

Investor Strategy Briefing

Friday 4 May 2018

Our vision is to be the most trusted enabler of connectivity and managed services in **Asia Pacific**



01	Our Vision Session 1	02	Customer Platforms	03	Platforms for growth Session 3
la	Supertrends	2a	Superloop 360	3a	Solutions
1b	Customer Pain Points	2b	NuSkope CRM	3b	Moving Forward
lc	Superloop Recap				

Session 1 Supertrends and Recap

Supertrends

Office 365



The rise of Cloud Computing



Global data centre traffic is forecast to grow at a CAGR of 23%.

Cloud data centre traffic is expected to grow at a faster rate of 32% CAGR, a near 4-fold increase from 2013 to 2018.

The rise of Video on Demand services



By 2018, IP video traffic is expected to be 79% of total global consumer Internet traffic (both business and consumer), up from 66% in 2013.

Internet video to TV grew 35% in 2013 and is forecast to increase 4-fold by 2018. Consumer Video on Demand (VoD) traffic is expected to double by 2018.

The rise of Connected Devices

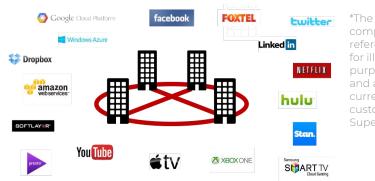
Azure

In 2014, the number of mobile connected devices grew to 7.4 billion, exceeding the world's population (M2M / Machine to Machine traffic)



Traditional devices STANDALONE Modern devices CLOUD CONNECTED

The rise of Massive Data Centre Connectivity



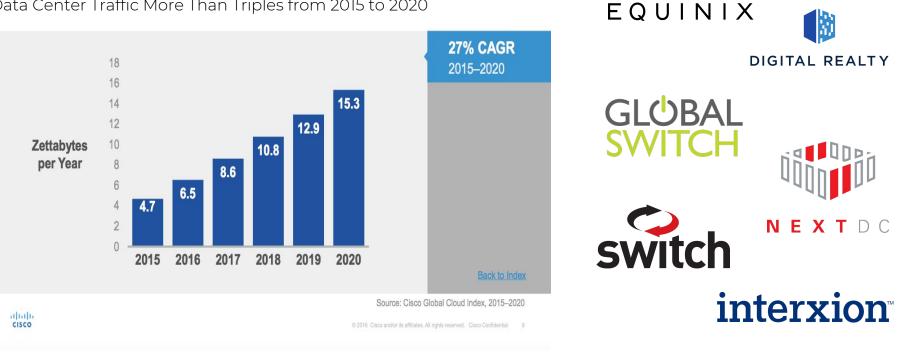
*The companies referenced are for illustrative purposes only and are not currently customers of Superloop.



UND

Global Data Center Traffic Growth

Data Center Traffic More Than Triples from 2015 to 2020

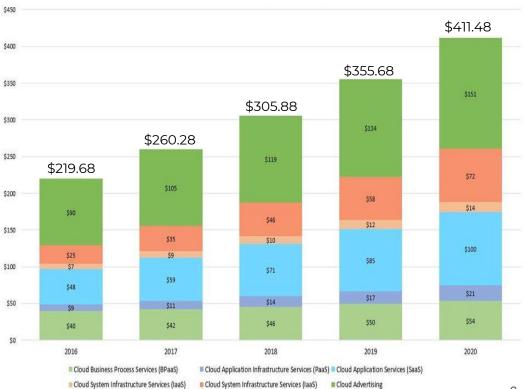




(2017)

Cloud computing market projected to reach \$411B by 2020





Worldwide Public Cloud Services Revenue Forecast (USD bil)

6

😵 super**loop**

Facebook engineers achieve 20 Gbps in Southern California P2P millimeter wave trial

by Monica Alleven | Nov 11, 2016 10:00am



Image: Facebook

Engineers at Facebook announced they were able to demonstrate a record data rate of nearly 20 Gbps over 13 km with millimeter wave (MMW) technology, a feat that was accomplished using a set of custom-built components.

Google Fiber buys Webpass to speed up broadband deployment in cities

The purchase of a company that delivers wireless high-speed broadband should help Google Fiber build its 1Gbps network quicker and for less money.

Google Fiber will soon have a new tool in its toolbox to bring ultrafast 1Gbps broadband service to millions of people in cities throughout the US.

On Wednesday, Webpass, an internet service provider that uses point-to-point wireless to deliver high-speed broadband to apartment buildings and businesses, said it was being bought by Google Fiber for an undisclosed amount. Neither company has disclosed details of the transaction, but the deal is expected to close this summer after regulatory approval.

Webpass uses a combination of rooftop wireless networks connected to high-speed fiber connections to deliver broadband connections that it claims can be as fast as 1 gigabit per second. The company is already operating in five major markets, including the San Francisco Bay Area, San Diego,



Webpass could give Google Fiber an expansion boost. Google

Miami, Chicago and Boston. Google Fiber, a subsidiary of Google parent company Alphabet, revealed earlier this year that it plans to deploy its 16bps broadband service in San Francisco, and it has already listed Chicago and San Diego as potential future cities. The acquisition of Webpass should help accelerate those plans and could help Fiber push into other cities.

Superloop

Data Security is crucial and compliance obligations are increasingly onerous. The average cost of a data breach is **\$3.62 million**, up 17% since 2013

"Experts say these kinds of attacks can be so damaging to revenue and customer expectations that small businesses are forced to close."

New York Times

"The EU General Data Protection Regulation (GDPR) is the most important change in data privacy regulation in 20 years" Data Retention



Mandatory Data Breach Notification





WS VPLS SDWAN MHz Vdsl GPP MSP Sprectrum GPON IEEE GHZ PABX ad RSP OFDMA WiGig API AI Joint OTN ACMA Massive Mmwave FCC HFC Firewall SDN Etter C **DBM** fibre Dark Fttc ASIC FTTP Firewall SDN WDM ac M2M7 Wave Fobot ADSL ISP E-A RU Switch FTP IPWAN ITU MPLS Millimeter NLOS NBN Pol F7 MIMO Ethernet





"Commonwealth Bank admits it lost the details of almost 20 million accounts, didn't tell customers"

http://www.abc.net.au/news



"The ICO has been investigating the SCL Group and Cambridge Analytica as part of a wider investigation into the use of personal data and analytics by political campaigns, social media companies and others."

http://www.bbc.com/news

Superloop

The Haves and Have Nots

Consistent product / service

Reliable and predictable outcomes

aws

EQUINIX

NETFLIX





Locked in contracts

Inability to scale up and down

Inability to relocate services

Inflexible pricing

Provisioning / delivery



Transparency

Delivery uncertainty

Billing uncertainty

Capacity uncertainty

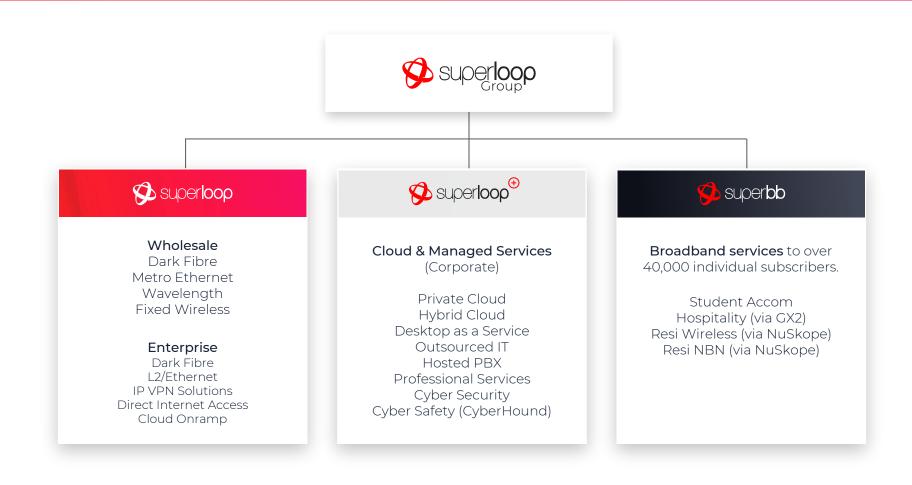
Uptime

Reliability

Our vision is to be the most trusted enabler of connectivity and managed services in Asia Pacific (by solving these pain points)

A Recap







Total solution provider for outsourced connectivity and managed services

Superloop+ leverages significant Superloop connectivity platform across Asia

Delivering great services across multiple platform improves customer "stickiness" and longer term contracts

Aligns brands into a united managed service platform and expands brand awareness 🐼 super**loop**

Wholesale Dark Fibre Metro Ethernet Wavelength Fixed Wireless

Enterprise Dark Fibre L2/Ethernet IP VPN Solutions Direct Internet Access Cloud Onramp 𝚱 superloop[⊕]

Cloud and Managed Services

Private Cloud Hybrid Cloud Desktop as a Service Outsourced IT Hosted PBX Professional Services Cyber Security Cyber Safety (CyberHound)



