



Australian Government



Cyber
Security
Challenge
Australia

University Road Show

2015



What we will cover



- Working in Cyber Security
- The Challenge
- The Prizes
- Hints & Tips
- Q&A



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Working in Cyber Security



- Varied
- Valued
- Interesting
- Challenging
- Meaningful



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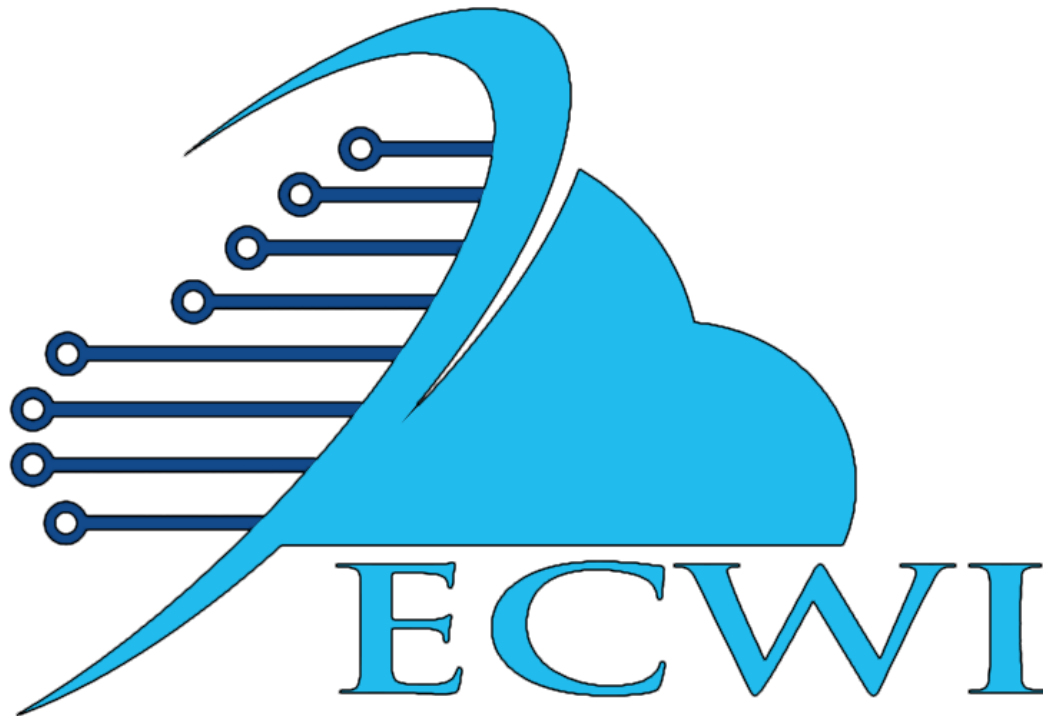


The Challenge



- A cyber security competition for Australian university undergraduate and TAFE students
- Promote cyber security as an interesting and challenging career option
- Highlight the key skills required in a cyber security career
- Inspire more students to develop cyber security skills

Enterprise Cloud Wellness Initiative



- Formed when some CEOs mistook a number of Hollywood movies for documentaries
- The initiative aims to stop Hollywood style attacks by providing Cloud Wellness advice and assistance to enterprises
- Recent third party review found that confusing job titles and misunderstanding of job roles has led to a situation where no ECWI staff are actually familiar with cyber security
- This is where your team comes in

- Perform a penetration test of the ECWI intranet site
- Perform a penetration test of the ECWI internal corporate network and provide reports for non technical staff
- Conduct forensic analysis to investigate malicious activity on ECWI networks and systems
- Detect and defend against real-time threats on a network and share the information gained with ECWI partners

- Linked Challenges
 - Corporate Network Penetration Testing
 - Web Penetration Testing
 - Forensics
 - Network Detect & Defend
- Extra Challenges
 - Crypto
 - Programming
 - Password Cracking

- Up to 60 teams competing
- Teams may only contain Undergraduate and TAFE students.
- Maximum 4 people per team (no individuals)
- Institutes can register up to 4 teams
- Registrations close 4 September 2015
- University/TAFE faculty contact will be able to apply on our website cyberchallenge.com.au
- Teams will receive an information pack with support contacts, login credentials, etc.

