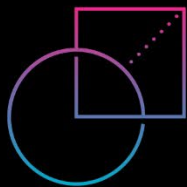
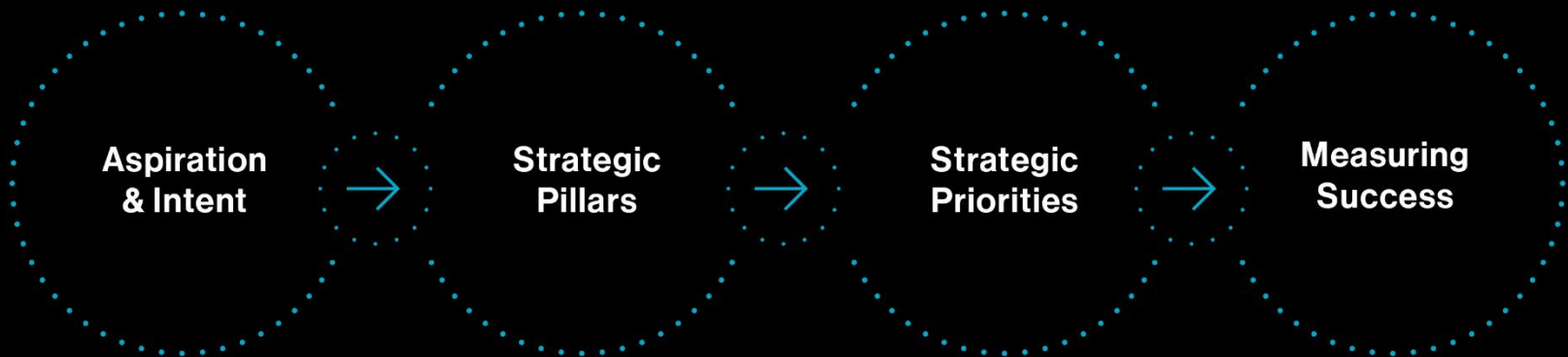




# TAFETalks: Cyber Security: Building capability to respond to risk – Providers Perspective on the Canberra Cyber Hub

# CIT Futures 2025



Leading change



Advancing  
Canberra's  
workforce



Growing our  
region's economy



Transforming  
our business

## Providers Perspective - The Canberra Cyber Hub

- CIT - Leading Change
- Activation of ACT Government priorities
- Resourcing
- Celebrating the value of VET and TAFE
- Strengthening connection with Universities
- Building cyber security workforce capability





# CYBER SECURITY EDUCATION ECOSYSTEM IN THE ACT

An integrated approach by CIT, building Cyber Security Skills

## PATHWAYS

### Primary School

- Cyber Challenges & Games**  
Games to encourage cyber security education and career paths
- Teacher Training**  
Teacher skills development in STEM and Cyber related skills to support mentoring and development of students

### High School

- Australian School-Based Apprenticeships (ASBA)**  
Accessing the national apprenticeship system to move high school students into early Cyber and ICT work placements
- Graduate Certificate in Networking & Cyber Security (10198NAT)**  
Developing high level work-ready Cyber skills

### Entry to workforce

- CIT x AIE**  
Games and virtualisation with special facilities, to engage and immerse learners
- 6** purpose-built, specialist networking/hardware laboratories including the latest equipment from Cisco Systems (i.e. NetLab)

### Entry to government

- CIT ICT Traineeships**  
Trainee employers include Department of Defence, Finance, ATO, AFP, DHS, Immigration and Border Protection, Agriculture, ACT Government, CSIRO
- CIT x DTA**  
10 years partnership with the Australian Government ICT Apprenticeship Program

### In the workforce

- CIT Higher Apprenticeships**  
New pathways to higher skilled occupations. Direct to workforce or reverse articulation to university Intelidox, Fujitsu, Horizon, Veritas
- Non-IT Professionals**  
Cyber protection training for workforce participants. Also provides a glimpse into the work of Cyber professionals
- Non-IT trades people**  
dealing with computerised systems being supported into considering Cyber careers

## LEARNERS

A Cyber talent pipeline

- Primary school students
- High school students
- Self-taught learners
- Graduates & working professionals
- Teachers

300+ apprentices completed Certificate III qualifications

200+ apprentices completed Certificate IV and Diploma

250 IT cadets & apprentices to be placed nationally in DTA & APSPC from two level-entry programs

Cyber stream in ICT Diploma starting in year 2018

100% success rate

## ENABLING FEATURES



**CISCO Networking Academy Accreditation**  
1 million+ students enrolled each year across the world

### INDUSTRY PARTNERS

**Northrop Grumman**  
Leveraging from unique curriculum and access to Cyber Patriot Games



### EDUCATIONAL PARTNERS

**Collaboration**  
across tertiary institutions for integrated pathway access



### INDUSTRY LINKS

**AustCyber the Australian Cyber Security Growth Network**  
Aligning and connecting cyber security education initiatives with the broader goal of growing Australia's cyber security industry