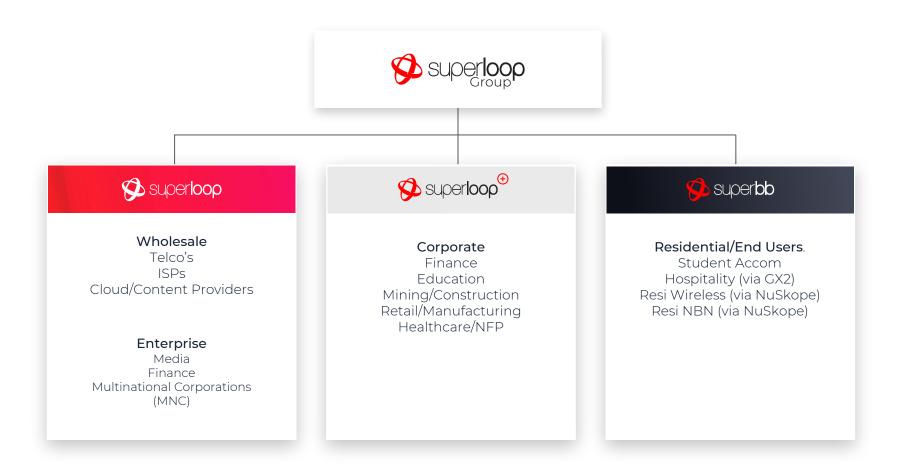
Superbb provides a single brand for our "retail" or internet access platforms for "individual end users"

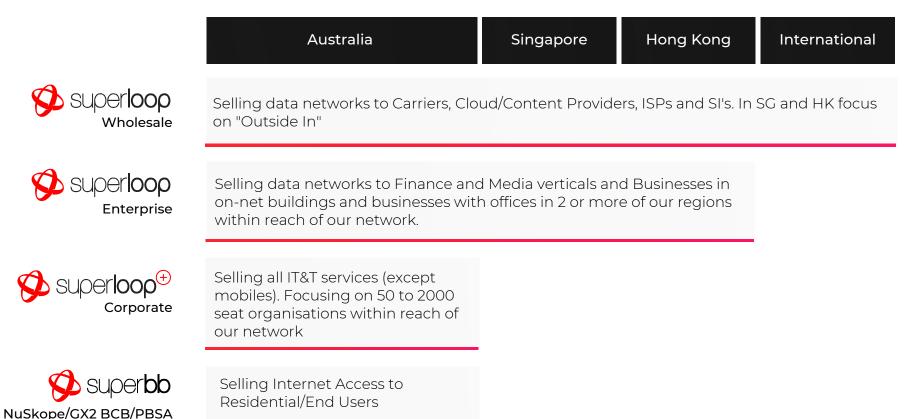
Leverages Superloop infrastructure ownership advantage

Varied access technology approach leveraging best of breed platforms and Superloop infrastructure to deliver amazing end user experience

Allows Superloop to also wholesale access to Superbb platform

Superloop super**bb** Wholesale Broadband service to over Dark Fibre 40,000 individual subscribers. Metro Ethernet Wavelength **Fixed Wireless** Student Accom Hospitality (via GX2) Enterprise Resi Wireless (via NuSkope) Dark Fibre Resi NBN (via NuSkope) L2/Ethernet **IP VPN Solutions** Direct Internet Access Cloud Onramp





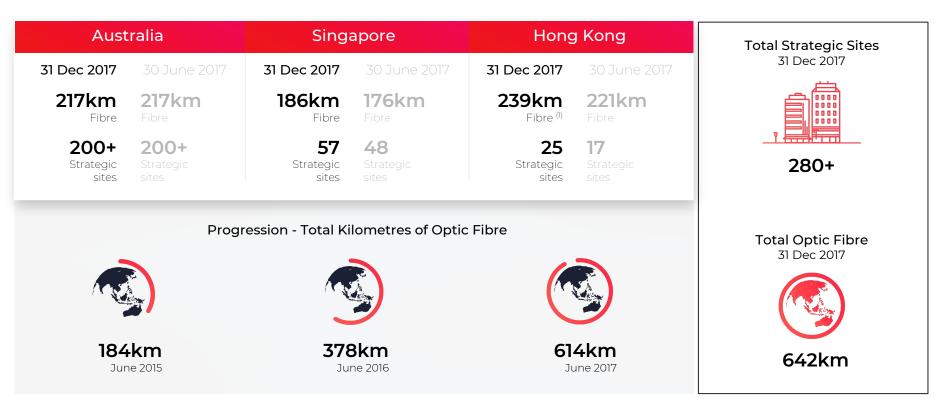




Superloop Connectivity

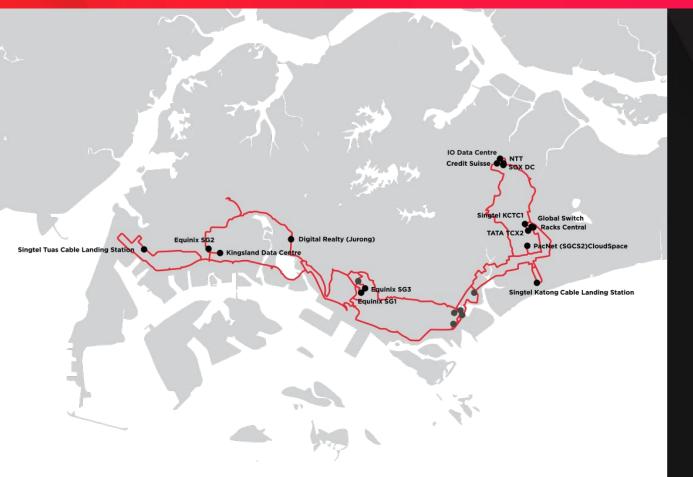
In 3 years Superloop has become the only carrier with metro fibre assets connecting the vast majority of data centres across Australia, Singapore and Hong Kong





Singapore Network





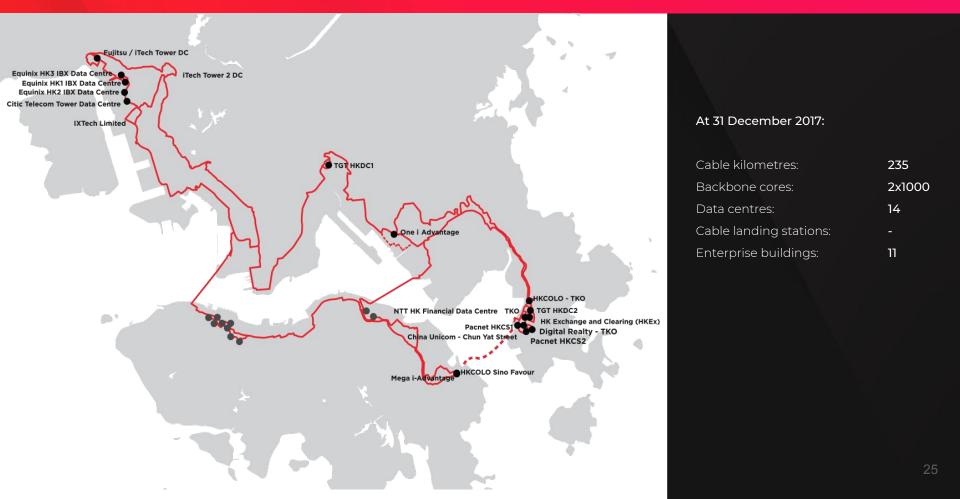
At 31 December 2017:

Cable kilometres:	186
Backbone cores:	624
Data centres:	18
Cable landing stations:	2
Enterprise buildings:	39

1,000+ Enterprises in On-Net Buildings

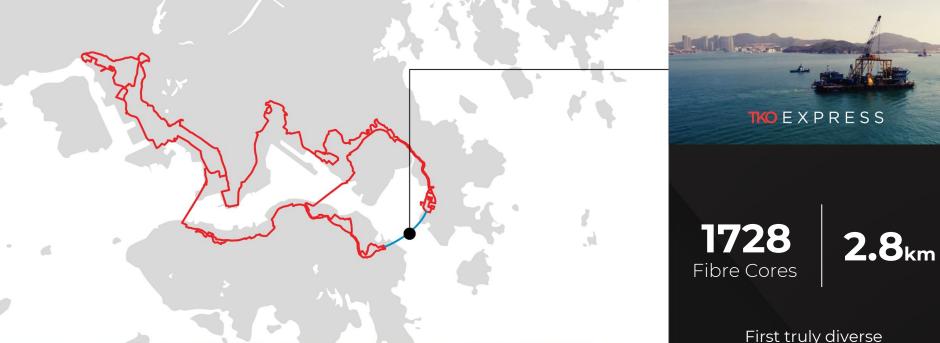
Hong Kong Network





Completion of Hong Kong & TKO Express





Completed construction of initial Hong Kong backbone Fibre cable network (110km x 2,000 cores) First truly diverse Connection to Tseung Kwan O



