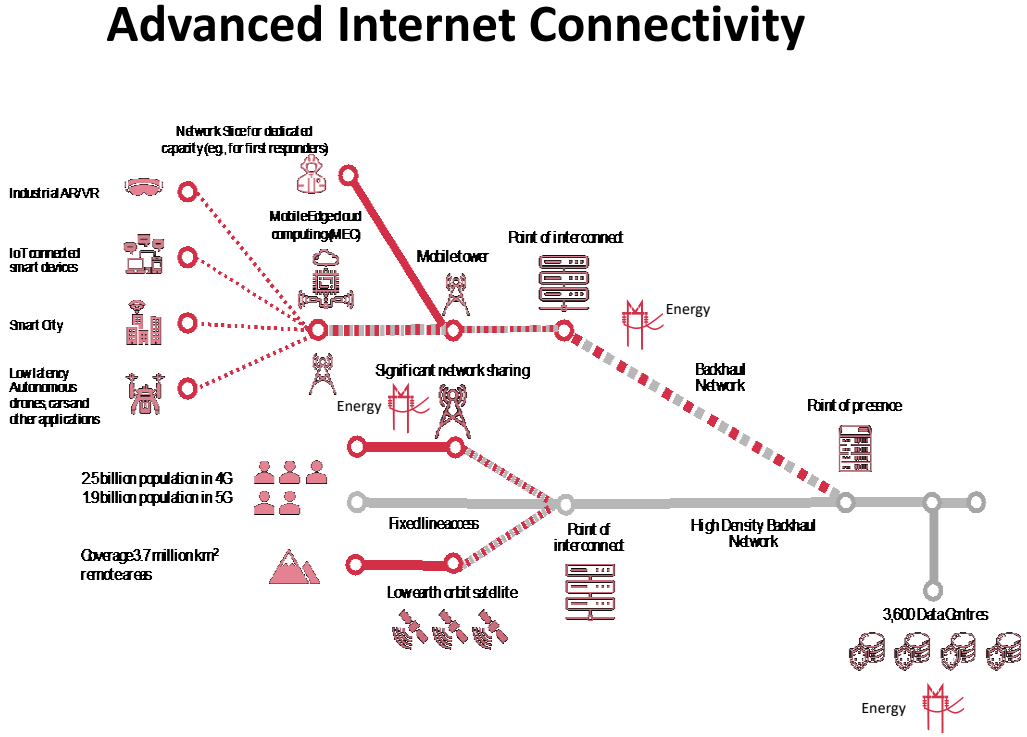
Past



Future



3.

Earning sufficient infrastructure returns needs a new approach

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Mobile (and fixed) operators must change the commercial approach of the past 20 years

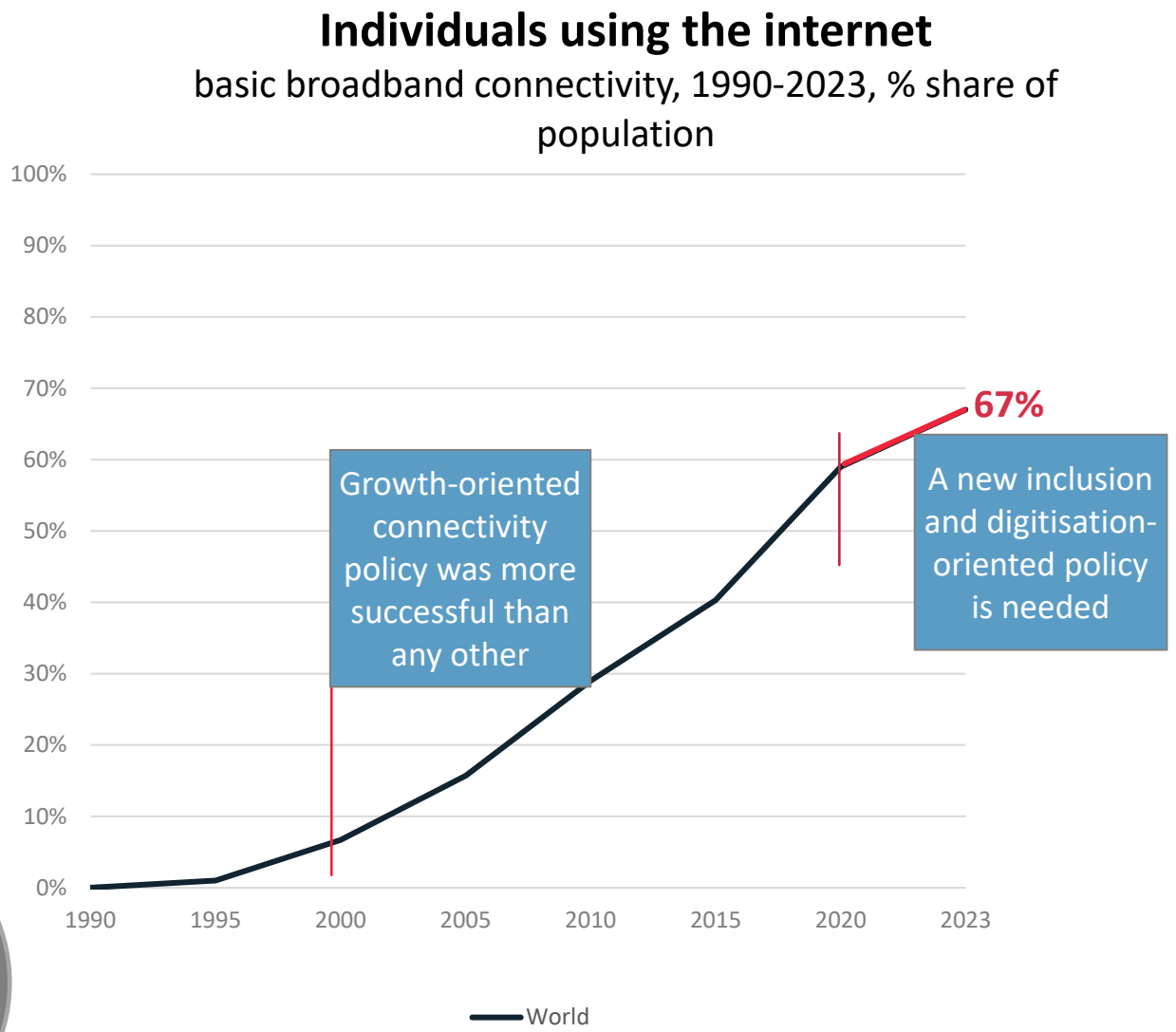
- Resist “first to launch” insecurities
- Contract and charge for the network features that AI needs
- Allocate focused resources to research and development

and…

4.

Connectivity policy has been a huge success. Now the world needs a new one.

Inclusion
Competition
Government
Standards



Sources: GSMA, ITU

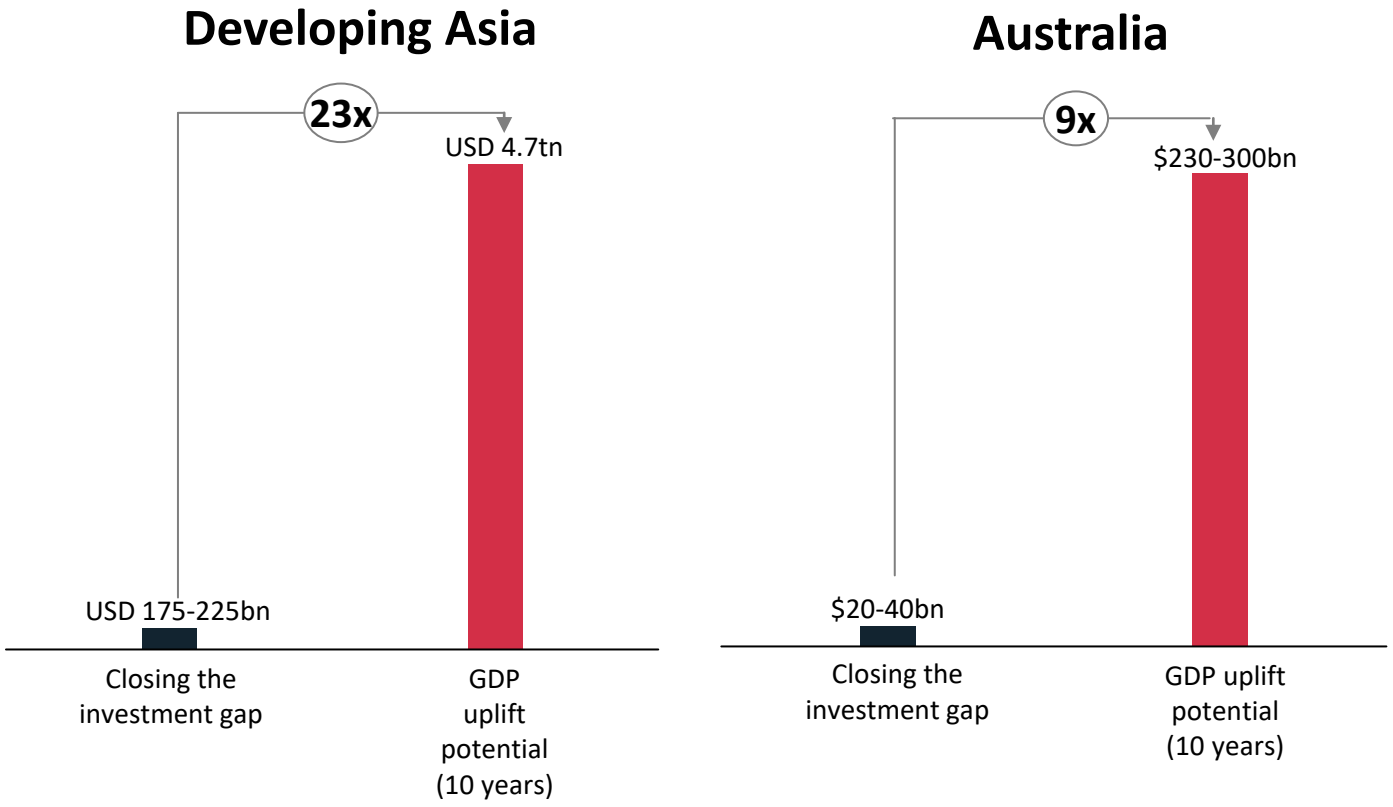
5.

The pay-off from AI-ready infrastructure is nation-building. The cost is damaging divide.

LONG STREET ADVISORS

Advanced internet connectivity investment vs impact on GDP

Developing Asia and Australia estimates, 10-year outlook



Source: Long Street Advisors analysis undertaken on a variety of engagements.

We can help.

Operators and Investors

- **Charging for network capabilities**
- **Partnering across telcos and tech**
- **Industry strategy and structure**
- **Energy security**

Governments

- **Closing coverage / usage gaps**
- **Sustaining connectivity investment**
- **Cross-cutting digitisation policy**
- **Resilience, security, standards**

LONG STREET
ADVISORS

LONG STREET
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Thank you

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Date: 30/04/2024
Version: 2
Commercial-in-Confidence

“NH”

Network Harmonisation and Neutral Host in Telecom

Commsday Summit 2024

Gary Tsang
Commercial and Strategy Director

ONEWiFi 10th & INFRASTRUCTURE

The Challenge for Telecom in Australia

Australia is one of the most challenging nations in the world to deliver telecommunication services:

- One of the largest landmass in the world (7.69m square kilometres)
- One of the lowest population density (3 persons per square kilometre)
- Challenging terrain
- Shortage and high cost of materials and labour
- Logistical challenges

Very costly to deliver high-speed, reliable, and resilient mobile connectivity ubiquitously

Network Harmonisation through Neutral Host Models Maximises Outcomes for all participants

Network harmonisation is the **consolidation and optimisation of infrastructure**, whether core or ancillary, to maxismise outcomes. However, when delivered via a Neutral Host model achieves greater outcomes for all participants on an equitable basis, at the lowest cost.

Desired outcomes:

- Wider access to adequate connectivity
- Greater choice for consumers
- Increase productivity
- More competition
- Lower prices
- Environmental and sustainability
- Higher return on investment

Current Environment Challenging for Telecom

The current economic environment is very challenging for Telecom, where high cost of capital means lower ROI for telecommunication infrastructure.

Four potential levers to preserve ROI:

1. Lower demand for telecom services **(IMPOSSIBLE)**
2. Increase prices to improve top line revenue
3. Spend less and cut cost
4. Enhance efficiency

Network Harmonisation allows MNOs **'do more for the same'**

7NEWS
https://7news.com.au › Technology

Price hike for millions of Telstra customers

4 July 2023 — For customers on Telstra's cheapest mobile post-paid plan, this will mean an increase of **$3 a month**, or an extra $36 a year for 2GB of data.

iTWire
https://itwire.com › Industry › Telecoms & NBN

Optus hikes post-paid mobile plan prices, users not happy

23 June 2023 — The increases are unclear but are as **much as $19 per month** in some cases. Optus subscribers on a Reddit forum made no effort to hide their ...

TechRadar
https://www.techradar.com › ... › Vodafone

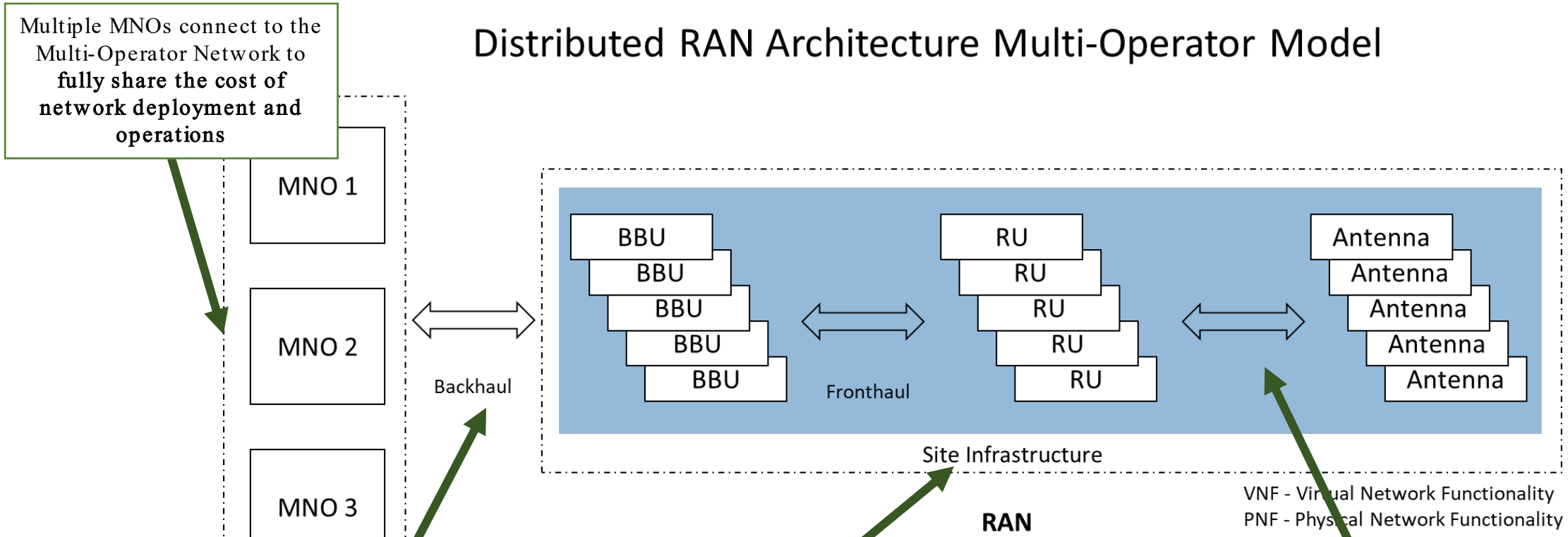
Vodafone's just hiked the prices on its phone plans

14 Jan 2024 — Vodafone has quietly increased the cost of its mobile plans, with **each plan going up by AU$4 a month**. While the price hike only affects new ...

Active Neutral Hosting Maximises Network Economics

Multiple MNOs connect to the Multi-Operator Network to **fully share the cost of network deployment and operations**

Distributed RAN Architecture Multi-Operator Model



Sharing of **Transmission** to **reduce upfront provisioning and ongoing bandwidth cost**

Sharing of **Tower** infrastructure (traditional passive co-location) and **Power**

Sharing of **Active Radio** between multiple MNOs to reduce duplicate network footprint, but maintain differentiation to **encourage service-based and price-based competition**

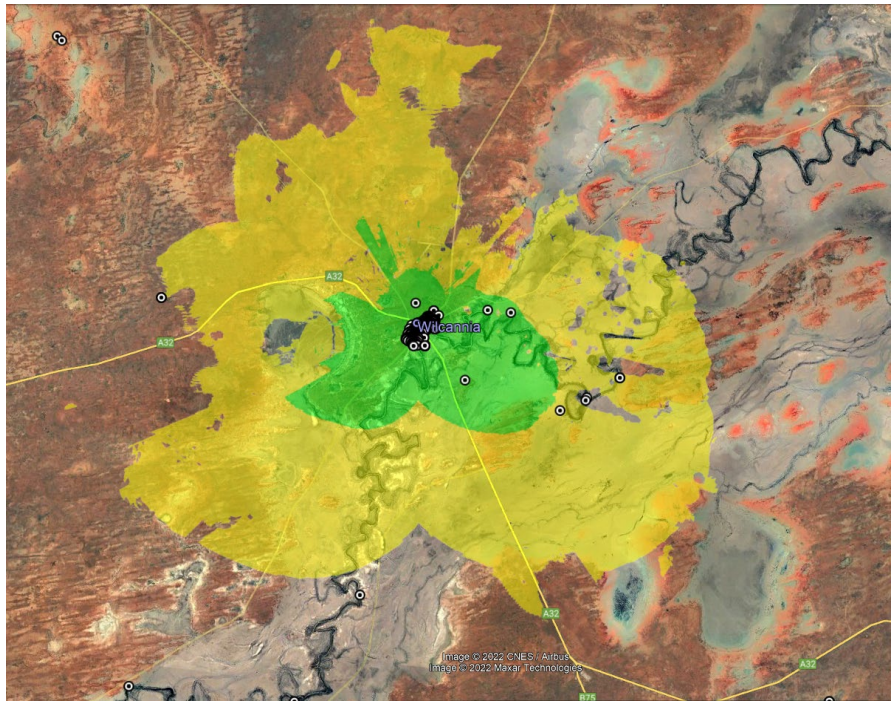
Mobile Active Neutral Host is Reality in Regional Australia

NSW GOVERNMENT | Regional NSW

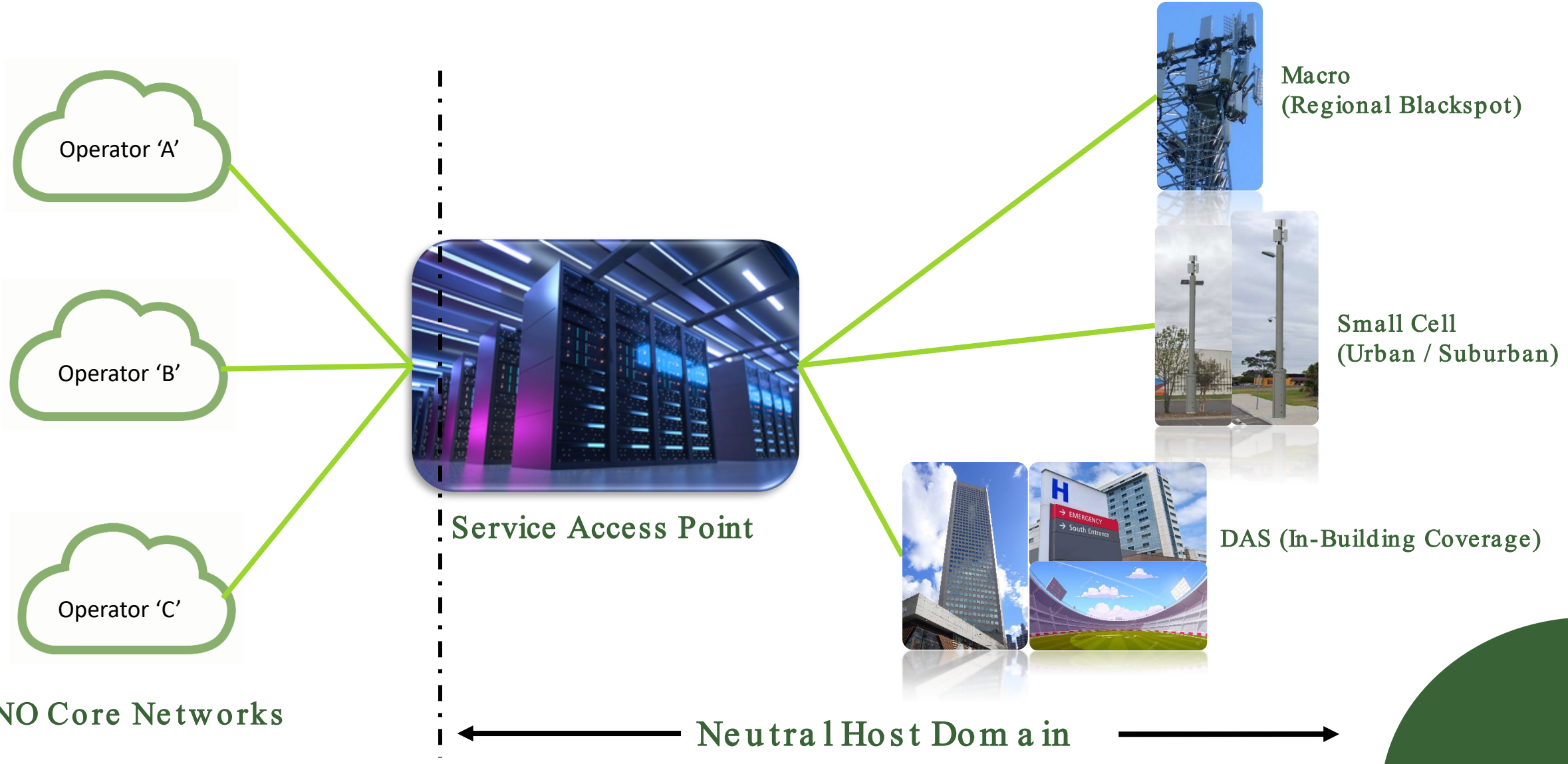
Australian Government
Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Two multi-carrier Mobile Active Neutral Host pilot sites being ready-for-service in Wilcannia and Brewarrina in regional NSW

Commonwealth Mobile Blackspot Program Round 7 (MBSP R7) to deploy and operate 25 Mobile Active Neutral Host sites across regional NSW and QLD, including several First Nation communities.

