



## ENTERPRISE SERVICES

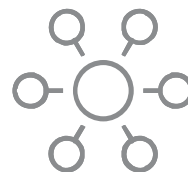


James Sankar  
General Manager



Background

---



Trends

---



Customer Outcomes

---



Roadmap

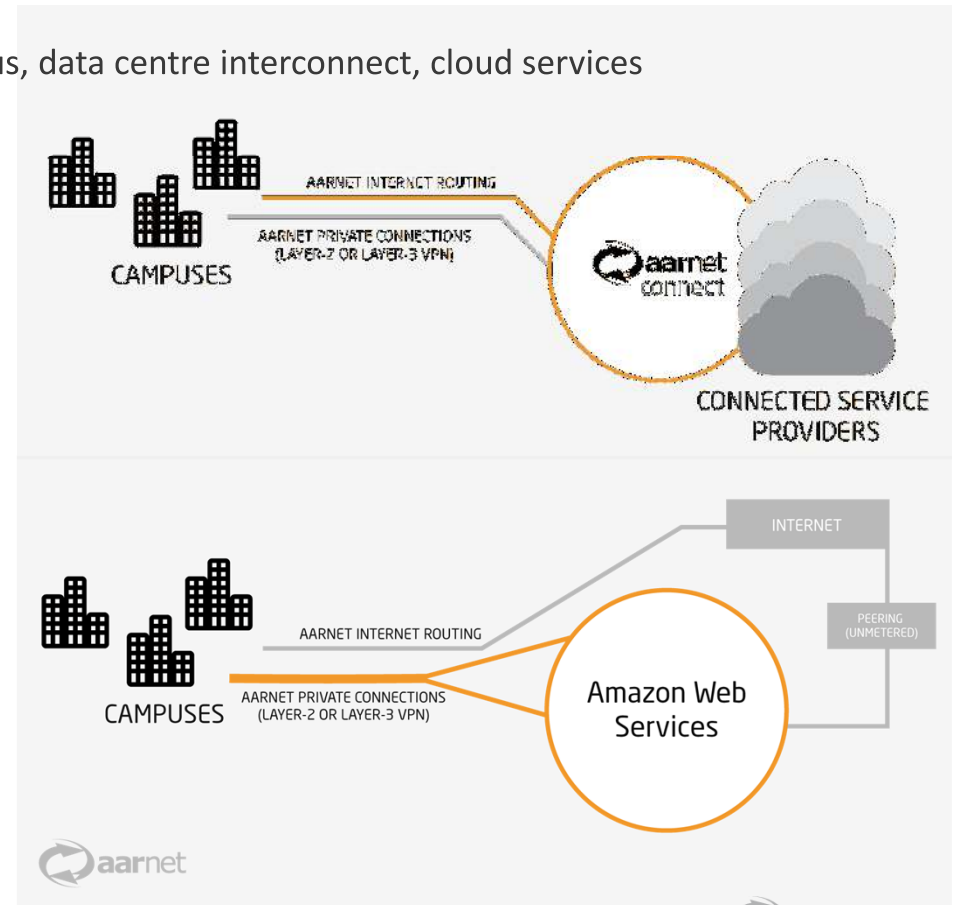
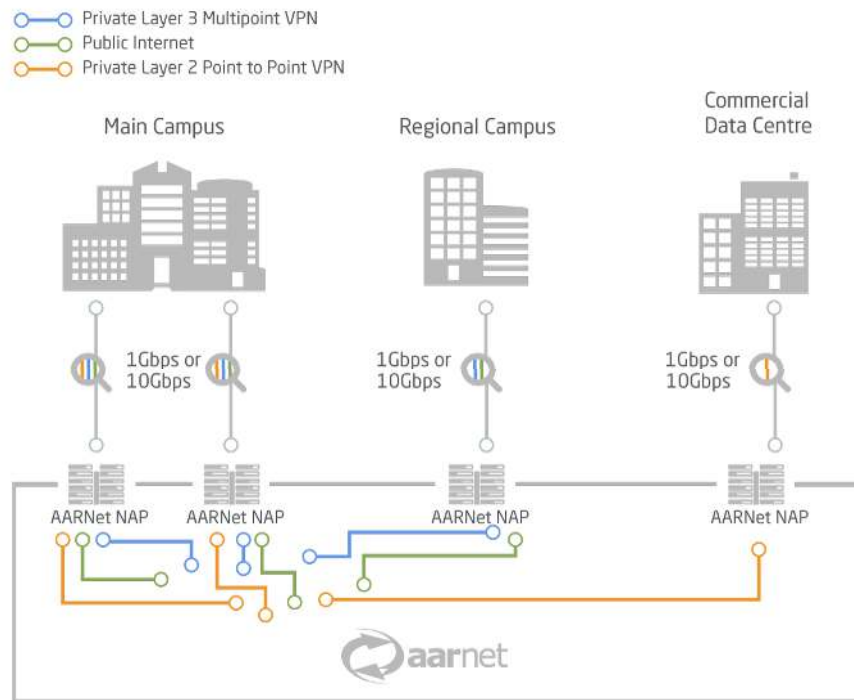
## BACKGROUND