DATA CENTRES

FINANCE & MEDIA

HK Stock

Global Switch Digital Realty/Savvis/ CenturyLink NTT TKO Pacnet HKCS1 Pacnet HKCS2 HK Colo TKO Mega-Plus iAdvantage China Mobile Town Gas Telecom HKDC2 China Unicom China Telecom International

Exchange DC HSBC Data Centre Next Media TVB Media Shaw Movie City

★ Existing Data Centres (11)

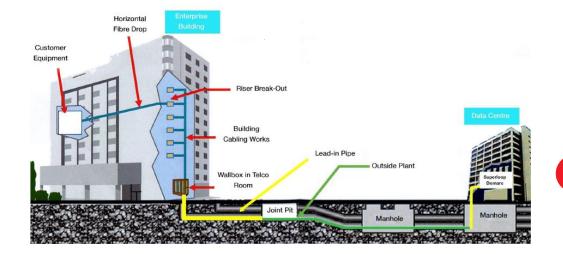
- ★ Data Centres Under Construction (2)
- ★ Media (7)
- ★ Cable Landing Stations (4 for 5 cables)
- \star Future Cable Landing Station (1)
- Site not yet leased will be later



Taking the cloud to the enterprise We are expanding our access network across Asia - moving towards ubiquity



Strategic opportunity to provide fibre services direct to enterprise customers



01

02

Phase 1

Phase 1 budget of AU\$2m connected the first 25 buildings including 4 new data centres.

Analysis & Design

Design and budgets undertaken to connect over 100 buildings over multiple phases. Project is designed to leverage existing network and deliver a higher "service success rate" per enquiry and to improve cost and provisioning lead times for customers

03

Future Phases

Opportunity to increase network coverage by connecting additional high-value buildings with expanded product set



While DC to DC connectivity is important and strategic, the continued push from data centre hosted cloud offerings to the enterprise is accelerating

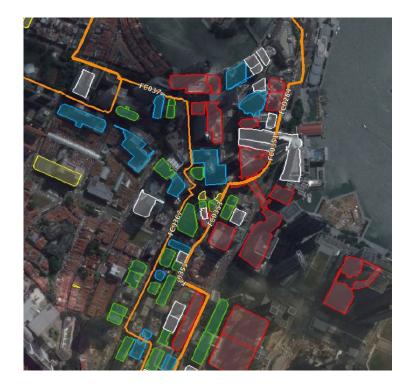
Significant growing opportunity still exists to service traditional "B end" connectivity for network providers

Emerging opportunity to extend new age "elastic interconnection" into enterprise buildings

Limited competition and significant opportunity for Superloop to be a provider of choice in Singapore for international network & cloud providers

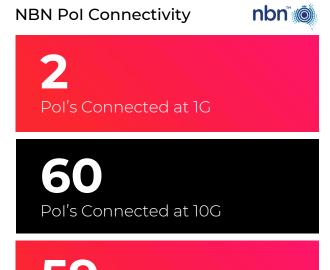
Top 25 commercial buildings based on customer feedback already under construction with a further 50 being evaluated

Total incremental investment for additional 75 buildings in Singapore would be less than 15% for the core asset due to strategic value in owning the duct and location of the asset in highly strategic areas



Highlights

- New 10/100G national backbone connecting all capital cities and most major cities and towns across Australia
- 10G to most major regional towns/cities and underpins the expansion of our wireless, last mile and NBN connectivity
- Expect to double metropolitan fibre footprint with an initial 180km+ fibre expansion within capital cities delivering 10/40/100G capacity to all major strategic locations
- New National Backbone will form part of Superloop's fully automated network provisioning platform, Superloop PEX
- With national coverage comes national sales opportunities at both the enterprise and wholesale level
- With a national network comes greater opportunity to increase existing customer share of wallet via both expanded coverage and product range
- Superloop is striving to be the NBN RSP wholesale partner of choice



Pol's Connected at 40/100G



Superloop - Bigger Network, Bigger Capability





Superloop is hyperscaling BigAir fixed wireless offering Superloop Road Map



- Supercharging wireless POPs
- Upgrades include new cookie cutter deployment and provisioning model
- Starting to integrate new next generation wireless tech into access roadmap
- Dark fibre backhaul to all metro POPs
- Deploy 100Gbps regional backhaul
- Targeted regional expansion

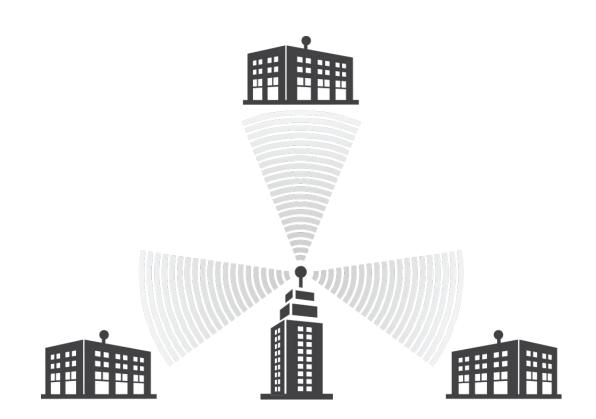




The multipoint offering is

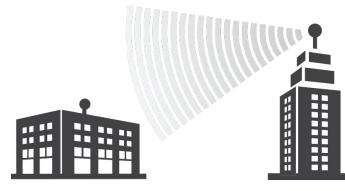
designed for medium bandwidth services. Typically one base sector will have multiple subscribers who will share the infrastructure. This model provides a quick deployment that is highly cost-effective.

Typical service bandwidth range: **10Mbps-100Mbps**.





PTP is the choice for customers requiring high bandwidth transmission. Services starting from 20Mbps up to 10Gbps are offered. This service utilises dedicated transmission equipment per connection at the Base Stations, providing customers with greater speeds over further distances.



Customer Premise

Base Transmission Site



Millimeter Wave

High frequency, high capacity allowing up to 10Gbps today on a single link. Typical range is < 2 kms so cell size is intentionally small, can be deployed on longer paths but at a lower availability.

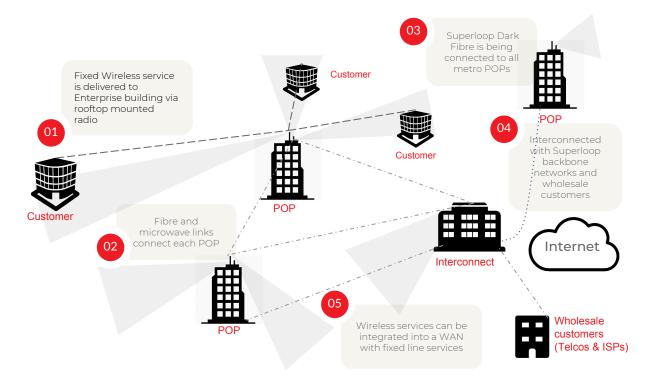
Examples of Millimeter Wave:

Siklu EH-600

Frequency: 60GHz Throughput: 1Gbps aggregated Antenna: 36dBi gain Dimensions: 16.5x16.5x10 cm

Siklu EH-5500

Frequency: 80GHz Throughput: 10Gbps aggregated Antenna: 50dBi gain Dimensions: 65x37 cm Fixed Wireless is a natural "extension" Fixed Wireless is often the primary service where fibre is not available or too expensive



Fault tolerant network design

 BigAir + Superloop now offers best in class carrier diversity for Enterprise buildings and customers

🐼 superloop

- Best practice redundant node design & deployment
- Seamless Fail-Over & Fail-Back service delivery
- Traffic engineering enables 'smart' load distribution across multiple links



Next generation point-to-multipoint

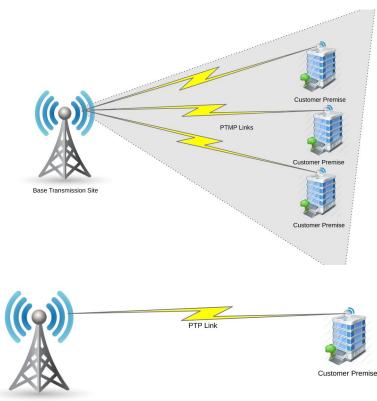
platforms will make use of advanced beam forming technologies and massive MIMO allowing them to make use of high frequency millimetre wave frequencies which offer much larger bandwidths.

Service Bandwidth: 1Gbps+

Next generation point-to-point platforms

will make use of similar technologies along with new millimetre wave bands at super high frequencies (> 100GHz).

Service Bandwidth: 100Gbps+



Base Transmission Site

Enterprise clients require fully redundant network

Why Redundancy is important



🕉 super**loop**

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Fire erupts at core Telstra Chatswood exchange

By Allie Coyne Feb 2 2017 1:51PM

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RELATED ARTICLES

Telstra begins temporary restoration after Parklea fire

Telstra admits thousands of NBN users were shafted on speeds

Telstra lifts lid on robotic software deployments

Telstra hit by Parklea exchange fire

Updated: Affects services nationally.