- Players submit flags and answers to score points
- Team with the highest number of points wins
- Tie-breaker – first to score final flag wins
- Limited submissions means that you may not get all points for a question
- End game scores are **NOT** final. Challenge Control will review responses and team positions may change after the competition ends
- Real time public display of teams scores and progress
- Challenge Control may review flag submissions

- Each team will be given access to their own sandbox network
- Players will use OpenVPN to connect to their teams sandbox network from their University/TAFE
- You will have an opportunity before the game to test your VPN connectivity. **Do this before game day, from the location you will be playing from.** Details will be provided in player packs.
- Default routes will be pushed to disallow access to the internet. **Plan for this.**
- Flags and Answers are submitted in the scoreboard website
 - Each team will get a single login account
 - Read the terms and conditions you have been provided. You will be required to accept them when you first login to the scoring site
 - The scoreboard is not in scope. Targeting it will result in team disqualification

- Cyber Security Challenge Australia 2015 will start at noon Wednesday 30th September (EST) and finish at noon on Thursday 1st October (EST)
- Challenge Control will be available for the entire duration of the competition on IRC
- Telstra's network support team will be available via phone or IRC



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The Prizes



- **Major Prize: Flights, accommodation and entry to DEFCON 2016 for the winning team (courtesy of Hacklabs)**
- Flights, accommodation and entry to Ruxcon Melbourne 2015 for the top three teams (courtesy of PwC)
- Flights, accommodation and entry to Kiwicon Wellington 2015 for the top three teams (courtesy of the Commonwealth Bank of Australia)
- Samsung Gear VR (powered by Oculus) headsets for the winning team and swag bags for the winners of another category (TBA) (courtesy of Facebook)
- Cisco Live tickets for the winning team and a number of Meraki devices for other categories (TBA) (courtesy of Cisco)
- Devices and merchandise for winners of some categories (TBA) (courtesy of Telstra)
- Mentoring day in Canberra for female participants (courtesy of the Department of the Prime Minister and Cabinet)
- Further prizes to be announced



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Hints & Tips



The best way to practice is to play other CTFs

CySCA 2014 in a box

- <https://www.cyberchallenge.com.au/inabox.html>

ctftime.org

- Upcoming CTF schedule
- Previous CTF event write-ups – CSAW, PlaidCTF, 9447ctf

picoctf.com

- Almost perpetual CTF
- Challenges still available
- Includes introductory resources

Get comfortable using these tools!

- Kali Linux 1.1.0a
- Metasploit
- Burp suite
- SQLmap
- Wireshark
- Native disassembler (IDA or objdump)
- Debugger (GDB)
- Text editor (vim, emacs)
- Managed Disassembler (ILSpy)
- Volatility

- We recommend having a sleep during the competition.
- Make sure that you eat and stay hydrated
- Some teams prefer to schedule sleep
- Having more open ended answers this year there is the possibility that you may not get all points for a question. You might not want to do these while fatigued.
- Before submitting the explain to a non-technical person answers. Pass it to a team mate to review/sanity check.



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A little message
from our sponsors



Work for Telstra



Who we are: Telstra is Australia's leading telecommunications and Information services company offering a full range of communications services. We actively seek out new growth opportunities and new technology in Australia and around the world, with our international presence spanning 20 countries, including a growing footprint in Asia.

Millions of customers rely on Telstra's network to deliver a diverse range of products and services, and to ensure their information is kept safe and secure. This includes thousands of major enterprise customers who rely on us to manage their IT networks.

What we do: We work closely with agencies in the public and private sectors to defend both our substantial core along with our customer / partner networks against regular attempts at cyber attack and intrusion.

How we do it: We have a security team of 330 people with a range of information security skills, knowledge and experience. We also work closely with experienced technical professionals within and outside of Telstra, including IT Designers, Solution Architects, Engineers and Technology Build and Operate experts.