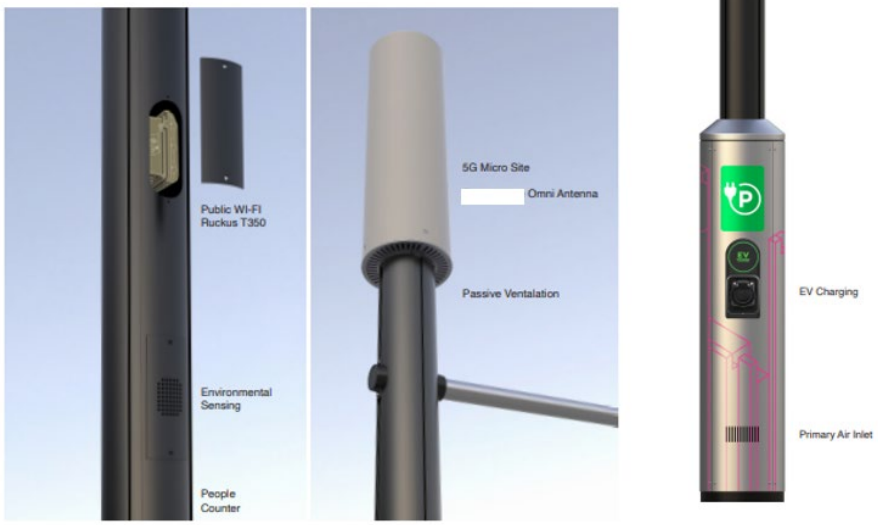


Neutral Host Applicable for Urban / Suburban / In-Building



Value in Urban / Suburban / In-Building can also be derived from Neutral Host Model

Small Cell Active Neutral Host (Urban / Suburban)



Location Analytics
- Parklet utilisation
- Asset maintenance
- Transport planning

Public Wi-Fi
- High speed internet
- Digital engagement
- Secure connectivity

Digital Wayfinding
- Digital engagement
- Promotion
- Public announcement

Smart Pole
- Aesthetics
- Multi-functionality
- Banner

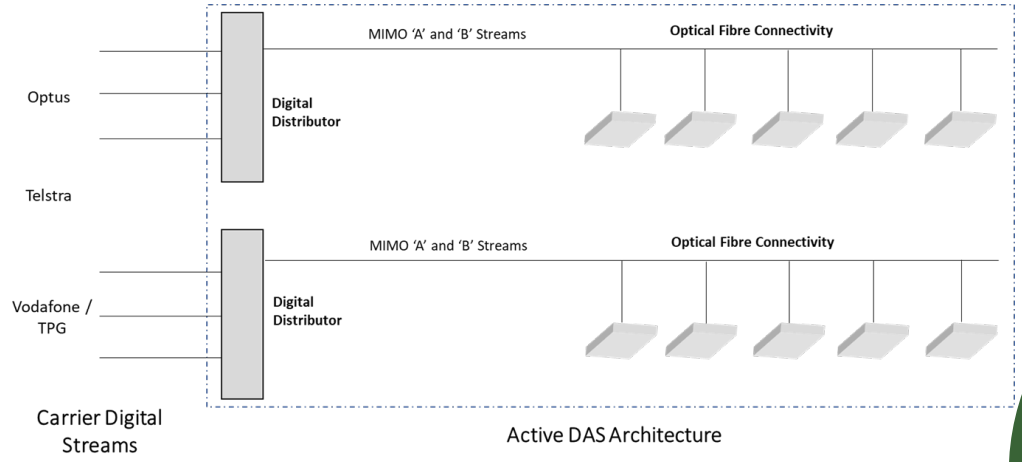
Smart Amenities
- Utilisation
- Maintenance
- Hygiene

Smart Lighting
- Experience
- Safety
- Efficiency

The property sector is facing significant headwind, post-COVID:
- Higher cost of capital
- Asset write downs
- Lower rental yields
- Higher input costs (e.g. material and labour)
- Change in working and traveling patterns
- Regulatory and policy changes

Desired stakeholder outcomes:
- Affordable and multi-carrier connectivity for communities and tenants
- Enhance liveability and experience
- Improve operational efficiencies and synergies
- Reduce cost burden for all parties and cater for BYODs (all operators)
- Minimise environment disruptions
- Improve visual aesthetics

Active Neutral Host DAS (In-Building Coverage)

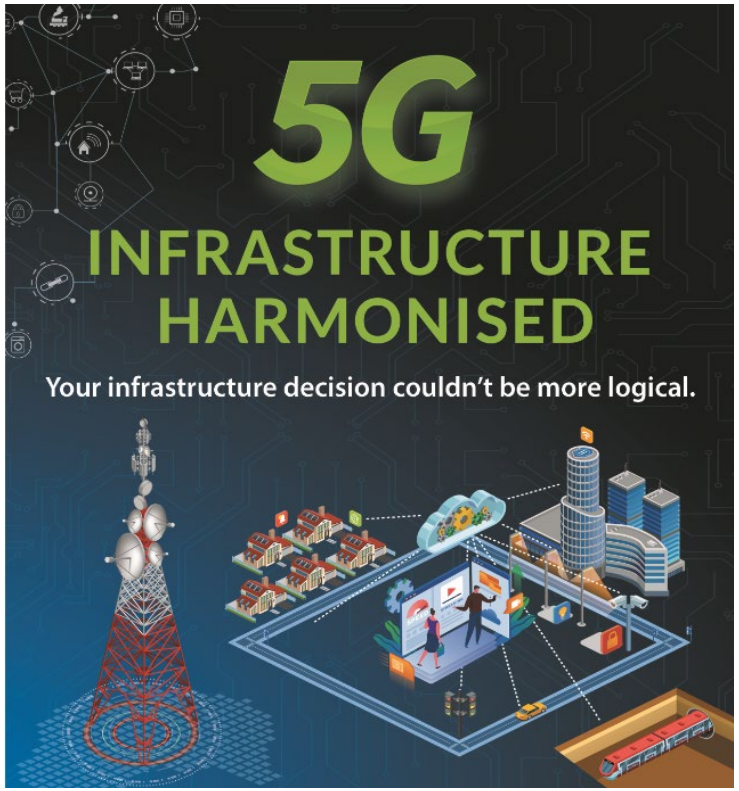


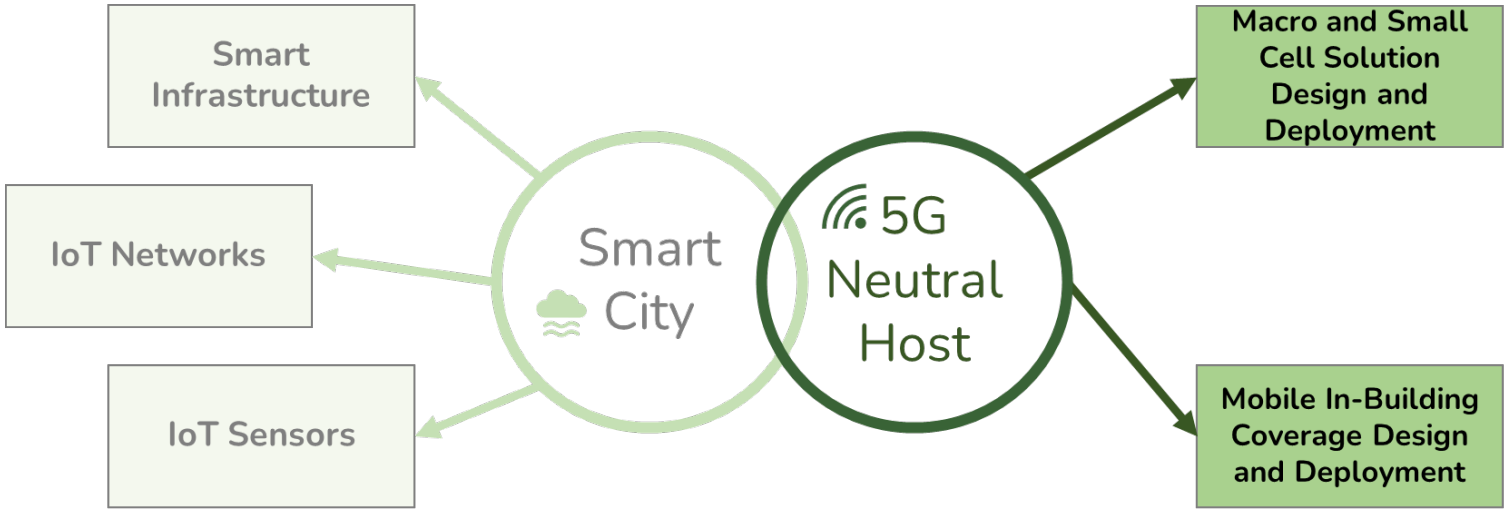
About OneWiFi & Infrastructure

Headquartered in Sydney, **OneWiFi & Infrastructure** (OneWiFi) is Australia's leading **5G Neutral Host, Small Cells, IBC/DAS, and Smart City** solutions provider.

Established in 2012, we are currently delivering best-in-class solutions to over 1,200 locations across Australia, including Retail Precincts, Shopping Centres, Hospitality Venues, Commercial Buildings, and Regional Communities. OneWiFi is also a licensed telecommunications carrier offering a range of high speed fixed and wireless telecommunication services.

OneWiFi continues to invest in strategic relationships with the Mobile Operators, Cities, Municipal and Regional Councils, and Asset/Property Owners all across Australia via a comprehensive suite of services to deliver the desired financial, economic, community, sustainability, and technological outcomes.





ONEWiFi 10th
& INFRASTRUCTURE

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Responsible Mobile Communications

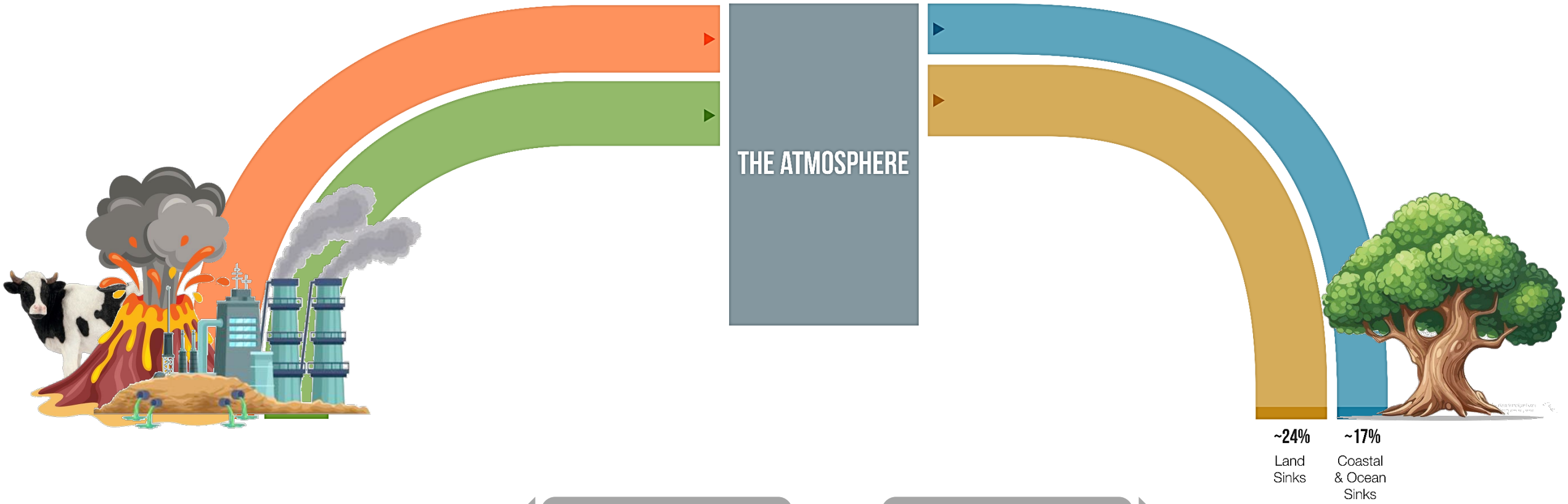
Investing in Our Future

Dr. Mohamed Nadder, PhD., PE

Director of Networks Strategies and Solutions

1 May 2024

EMISSIONS SOURCES & NATURAL SINKS



CURRENT SOURCES

Net Zero

Carbon Neutral

CURRENT SINKS

PROJECT DRAWDOWN.

Copyright © 2020, Project Drawdown

Source: IPCC (2014) & Global Carbon Project (2019)

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Paris Agreement and MNOs

- Limit global warming to 1.5ºC
- Limit Global CO_2 emissions
  - 50% by 2030
  - Net Zero by 2050

COMPANY	SCIENCE -BASED TARGETS	Scope 1&2 CARBON NEUTRAL TARGET YEAR	Scope 1,2&3 RACE TO ZERO TARGET
2degrees	Committed		
Spark	Targets set: 1.5°C		
Singtel	Targets set: well below 2°C		2050
Telstra	Targets set: 1.5°C	2020	2050
Vodafone	Targets set: 1.5°C	2030	2040
TPG	Committed		2050

Source: GSMA Intelligence 2022

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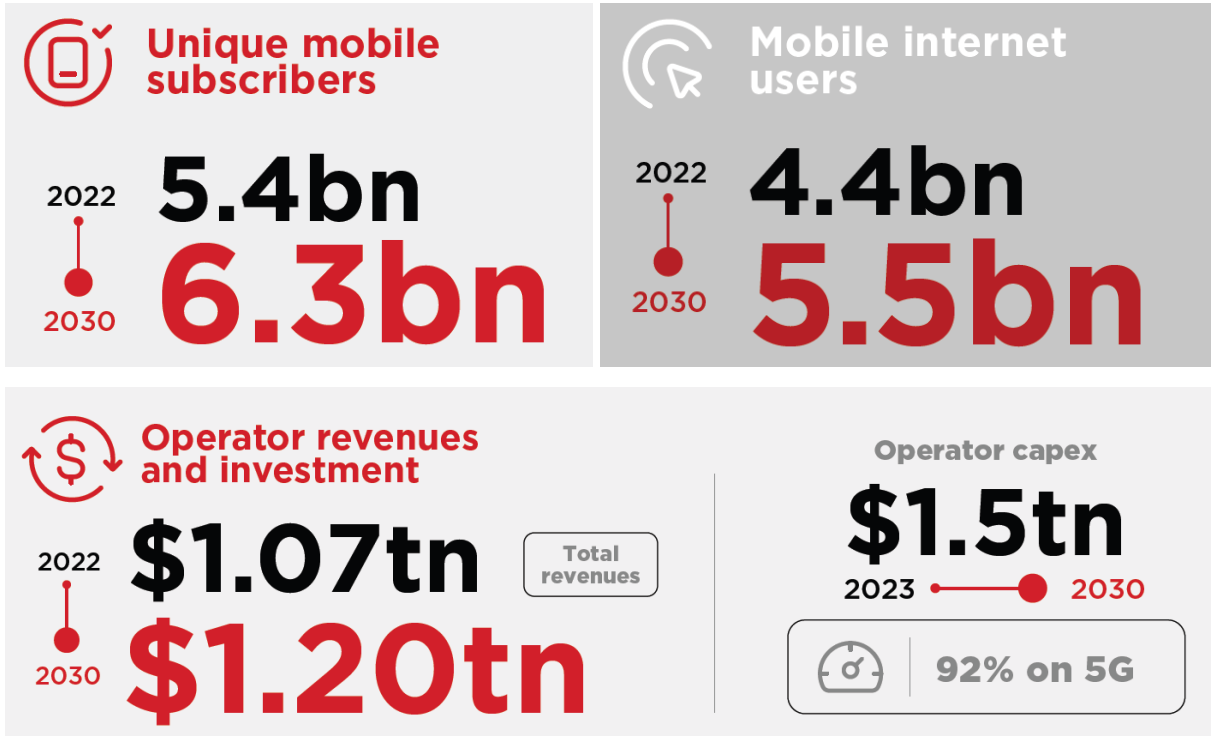
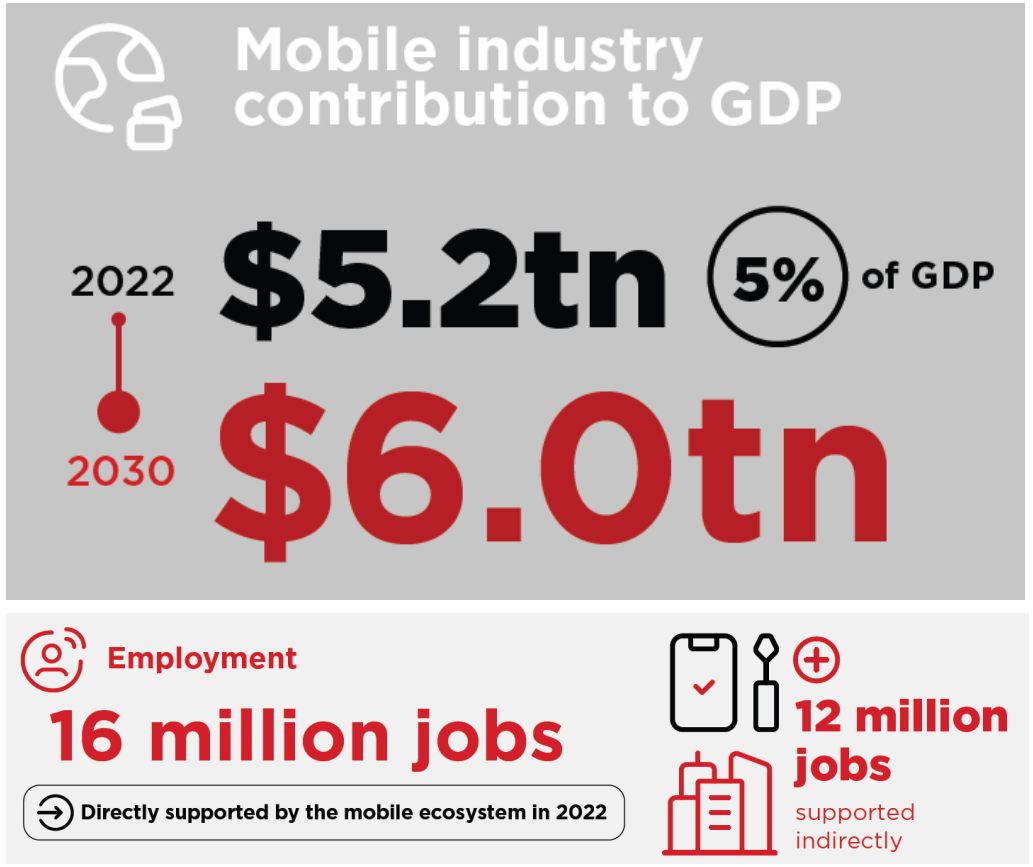
The Mobile Economy (GSMA 2023)





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9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

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TARGET 9·C

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

We change lives!

UNIVERSAL ACCESS TO INFORMATION AND COMMUNICATIONS TECHNOLOGY

1 NO POVERTY

2 ZERO HUNGER

4 QUALITY EDUCATION

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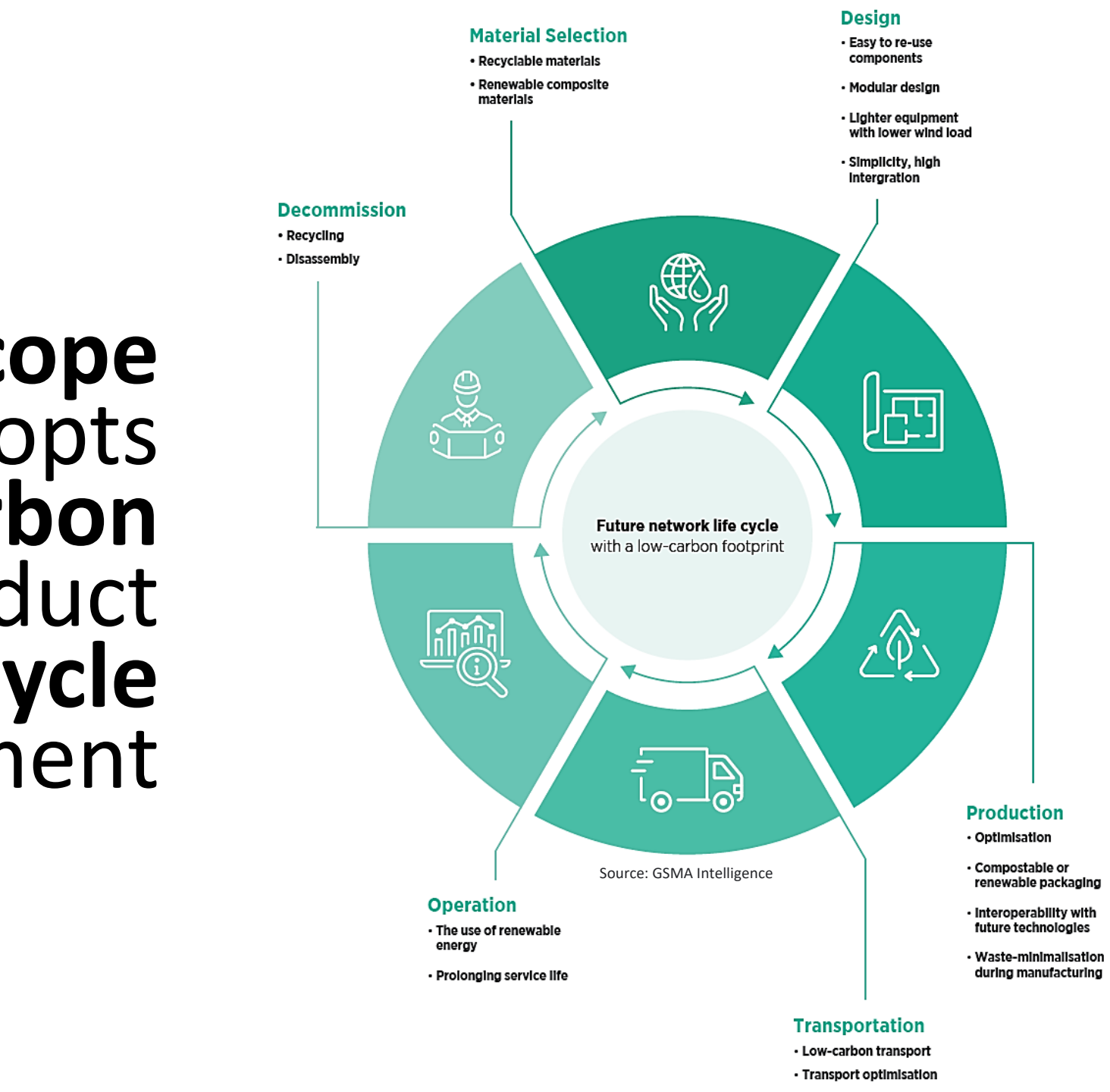
CommScope adopts **low-carbon** product **Life Cycle** management



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Our Sustainable Triple PPP

Do
Well
By
Doing
Good!