A fire broke out in Telstra's exchange in the Sydney suburb of Chatswood on Thursday afternoon, downing mobile and fixed services for customers nationwide and causing text messages to be sent to the wrong recipients.

At around 1:40pm on Thursday afternoon Telstra advised that power equipment at the Chatswood facility had been damaged by the fire.

It said it was working to resolve the issue as soon as possible.

Both mobile and fixed-line services were impacted nationwide.

The exchange issues delayed flights, shut down train lines in NSW, shuttered government and education services, and brought businesses across the country to a standstill.







Superbb/NuSkope already launching in Brisbane and Melbourne with first test customers already live

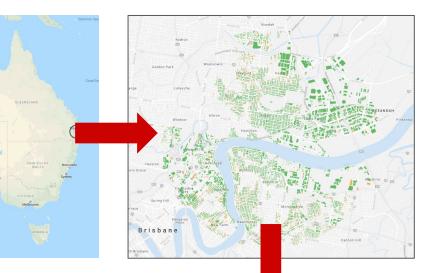
Aggressive rollout program focusing on metropolitan and regional areas using NuSkope "Cookie Cutter" with a target to double addressable market this calendar year

Site acquisition and network expansion will continue to accelerate in 2018 as our metro and regional footprint expands.

Integration with NBN B2B systems underway and expect first phase to be completed June 2018



Australia





We are interconnecting Asia



Indigo West will deliver cost effective, reliable, low-latency and diverse connectivity between Singapore & Perth. In addition there are two fibre pairs connecting Singapore to Jakarta via a branching unit.

Cable Features	Specifications
Cable Distance (main trunk)	4,600 Kilometres
Total Fibre pairs	2
Cable Power Design	Double End Fed
Total System Capability	36 Tbps
Round Trip Delay	~46ms
Repeater Spacing	~85km
Technology	EX 3000 PSCF
Tb/s per Fibre Pair	18
OSNR	20dB/0.1nm
System Supplier	ASN
Projected RFS	H1 2019





Indigo Central will deliver diverse, reliable and secure connectivity between Perth and Sydney, Australia. The new subsea route will complement the existing terrestrial networks across Australia.

Cable Features	Specifications
Cable Distance (main trunk)	4,850 Kilometres
Total Fibre pairs	2
Cable Power Design	Double End Fed
Total System Capability	36 Tbps
Round Trip Delay	~47ms
Repeater Spacing	~85km
Technology	LOW-LOSS PSCF
Tb/s per Fibre Pair	18
OSNR	20dB/0.1nm
System Supplier	ASN
Projected RFS	Q1 2019



SubPartners/Indigo

H1 FY18 Achievements

•

•

•

- Completed the drilling phase of the Company's seaward facing 1,900m bore pipe project in Sydney •
- Completion of the installation of the beach manhole and two seaward ducts in the bore pipe able to facilitate two (2) submarine cables and is • in readiness for the INDIGO Central cable which is currently scheduled to be installed H2 CY18
- Completed the INDIGO subsea cable project marine survey •
- Commenced manufacturing of the INDIGO subsea repeaters and cable •
- Commenced assembly of the INDIGO cable systems, ready for ship loading in May 2018



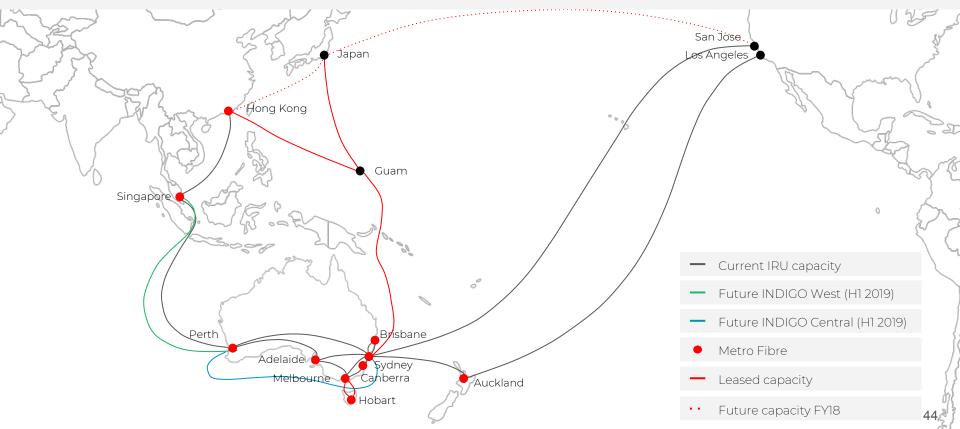
Fibre Pair

- Consortium members can operate spectrum independently
- Expected live 1st Half 2019





Superloop's advanced network reach



Infrastructure Ownership Economics

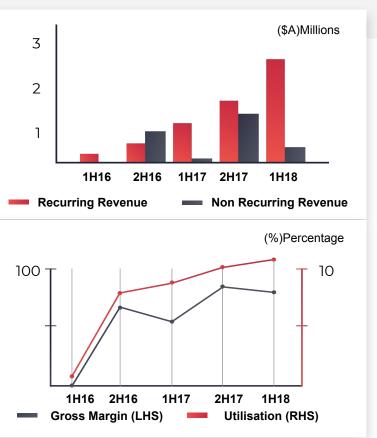
Singapore Performance



H1 FY18

() ()		H1 FY17	
(A\$m)	H1 FY18		H2 FY17
Recurring revenue	2.6	1.0	1.6
Non-recurring revenue	0.4	0.1	1.2
Total revenue	3.0	1.1	2.8
Direct costs	(0.7)	(0.5)	(0.6)
Profit after direct costs	2.3	0.6	2.2
Gross margin	76.6%	54.6%	78.6%
Operating expenses	(0.6)	(0.6)	(0.7)
EBITDA	1.7	-	1.5
EBITDA margin	57.0%	-%	53.6%
Utilisation at period end	11.25%	8.4%	10.0%

- Incremental on-net sales have a high gross margin
- Fixed cost leverage available at low levels of utilisation





Singapore duct ownership provides an ability for Superloop to double capacity for an additional \$6m investment

	Initial Core Network (624 core cable)	To Double Capacity (additional 624 CORES) (incremental cost)#
Duct	\$29m	\$0m
Cable & Network Equipment	\$2m	\$2m
Labour	\$4m	\$4m
Total	\$35m	\$6m
Direct Network O&M (annualised)	\$0.5m	negligible
Elapsed Time to install cable	6 months Duct Capacity Core Cable Utilisation 8% of current	6 months Additional Cable Capacity

Estimated costs as at date of this presentation based on current exchange rates



There are two key elements of infrastructure:

Duct Network & Fibre Cable(s)

Superloop owns its Singapore duct network, and the cable(s) installed in it.

The existing duct asset has capacity for multiple cables.

When capacity on the initial cable approaches saturation, the incremental cost to increase capacity with an additional cable through the whole network is significantly lower than the initial investment including the duct **Strategic Acquisitions** Great People, Great Platforms for Future Growth

😵 super**loop**

NuSkope is a leading fixed wireless Internet Service Provider delivering advanced high-speed Internet access to homes, schools and businesses in South Australia. Its reputation for superior performance and customer service has seen it grow rapidly extending its network coverage to the greater Adelaide regional area. NuSkope delivers Superloop a portfolio of strategic assets including ownership of existing wireless network infrastructure, a sophisticated network coverage service qualification tool and valuable CRM database.

NuSkope also brings an energetic team with substantial retail fixed wireless experience and provides the platform and expertise to expand interstate and into to other geographic areas.



Since H1 2016

140+ Sites at Dec 2017



Strategic Rationale

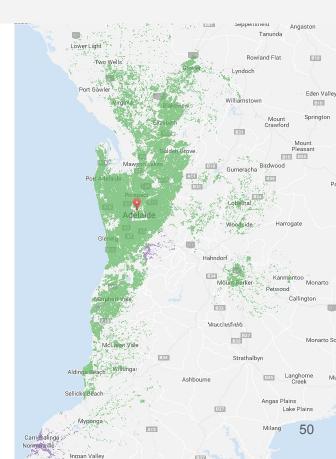
NUSK OPE internet

The acquisition of NuSkope has significant strategic benefits for the Superloop Group:

- strategically aligned to our vision accelerates our ability to expand our fixed wireless coverage
- has a team that is focused, dedicated and culturally aligned with Superloop
- is earnings accretive; and
- has technology, software and systems that add significant value to the group.

Ownership of NuSkope's network infrastructure provides Superloop with further network ownership economics and control. It enhances Superloop's existing fixed wireless infrastructure, offers synergies through network cost savings and allows further utilisation of capacity accessed through our long-term agreement with Vocus.

NuSkope also provides the ability for further opportunities to deploy high bandwidth, low operating cost mmWave and multi-point access technology and allow Superloop to offer a reliable and high-quality experience for customers and wholesale partners.