**Industry Engagement**  
Supply of teaching expertise will be a critical feature of the ecosystem



### GOVERNMENT ENDORSEMENT



**Defence Industry Security Program (DISP)**  
An example of Government endorsement easily identifiable and sought by industry

## ACTIVATE ECOSYSTEM

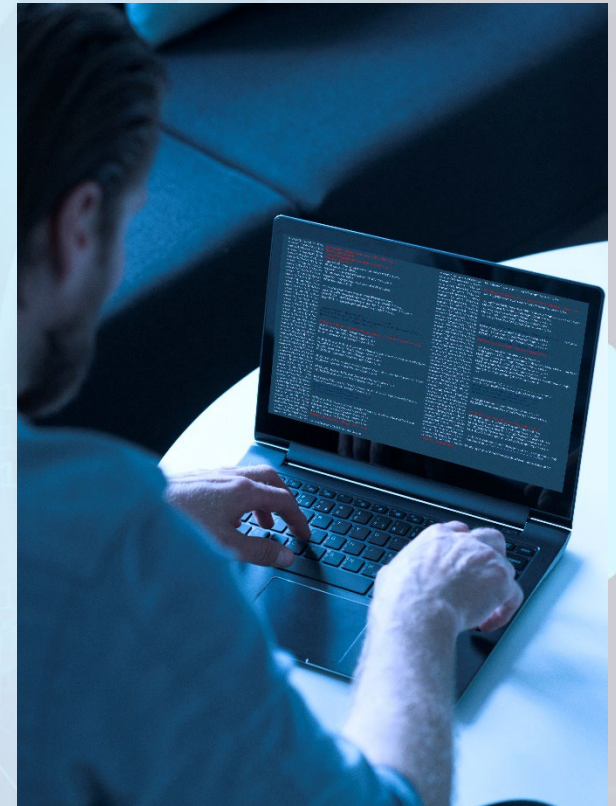






# Cyber Security Program Development

- Accredited Training
- Customised Training
- Skills Recognition

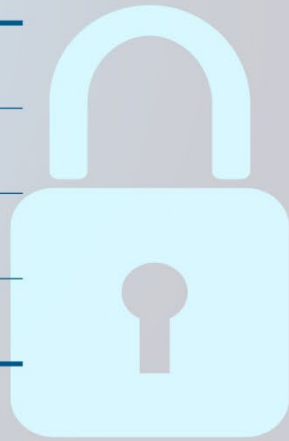




# Cyber Courses

Student Count 202210

| Course Name  | No. of Students |
|--|-----------------|
| Certificate IV in <b>Cyber Security</b> 22334VIC                             | 322             |
| Graduate Certificate in <b>Networking and Cyber Security</b> 10907NAT        | 14              |
| Statement of Attainment <b>Introduction to Cyber Security Awareness</b>      | 112             |
| Statement of Attainment <b>Introduction to Organisational Cyber Security</b> | 83              |
| <b>GRAND TOTAL</b>   | <b>531</b>      |





# Teaching Resources

- ▶ **Real Vs Virtual Training Environments**
- ▶ **40 person Security Operation Centre Control room**
- ▶ **Server room – training room**
- ▶ **Collaboration centre for tech start ups**

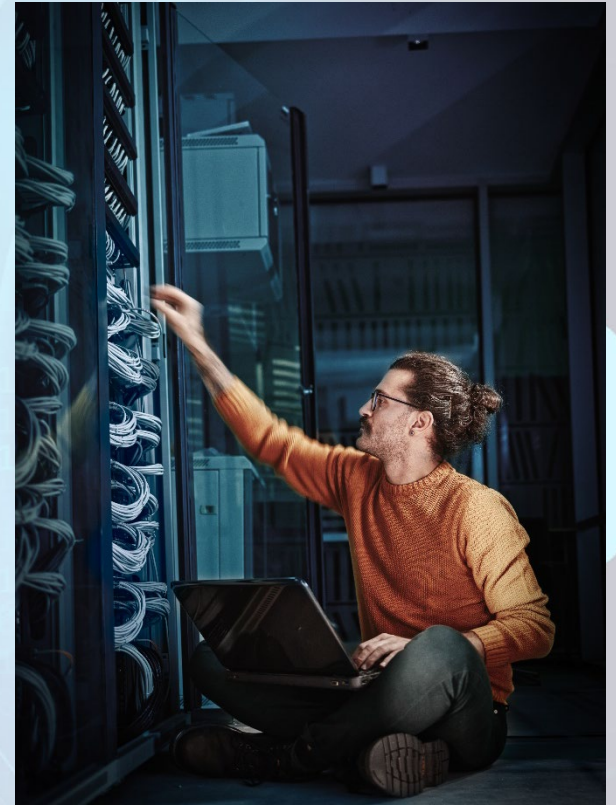




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LB9 8E00F2A5694C028BE5BF7D011A0010A3BCE561AF87010FC2 616E

- Canberra Cyber Hub
- Australian School based Apprenticeships
- The Canberra Node
- MEGT and Microsoft

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# Success Stories

## CIT Highest Ranking TAFE Team in CySCA 2018

Published: 07 Dec 2018

CIT is proudly closing 2018 with four of its students receiving the Highest Ranking TAFE Team Award from the Cyber Security Challenge Australia (CySCA), the only national cyber security competition for university and Vocational Education and Skills students.