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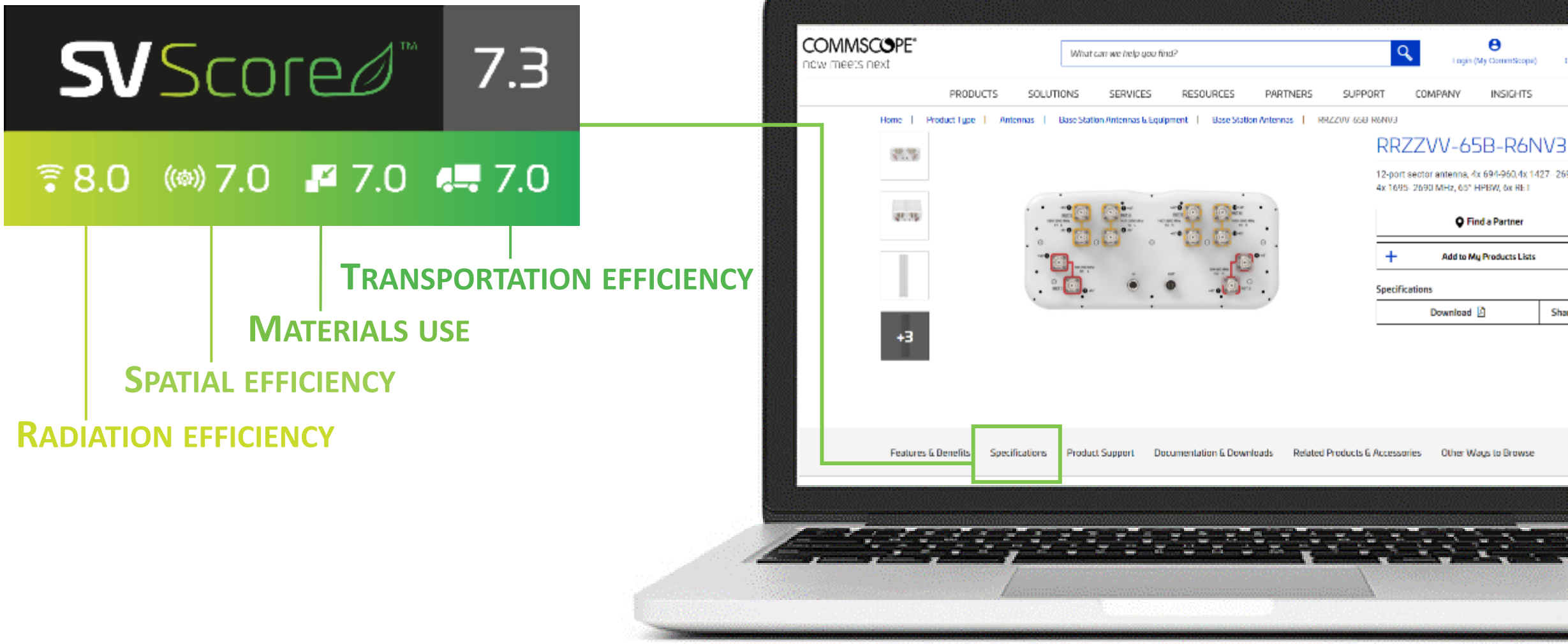
Transparent communication: SVScore™ (Sustainability Value Score)



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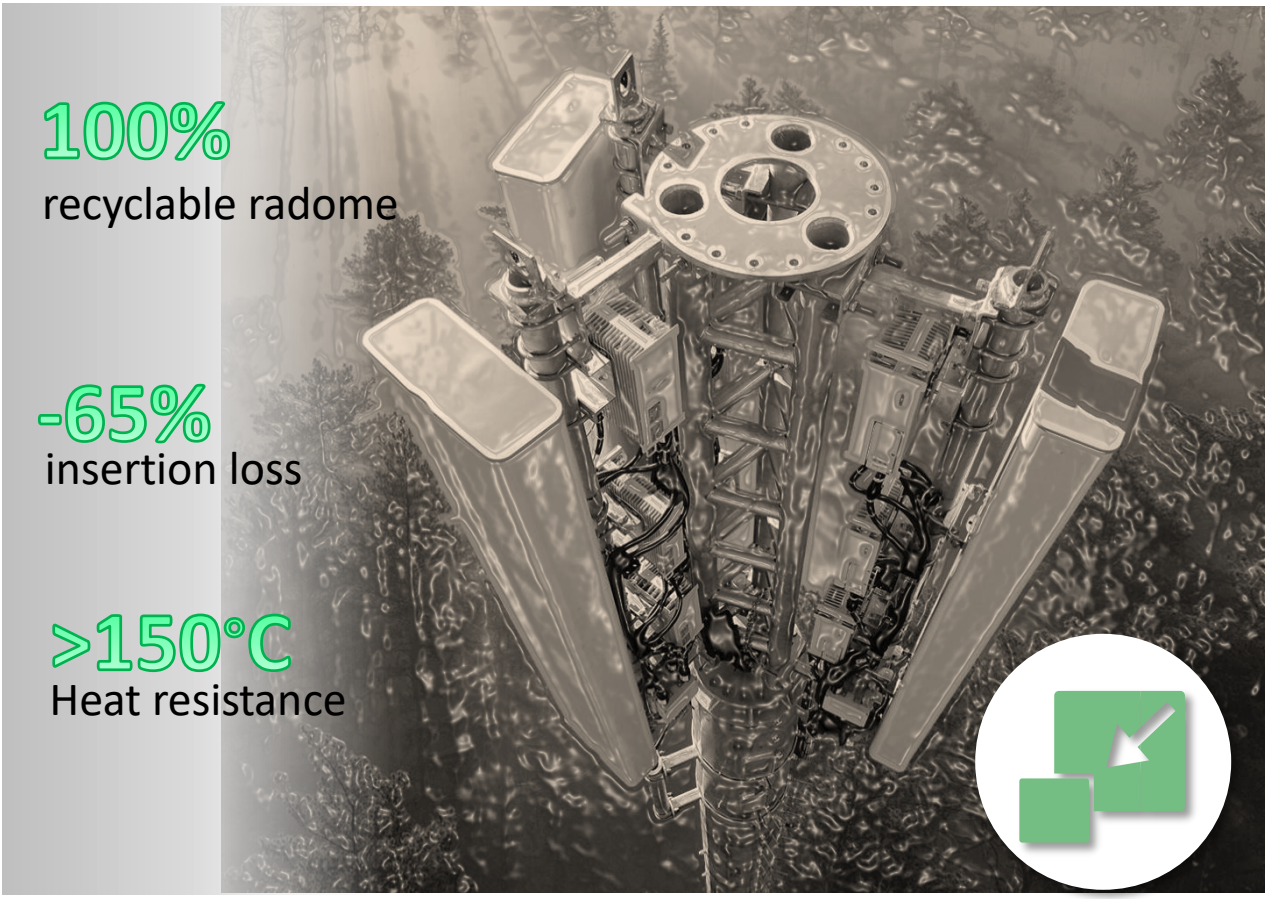
Material

GFRPP Radomes



100%
recyclable radome

-65%
insertion loss

>150°C
Heat resistance

Transportation

Containers Loading

48 boxes
120x80x128

70%

81%

50 boxes
107x107x118

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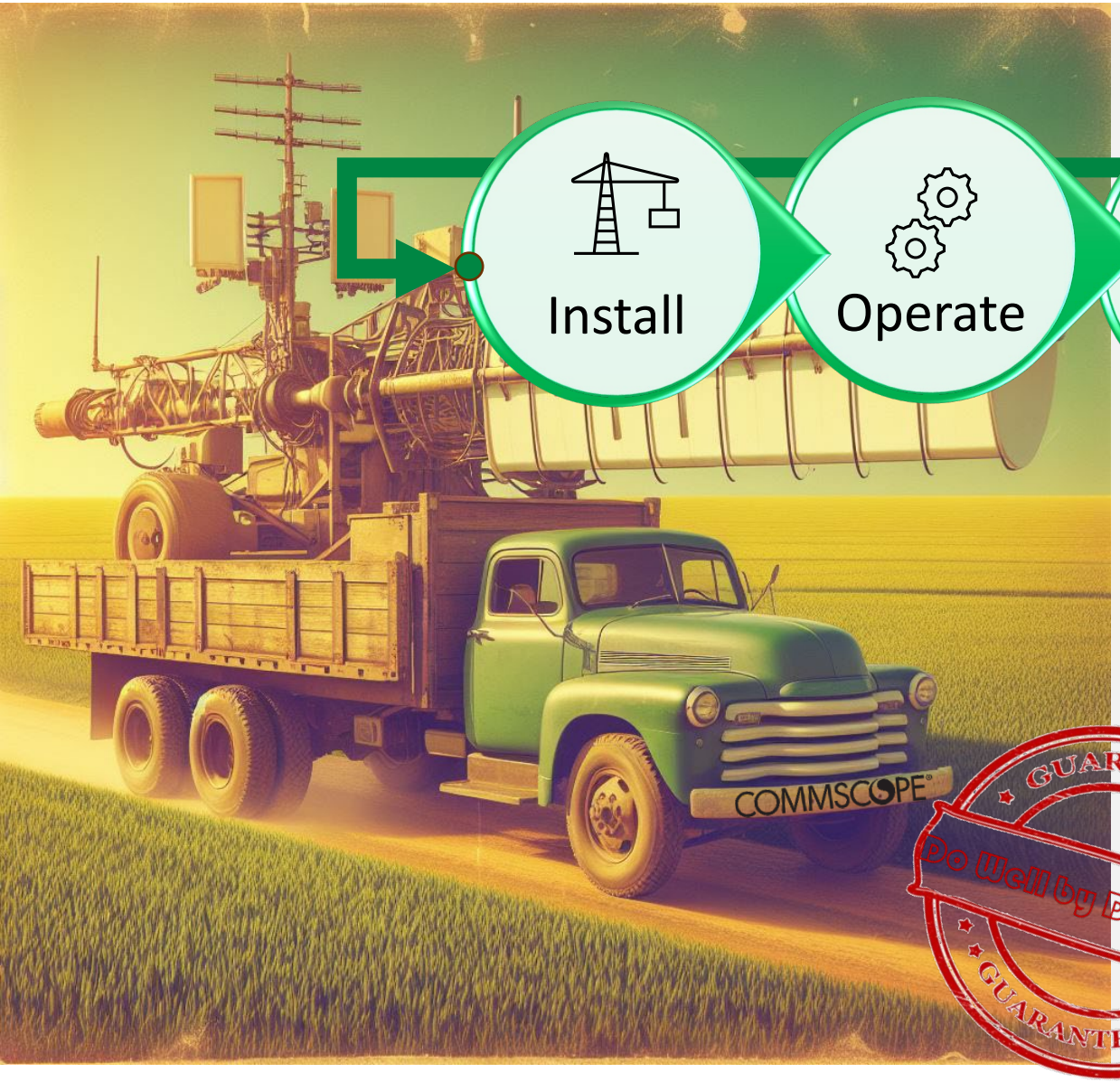
Less RF path losses

Higher efficiency

Less pattern losses

Controlled radiation

Extending solution lifecycles: Refurbishment project



Install

Operate

Recover

Inspect

Ship

Recycle

- Packaging
- Shipping

- Visual tests
- Functional tests
- Certification

- Failed units parts

COMMSCOPE® ACTIVITIES

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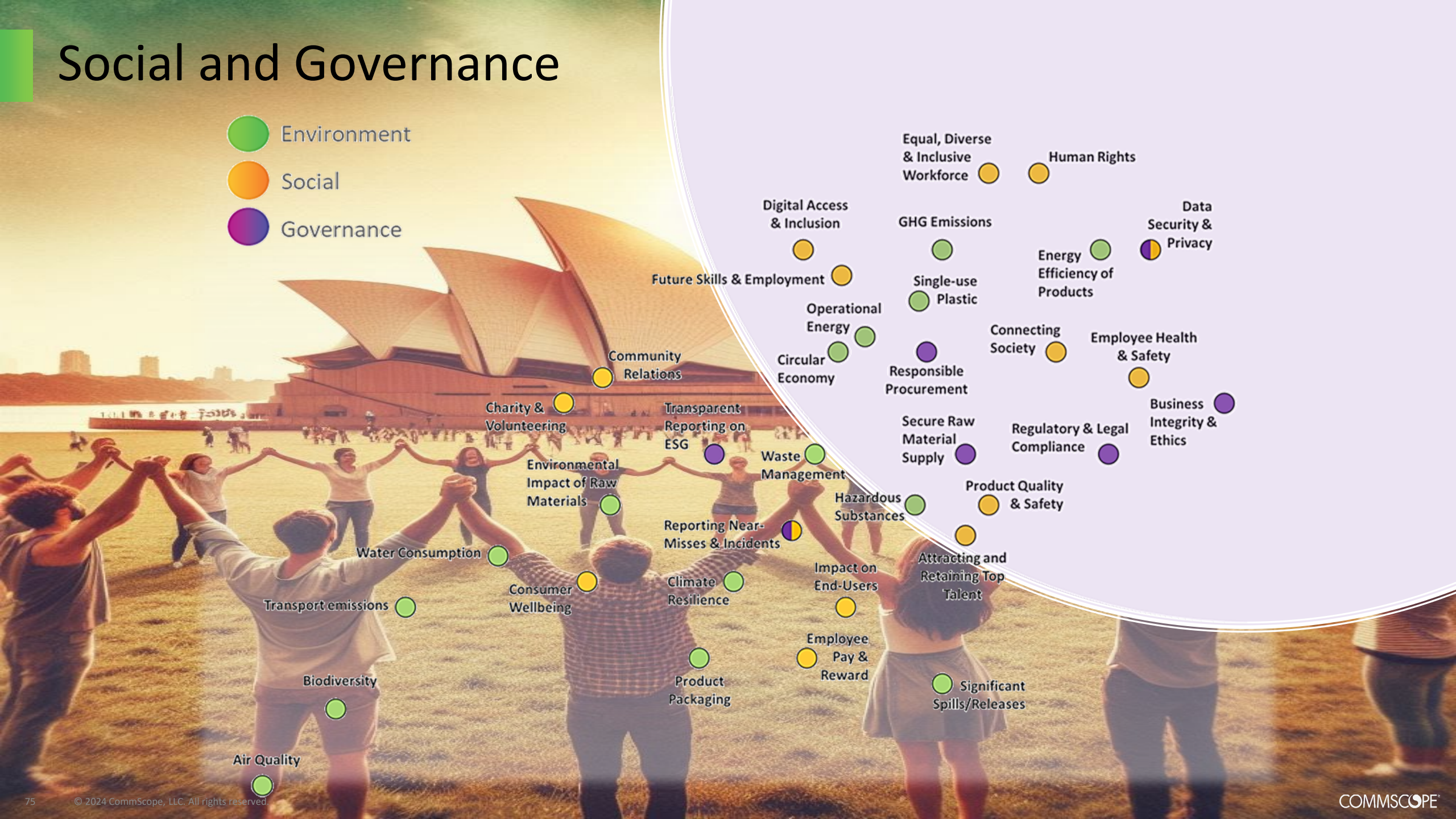
Social and Governance



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Awards & Recognition

Newsweek

Recognized in *Newsweek's* 2023 and 2024 list of America's Most Responsible Companies

USA TODAY

Recognized in *USA Today's* 2023 List of America's Climate Leaders

CDP DISCLOSER 2023

GOLD 2023 ecovadis Sustainability Rating

SUSTAINALYTICS Low Risk

CABLING INNOVATORS AWARDS

INVESTOR'S BUSINESS DAILY 2022 BEST ESG COMPANIES

ENVIRONMENTAL, SOCIAL & GOVERNANCE

Newsweek

Received a five-star ranking on *Newsweek's* America's Greatest Workplaces for Diversity 2024 list

ISS ESG Prime

Forbes

Named in *Forbes'* America's Best Employers by State List 2023

MSCI ESG RATINGS AA

CCC | B | BB | BBB | A | AA | AAA

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Conclusion

- Mobile Communications is a **$1Tn** by revenue industry that changes lives!
- Our Responsible Leadership is key extending mobile communications scope into direct **CSR aspects**.
- CommScope is **committed** to its sustainability goals.

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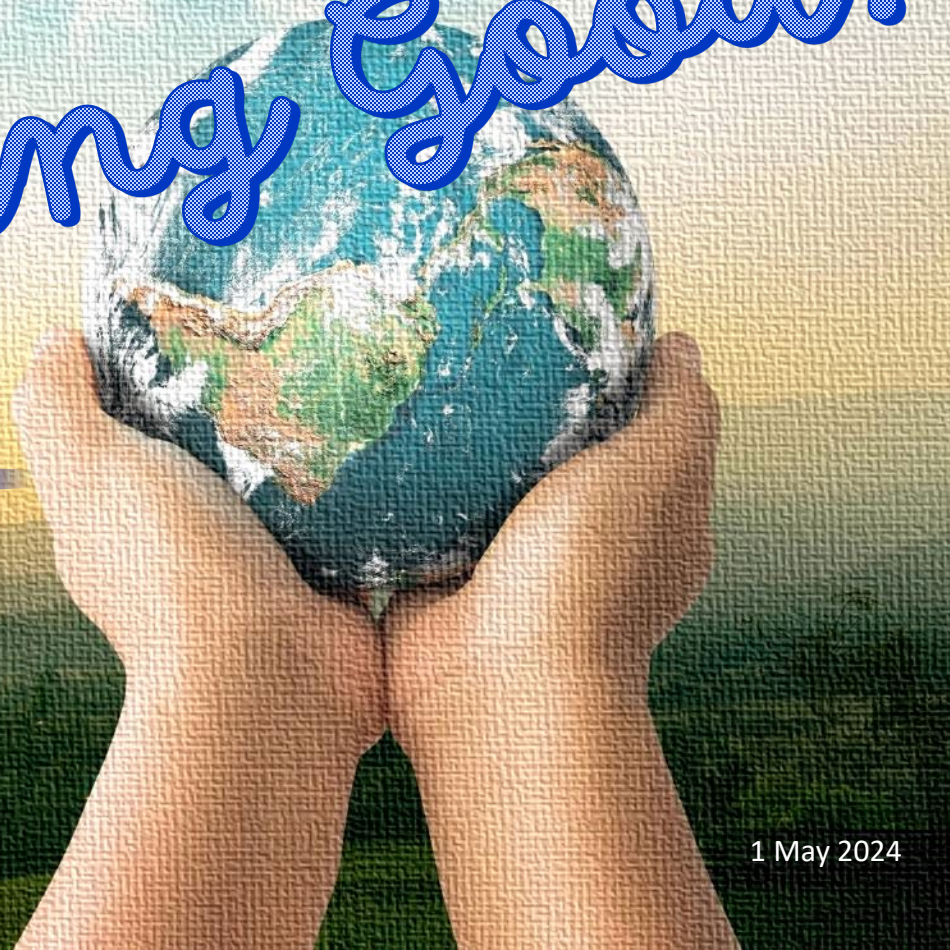
Responsible Mobile Communications

Investing in Our Future

Do well by Doing Good!



Dr. Mohamed Nadder, PhD., PE

Director of Networks Strategies and Solutions

1 May 2024

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Social Value

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400+ locations

35,000+ workforce
(employees & sub-contractors)

Ventia is a leading essential infrastructure services provider in Australia and New Zealand

Our people are at the heart of our success

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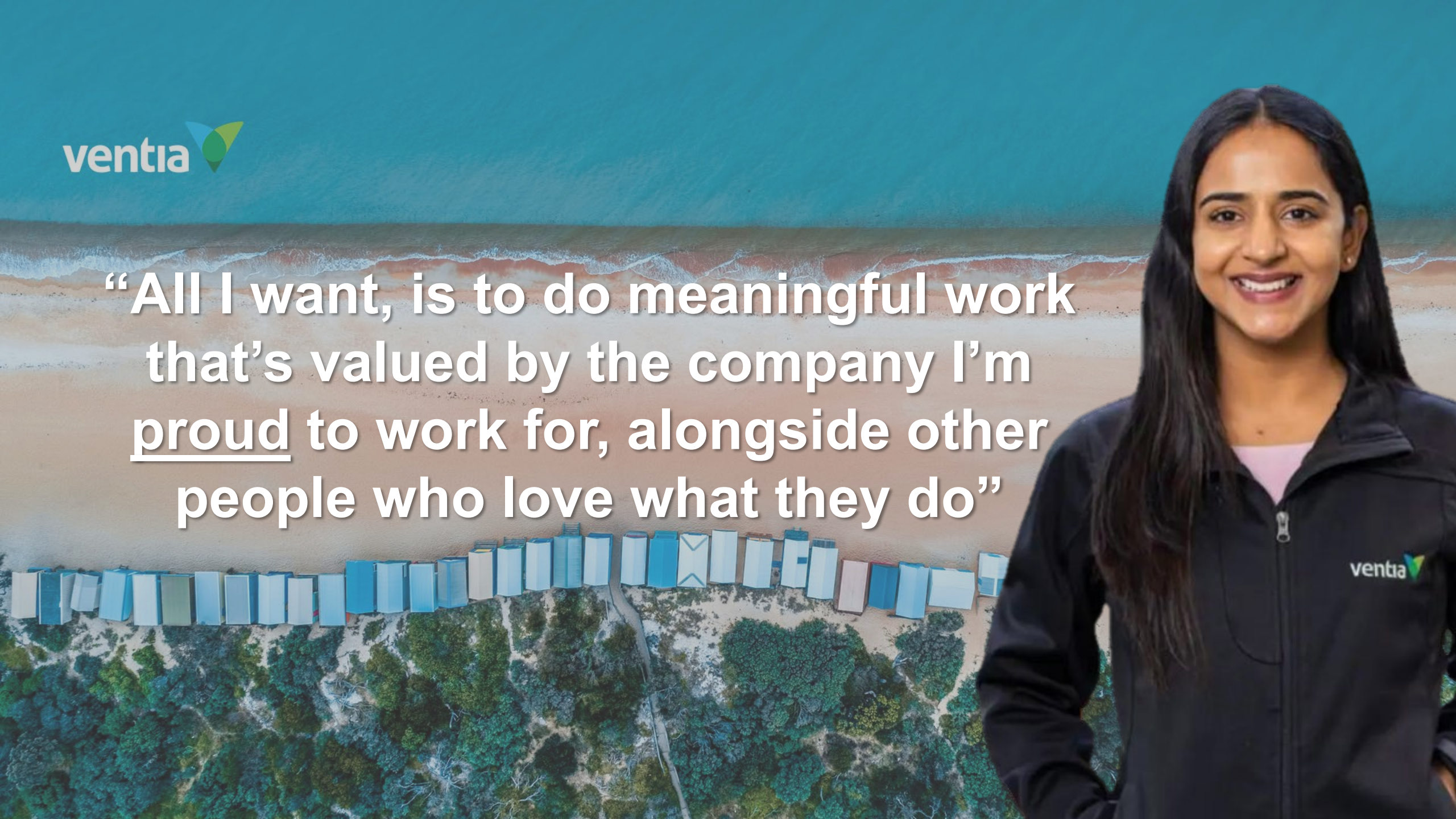
Values


ventia
“All I want, is to do meaningful work that’s valued by the company I’m proud to work for, alongside other people who love what they do”
ventia

VENTIA | 2024

Ventia joins Boys to the Bush to help disadvantaged youth

Boys to the Bush is focused on prevention and early intervention strategies for vulnerable male youth.

Since 2017 Boys to the Bush has impacted over 7,000 lives through involvement in our range of programs.

- Boys to the Bush focuses on engaging with some of regional Australia's most vulnerable youth - running camping trips during school holidays and providing mentoring support to boys from 9-24 years of age living in Central West and Riverina NSW, and North East Victoria.
- The boys that make up the cohort live with considerable challenges: 85% live in out of home care (OOHC) arrangements, 50% have a diagnosed disability or impairment, and most lack access to adult role models guiding them towards successful futures.

"The Trades Camp initiative emerged from a partnership between Boys to the Bush and Ventia, aimed at equipping young people with essential skills and real work experience"

Our people are at the heart of our success

VENTIA | 2024

Ventia Telco team partners with ASA for opportunities

Australian Spatial Analytics (ASA) is a registered not-for profit social enterprise dedicated to training and employing remarkable young spatial analysts with autism, who bring their exceptional abilities to the field of data analytics.

The organisation's purpose centres on the societal need to digitise for diversity. Spatial analytics is a forward-looking industry, and it is ASA's goal that neurodiverse people be a part of the digital ecosystem. Importantly, the distinct cognitive talents of the neurodiverse people associated with ASA frequently allow them to excel as digital professionals.

The team commenced working with Ventia in 2021 across telecommunications projects, and that has since expanded to incorporate a number of sectors across Ventia.

"The ASA people are bringing a great set of skills to our team and already we're seeing benefits of having them embedded into our completions process and the engagement is going extremely well."

Our people are at the heart of our success

VENTIA | 2024

Ventia launches new social enterprise partnership

Ventia recently launched a new partnership with Civik, a people-centred social enterprise with a mission to create jobs for communities that typically experience high unemployment.

Civik will train and employ individuals - in particular, First Nations people and former refugees - who face barriers to work in regional Australia, giving them the skills and confidence to pursue careers in construction, engineering and telecommunications. Research shows unemployment rates for refugees is approximately 77% in the first year of arrival before dropping to 38% after three years1.

"We are proud to be working with Civik and NBN Co. to unlock the workforce potential in regional and remote communities and support talented people who face barriers to employment."

Our people are at the heart of our success

Choices

Social Impact Focus Areas

Choices	Who you choose to employ	Who you choose to spend with	How you choose to look after your people	How you choose to look after your communities
Actions	**Focus on** • Most disadvantaged areas • Priority groups	**Focus on** • Using the power of procurement • Paying on time	**Focus on** • Diversity & Inclusion • Employee Engagement & Development	**Focus on** • Volunteering & Fundraising • Building enduring relationships

Our people are at the heart of our success

ventia
Social Value

Why Quantify Social Value

Social value refers to the quantifiable non-financial impacts' companies have on society.
It could be creating jobs, supporting local businesses, or helping improve the environment.

Fiscal Saving

Fiscal saving refers to the financial savings accrued by the public sector or society at large as a result of our initiatives or projects

Economic Benefit

Economic benefit encompasses a broader spectrum of financial advantages generated by a project, not just savings. This includes job creation, increased tax revenues, or enhanced local business profitability.

Wellbeing Impact

The wellbeing impact refers to the enhancement of quality of life and general wellbeing of individuals and communities affected by a project. This could encompass aspects like improved health outcomes, enhanced educational opportunities, or increased community cohesion.