Acquisition of GX2 Technology

Strategic Rationale

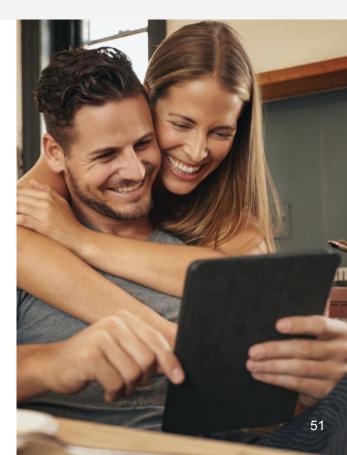


The acquisition of GX2 Technology has significant strategic benefits for the Superloop Group:

- strategically aligned to our vision
- accelerates expansion of our community broadband campus solutions to a broader customer base
- has a team that is focused, dedicated and culturally aligned with Superloop
- is earnings accretive; and
- has technology, software and systems that will add significant value to the group and assist in further strengthening our offerings to the market.

GX2 operates a compelling software platform providing a managed service for over 200 customers at over 350 sites with 75% in the Asia Pacific region and the balance across the United States and United Kingdom.

GX2 is able to service more than 50,000 guests daily and offers strong customer technical support with a customer service centre that operates 24 hours a day, from Australia, United Kingdom and the United States, following the sun.





Acquisition of GX2 Technology - Coverage







GX2 is a leading provider of managed guest WiFi connectivity including design, installation and support via their leading GX2 software platform.





Location	Sites
AUSTRALIA	155
UNITED STATES	75
NEW ZEALAND	28
PAPUA NEW GUINEA	18
PACIFIC ISLANDS	86
UK & EUROPE	13



Capability: No. of users 50,000+



 Total Sites **350+**

Realising Synergies from Integration





Session 2: Customer Platforms



Customer Platforms are windows between the customer and the organisation

Historically provided service listing and billing information

Great Customer Platforms allow customers to order, provision, change, track services in real-time

Customer Platforms are vital to improve visibility for the company and users (control)

Require massive software development, integration with various platforms

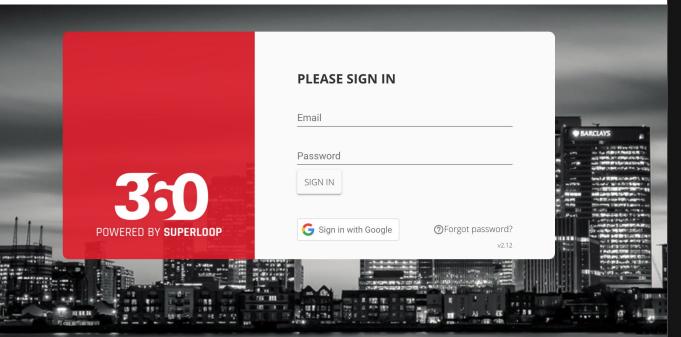
Focus on delivering a consistent and market-leading customer experience

Session 2: Customer Platforms Superloop 360 (Single Pane of Glass)



Presented by:

Ryan Crouch COO - Networks



Just one place to look

- Single Pane of Glass Offering:
 - Customers visibility
 - Simple interaction with staff
 - Support & Billing Functions
 - Business functions
 - Automation Hub / Driver
- Previous acquisitions use differing billing / CRM / support tools
- Investing our time in development via one platform allows for the greatest impact

"to move forward we needed to align"



Why is a system like 360 important?

- Have you ever bought subscription services where the only thing you can 'see' is your bill?
 - Customers deserve more than a bill
 - Customers feel more comfortable Superloop is looking at the same data
 - Services should be simple to find, with numerous options to identify
 - Customers don't want complex Telco service names, they want options to customise it

It empowers our 'new RED world'

- Previous systems did not have the strong connection to the actual network and services
- Products & Services within 360 are rich with data, both meta and technical

• Superloop needs to be able to grow and scale rapidly

- Telco data is complex. Knowing we can migrate to 360 enables confident growth
- If we invest all energy / features and functions in one place, the entire business benefits

We need to take customer privacy & data seriously

- Logging every '*view / edit / change*' action by staff or customers is now vital to meeting our responsibilities related to new data breach and disclosure laws.
- The API based backend allows for any frontend / APP to access the data but also log the activities ubiquitously

Mobile supported natively		
🜮 superloop		
Superloop International Ethernet - 16bps Product: Superloop International Ethernet - 16Bps		
Service ID: 14586		
Tags:		
Active		
14586 Service Reference (Service ID)		
OVERVIEW		
BILLING		
TELEMETRY		
TICKETS		
RELATED SERVICES		
SITE CONTACTS		
	5	

Mobile supported natively



Sample - Services Summary - by Location

Group Services By: O Service Type O Location O Site O Tag

2	Services with no Location	1 Service	~
2	Alexandria, New South Wales, Australia Equinix X-Connect - Fibre Pair (SMOF) ID: 13715 Active 47 Bourke Road, Alexandria 	1 Service	^
2	Auckland, Auckland, New Zealand	4 Services	~
2	Los Angeles, California, United States	3 Services	~
2	Los Angles, California, United States	6 Services	~
2	Macquarie Park, New South Wales, Australia	2 Services	~
2	Perth, Western Australia, Australia	1 Service	~
2	Port Melbourne, Victoria, Australia	1 Service	~
2	San Francisco, California, United States	5 Services	~
2	San Jose, California, United States	1 Service	~
2	Springfield Central, Queensland, Australia Colocation - Half Rack - PolarisDC (Springfield) ID: 11540 Active Mary Mackenroth Lane, Springfield Central	1 Service	^

A sample Services list, grouped by Location.

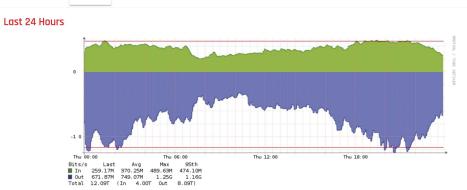
Alternate sorting options including Customer defined 'tags'

Sample - Service Telemetry (For Network)

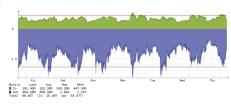
Superloop Australia IP Transit - 3Gbps 🖉

Product:	Superloop Australia IP Transit - 1Gbps	14164
Service ID:	14164	Service Reference
Tags:	1	(Service ID)

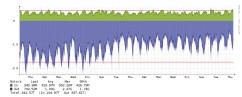
OVERVIEW BILLING TELEMETRY 95TH PERCENTILE TICKETS RELATED SERVICES SITE CONTACTS



Last 7 Days



Last Month



Active

IP Transit - Network traffic example

Customers share the same view as Superloop

- The same datasets are used by GNOC/Monitoring systems internally

Telemetry is used as the term so additional measurement can be supplied for other service types

- Light Levels (Fibre)
 - Disk Usage
 - CPU usage



Sample - Complex Billing Mechanisms

Current Billing Profile

\$0 AUD
Monthly
Recurring Fee

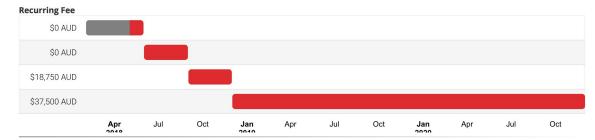
3/34 Months 31 months left Current Billing Cycle

General

 (\bullet)

Install:	\$0 AUD
Commencement:	01/02/2018
Termination Date:	
Expiry Date:	01/12/2020 (rolling monthly afterwards)
Commitment:	34 months
Frequency:	Monthly
Recurring TCV:	\$956,250 AUD
TCV:	\$956,250 AUD
Monthly Installation Fee Accrual:	\$0 AUD

Billing Term Schedule



The Example Service has complex operations covering multiple periods and pricing structured

Staged pricing, set once

100% automated output right through to invoice



Sample - We track our own services from suppliers the same way!