- Not for Profit
- Sector owned
- Sector and Client exclusive
- Independent, vendor agnostic
- Highly skilled, industry diverse experienced team
- Enabling value from mutual network investments



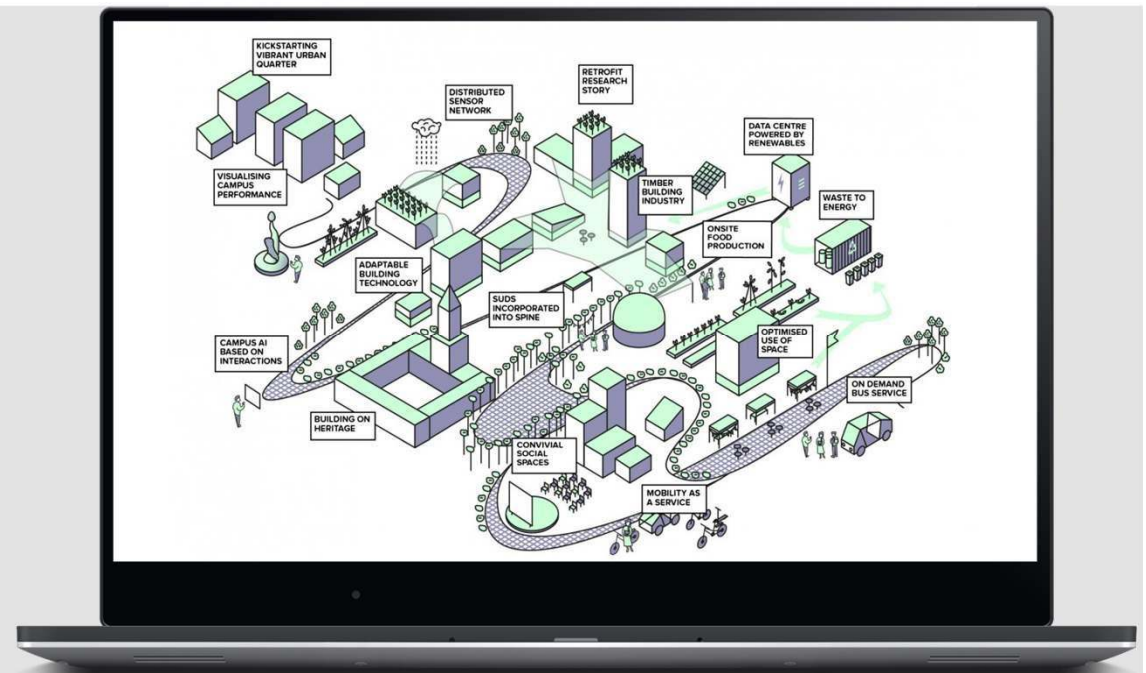
# WIDE AREA NETWORK CONNECTIVITY OPTIONS

Growing range of dedicated connectivity options intercampus, data centre interconnect, cloud services



# TRENDS

- ▶ Intelligent network routing
- ▶ Massive datasets utilising off campus compute and storage
- ▶ Health and Industry collaboration precincts
- ▶ Personalised service delivery using machine learning, AI, Chat bots and location data
- ▶ Cloud services for service resiliency and agility
- ▶ Multi-layered network security that does not impact throughput



<http://futurecities.catapult.org.uk/project/smart-campus-university-of-glasgow/>