We quantify our socio-economic impacts to help us to understand the effectiveness of our initiatives and to offer customers a comparative insight into our performance against their other suppliers

How we Quantify Social Value

Theme	Example Outcome	Measure (activity)	Unit	Value to Society
Jobs Local skills and employment 'for all'	**More opportunities for disadvantaged people**	**# ex-offenders employed**	**Number of people FTE**	**$50,000**
Growth Supporting responsible local businesses	Improving staff wellbeing and mental health	# employees with access to wellbeing programmes	**Number of people**	**$260**
Social Healthier, safer and more resilient communities	More working with the community	# hours of local community volunteering	**Number of hours**	**£32**
Environment Regenerating our environment	Carbon emissions are reduced	**tCO_2e** tonnes reduced	**Tonnes of CO2e**	**$500**

Total SV$

=

Number of units

X

Proxy value

Social Value TOM Themes Outcomes Measures

National Social Value Taskforce

ventia
Collaboration

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FIRST NATIONS DIGITAL INCLUSION ADVISORY GROUP

Who we are:

First Nations Digital Inclusion Advisory Group

- Ms Dot West OAM (co-chair)
- A/Professor Lyndon Ormond Parker (co-chair)
- Ms Talei Elu
- Ms Naomi Moran
- Professor Bronwyn Carlson
- Dr Heron Loban
- Mr Jerome Cubillo

Digital Inclusion Expert Panel

- Ms Gillian Mailman
- Ms Lauren Ganley
- Dr Scott Winch
- Mr Che Cockatoo-Collins
- Mr Neil Turner
- Professor Ellie Rennie
- Dr Daniel Featherstone
- Ms Cheryl Bailey
- Mr Dan Lloyd

What is Target 17?

Target 17:

By 2026, Aboriginal and Torres Strait Islander people have equal levels of digital inclusion

Outcome 17:

Aboriginal and Torres Strait Islander people have access to information and services enabling participation in informed decision making regarding their own lives

Why is it important:

Digital inclusion is not about forcing everyone online, it's about ensuring all Australians can share the benefits of being connected and not be excluded from an increasingly digitised world.

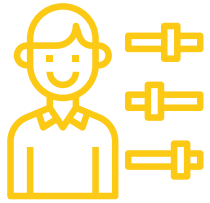
The Index construction is based on three dimensions

Access

How often, and through how many services and devices people are connecting to and using the Internet

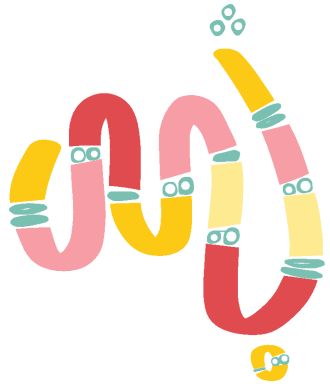
Affordability

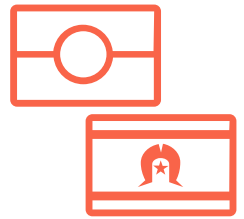
The percentage of household income required to gain a good quality service with reliable connectivity



Digital Ability

What people can do online, and their confidence in doing it





73.4
National average
(exc. First Nations)

65.9
-7.5
First Nations
(national average)

71.6
-1.7
First Nations
(major cities)

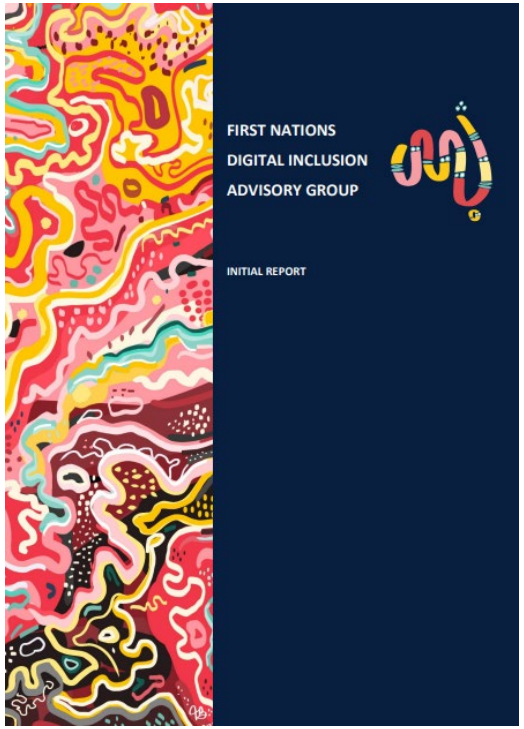
61.4
-12.0
First Nations
(outer regional)

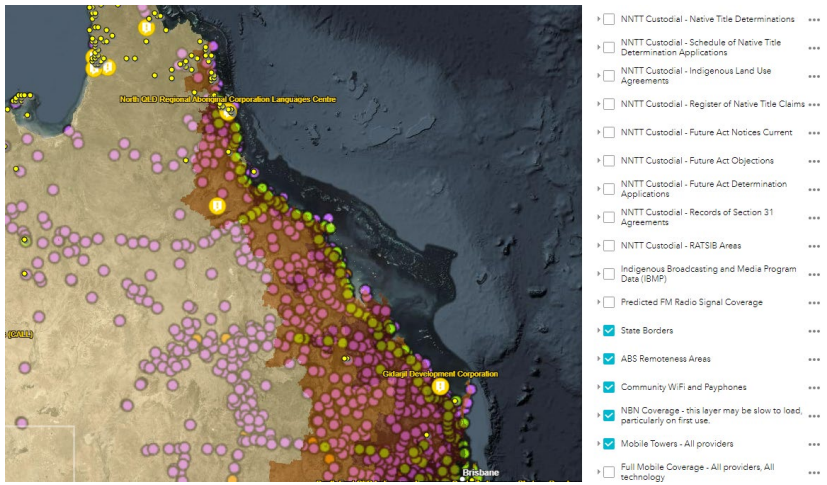
49.0
-24.4
First Nations
(remote)

48.0
-25.3
First Nations
(very remote)

Key milestones to date

- Publication of initial report calling for:
  - Improving all elements of digital inclusion
  - Addressing the lack of data on digital inclusion levels for First Nations Australians
  - And genuine engagement and collaboration with First Nations Australians in addressing the digital divide
- First Nations Data Map
- Stakeholder and community engagement with communities, First Nations organisations, government, industry, and advocacy groups
- Delivery of community Wi-Fi in up to 20 remote communities
- Submissions on Better delivery of universal services, Digital ID and Regional Connectivity Program





A roadmap to First Nations digital inclusion

- We are seeking feedback on key considerations to include in a long-term roadmap towards **First Nations digital inclusion**

Key Principles for the Roadmap:

- the importance of **place-based** approaches
- moving from closing the gap to **innovation** and **excellence**
- First Nations **representation**
- remaining **technology-agnostic**
- centering First Nations **consumer preferences**

infrastructure.gov.au/have-your-say/roadmap-first-nations-digital-inclusion

Hearing from you and working together

- Sharing knowledge and data
- Digital initiatives must not leave Australians behind
- No Australian, is disadvantaged, unfairly treated or unable to access emergency and essential services irrespective of the technology used
- Improve products and services
- Ensure basic consumer protections that can adapt with new technologies
- Communities, government, industry and organisations need to work together to close the gap. This will benefit all

Mapping the Digital Gap Co-researcher Audrey Shadforth doing a survey with Tyresha Gore in Djarindjin

www.digitalinclusion.gov.au

Contact:
FirstNationsDigitalInclusion@infrastructure.gov.au

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ngvoice

cisco

CYIENT

ONEWiFi
& INFRASTRUCTURE

AMPLITEL

RAMBOLL

Lead at the Edge:

Redefining Possibilities with Edge Computing

Dr. Arul Dharmalingam

APJ Head of Solution Engineering – Edge, SASE, Telco

VMware by Broadcom

CommsDay 1st May 2024

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Distributed Everything: The Shift in Data Gravity

"The Edge Computing Market is currently sized at $16.45 billion and poised to grow to approximately **$155.9 billion by 2030** with a **CAGR of 37.9%** between 2023 and 2030."

Grandview Research, Edge Compute Market, 2023

"By 2025, more than **50%** of enterprise-managed data will be created and processed outside the data center or cloud"

Gartner Research, Edge Computing

In IDC Research's EdgeView 2022 survey, analysts predicted a continued increase in investment for edge solutions over the next two years. According to the survey, **75%** of enterprises planned to increase their edge investments by an average of **37%**.

"The **22%** growth rate of spend in Edge Computing compared to 4% growth in spending on enterprise networking equipment and 6% on overall enterprise IT within 2022."

Deloitte, Edge Computing Battle for The Enterprise Edge, 2023

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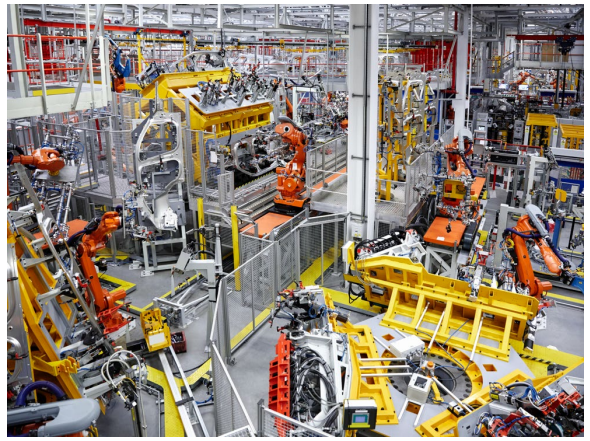
Industry Disruption Forces Change

With transformation comes innovation

Manufacturing



- Predictive Maintenance
- AR/VR Enabled Remote Operations
- Maximize production uptime and operating efficiency

Retail

- Loss & fraud prevention
- Personalized Shopping
- Immersive Retailing
- Improve compliance & safety

Logistics/Transportation

- Real-time inventory tracking
- Improved fleet operations
- Safety & security
- Efficiency improvement

Energy

- Increase production visibility and efficiency
- Reduce unplanned downtime
- Maintain regulatory compliance

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Mission Specific Edges: Field Learnings

Requirements

Flying Medical Services

Hospital On Wheels

Coast Guard Ops

Payload Specific Workloads

High Service Velocity

Personification of Edges to suite Mission

Remote Offline Serviceability

Zero Trust Network Model

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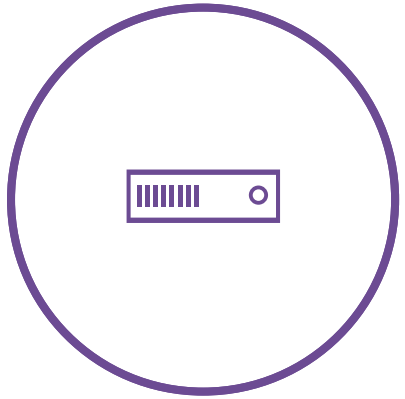
Edge Has Unique Challenges

Which are different to a datacenter or cloud



Limited Compute

Inelastic. Most deployments are 1–3 nodes

Limited Network

High latency, low bandwidth, extended outages, firewall, proxy, NAT

Many sites

Different than cloud, must run many near-identical sites

Limited IT

Few trained IT at the edge locations, few dedicated to Edge in Central IT

Privacy and Security

Need to protect data and IP from cyber and local risks

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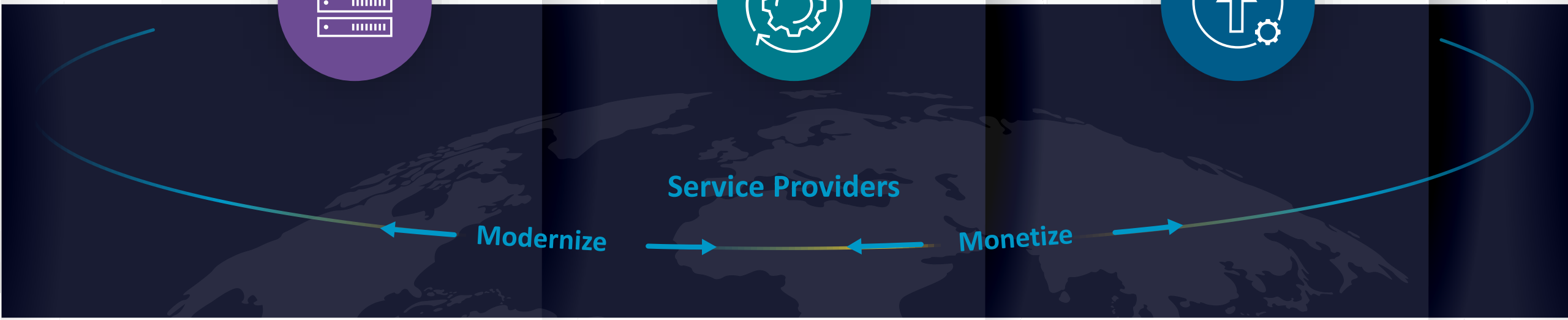
Our Approach to the Software-Defined Edge

Enterprises

Right-Size Infrastructure

Zero-Touch Orchestration

Network Programmability



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VMware Edge Compute Stack (ECS)

A Purpose-built platform for running Edge Native Apps

Edge Runtime

Edge-optimized runtime for VMs, K8s and virtual storage

Industry-leading, robust edge runtime for real-time and non-real-time workloads

Pull-Based Orchestration

Desired state-based fleet management

Edge compute provider with experience managing 100,000s of endpoints

Telemetry

Insight and visibility into edge workloads, IoT devices

VMware Edge Network Intelligence (ENI) auto discovery, contextual analytics & problem resolution (self-healing)

AI Platform

Edge AI inferencing optimization and federated learning

Edge AI performance leader with AI HW- agnostic sharing for learning and inferencing

End-to-End Security

Secure onboarding, continuous OT security monitoring

Powerful security portfolio protecting edge native applications and infrastructure

Services Platform

Easy to add VMware or 3rd party services

Comprehensive edge services covering connectivity, security, telemetry and analytics

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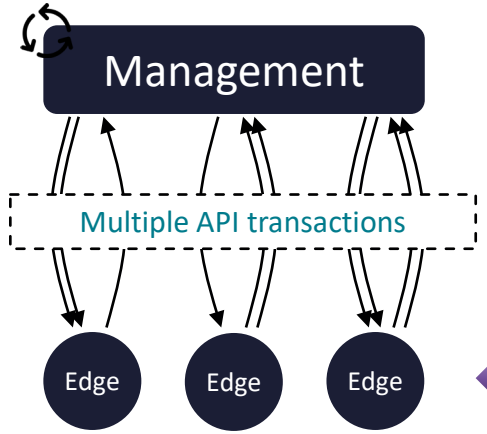
Edge Management Needs a Different Approach

Push Mode Approach

Work well in a controlled environment such as Data Center

Management system maintains states and keeps track of transactions and states of every edge nodes

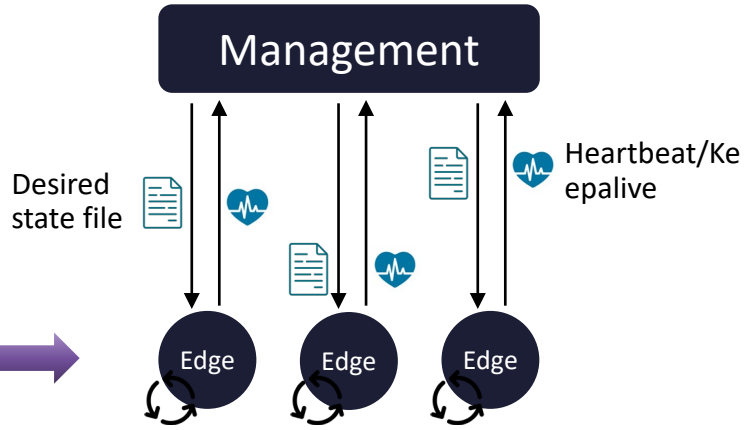


Edge is outside the Data Center or even outside of enterprise prem

Pull Mode Approach

Proven approach for distributed deployment environment such as Edge (like managing iPhone)

Management system waits for edge node to check in through a heartbeat/keepalive



Edge nodes check in with the management plane, download the updated desired state files, and perform reconciliation to get to the desired state

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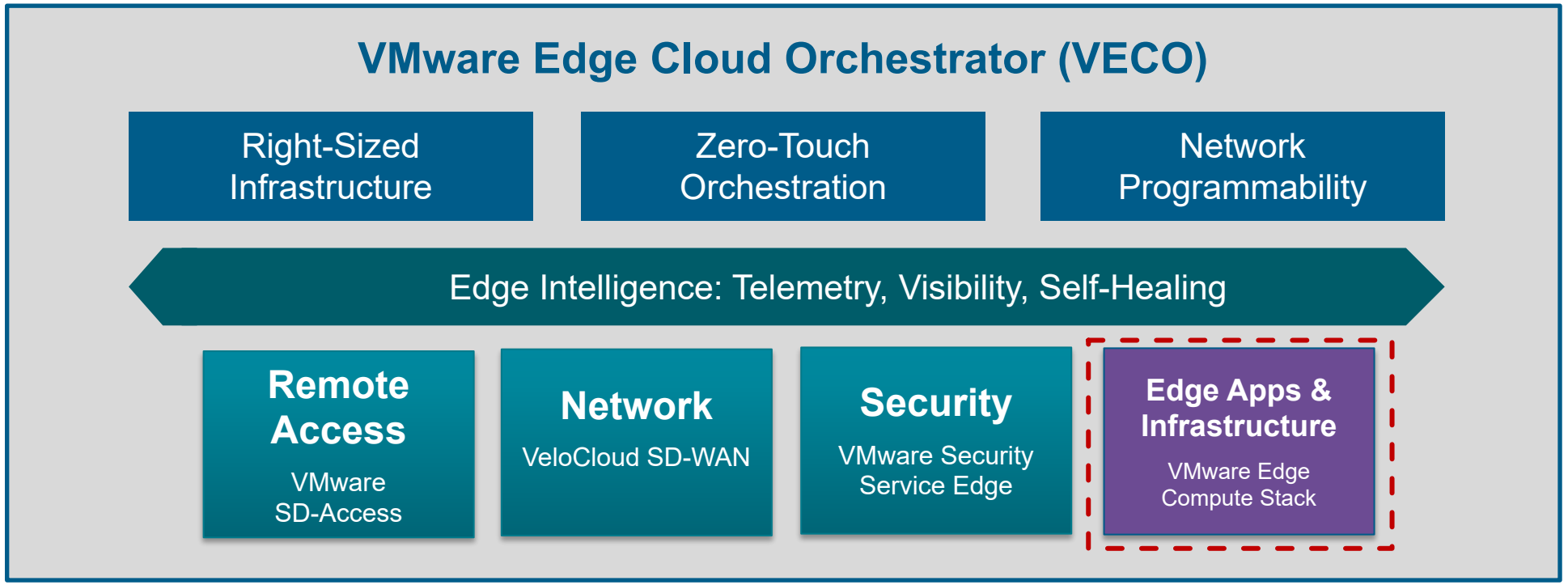
Unified Orchestration for the Software-Defined Edge

The Software-Defined Edge is the distributed digital Infrastructure for running workloads across dispersed locations, placed close to end points producing or consuming data.



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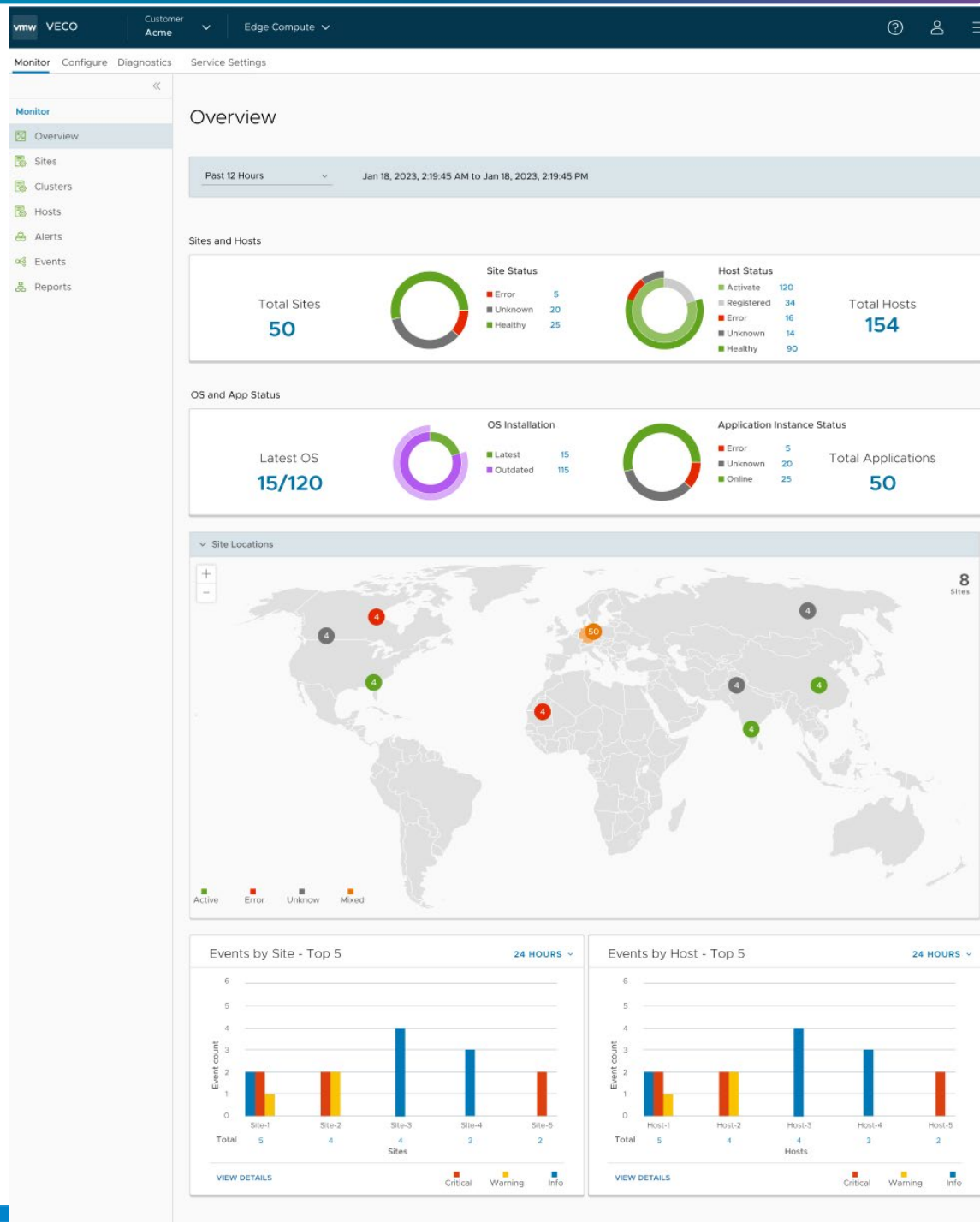
Orchestrator
Command and Control

Reduce downtime at sites with Edge Scale Management



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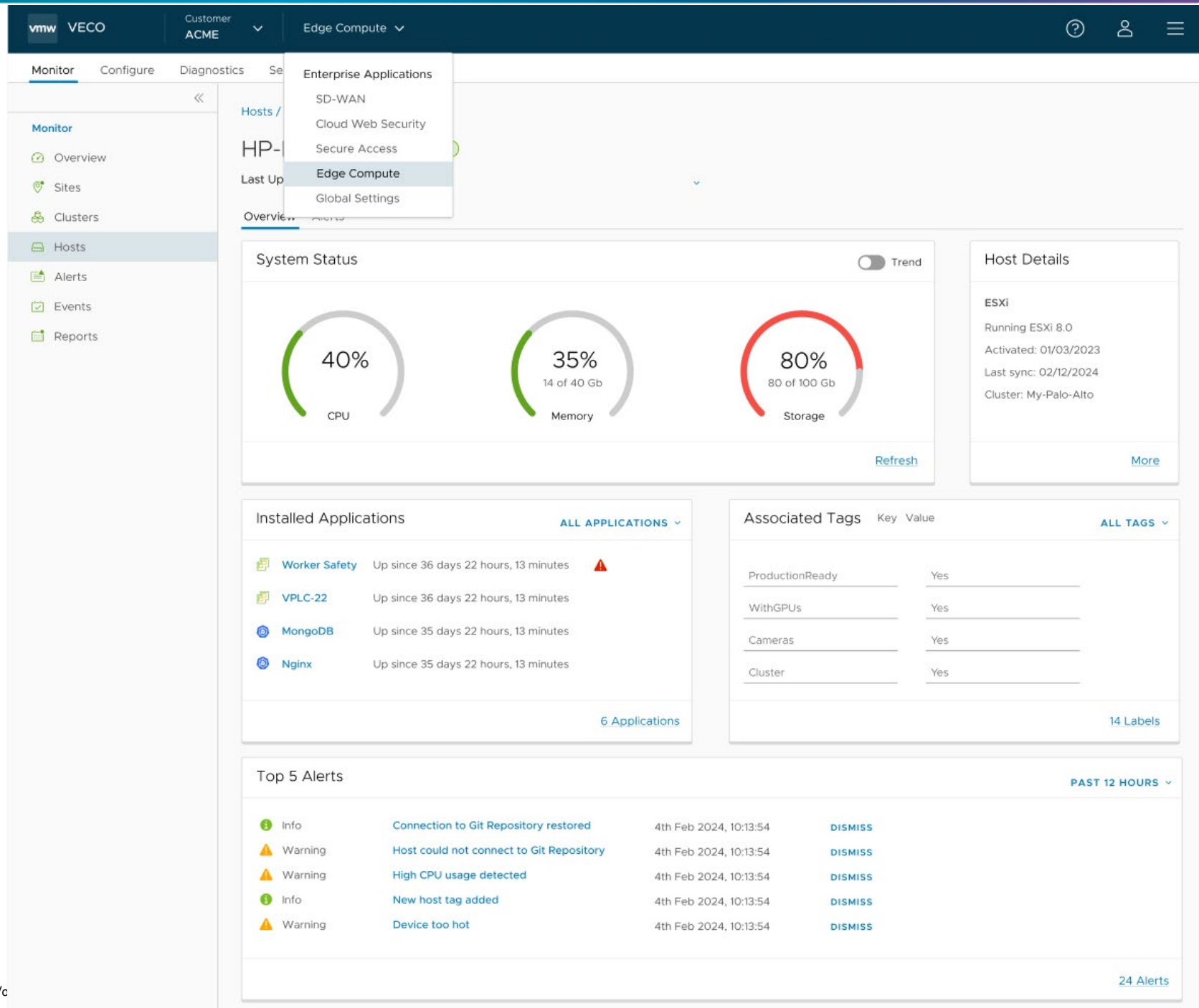
Orchestrator
Command and Control

Unified ESX and Kubernetes Visualizations for Enhanced Insights and Troubleshooting



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Orchestrator
Command and Control

Unlock unparalleled insights into ECS workloads and supercharge security vulnerabilities and issue resolution for a seamlessly optimized operational experience.