Active Bi-Lateral BGP - Google AS15169 11155 Product: **Bi-Lateral BGP Connection - Peer Name** 11155 Service ID Service Reference 1 (FNN) Tags: OVERVIEW BILLING TICKETS RELATED SERVICES SITE CONTACTS Service Location Frenchs Forest AND Beecroft Dee Why Lane Cove National Park Baulkham Forestville Heights Brookvale Curl 0 Hills Epping North Rocks Carlingford Maco Lindfield Marsfield Northmead Castle Cove A38 Eastwood North Ryd Q google **APEXn Pty Ltd** Westmead West Ryde COMPANY Temple S Parramatta Bi-Lateral BGP - Google AS15169 Blaxland 0 0 SERVICES Product: **Bi-Lateral BGP Connection - Peer Name** 11155 Service ID: **B End of Service** FINANCES 1 Tags: 4 Eden Park Drive CONTACTS 4 Eden Park Drive OVERVIEW BILLING TICKETS RELATED SERVICES SITE CONTACTS TICKETS Macquarie Park New South Wales CUSTOMERS 2113 Australia Open Tickets Actions Needed Create Ticket **Open Tickets** No open tickets **Closed Tickets** Description ID

14666 Bilateral BGP connection - Google via MegalX NSW

Every service we procure or build (not just sell) is tracked in the same way

Example interconnection with Google from 2013

This allows for all supporting 360 functions to be reused

Active

11155

Service Reference

(FNN)

Refresh

Last Updated

3 years ago



Sample - 360 configures / builds the network

Singapore Ethernet Backhaul - 10GBit/s 🕢

Product: Singapore Ethernet Backhaul - 10GBit/s		12575	
Service ID: 12575		Service Reference	
Tags:		(FNN)	

Active

Port Status

OVERVIEW NETWORK BILLING TELEMETRY TICKETS RELATED SERVICES SITE CONTACTS

Network Device Ports

 (\bullet)

etwork bevice	Tores	
sin1-br-edg-r1		
Data Centre:		20 Ayer Rajah Crescent, Singapore 139964
Rack:		TBC:FR1:0014
Rack Unit:		1-42
	,	
xe-0/0/4 (UNI)		
ID:	6	
Max Speed:	10 Gb/s	
sin4-br-edg-r1		
Data Centre:		2 Tai Seng Avenue, Singapore 534408
Rack:		TBC
Rack Unit:		1-42
1		
xe-0/0/2 (UNI))	
ID:	185	
Max Speed:	10 Gb/s	
1		

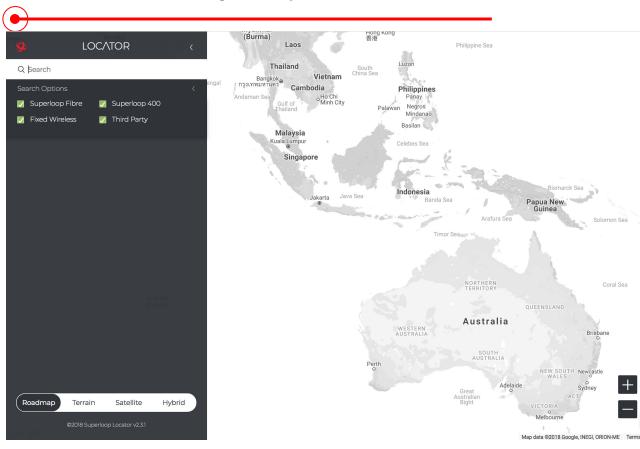
Automatic allocation of ports allow for configuration to be pushed from 360 to the 'network'

Using this model services can be provisioned and 'Ready for Service' in minutes

Superloop Locator



Locator Provides Coverage Lookup tools based on Addresses



Locator providers a simplified view of communications services available at a Customer site or location

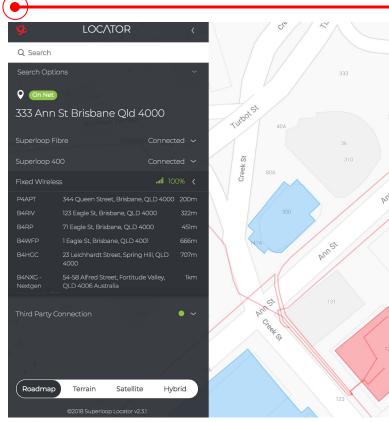
This data incorporates both Superloop on-net Fibre and Fixed Wireless Coverage

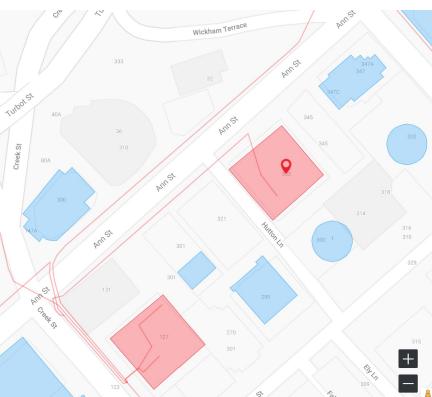
Alternative supplier/3rd Party options are also available to allow for further coverage options if such requirement

Superloop Locator



Locator - Example Building Search





Building Searched, showing SLC Dark Fiber enabled

Site also lists nearby Wireless Towers including distances

3rd Party access options marked 'Green', list can be expanded if necessary to show known on-net buildings for competitors or more complex solutions

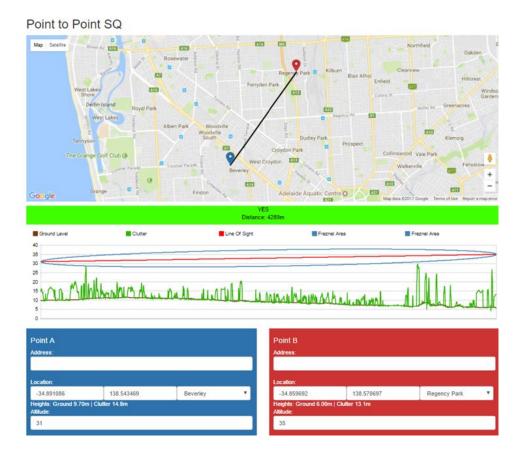
Session 2: Customer Platforms NuSkope CRM



NuSkope's Point to Point (PtP) calculator enables geographical Line of Sight (LoS) calculations between two fixed points.

Takes into account building, trees and other physical obstacles (clutter)

Useful for simple Service Qualification (SQ) checks and link tower planning.



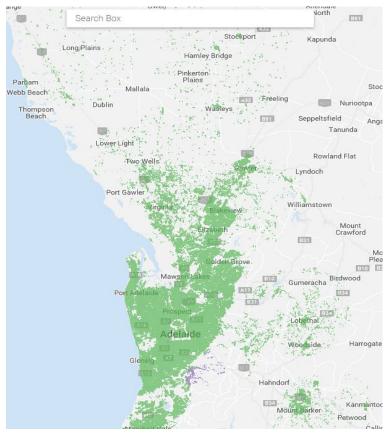
NuSkope Coverage and Service Qualification Coverage Map



The need for a better SQ tool came from not knowing our coverage capabilities and lengthy/failed installs.

NuSkope developed our own industry leading GIS tools. These tools allow us to generate highly accurate coverage maps of our network. This is critical in giving customers and staff an instant answer on what services we can provide and where.

The SQ system uses several datasets and some creative programming that allows us to accurately remotely check line of sight to every roof in a geographical area. The data considers building, tree and tower heights, ground level, distance and frequency.





Simple display of results that customers can understand



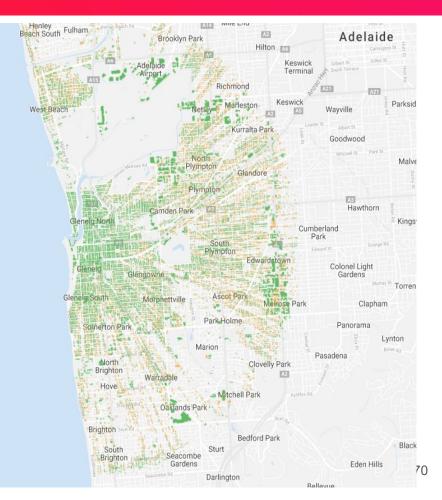
NuSkope Coverage and Service Qualification Tower planning tool



A significant investment goes into the construction of towers and other telecommunications infrastructure, having the most suitable sites is critical.

The software allows us to check each individual proposed location, for exactly what roofs and how many each proposed site could see.

For example, site A may be a proposed 29-meter tower, and site B would be an existing commercial rooftop just down the road that has slightly less elevation. The team can then make an informed decision based on commercials and coverage.



🜮 superloop

Final internal results show staff and contractors not only if a building can be connected but exactly where on the building the antenna needs to go. This significantly reduces the time needed at each site for installation.

Wireless Servic	e Qualification			
Status	Tower	Dist	Standard	Mast
Operational	Columba	5379.50 m	80.4	100
Operational	Xavier	335.48 m	47.4	96.2
Operational	Smithfield	3228.75 m	78.2	100
Operational	Gould Creek	4689.23 m	89.7	99.4
Roof Type Steep pitch or high Roof Material Metal Zone Residential	n complexity	Maximum Re 8.0 m Average Eav 4.3 m		

NBN Service Qualification

One Stop shop for floor staff and management to view everything about a customer and all their services.

NUSKOPE

-Upload files, images, notes -Support multiple contacts -Multiple services per customer -Shows history of staff who have viewed the account and when.