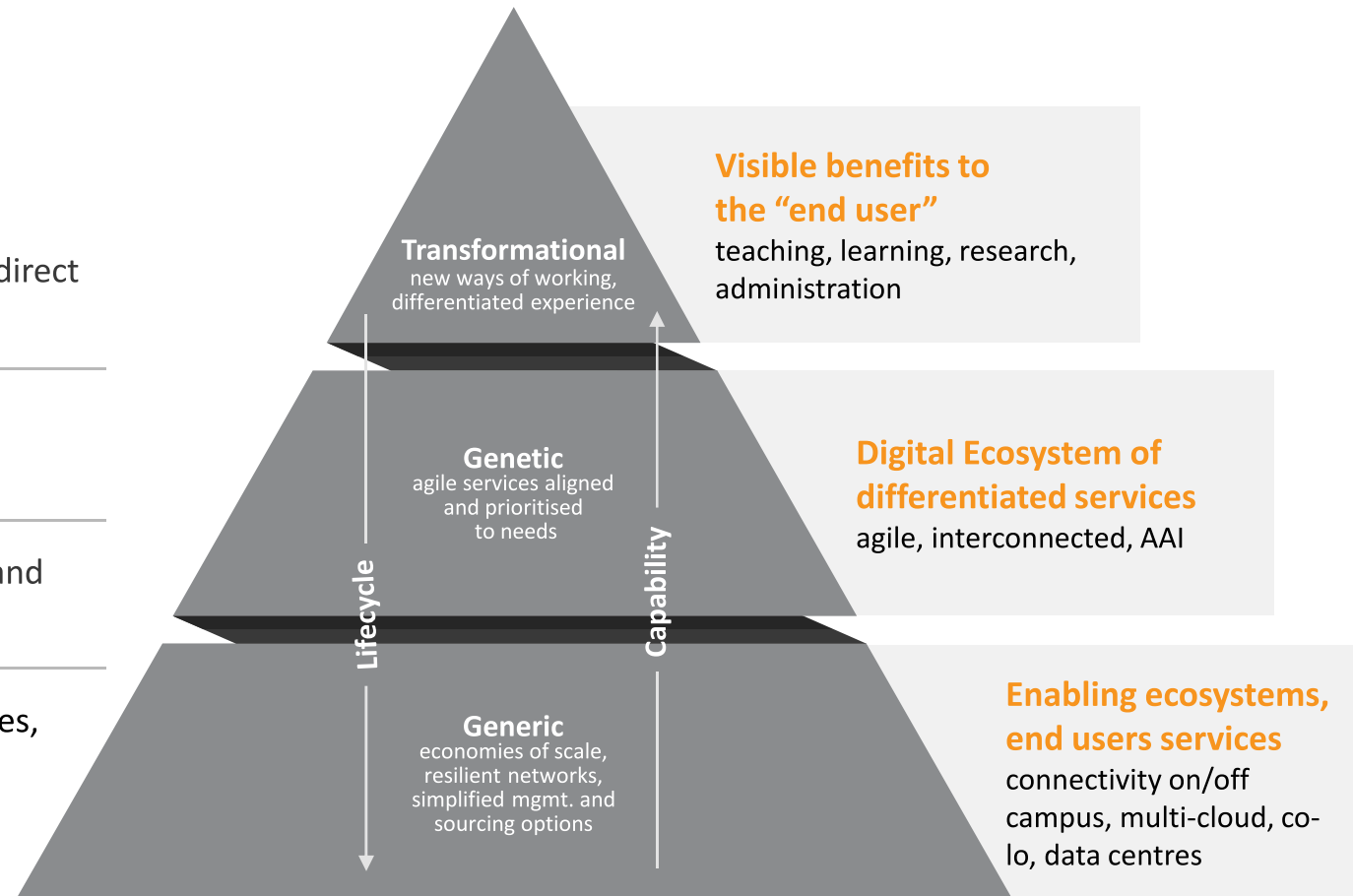
# TRENDS

**Freeing up resources** to direct to stakeholder needs

Providing **unique R&E solutions and platforms**

**Professional** consulting and engineering services

**Managed** Network devices, specialised services



# CUSTOMER OUTCOMES

## Activities

## Outcomes

### Network Reviews & Architecture Design

- ITS & Faculty/School alignment analysis
- Network Operations maturity review
- Campus, data centre, cloud network designs

- Massive data traffic growth identified
- People, process maturity issues identified
- Network fleet consolidation opportunity
- New architecture model for growth/agility
- Network security and automation options

### Campus Network Refresh

- Multi-campus Network Refresh
- Network Security & Access Control
- Network Analytics (CMX, Net flow)