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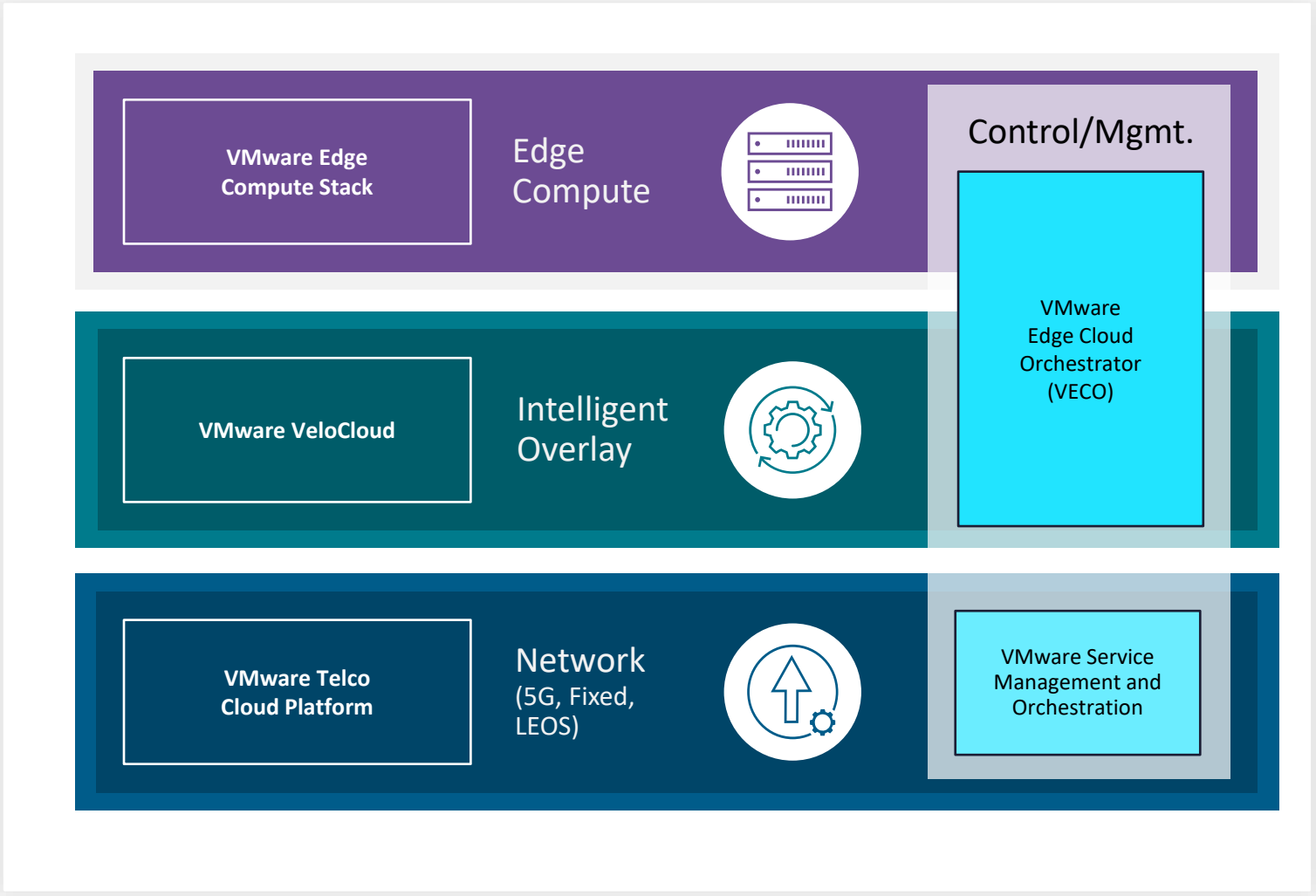
VMware's Software-Defined Edge Portfolio

7M
estimated edge workloads on VMware[1]

600K
enterprise branches deployed with VMware SD-WAN[1]

20K
ORAN sites deployed[2]

9.8M
devices assured by VMware[3]



Sources: 1 VMware Internal Analysis April 2023, 2 – VMware Internal Analysis, June 2023, 3 – VMware Internal Analysis, August 2023

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Healthcare Anywhere

Hospital on wheels

SDWAN

- DMPO & seamless failover
- Ability to aggregate terrestrial (4G/5G) and non-terrestrial providers (Satellite)
- Resilience

Mobile Edge

- Empower first responders
- Run SD-WAN, critical in-vehicle apps and modernize vehicle fleet
- Video feeds from cameras mounted in the ambulance processed locally
- Mobile Edge will be bolted on/mounted in the ambulance

Satellite Comms

- OneWeb/Eutelsat is a Low-Earth Orbit (LEO) satellite provider
- Provides global & ubiquitous connectivity
- Provides connectivity from ambulance back to the hospital
- Used in Active/Active mode alongside 4G/5G
- Satellite dish mounted on the ambulance

Terrestrial Comms

- Orange as Connectivity partner
- Used in A/A mode alongside Satellite provider and SD-WAN to do link aggregation

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Thank You

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Back to the Communications Future

CommsDay Summit

30 April-1 May 2024

Ian Martin

Telecommunications analyst

New Street Research, Australia and New Zealand

Back to the Communications Future

1994 Communications Futures Project (ten year outlook)

- Telco part of a broader network service industry …
- … which has played out over a 30 year period
- … most obviously now in Enterprise and Government
- In Mobile good gains in 1G, 2G and 3G gave way to decline in returns in 4G
- … rising capex and costs squeezed margins and returns
- … could MSR go the same way for MNOs as E&G ?

Key thesis: in key respects, 2024 looks a lot like 1994

- A new wave of players expanding into the telco market…
- … generating new mobile service revenue, repricing and expanding value add
- … but also disintermediating established network operators

Great for national productivity … not necessarily for MNOs

- Several major structural challenges on the long term horizon

Mobile service revenue: trending up, Optus was gaining share

	Postpaid	Prepaid	Subtotal voice	MBB	Total SIOs	% share	MSR (A$m) 12m to Dec 23	% share	ARPU A$pm
Telstra	8,889	5,294	14,183	2,863	17,046	51.6%	8,016	57.2%	40.0
Optus	5,957	3,479	9,436	1,067	10,503	31.8%	3,841	27.4%	31.1
TPG/Voda.	2,967	2,190	5,157	299	5,456	16.5%	2,155	15.4%	33.6
Total MNO	17,813	10,963	28,776	4,229	33,005		14,012		36.1

Note: unadjusted for different year end

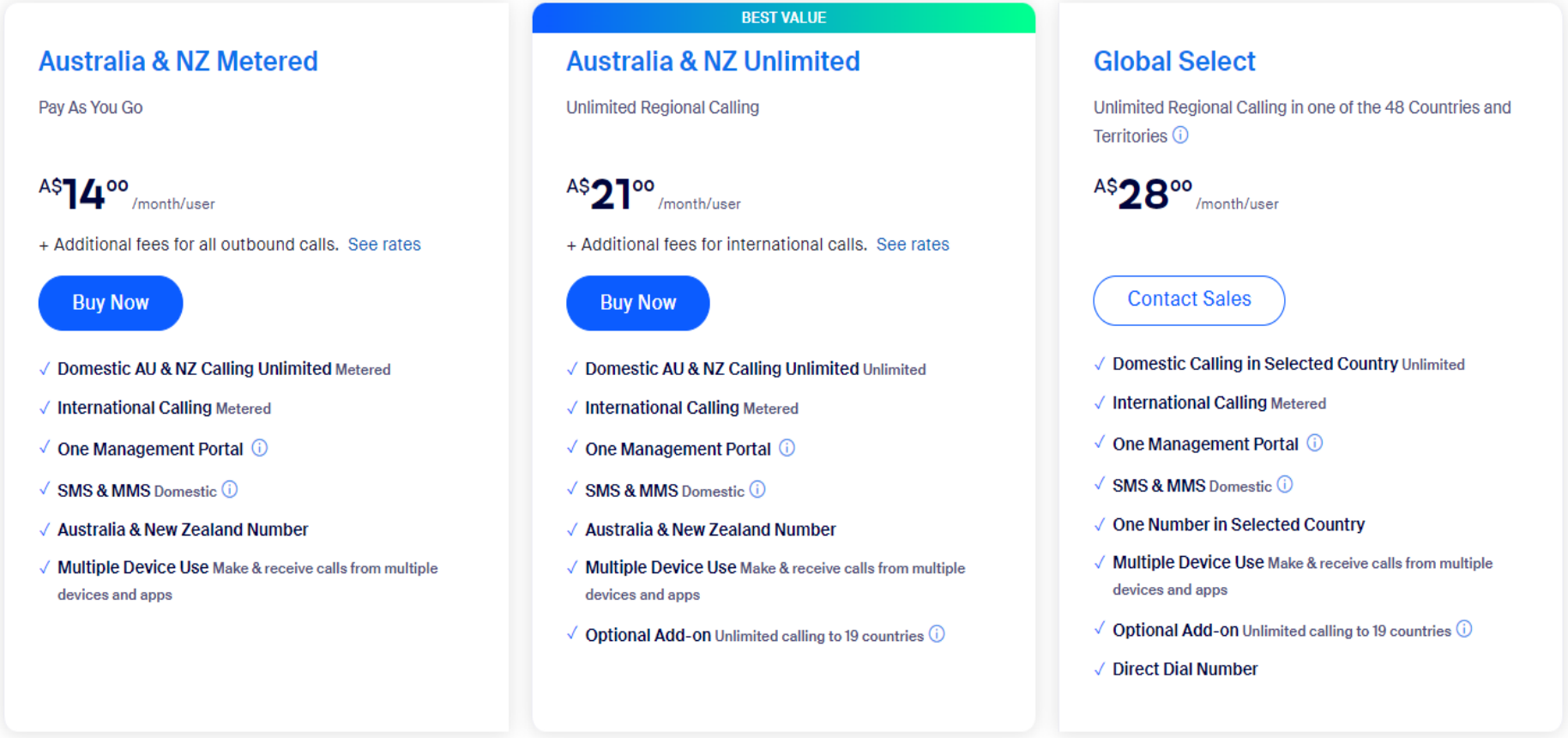
- Telstra dominates MSR with solid postpaid and growth in prepaid
- Pre-network outage, Optus was better than expected in 1H24, with good SIO growth per quarter post COVID.
  - Interrupted by several negative quarters.
  - Now looking to reset for FY25.
- TPG good gains from a low base but weaker than expected in 1H24.
- Wholesale now the highest growth rate for subscribers.

Mobile retail subscribers and ARPU

	FY21A	FY22A	FY23A/F	FY24F	FY25F	FY26F	FY24F / FY23A/F	FY26F / FY23A/F
Telstra SIOs	14,795	15,114	15,375	15,685	16,011	16,379	*2.0%*	*2.1%*
Optus SIOs	9,974	9,927	10,352	10,577	10,828	11,113	*2.2%*	*2.4%*
TPG SIOs	4,981	5,281	5,555	5,724	5,838	5,932	*3.0%*	*2.2%*
Telstra %	*49.7%*	*49.8%*	*49.1%*	*49.0%*	*49.0%*	*49.0%*		
Optus %	*33.5%*	*32.7%*	*33.1%*	*33.1%*	*33.1%*	*33.2%*		
TPG %	*16.7%*	*17.4%*	*17.8%*	*17.9%*	*17.9%*	*17.7%*		
Telstra	29.6	29.9	29.8	28.9	28.4	27.7	*(3.0%)*	*(2.5%)*
Optus	30.0	31.1	30.9	31.2	31.5	32.1	*1.0%*	*1.3%*
TPG	31.7	32.3	32.1	33.1	33.9	34.6	*3.1%*	*2.5%*

- Generally we don't see much movement in SIO share, but open for Optus and TPG to recover somewhat over 3 to 5 years
- Mostly MSR increases with growth in prepaid SIOs across the three MNOs and steady increases in post paid ARPU
- Hence the current focus on 'market repair', ie reset of prices

Zoom, now offering mobile service with 04 numbers



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Pay As You Go

A$14.00 /month/user

+ Additional fees for all outbound calls. See rates

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- ✓ Domestic AU & NZ Calling Unlimited Metered
- ✓ International Calling Metered
- ✓ One Management Portal
- ✓ SMS & MMS Domestic
- ✓ Australia & New Zealand Number
- ✓ Multiple Device Use Make & receive calls from multiple devices and apps

BEST VALUE

Australia & NZ Unlimited

Unlimited Regional Calling

A$21.00 /month/user

+ Additional fees for international calls. See rates

Buy Now

- ✓ Domestic AU & NZ Calling Unlimited Unlimited
- ✓ International Calling Metered
- ✓ One Management Portal
- ✓ SMS & MMS Domestic
- ✓ Australia & New Zealand Number
- ✓ Multiple Device Use Make & receive calls from multiple devices and apps
- ✓ Optional Add-on Unlimited calling to 19 countries

Global Select

Unlimited Regional Calling in one of the 48 Countries and Territories

A$28.00 /month/user

Contact Sales

- ✓ Domestic Calling in Selected Country Unlimited
- ✓ International Calling Metered
- ✓ One Management Portal
- ✓ SMS & MMS Domestic
- ✓ One Number in Selected Country
- ✓ Multiple Device Use Make & receive calls from multiple devices and apps
- ✓ Optional Add-on Unlimited calling to 19 countries
- ✓ Direct Dial Number

- Can port an existing number or add a new number to the same device
- SIP-based voice and switched voice on MNO network (wholesale)

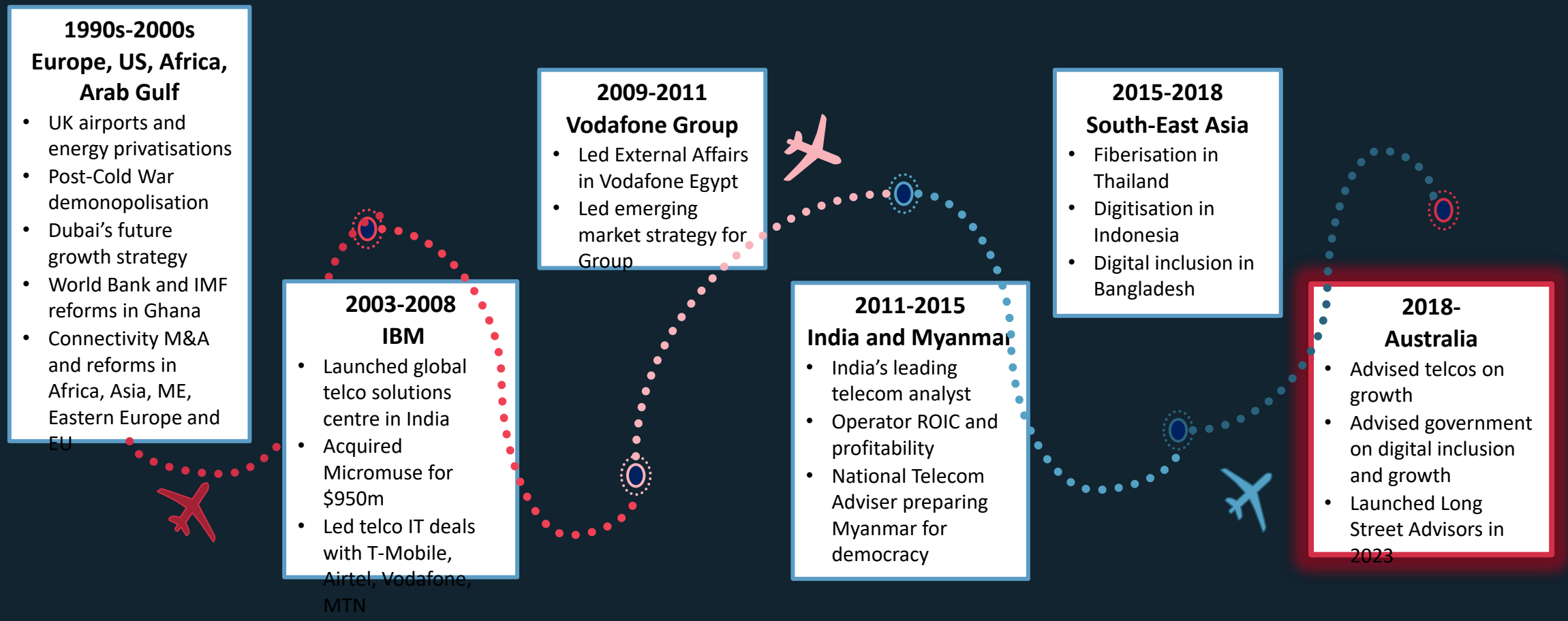
Major long term structural challenges for MNOs

- The rise of UCaaS and SIP based Communications and potential for disintermediation of MNOs by platform operators.
- Evolution of private LTE networks, including edge networks and the possible interest by CSPs and MSPs in area wide licences, expanding reach into MNO activity.
- The industry framework in the rural and regional market; network sharing models.
- Technology deployment expected over the period to FY26 and technology development over the longer term: upgrades to 5G and FWA and possibly; refarming spectrum; open RAN development; potential impact of native cloud on core network; use of AI to manage network operations.
- Changes in the global industry supply chain in response to security concerns, trade imbalances and the need for resilience.
- Expiring spectrum licence arrangements.
- Satellite development and growing role of LEOsat.
- API network collaboration among several global telcos and vendors.
- Rising cost of energy and renewable energy commitments/obligations.

MWC24 read-out
Building the AI-ready network

Mohammad Chowdhury
Founder and CEO, Long Street Advisors

The journey to Long Street Advisors



At MWC24 we moderated high-profile panels and sampled new tech

5 take-aways

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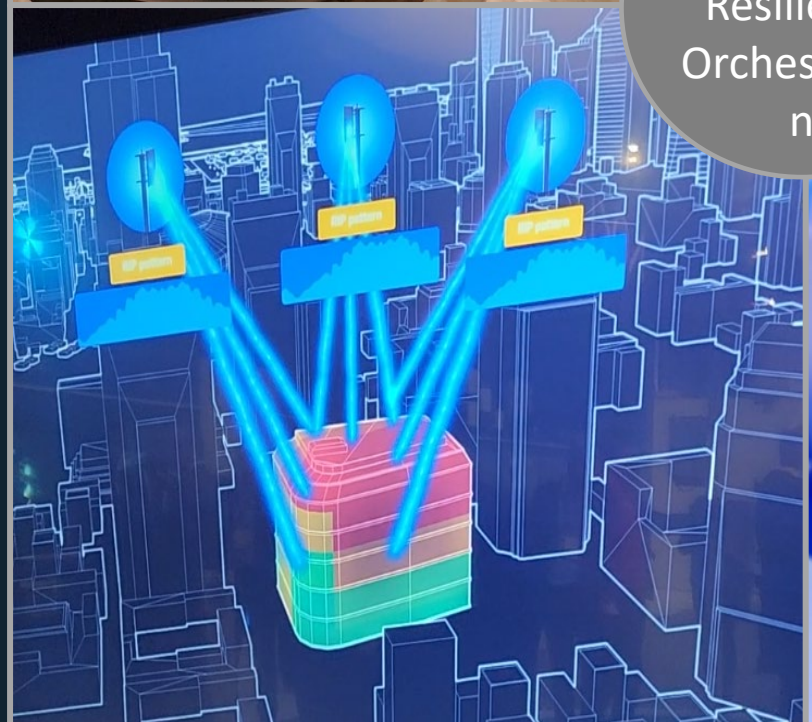
1.

AI and networks will be forever coupled

Latency
Security
Resilience
Orchestration



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2.

To do clever things, AI needs clever networks

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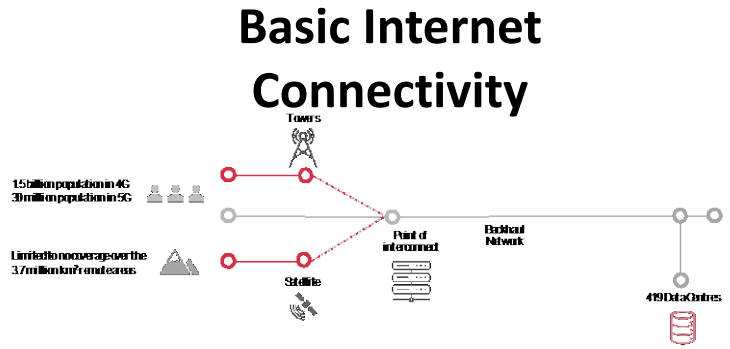
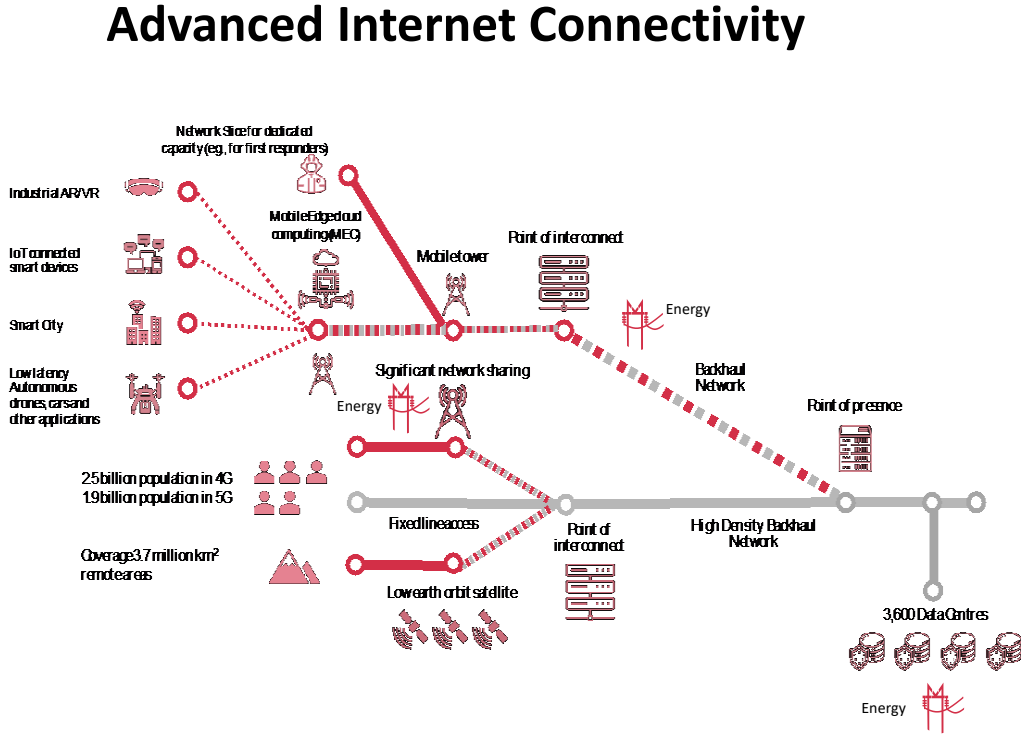
Past



Future



3.