Career Opportunities: We are always on the lookout for enthusiastic graduates with a proven set of security skills who are genuinely passionate about a career as an Information Security professional. This Cyber Security Challenge is a great way to gain an insight into our industry showcasing your skills to employers like Telstra and our partners in the room.

Careers in Telstra website ~ <https://careers.telstra.com/>



- Who we are
- What we do
- What we're like
- My experience at PwC
- What we're looking for
- Careers at PwC -
www.pwc.com.au/student

Vacationers, Graduates, Industry-Based
Learning Students



- Cyber analysts/Cyber security specialists
- Systems infrastructure specialists
- Software developers
- Penetration testers
- Reverse engineers and malware analysts
- Intrusion analysts
- Internships & Graduate positions
- asd.gov.au/careers



The Commonwealth Bank offers careers in:

- penetration testing
- incident response
- Analytics
- cybercrime investigations,
- software development and more.

CommBank is proud to sponsor the 2015 Cyber Security Challenge and to offer the top three teams flights, accommodation and tickets to:

Kiwicon 9
Wellington, NZ
Dec 10-11, 2015

commbank.com.au/graduates



CommonwealthBank

Cisco 2015 Midyear Security Report



Understand how attackers are evolving their techniques to evade defences, using stealthy tactics based on agility, speed, adaptation, and even destruction.

- www.cisco.com/go/security
- talosintel.com
- www.cisco.com/go/trustworthy

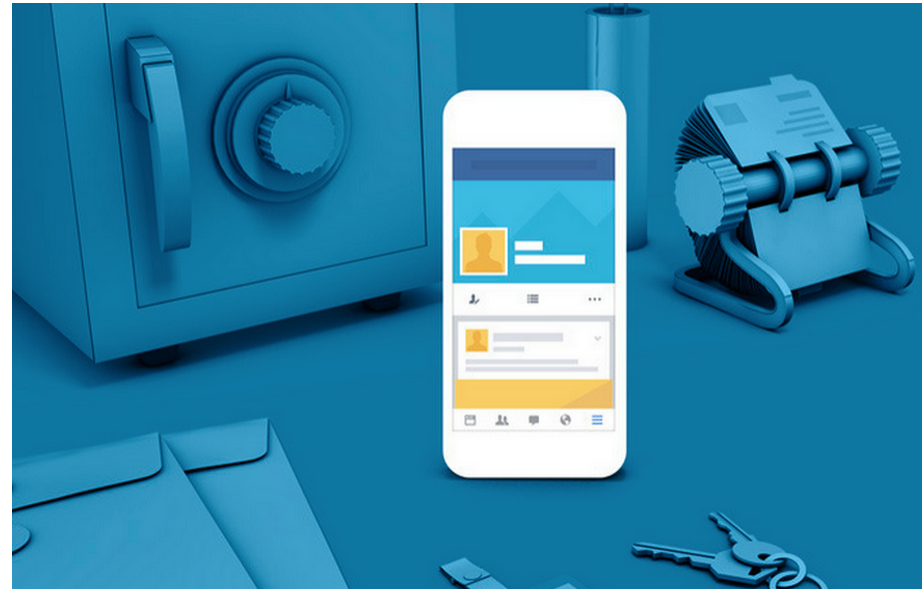
- What we do
 - Why we do it
 - Who we are
 - Team Experiences
 - What we're looking for
 - Graduate & Internship Roles
- <http://www.hacklabs.com/careers/>



HackLabs is proud to sponsor the Challenge and offer the winning team flights, accommodation and tickets to:

Defcon 24. Las Vegas 2016

Facebook is a global communications platform that connects 1.49 billion people around the world, including 13 million Australians. Security is a top priority for us. To learn more about Security@Facebook, check out the Facebook Security Page: <https://www.facebook.com/security> To learn more about careers at Facebook visit: <https://www.facebook.com/careers>



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Any Questions?

www.cyberchallenge.com.au