- Fit for purpose Bill of Materials
- Minimal wired/wireless network disruption
- Deployment of Video enabled phones
- Enhanced network security and analytics

### Network Security

- iBGP Implementation & Routing Support
- NGFW RFQ & Palo Alto implementation
- ISE 802.1X and Stealthwatch

- ITS and Cyber team coordination
- Network Segmentation
- Security control to networks and devices
- Deployment of new security capability

### Network Resiliency & Optimisation

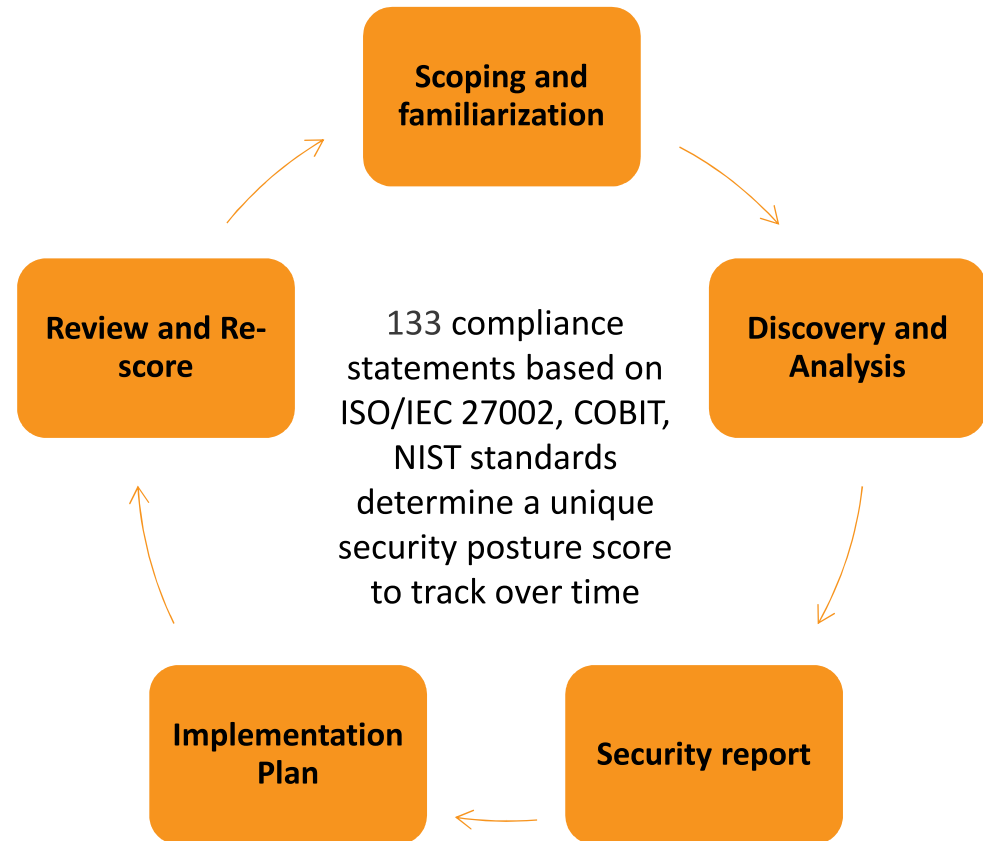
- Multi-campus network resiliency
- BGP/QoS network optimisation
- Increasing Security FW control

- Highly available network connectivity
- Primary Data centre migrated to co-lo
- Multi-campus BGP enabled resiliency
- QoS enabled support for VoIP/Video services