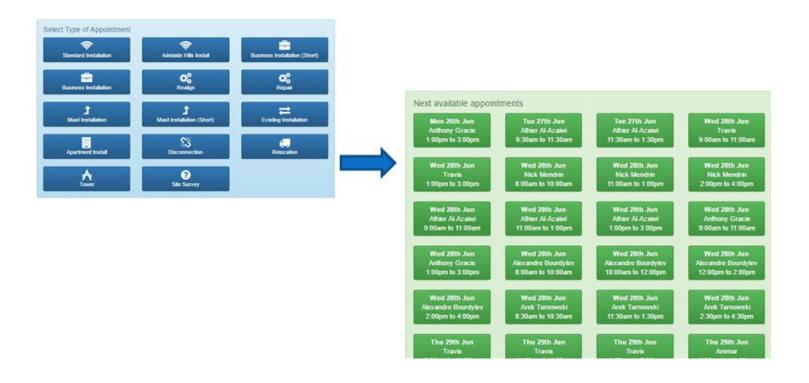
IUSKOPE Q Search -		🛃 Reports 👻 🤊	History 🗸 🃁 Flags	1 ! Out	tages 1	michael.blake 🕞	🏦 Admin 👻
Service Qualification	Phone	Q Service			-		0:00:00
& Michael Blake (C-11652)			Customer	Billing §	109.95 Transactions	Calls Notes	Contacts
Customer Type: Standard Company Name: ABN:		Billing Address: 132 Franklin Street, Adelaide 5000		Account Views 24 hours, 7 days, 14 days, >14 days ago 2018-05-03 16:15:41 michael blake			
		Upload File	Edit Customer Record	Suspend	2018-05-01 08:28:10	sarah	
Files		Unloaded Dr.	Unloaded De		2018-04-27 09:41:39 2018-04-26 11:00:42	zaine	- 1
Filename		Uploaded By Uploaded Date michael.blake 2017-06-23 18:53:58			2018-04-24 10:48:16	phil	
				2018-04-20 15:55:36	15:55:36 zaine		
					2018-04-20 13:18:29	lachlan	
					2018-04-20 11:15:23	michael	
					2018-04-15 23:36:31	michael	•
							Add Flag

► WiFi — Staff	mblake2@nuskope.com.au (S-21311) M Series In Contract Active
► WiFi — Staff	mblake@nuskope.com.au (S-12308)
▶ NBN — NuSkope NBN 100/40 1000GB	130786746@devoted.com.au (S-2917) FTTH In Contract Active
WiFi — Disconnected	mblake1@nuskope.com.au (S-11353) Not Active

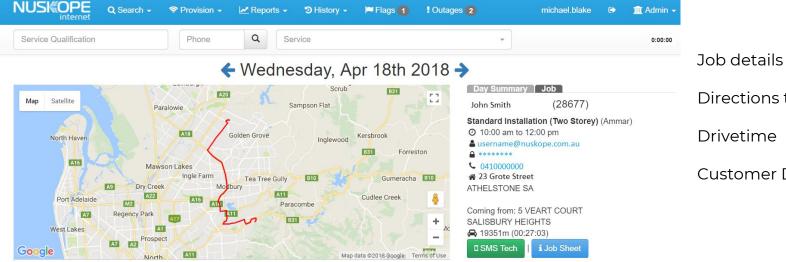


Booking a job made easy by selecting a job type, then a list of available appointments is shown.

System takes into account drive tech 'work zones', skillset, availability and drive time between jobs.







Directions to next job Drivetime

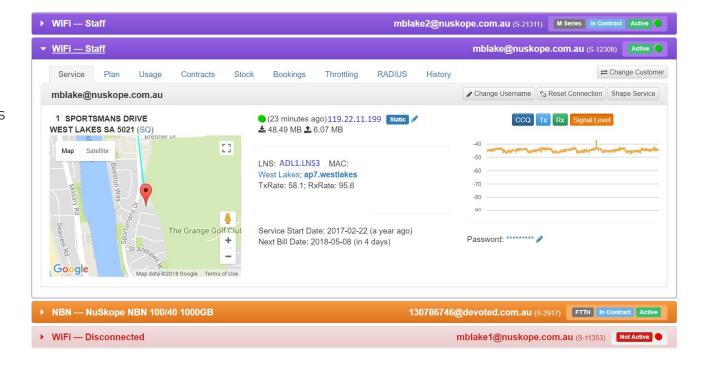
Customer Details





All staff can look into a service, no need to wait for level 2 support

Historical and live signal levels -Connection details -Assigned hardware -Plan, usage and contract details



NuSkope CRM Job Complete



Complete Standard Installation (Single Storey) for nuskope@nuskope.com.au

Man

Sam Rich

1

Standard Installation (Single Storey) (Aaron Plunkett) NuSkope Residential Fixed Wireless 500GB

Results

Job Result: Pass Fail Incomplete

Hardware:

0 ▼ Archer C59 (S99.95) 0 ▼ Router Board RB2011UIAS-RM (S250.00) 0 ▼ Router Board RB2011UIAS-2HnD-IN (S250.00) 0 ▼ TP-Link Archer C2 (S99.95)

0 V TP-Link TL-WR841N (\$49.95)

0 V Extended Ladder Hire (\$50.00)

CPE MAC Address: MAC address of antenna

CPE Checklist:

Recent Firmware version?
 Acceptable Base Station?

Updated Admin Password?

Updated Antenna Location on Roof?

Additional charges confirmed?

Monthly Charge: \$59.95 Promo Code: Setup Cost:

e 24 month contract; \$99.95;

- I2 month contract; \$189.95;
- I month contract; \$249.00;

Setup Cost	99.95
Misc Charges:	
Description	Price
nvoice Total:	\$159.90



Current Connection Information (Update)

🛓 undefined 🛓 undefined

undefined (NaN hours NaN minutes NaN seconds)

Exact location of antenna

Assigns hardware from stock control

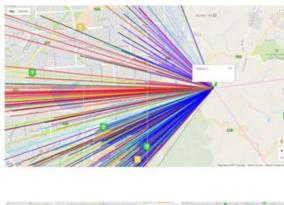
Generates customer invoice

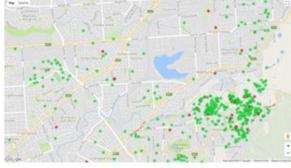
Generates tech debit invoice

Staff checklist to ensure correct provisioning



Customisable reports on any tower, used for network capacity planning, frequency management, with dozens of other uses and options to optimise the network team, so they can optimise the network





By Account			
Service Type Wift ULL TADSU, INBN Voice Dealer	Account Owner	Group Business Atliate Camper Apent Tower Host CPA Base Flan Channha Special -) Commusery - Disodh Commusery - Staodh Commusery - Staodh Commusery - Staodh	Group Service Active
By Connection Point			
Antenna Highbury Ad-binghbury Highbury ad-binghbury Highbury ad-binghbury Highbury ad-binghbury Highbury ad-binghbury Highbury ad-binghbury	•	$ \begin{array}{c} \textcircled{0} Connection Length (m) \\ \hline (0 \bullet) \circ (0 \bullet) \end{array} $	
Date Options Disstaled Date D Application Date Start Date	te ⁰ Clisconnected Date (Today This Week Last W	eek This Month Last Month) End Date	1
Additional Options			
In Current Screen Pending Services	E Generate CSV	🛛 😜 Gen KML	# Show Online*
Display Options			
# Show LOS # Show Towers	 ₩ Hide Customer Dot ₩ Hide Filter 	Color By	Aritenna 👻
Data Display			
Customer Name Signup Date	W Service	Conner # Conn Len (m)	# Group # User



147 active towers

27 In build across three states

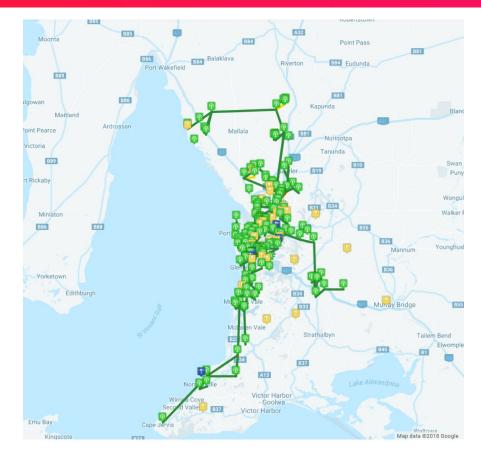
-Adelaide

-Brisbane

-Melbourne

Average tower deployment of \$20,000 (range of \$5000 - 50,000)

High gross margin



Session 3: Platform for Growth *WARNING* The Geek Show

Session 3: Platform for Growth (Project Blackwell)



Building massively scalable hosted platform for IAAS, Private and Hybrid Cloud (Scale)

Platform designed and built with highest level of security (Trust)

Platform designed to allow user experience to be managed by 360 Portal (control/trust)

Platform built over 3 secure data centres in Sydney for maximum uptime and resiliency

Being designed to seamlessly integrate with major public cloud platforms inc AWS, Azure and addresses data sovereignty for many customers while still leveraging public cloud