Earning sufficient infrastructure returns needs a new approach

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Mobile (and fixed) operators must change the commercial approach of the past 20 years

- Resist “first to launch” insecurities
- Contract and charge for the network features that AI needs
- Allocate focused resources to research and development

and…

4.

Connectivity policy has been a huge success. Now the world needs a new one.

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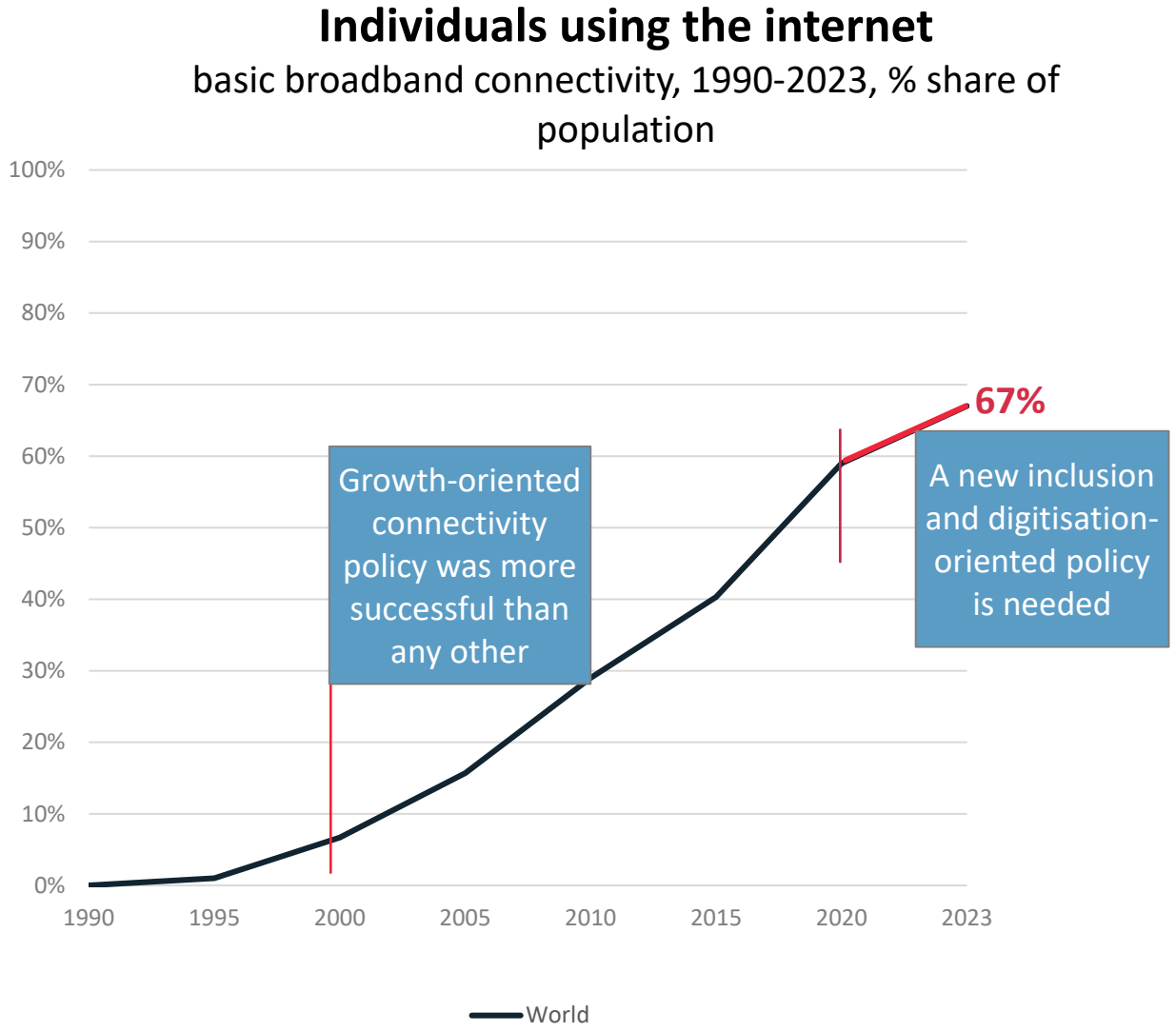
Inclusion
Competitio
n
Governmen
t
Standards



Sources: GSMA, ITU

5.

The pay-off from AI-ready infrastructure is nation-building. The cost is damaging divide.

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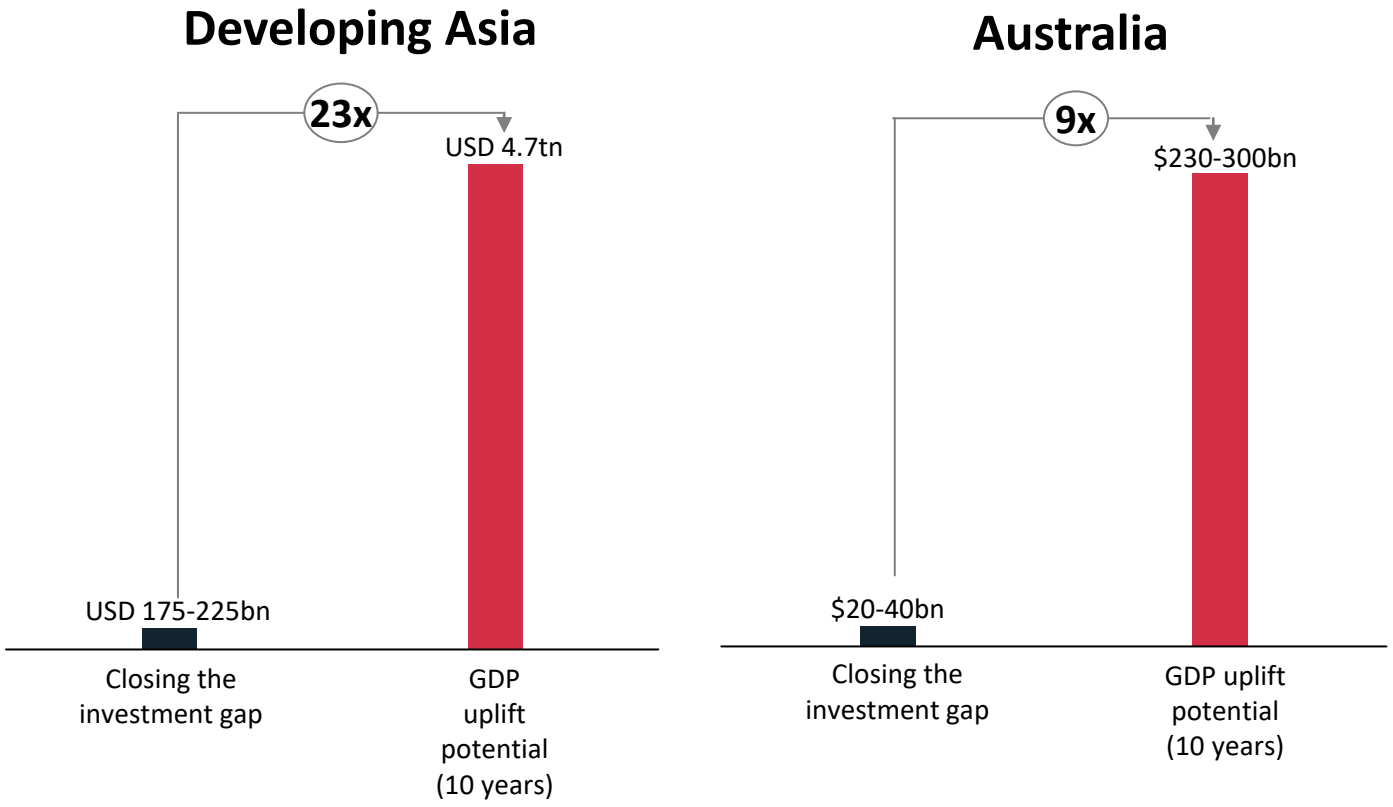
Advanced internet connectivity investment vs impact on GDP

Developing Asia and Australia estimates, 10-year outlook



Source: Long Street Advisors analysis undertaken on a variety of engagements.

We can help.

Operators and Investors

- **Charging for network capabilities**
- **Partnering across telcos and tech**
- **Industry strategy and structure**
- **Energy security**

Governments

- **Closing coverage / usage gaps**
- **Sustaining connectivity investment**
- **Cross-cutting digitisation policy**
- **Resilience, security, standards**

LONG STREET ADVISORS

LONG STREET
ADVISORS

Thank you

Date: 30/04/2024
Version: 2
Commercial-in-Confidence

“NH”

Network Harmonisation and Neutral Host in Telecom

Commsday Summit 2024

Gary Tsang
Commercial and Strategy Director

ONEWiFi 10th & INFRASTRUCTURE

The Challenge for Telecom in Australia

Australia is one of the most challenging nations in the world to deliver telecommunication services:

- One of the largest landmass in the world (7.69m square kilometres)
- One of the lowest population density (3 persons per square kilometre)
- Challenging terrain
- Shortage and high cost of materials and labour
- Logistical challenges

Very costly to deliver high-speed, reliable, and resilient mobile connectivity ubiquitously

Network Harmonisation through Neutral Host Models Maximises Outcomes for all participants

Network harmonisation is the **consolidation and optimisation of infrastructure**, whether core or ancillary, to maxismise outcomes. However, when delivered via a Neutral Host model achieves greater outcomes for all participants on an equitable basis, at the lowest cost.

Desired outcomes:

- Wider access to adequate connectivity
- Greater choice for consumers
- Increase productivity
- More competition
- Lower prices
- Environmental and sustainability
- Higher return on investment

Current Environment Challenging for Telecom

The current economic environment is very challenging for Telecom, where high cost of capital means lower ROI for telecommunication infrastructure.

Four potential levers to preserve ROI:

1. Lower demand for telecom services **(IMPOSSIBLE)**
2. Increase prices to improve top line revenue
3. Spend less and cut cost
4. Enhance efficiency

Network Harmonisation allows MNOs **'do more for the same'**

7NEWS
https://7news.com.au › Technology

Price hike for millions of Telstra customers

4 July 2023 — For customers on Telstra's cheapest mobile post-paid plan, this will mean an increase of $**3 a month**, or an extra $36 a year for 2GB of data.

iTWire
https://itwire.com › Industry › Telecoms & NBN

Optus hikes post-paid mobile plan prices, users not happy

23 June 2023 — The increases are unclear but are as **much as $19 per month** in some cases. Optus subscribers on a Reddit forum made no effort to hide their ...

TechRadar
https://www.techradar.com › ... › Vodafone

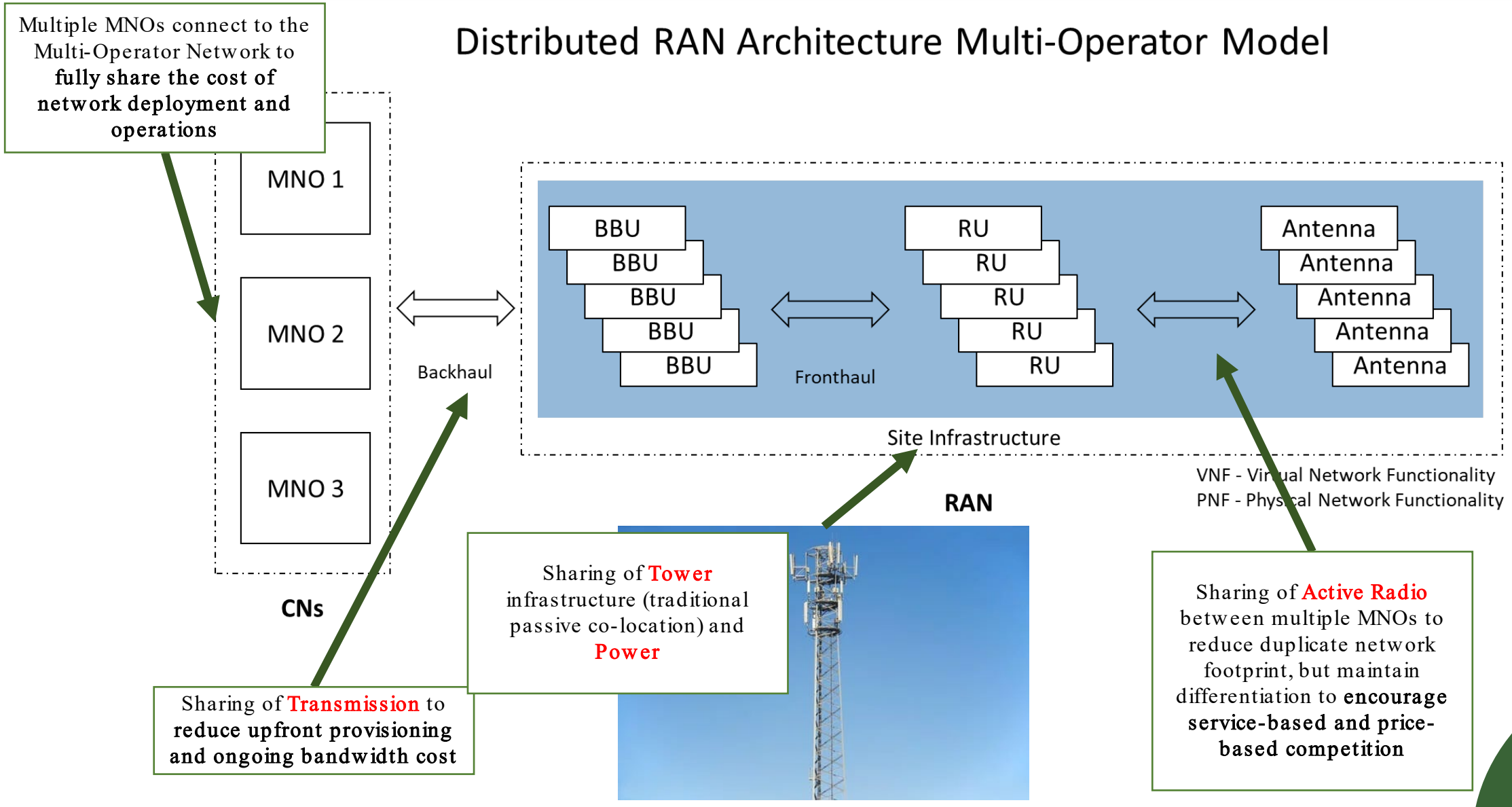
Vodafone's just hiked the prices on its phone plans

14 Jan 2024 — Vodafone has quietly increased the cost of its mobile plans, with **each plan going up by AU$4 a month**. While the price hike only affects new ...

Active Neutral Hosting Maximises Network Economics

Multiple MNOs connect to the Multi-Operator Network to **fully share the cost of network deployment and operations**

Distributed RAN Architecture Multi-Operator Model



Sharing of **Transmission** to **reduce upfront provisioning and ongoing bandwidth cost**

Sharing of **Tower** infrastructure (traditional passive co-location) and **Power**

Sharing of **Active Radio** between multiple MNOs to reduce duplicate network footprint, but maintain differentiation to **encourage service-based and price-based competition**

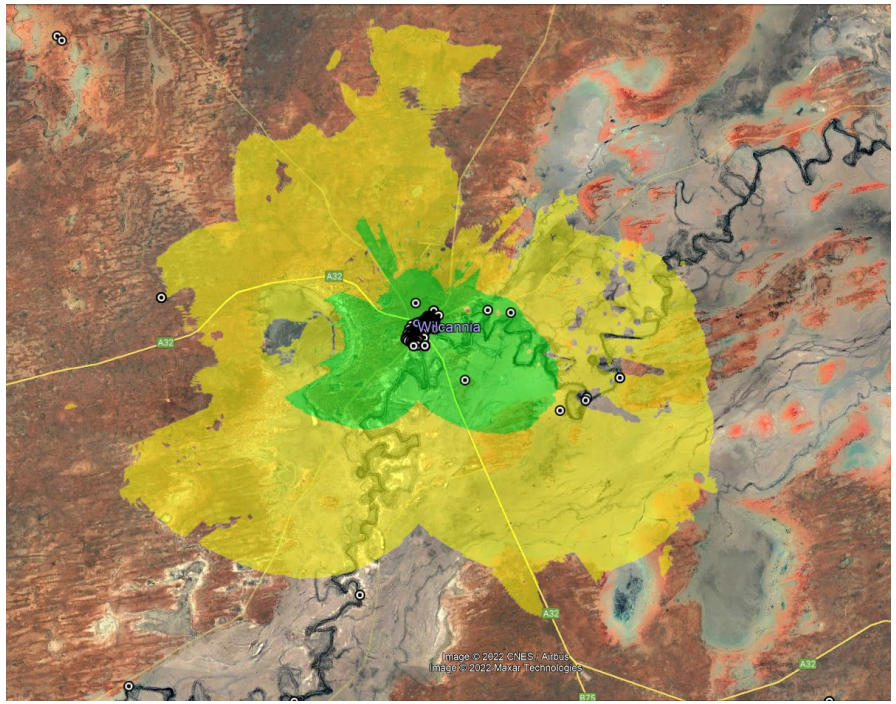
Mobile Active Neutral Host is Reality in Regional Australia

NSW GOVERNMENT | Regional NSW

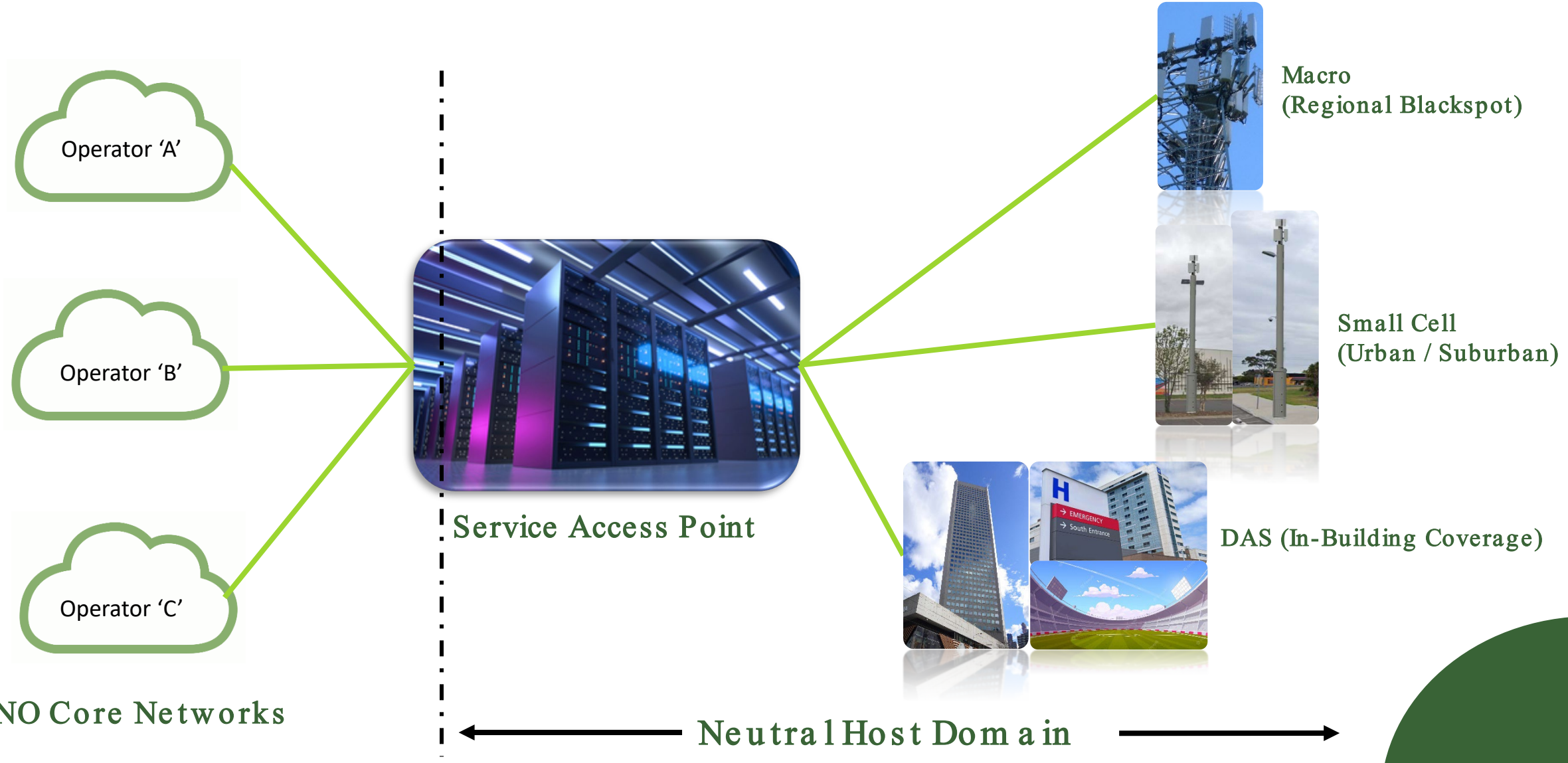
Australian Government
Department of Infrastructure, Transport, Regional Development, Communications and the Arts

Two multi-carrier Mobile Active Neutral Host pilot sites being ready-for-service in Wilcannia and Brewarrina in regional NSW

Commonwealth Mobile Blackspot Program Round 7 (MBSP R7) to deploy and operate 25 Mobile Active Neutral Host sites across regional NSW and QLD, including several First Nation communities.