For six consecutive years, the 'hacking' competition has encouraged the participation of undergraduate university and TAFE students across the country and it noticed a significant increase in the number of competitors this year. CySCA 2018 took place in October in Melbourne, where 422 students from 35 universities and TAFEs across Australia competed over a 24-hour period to reverse real-world cyber security threats.

The competition organisers, the Australian Cyber Security Centre in partnership with industry and academic partners, held the awards ceremony in December in Canberra, which was also an opportunity for students to meet and connect with potential employers. With the growing need of skilled cyber security professionals, the unique CySCA competition provides students with the opportunity to display their technical, analytical and communication ability to academia and industry.

Graduations and award ceremonies are among the end-of-year celebrations that appropriately recognise student's achievements and efforts. CySCA 2018 has given CIT students in Networking and Cyber Security an experience to kickstart 2019 and their careers.



## Unique Cyber security training solution launched in Canberra

Published: 20 Nov 2018

In a national first, a collaborative training solution to the cyber security skills shortage has been launched, with a new Training Security Operations Centre (TSOC) and tech-collab space, at Canberra Institute of Technology (CIT).

The \$1.1million project includes a virtual classroom with a cloud-based security operations centre simulating real cyber threats, giving students the chance to work through real scenarios to gain nationally-accredited qualifications.

Industry has been critical since the inception of the TSOC to ensure the right skills are being taught to fuel the demand in this fast-growing sector.

Tony Marceddo of Vault Cloud and Co-Chair of AustCyber ACT Node Advisory Board said, "CIT is leading the way with implementing education and training pathways to help address the critical issue of growing and upskilling our cyber security workforce."

Owen Pierce of the Industry Growth Centre AustCyber says CIT is providing leadership in cyber security training and workforce development which is being recognised by the number of students enrolled and seeking to enrol in CIT's cyber security programs.

"CIT has demonstrated their willingness to work with broad section of TAFEs nationally to ensure that they are collectively training the future-ready cyber security workforce that Australian employers need. AustCyber is a proud supporter of CIT and is thrilled to be involved in the development of their Training Security Operations Centre," Mr Pierce said.

CIT has seen 168 enrolments in cyber security courses since March 2018. Students have travelled to Singapore on an outbound VET mobility program and some are also involved in virtual mentoring with industry-based cyber experts.

The TSOC has been primarily funded by AustCyber as part of its Projects Fund, with additional funding provided by the ACT Government. The TSOC is a collaboration between CIT, Nova Systems, Fifth Domain and ANU.

Image: Head of CIT Centre for Cyber Security and Games Dr Abu Barkat, CIT Chief Executive Officer Leanne Coore, Mick Gentleman MLA, and CIT Board Chair Craig Sloan at the Training Security Operations Centre launch event.



## A clever cyber collaboration for CIT

Published: 05 Mar 2020

The Canberra Institute of Technology has a long history of collaboration with industry to improve educational and training outcomes for our students, and this was recognised at the 2019 ACT Training Awards.

CIT, with partners FifthDomain and the Australian Cyber Security Growth Network (AustCyber), received the Industry Collaboration Award, celebrating the power of industry collaboration in the revolution of cyber training and education. The collaboration was also a finalist at the Australian Training Awards.

CIT and its partners created the ACT Cyber Security Skills Accelerator program, a collaborative approach to researching and building sustainable cyber training, resources, programs and facilities for the Australian workforce. The aim was to find a solution to the cyber security skills shortage.

CIT's Director of Business Growth and Transformation, Jayne Miller, said the program now provides the ACT with end-to-end cyber security training, improves outcomes for students and shares knowledge with TAFE institutions across Australia.

"CIT is a leader in cyber security training in the vocational education sector. We have moved from no students in the Certificate IV in cyber at the beginning of 2018 to now over 500 students in full qualifications or standalone units of competency," Jayne said.

In 2018, CIT opened a new Training Security Operations Centre giving our students the opportunity to work in simulated environments, which really prepares them for the workforce.

Through FifthDomain's technology CIT teachers could efficiently set up virtual training environments. This technology also allows CIT to easily gather data on students' progress to ensure they are learning the skills they need.

"By collaborating with FifthDomain and AustCyber we have built something really special and we are committed to continuously improving the learning journey for all of our cyber students" Jayne said.

This great collaboration will continue into 2020. Learn more about Cyber at CIT.





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A photograph of two men in a server room. One man is pointing at a tablet held by the other. They are standing in an aisle between rows of server racks. The room is dimly lit with blue ambient lighting from the racks.

## Vocational Education and Training Strength of TAFE Network

# CIT Contact

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