## ROADMAP: NETWORK SECURITY REVIEWS

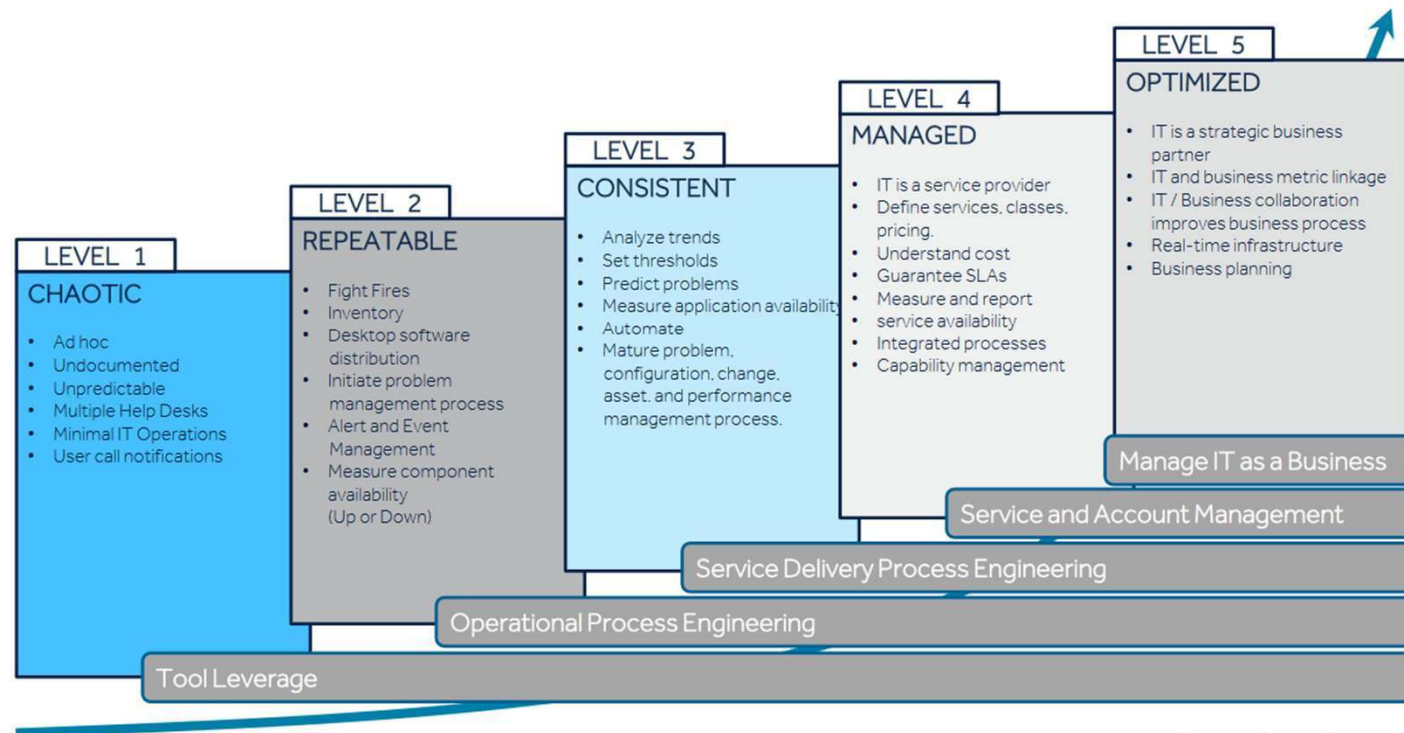
- Higher education tailored review of publicly facing services
- Evaluations of current security controls and their effectiveness
- Identify pragmatic improvements, aligned to customer risk appetite and priorities
- Anonymised scoring model showing security posture





# ROADMAP: ENTERPRISE NETWORK AUTOMATION READINESS ASSESSMENT

## SERVICE MANAGEMENT FRAMEWORK SERVICE MANAGEMENT MATURITY OVERVIEW



Source: Gartner Research

## OUR TEAM



**GARRY BAKER**  
NETWORK ENGINEER  
(QLD)



**JAMES SANKAR**  
GENERAL MANAGER - ENTERPRISE  
SERVICES



**IUPATI TUMAALI**  
PRINCIPAL CONSULTANT -  
NETWORK ENGINEERING



**DOUG FARMER**  
PRINCIPAL CONSULTANT -  
CAMPUS NETWORK MANAGEMENT



**JAMES HORNE**  
TECHNICAL CONSULTANT -  
NETWORKS



**YINGCHEN YU**  
NETWORK ENGINEER



**GARETH D'SOUZA**  
NETWORK SECURITY ENGINEER



# CURRENT SERVICE OFFERINGS



## Engineer Assist

Engineering tasks

Blocks of hours



## Network Assist

Connect to AARNet

Network Reviews

Network Designs



## Security Assist

Security reviews

Posture scores

Remediation



## Tender Assist

Technical drafts

Supplier selection

Acceptance Testing



## Project Assist

Network Refresh

DC/Cloud migration

Network Security / Automation



THANK YOU

ANY QUESTIONS

---



## CONTACT:

**James Sankar**

**General Manager – AARNet Enterprise Services**

**[James.Sankar@aarnet.edu.au](mailto:James.Sankar@aarnet.edu.au)**