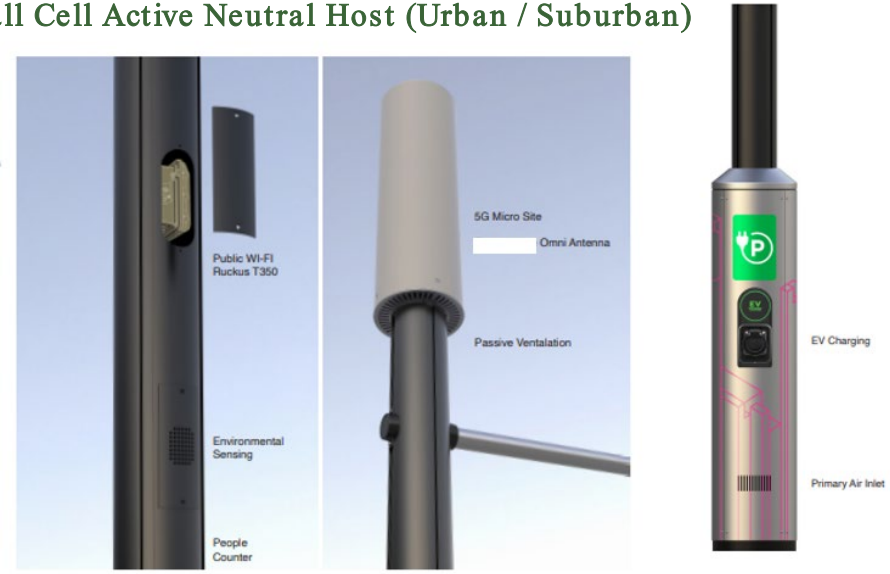


Neutral Host Applicable for Urban / Suburban / In-Building



Value in Urban / Suburban / In-Building can also be derived from Neutral Host Model

Small Cell Active Neutral Host (Urban / Suburban)



Location Analytics
- Parklet utilisation
- Asset maintenance
- Transport planning

Public Wi-Fi
- High speed internet
- Digital engagement
- Secure connectivity

Digital Wayfinding
- Digital engagement
- Promotion
- Public announcement

Smart Pole
- Aesthetics
- Multi-functionality
- Banner

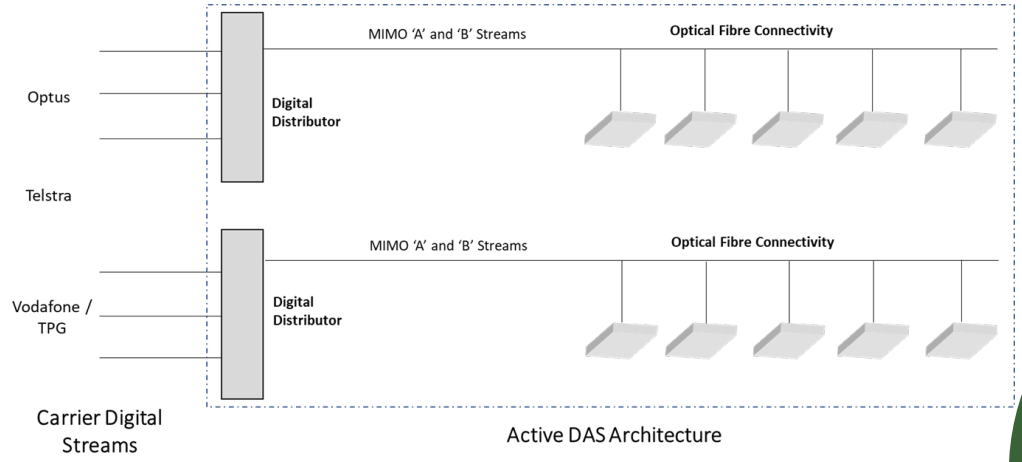
Smart Amenities
- Utilisation
- Maintenance
- Hygiene

Smart Lighting
- Experience
- Safety
- Efficiency

The property sector is facing significant headwind, post-COVID:
- Higher cost of capital
- Asset write downs
- Lower rental yields
- Higher input costs (e.g. material and labour)
- Change in working and traveling patterns
- Regulatory and policy changes

Desired stakeholder outcomes:
- Affordable and multi-carrier connectivity for communities and tenants
- Enhance liveability and experience
- Improve operational efficiencies and synergies
- Reduce cost burden for all parties and cater for BYODs (all operators)
- Minimise environment disruptions
- Improve visual aesthetics

Active Neutral Host DAS (In-Building Coverage)



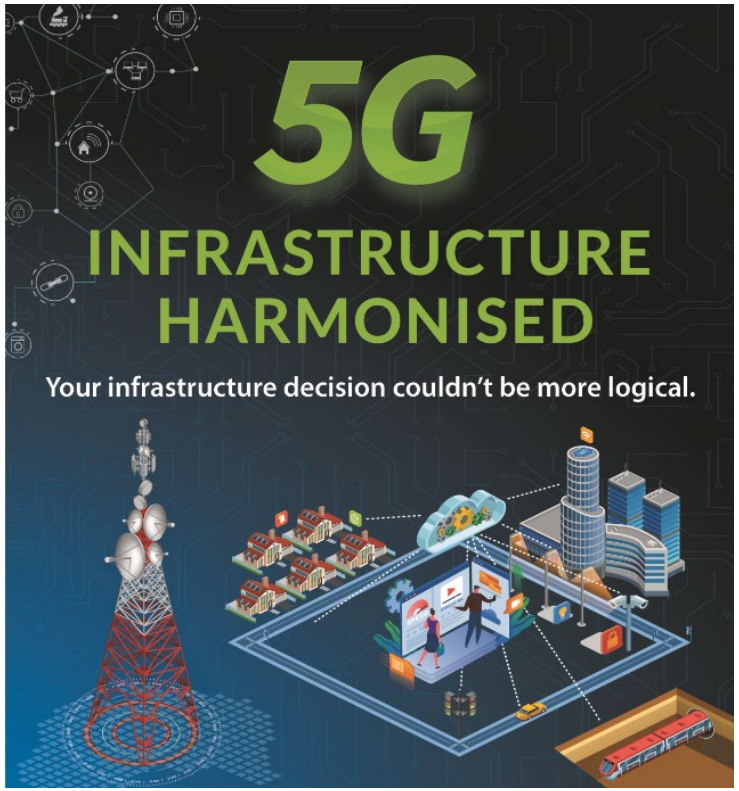
Active DAS Architecture

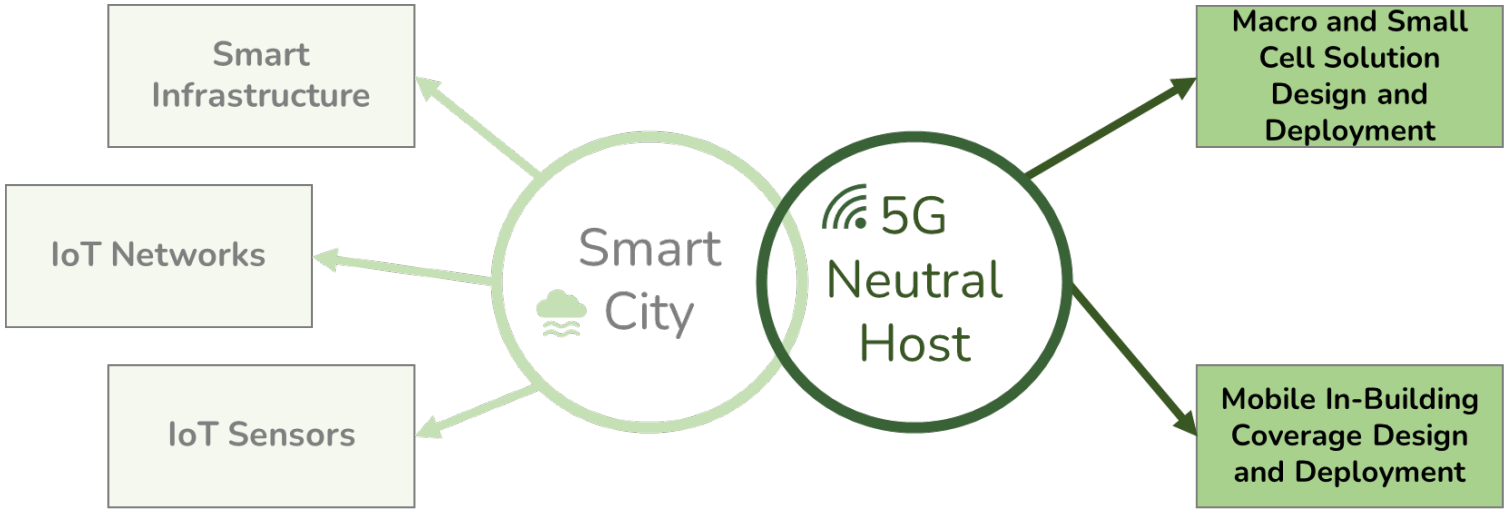
About OneWiFi & Infrastructure

Headquartered in Sydney, **OneWiFi & Infrastructure** (OneWiFi) is Australia's leading **5G Neutral Host, Small Cells, IBC/DAS, and Smart City** solutions provider.

Established in 2012, we are currently delivering best-in-class solutions to over 1,200 locations across Australia, including Retail Precincts, Shopping Centres, Hospitality Venues, Commercial Buildings, and Regional Communities. OneWiFi is also a licensed telecommunications carrier offering a range of high speed fixed and wireless telecommunication services.

OneWiFi continues to invest in strategic relationships with the Mobile Operators, Cities, Municipal and Regional Councils, and Asset/Property Owners all across Australia via a comprehensive suite of services to deliver the desired financial, economic, community, sustainability, and technological outcomes.





ONEWiFi 10th
& INFRASTRUCTURE

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COMMSDAY SUMMIT SYDNEY 2024

Responsible Mobile Communications

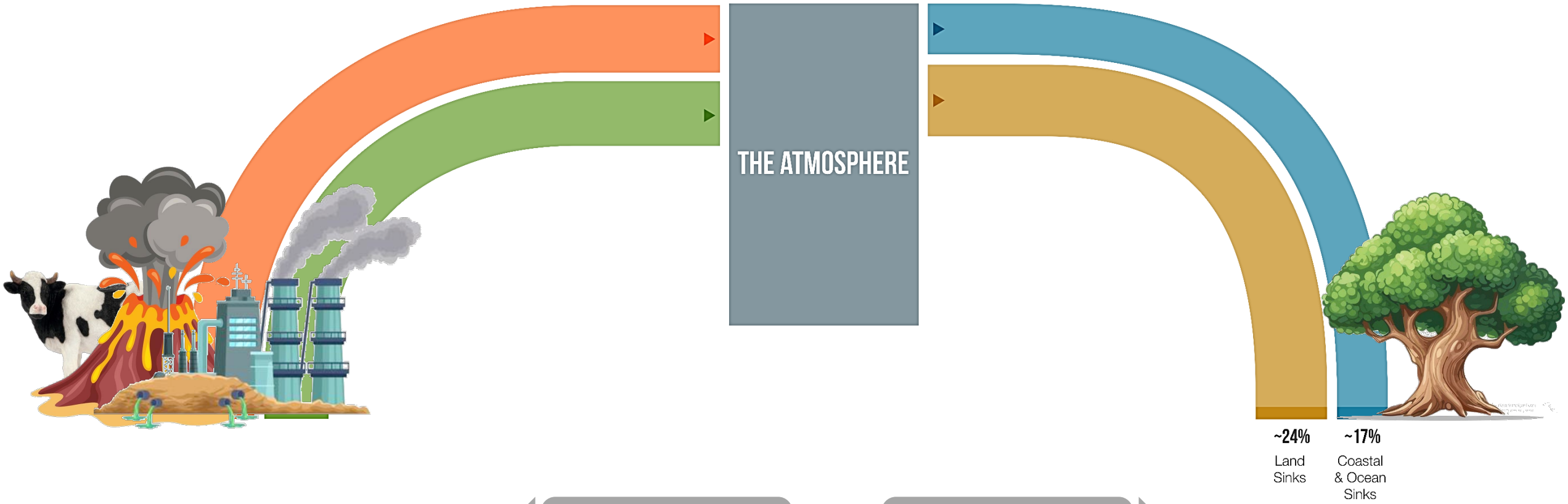
Investing in Our Future

Dr. Mohamed Nadder, PhD., PE

Director of Networks Strategies and Solutions

1 May 2024

EMISSIONS SOURCES & NATURAL SINKS



CURRENT SOURCES

Net Zero

Carbon Neutral

CURRENT SINKS

PROJECT DRAWDOWN.

Copyright © 2020, Project Drawdown

Source: IPCC (2014) & Global Carbon Project (2019)

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Paris Agreement and MNOs

- Limit global warming to 1.5ºC
- Limit Global CO_2 emissions
  - 50% by 2030
  - Net Zero by 2050

COMPANY	SCIENCE -BASED TARGETS	Scope 1&2 CARBON NEUTRAL TARGET YEAR	Scope 1,2&3 RACE TO ZERO TARGET
2degrees	Committed		
Spark	Targets set: 1.5°C		
Singtel	Targets set: well below 2°C		2050
Telstra	Targets set: 1.5°C	2020	2050
Vodafone	Targets set: 1.5°C	2030	2040
TPG	Committed		2050

Source: GSMA Intelligence 2022

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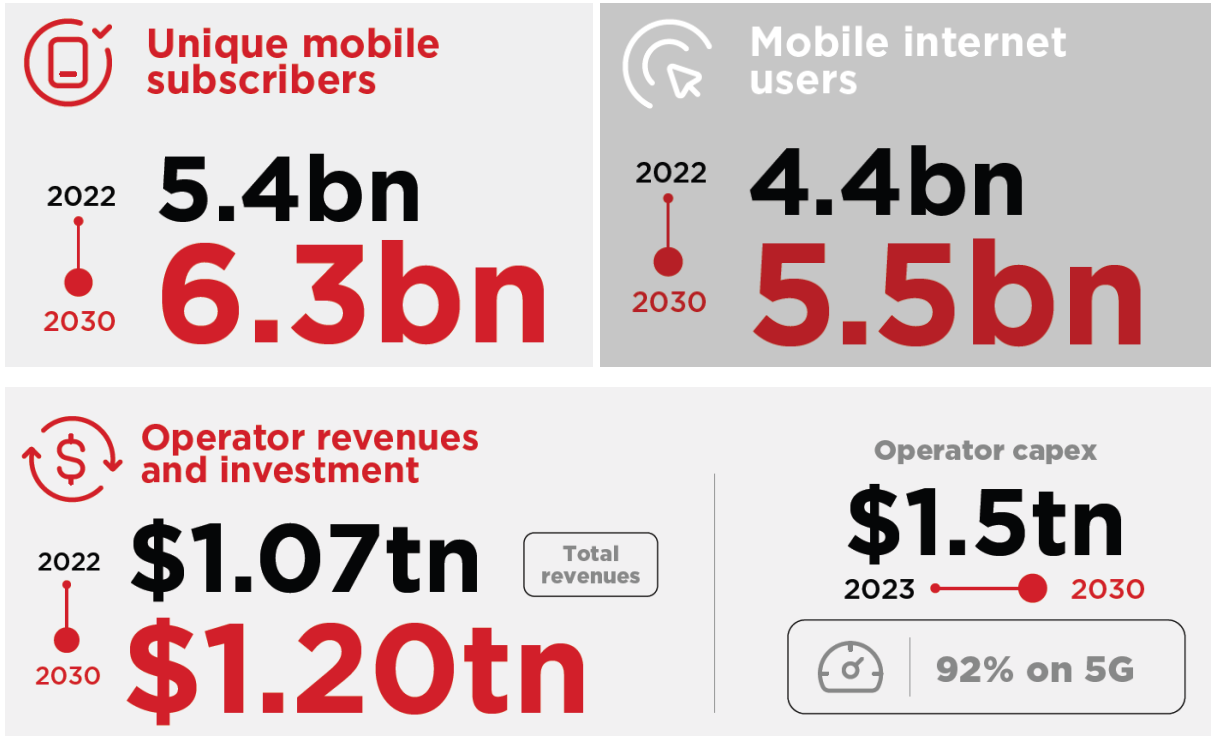
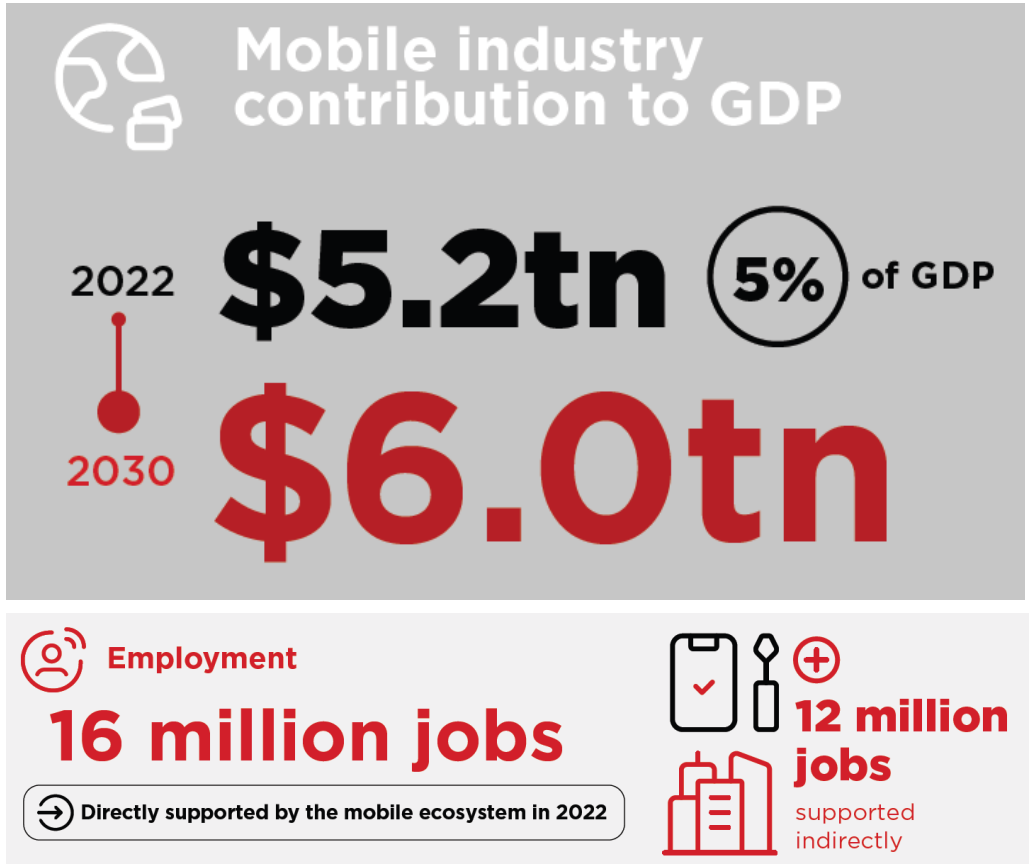
The Mobile Economy (GSMA 2023)





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9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

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TARGET 9·C

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

We Change Lives!

UNIVERSAL ACCESS TO INFORMATION AND COMMUNICATIONS TECHNOLOGY

1 NO POVERTY

2 ZERO HUNGER

4 QUALITY EDUCATION

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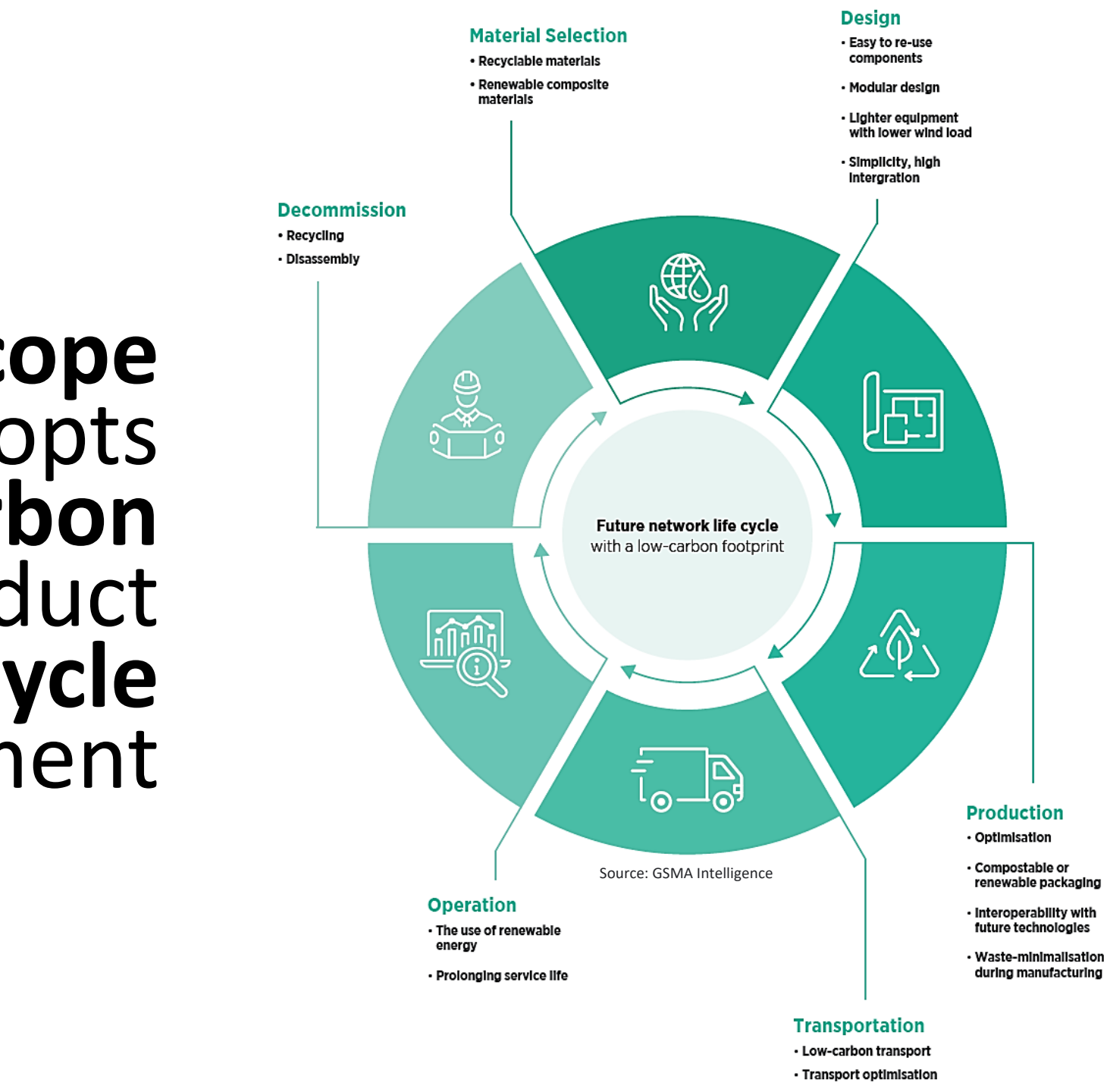
CommScope adopts **low-carbon** product **Life Cycle** management



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Our Sustainable Triple PPP

Do
Well
By
Doing
Good!