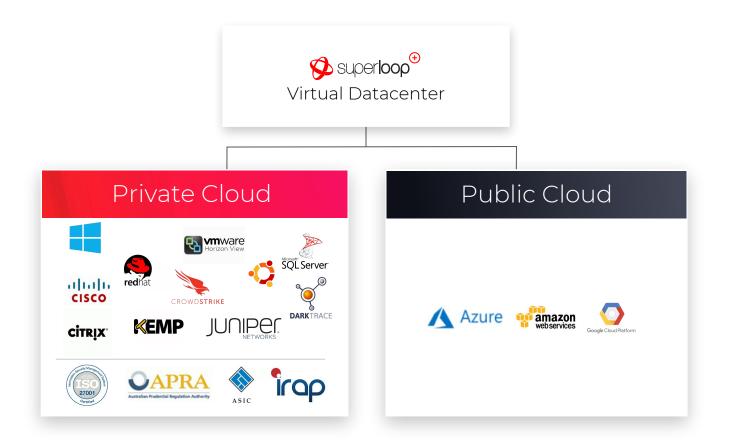


82

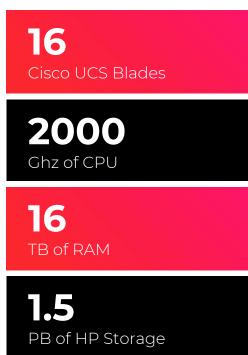
Integration and Consolidation Benefits

	Before	AFTER	50 Racks
Storage			
Vendors	7	2	
Devices	83	12	
Compute			
Vendors	5	2	
Devices	50	16	
Firewall			
Vendors	4	2	
Devices	70	12	
	_		8 Racks
Compute collocation			1 million
Sites	12	6	
Racks	50	8	For compute collocation











Superloop are partnering with Industry leaders to deliver a private cloud platform which is:

Operationally efficient

Simplified architecture

Built for scale





Cisco UCS Director Orchestration



Ð

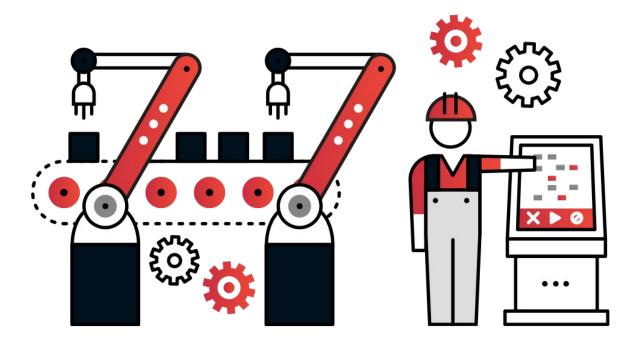
Centralised Provisioning

Hands Free Operations

Real-Time Delivery



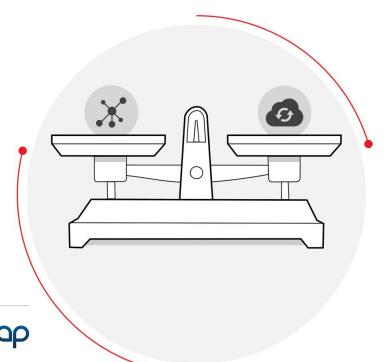
Quality of Service Guaranteed





Cyber Security

Compliant Infrastructure Protected data Monitored workloads Events correlated Threats detected Anomalies analysed Intelligence fed Always reported



Functionality

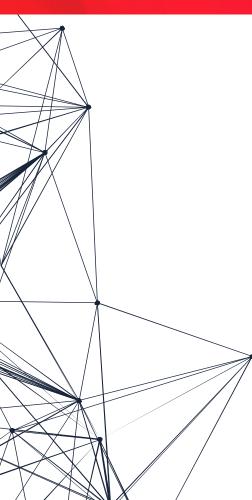
Infrastructure as a Service Backup as a Service Desktop as a Service Software Defined Networking Hosted PBX Managed Security Services





Session 3: Platform for Growth (Project Blackbriar)





Access Layer

Provider Edge (PEX)

Metro Layer

Transit Layer

Transport Layer









Brocade MLXe-16

14RU Max power draw 7kW+ Juniper ACX

1RU Max power draw 350W



Underlying platform that provides connectivity between metro areas.

The Transport Layer

Small physical and power footprint 32x 40G/100G dual speed ports 3.2Tbps throughput





Terminates upstream transit providers, peering and transit customers.

Our Transit Layer

Small physical and power footprint 48x 10G + 4x 40G/100G 880Gbps throughput





Physically terminates customers. Provides L2 services between data centre locations.

Our Access Layer

Small physical and power footprint 48x 1G/10G + 6x 40G 720Gbps throughput





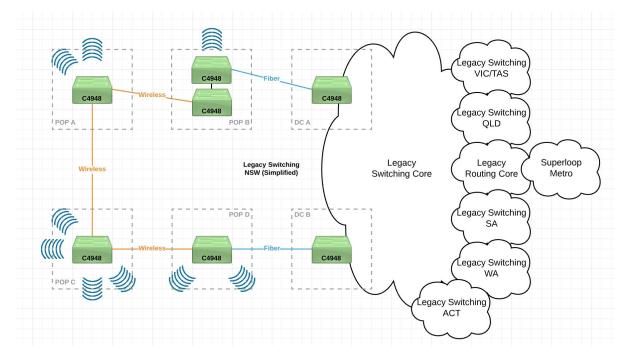
Our 10G Customer Edge

Small physical and power footprint 16x 1G, 2x10G 10G single core fibre backhaul to datacentre



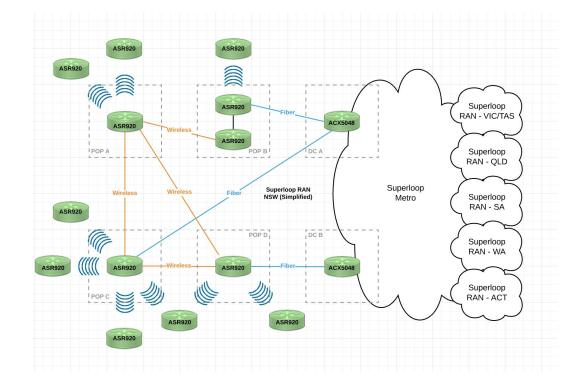


- Ageing Cisco Catalyst Switches in a ring or daisy chained
- Huge broadcast domain
 - High volatility
 - Difficult to isolate faults
- Limited scalability
- Limited product offerings





- New technology that fits purpose
- Highly scalable
- Small broadcast domain
 - Fault isolation is easier
 - More stable
- Sub-second failover





Our NBN and RAN (Radio Access) Layer

Small physical and power footprint 24x 1G/10G + 8x 10/25G + 2x 40/100G 300Gbps throughput -20 to 70 degrees operating temperature!



Session 3: Platform for Growth PEX and Orchestration

- Requires a large number of highly skilled technical resources
- Scales by increasing manpower
- Handcrafted, personalised services
- Compounded due to numerous network "languages"
- Complexity and unpredictable cascading effects
- Further increase in rigmarole to balance

Where do all these costs and inefficiencies go?



98







The Service Edge is where technology smarts come together to turn simple circuits into fast, high availability Internet connectivity and secure Private Networks (IP VPN) for our customers

Due to its central role and complexity it can quickly become expensive and precarious;

- Highest (relatively) cost of processing traffic due to computational complexity
- Performance hardware capable of traffic prioritization at scale
- Human operators making esoteric decisions introducing the possibility of human error





Today

- 960 Gigabits service termination capacity (live)
- Small form factor, power consumption
- Dual vendor strategy
- Orchestrated parallel scaling





Tomorrow

- Cloud based network architecture
- Leverage commodity server hardware
- Seamless interoperation and transition





Operator controlled, Never.

Operator driven API, Live FY18Q2 Traditional legacy networks

Operators call the API to provision service

360 portal assisted, Live FY18Q3 Operators define the service within the 360 portal and call the API

360 portal controlled, Slated FY18Q4

Complete abstraction of network control





Moving Forward Drew Kelton - Incoming CEO



Focus on the massive sales opportunity in Asia (Cloud + InterDC, enterprise connectivity)

Sharpen Go-To-Market strategy and continue to solve customer pain points

Maximise investments already made in infrastructure, platforms, software and capability

Build and expand on strong relationships with customers, vendors and executive

Absolute driving shareholder value



Superloop's vision is to be the most trusted enabler of connectivity and managed services in Asia Pacific

ADDITIONAL INFORMATION

For further comment or other information please contact:

Investor enquiries:

Telephone: +61 7 3905 2400

Email: investor@superloop.com

Disclaimer

Superloop Limited's (Superloop) consolidated financial results (Results) are prepared in accordance with the Australian Accounting Standards, the Corporations Act 2001 (Cth) and Corporations Regulations 2001 (Cth). While much of the financial information in this presentation is based on the Results, it should be read together with the Results.

The presentation also includes certain 'forward-looking statements' which are not historical, like the Results. Such statements are based on Superloop's current expectations, estimates and projections about the industry in which Superloop operates, and beliefs and assumptions regarding Superloop's future performance. Words such as 'anticipates', 'expects', 'intends', 'plans', 'believes', 'seeks', 'estimates' and similar expressions identify forward-looking statements. Any such statement is subject to known and unknown risks, uncertainties and other factors, many of which are beyond the control of Superloop, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements.

Superloop cautions all persons reading the presentation not to place undue reliance on these forward-looking statements. They relate only to circumstances as of the date on which the statements are made. Superloop may not release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this presentation except as required by law or by any appropriate regulatory authority.

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