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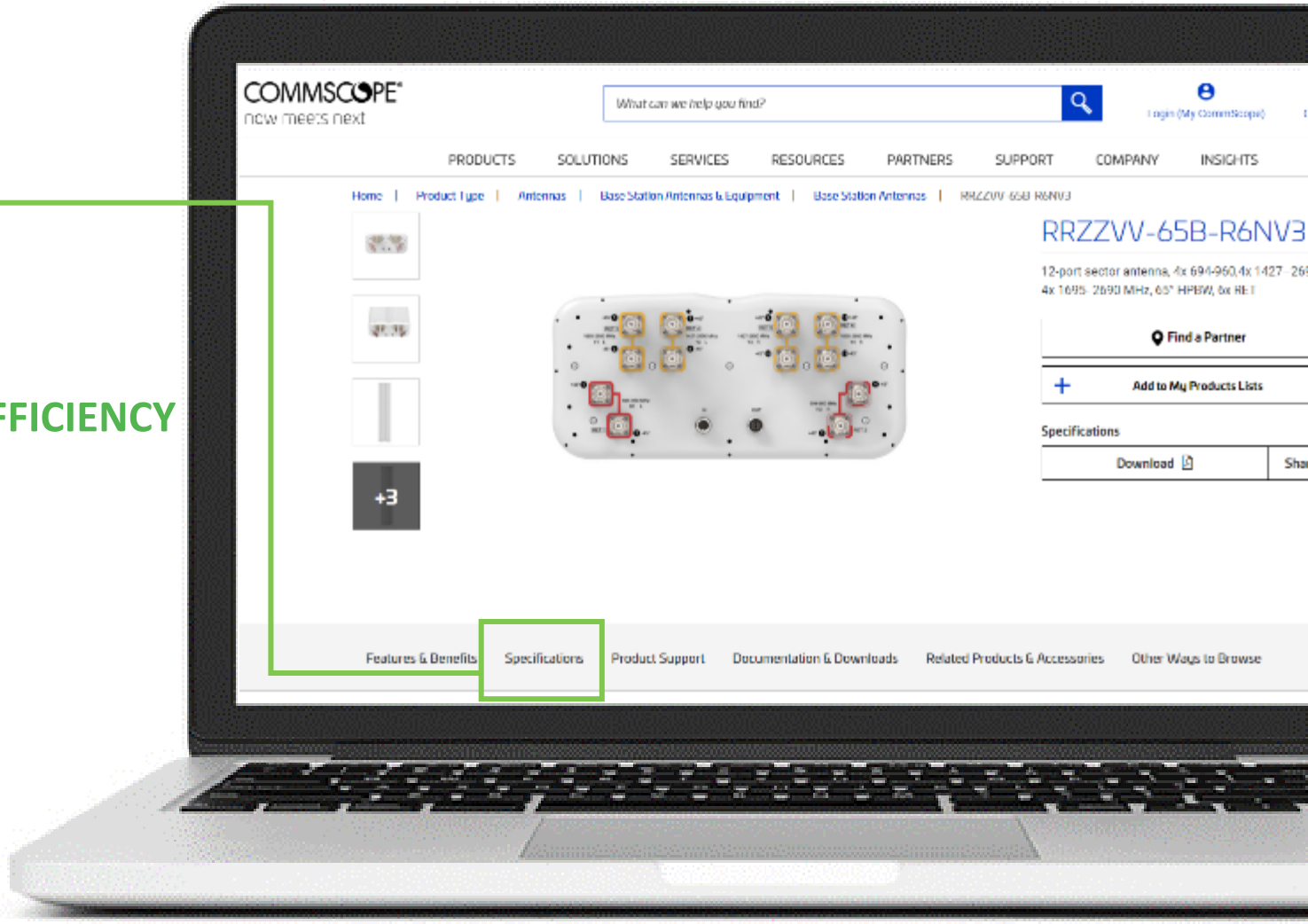
Transparent communication: SVScore™ (Sustainability Value Score)



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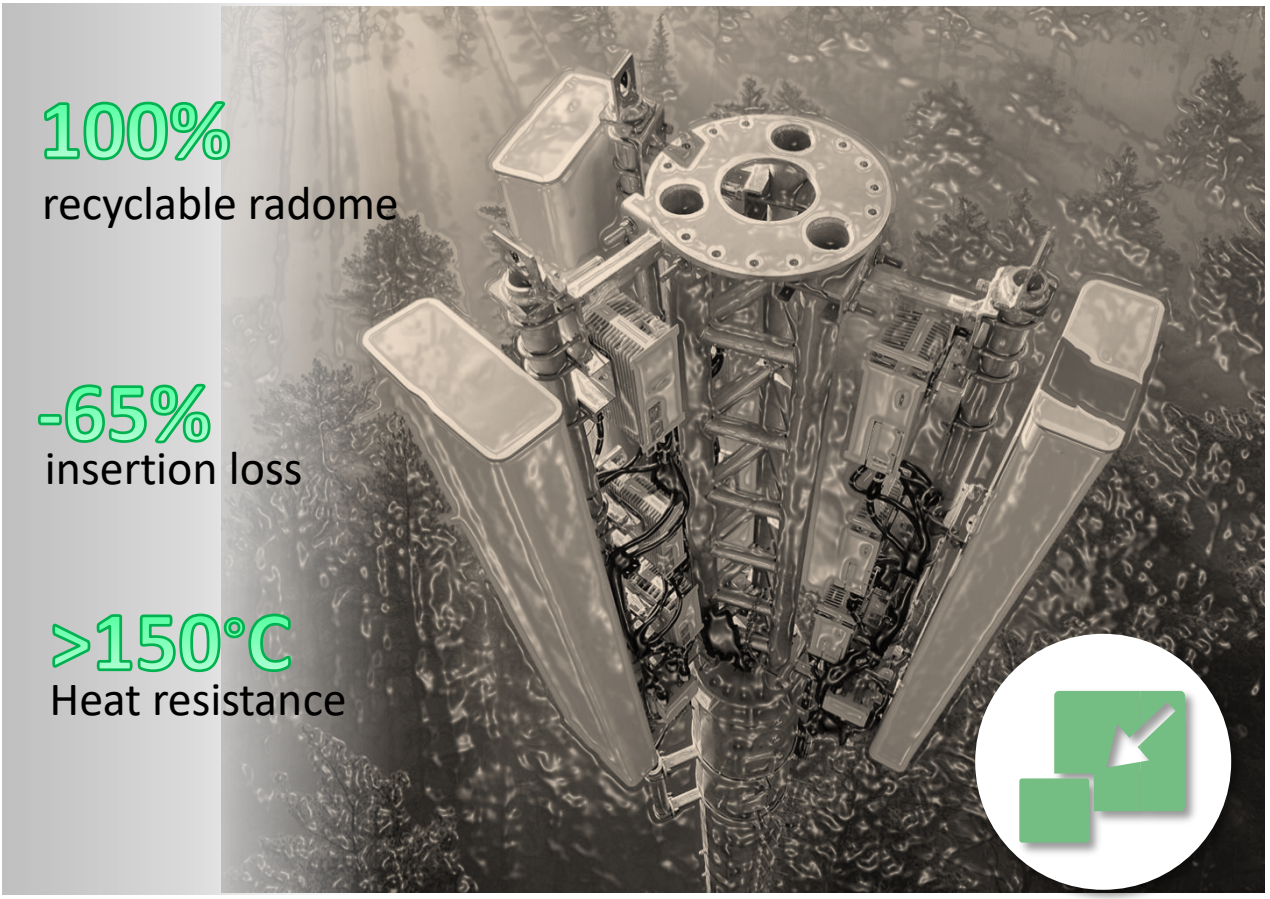
Material

GFRPP Radomes



100%
recyclable radome

-65%
insertion loss

>150°C
Heat resistance

Transportation

Containers Loading

48 boxes
120x80x128

70%

81%

50 boxes
107x107x118

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Less RF path losses

Higher efficiency

Less pattern losses

Controlled radiation

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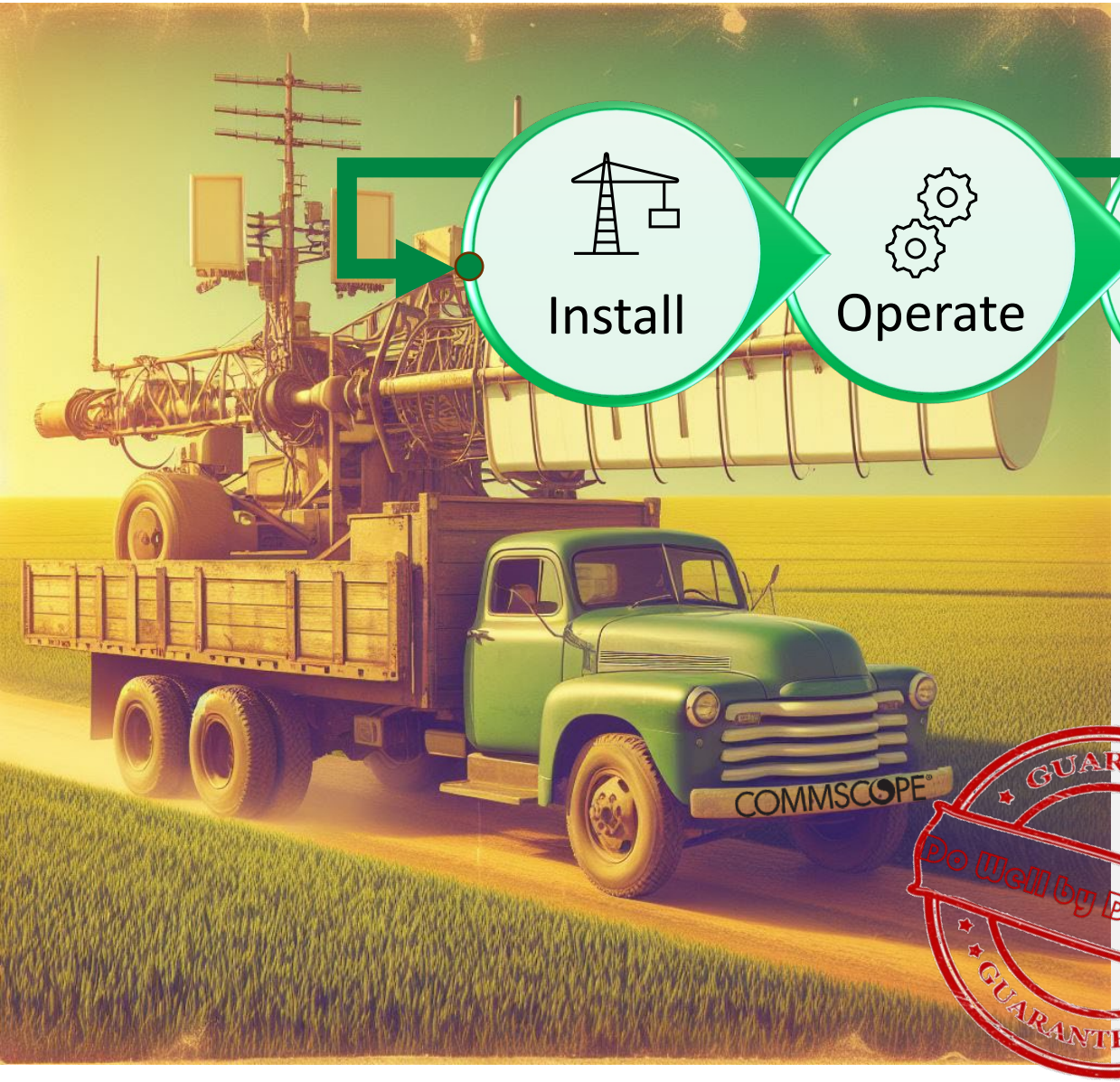
Extending solution lifecycles: Refurbishment project



Install

Operate

Recover

Inspect

Ship

Recycle

- Packaging
- Shipping

- Visual tests
- Functional tests
- Certification

- Failed units parts

COMMSCOPE® ACTIVITIES

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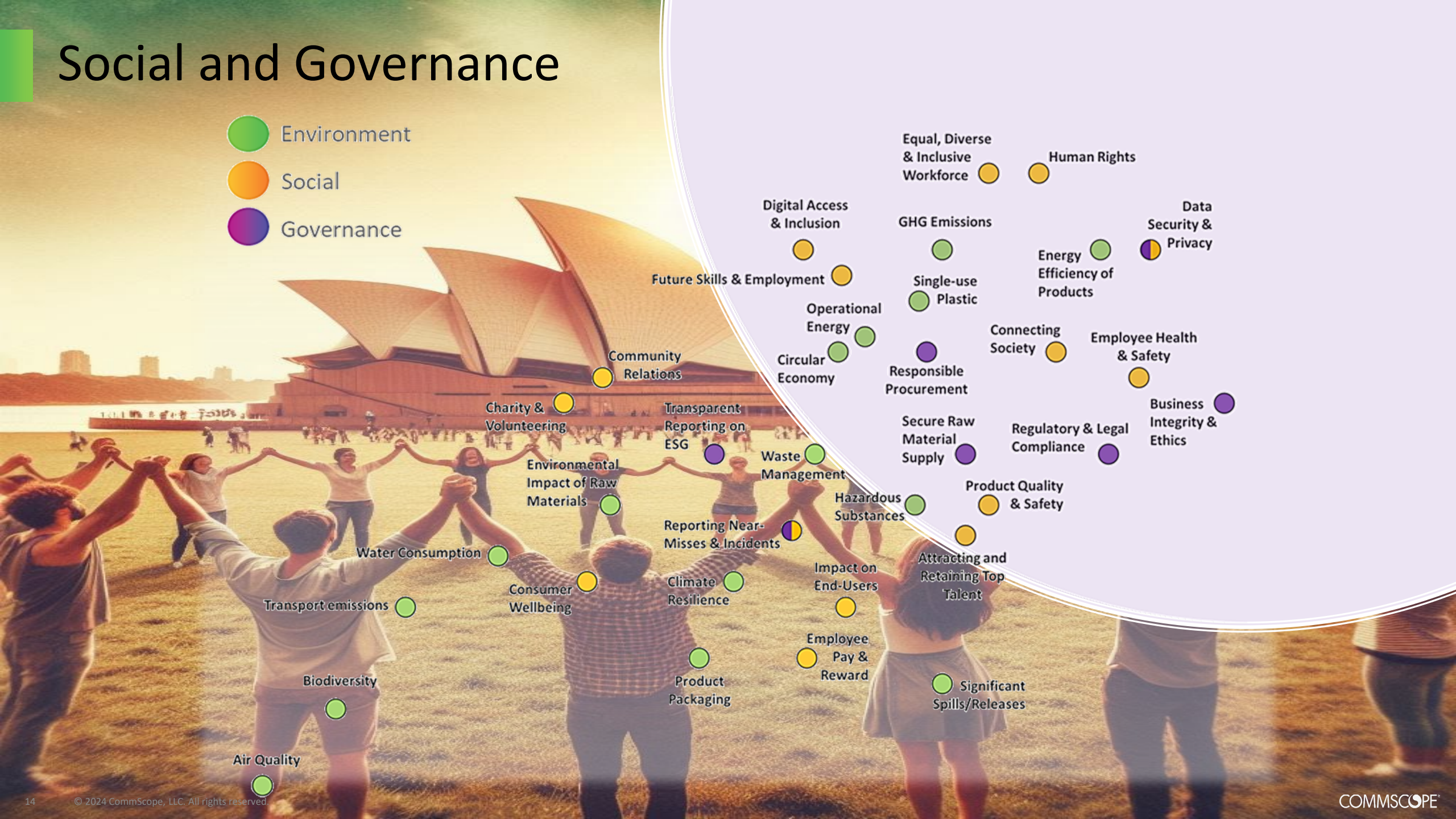
Social and Governance



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Awards & Recognition

Newsweek
Recognized in *Newsweek's* 2023 and 2024 list of America's Most Responsible Companies

USA TODAY
Recognized in *USA Today's* 2023 List of America's Climate Leaders

CDP DISCLOSER 2023

GOLD 2023 ecovadis Sustainability Rating

SUSTAINALYTICS Low Risk

CABLING INNOVATORS AWARDS

INVESTOR'S BUSINESS DAILY 2022 BEST ESG COMPANIES
ENVIRONMENTAL, SOCIAL & GOVERNANCE

Newsweek
Received a five-star ranking on *Newsweek's* America's Greatest Workplaces for Diversity 2024 list

ISS ESG Prime

Forbes
Named in *Forbes'* America's Best Employers by State List 2023

MSCI ESG RATINGS AA

CCC	B	BB	BBB	A	AA	AAA

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Conclusion

- Mobile Communications is a **$1Tn** by revenue industry that changes lives!
- Our Responsible Leadership is key extending mobile communications scope into direct **CSR aspects**.
- CommScope is **committed** to its sustainability goals.

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COMMSDAY SUMMIT SYDNEY 2024

Responsible Mobile Communications

Investing in Our Future

Do well by Doing Good!

Dr. Mohamed Nadder, PhD., PE

Director of Networks Strategies and Solutions

1 May 2024

Social Value

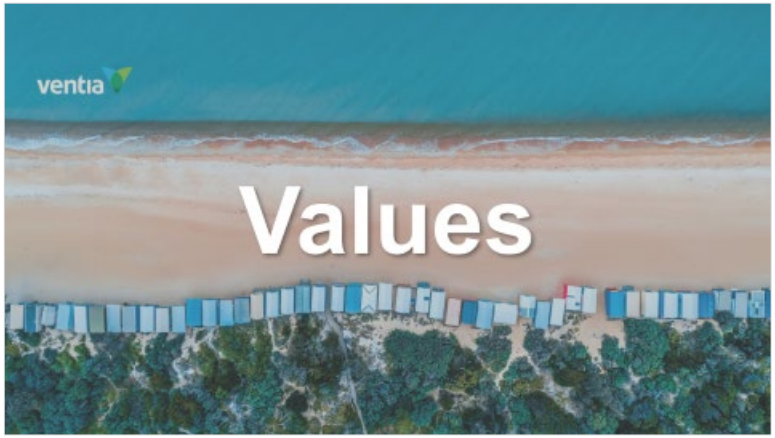
COMMSDAY SUMMIT
SYDNEY 2024

ventia

400+ locations

35,000+ workforce
(employees & sub-contractors)

Ventia is a leading essential infrastructure services provider in Australia and New Zealand

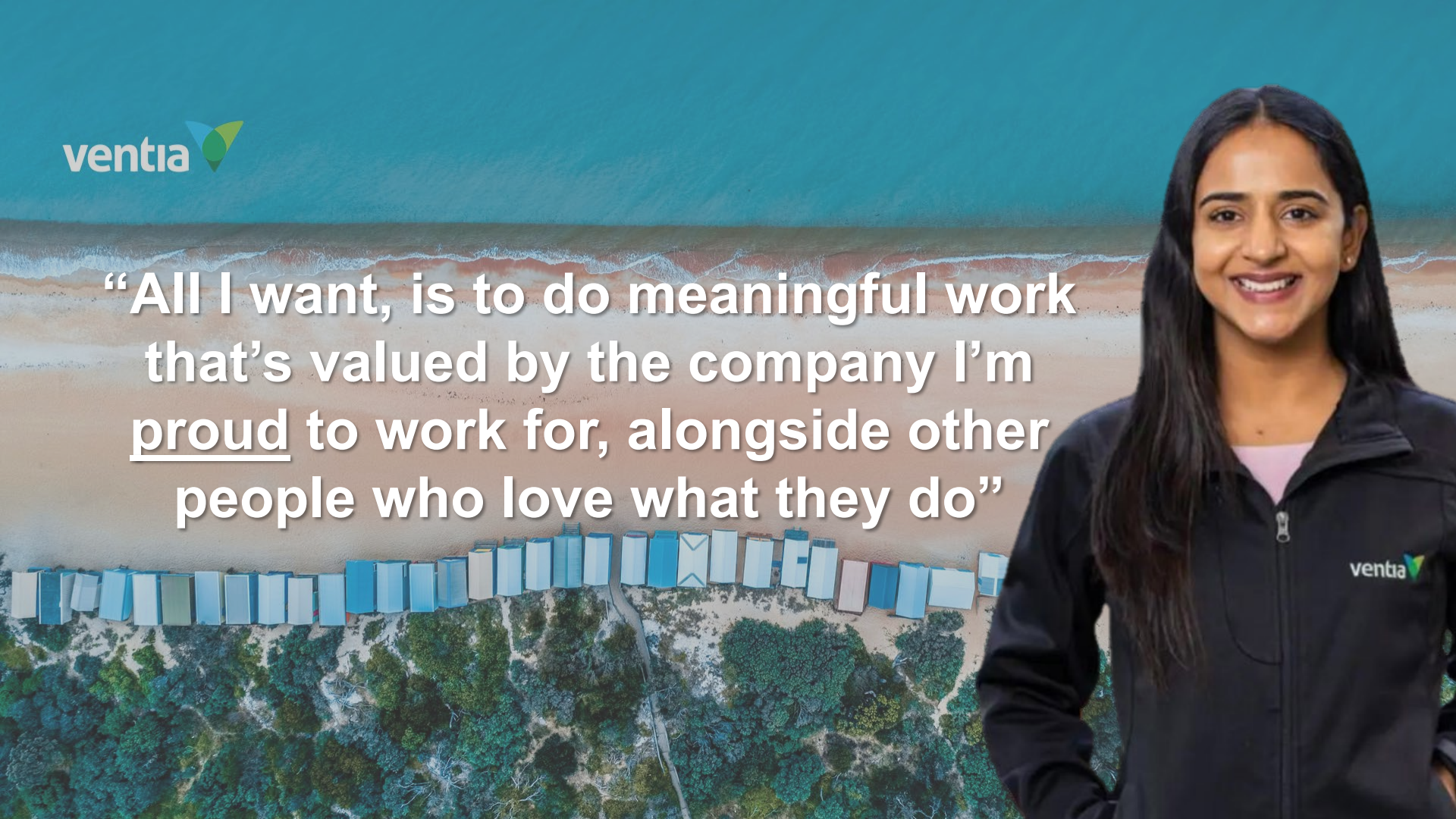

ventia
Values

ventia
Choices

ventia
Social Value

ventia
Collaboration

ventia
Values


ventia
“All I want, is to do meaningful work that’s valued by the company I’m proud to work for, alongside other people who love what they do”
ventia

VENTIA | 2024

Ventia joins Boys to the Bush to help disadvantaged youth

Boys to the Bush is focused on prevention and early intervention strategies for vulnerable male youth.

Since 2017 Boys to the Bush has impacted over 7,000 lives through involvement in our range of programs.

- Boys to the Bush focuses on engaging with some of regional Australia's most vulnerable youth - running camping trips during school holidays and providing mentoring support to boys from 9-24 years of age living in Central West and Riverina NSW, and North East Victoria.
- The boys that make up the cohort live with considerable challenges: 85% live in out of home care (OOHC) arrangements, 50% have a diagnosed disability or impairment, and most lack access to adult role models guiding them towards successful futures.

"The Trades Camp initiative emerged from a partnership between Boys to the Bush and Ventia, aimed at equipping young people with essential skills and real work experience"

BOYS TO THE BUSH

Our people are at the heart of our success

VENTIA | 2024

Ventia Telco team partners with ASA for opportunities

Australian Spatial Analytics (ASA) is a registered not-for profit social enterprise dedicated to training and employing remarkable young spatial analysts with autism, who bring their exceptional abilities to the field of data analytics.

The organisation's purpose centres on the societal need to digitise for diversity. Spatial analytics is a forward-looking industry, and it is ASA's goal that neurodiverse people be a part of the digital ecosystem. Importantly, the distinct cognitive talents of the neurodiverse people associated with ASA frequently allow them to excel as digital professionals.

The team commenced working with Ventia in 2021 across telecommunications projects, and that has since expanded to incorporate a number of sectors across Ventia.

"The ASA people are bringing a great set of skills to our team and already we're seeing benefits of having them embedded into our completions process and the engagement is going extremely well.

Australian Spatial Analytics

Our people are at the heart of our success

VENTIA | 2024

Ventia launches new social enterprise partnership

Ventia recently launched a new partnership with Civik, a people-centred social enterprise with a mission to create jobs for communities that typically experience high unemployment.

Civik will train and employ individuals - in particular, First Nations people and former refugees - who face barriers to work in regional Australia, giving them the skills and confidence to pursue careers in construction, engineering and telecommunications. Research shows unemployment rates for refugees is approximately 77% in the first year of arrival before dropping to 38% after three years1.

"We are proud to be working with Civik and NBN Co. to unlock the workforce potential in regional and remote communities and support talented people who face barriers to employment."

CIVIK

Our people are at the heart of our success

ventia
Choices

Social Impact Focus Areas

	Local Employment	Local Spend	Employee Wellbeing	Community Engagement
Choices	Who you choose to employ	Who you choose to spend with	How you choose to look after your people	How you choose to look after your communities
Actions	**Focus on** • Most disadvantaged areas • Priority groups	**Focus on** • Using the power of procurement • Paying on time	**Focus on** • Diversity & Inclusion • Employee Engagement & Development	**Focus on** • Volunteering & Fundraising • Building enduring relationships

Our people are at the heart of our success

ventia
Social Value

Why Quantify Social Value

Social value refers to the quantifiable non-financial impacts' companies have on society.
It could be creating jobs, supporting local businesses, or helping improve the environment.

Fiscal Saving

Fiscal saving refers to the financial savings accrued by the public sector or society at large as a result of our initiatives or projects

Economic Benefit

Economic benefit encompasses a broader spectrum of financial advantages generated by a project, not just savings. This includes job creation, increased tax revenues, or enhanced local business profitability.

Wellbeing Impact

The wellbeing impact refers to the enhancement of quality of life and general wellbeing of individuals and communities affected by a project. This could encompass aspects like improved health outcomes, enhanced educational opportunities, or increased community cohesion.

We quantify our socio-economic impacts to help us to understand the effectiveness of our initiatives and to offer customers a comparative insight into our performance against their other suppliers

How we Quantify Social Value

Theme	Example Outcome	Measure (activity)	Unit	Value to Society
Jobs Local skills and employment 'for all'	**More opportunities for disadvantaged people**	**# ex-offenders employed**	**Number of people FTE**	**$50,000**
Growth Supporting responsible local businesses	Improving staff wellbeing and mental health	# employees with access to wellbeing programmes	**Number of people**	**$260**
Social Healthier, safer and more resilient communities	More working with the community	# hours of local community volunteering	**Number of hours**	**£32**
Environment Regenerating our environment	Carbon emissions are reduced	tCO_2e tonnes reduced	**Tonnes of CO2e**	**$500**

Total SV$

=

Number of units

X

Proxy value

Social Value TOM Themes Outcomes Measures

National Social Value Taskforce

ventia
Collaboration
ventia