



## **PRESS RELEASE**

### **ESTABLISHMENT OF OPERATIONAL TECHNOLOGY CYBERSECURITY EXPERT PANEL**

**Singapore, 3 May 2021** – The Cyber Security Agency of Singapore (CSA) has established the OT Cybersecurity Expert Panel (OTCEP) comprising 11 local and international Operational Technology<sup>1</sup> (OT) cybersecurity experts. The inaugural meeting will be held in September 2021.

#### **About OTCEP**

2 The establishment of an OTCEP was first announced at the Singapore International Cyber Week 2020. Cyber threats to OT, especially Industrial Control Systems (ICS), are increasing in frequency and sophistication. It is therefore imperative to strengthen local cybersecurity capabilities and competencies in the OT sector.

3 The OTCEP will allow Singapore's OT cybersecurity practitioners, operators, Industry, researchers, and policy makers from the Government, Critical Information Infrastructure (CII) sectors, academia and other OT industries to have direct access to the internationally renowned experts. Drawing from appointed members' respective experience in OT domains in engineering, operations and governance, these stakeholders can tap on their existing capabilities to enhance the cyber resilience of Singapore's OT sector.

4 The OTCEP will discuss issues ranging from governance policies and processes, evolving OT technologies, emerging trends, capability development, supply chain, threat intelligent information sharing and incident response. They will also recommend best practices to address cybersecurity challenges and gaps in the OT sector.

5 They will also share insights, based on their experience in handling global cybersecurity incidents, with the incident response teams of the various stakeholders during the 1-1 closed door workshops at the meeting. Besides serving as a platform to facilitate cross-domain sharing, the OTCEP meetings will also promote networking and stimulate discussion between venture capitalists and the industry in Singapore to grow our own pool of OT cybersecurity professionals and cultivate a local OT cybersecurity community to meet increasing demands from the OT sector.

6 The panel augments efforts under the OT Cybersecurity Masterplan which was developed to enhance the security and resilience of Singapore's critical sectors,

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<sup>1</sup> Operational Technology (OT) refers to technologies involving interconnected devices and computers for the monitoring and control of physical processes.

improve cross-sector response to mitigate cyber threats in the OT environment and strengthen partnerships with stakeholders.

### **Composition of OTCEP**

7 OTCEP members are shortlisted based on their vast OT experience. They come from both public and private sectors, locally and internationally. The members serve two-year terms. Details of members can be found in Annex A.

8 The OTCEP will meet annually. Key insights and recommendations from the annual meeting will help to shape initiatives under the OT Cybersecurity Masterplan such as OT Cybersecurity Code of Practice (CCoP) and OT cybersecurity training programmes.

9 Mr David Koh, Commissioner of Cybersecurity and Chief Executive of CSA said, "While OT systems were traditionally separated from the internet, increasing digitalisation has led to more IT and OT integration. Hence, it is crucial for OT systems to be better protected from cyber threats to prevent outages of critical services that could result in serious real-world consequences. To this end, we are glad to have notable OT experts join us in sharing their expertise to develop and strengthen localised capabilities in OT cybersecurity."

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### **Annex A – Composition of Operational Technology Cybersecurity Expert Panel**

Mr Christophe Blassiau  
Executive Member, WEF Cyber Resilience in Electricity and Oil & Gas Communities  
Senior Vice President Cybersecurity & Global CISO, Schneider Electric  
France

- Christophe Blassiau is currently driving cybersecurity for Schneider Electric. In the context of IT/OT/ IOT convergence and digital transformation at speed, he addresses Schneider Electric's cybersecurity posture for a worldwide ecosystem of customers, partners and employees.

Mr Dale Peterson  
Founder & Program Chair, S4 Events  
Founder & Chief Executive Officer, Digital Bond Inc  
United States of America

- For over 20 years, Dale Peterson has been on the leading/bleeding edge helping security conscious asset owners effectively and efficiently manage risk to their critical assets. He has pioneered numerous Industrial Control Systems (ICS) security tools and techniques, such as the first intrusion detection signatures for ICS that are now in every commercial product. In

2007, he created S4 Events to showcase the best offensive and defensive work in ICS security and build a community.

Mr Eric Byres  
Chief Executive Officer, aDolus Technology Inc  
Senior Partner, ICS Secure Ltd  
United States of America

- Eric Byres (P.Eng, ISA Fellow) is widely recognised as one of the world's foremost experts in the field of Supervisory control and data acquisition (SCADA) and Industrial Control Systems (ICS) security. As the inventor of the industry-leading Tofino Industrial Security Solution, Eric and his partner Joann guided the product through its evolution from academic research project and early-stage startup to the successful acquisition by Belden Inc. (NYSE: BDC) in 2011. Today the Tofino product is the most widely-deployed ICS-specific firewall in the world. Eric is also known for his leadership in research, international standards and best practices for data security in industrial environments. As the founder of the BCIT Critical Infrastructure Security Centre, he shaped it into one of North America's leading academic facilities in the SCADA cybersecurity, culminating in a SANS Institute Security Leadership Award in 2006.

Mr Joel Thomas Langill  
Managing Member, Industrial Control System Cyber Security Institute (ICSCSI) LLC  
Founder, SCADAhacker  
United States of America

- Joel Langill is a globally recognised leader in the field of industrial security focusing on advanced automation, control, and monitoring technologies. He worked for more than two decades designing automation technologies and solutions for some of the largest infrastructure projects in the world before shifting his focus entirely to cyber security. Joel was one of the first to offer a training programme focusing on defensive skills for control system engineers and is currently an adjunct professor at Texas A&M University where he teaches and works along with the RELLIS campus research facility on advanced defensive cyber operations for industrial systems. He supervises an innovative industrial control system data center built in close cooperation with solution leaders in the industrial security sector for education and new product testing and evaluation. Joel has published numerous articles on industrial security risk and mitigation, is credited with various vulnerability disclosures, has been a distinguished speaker at public and private conferences globally, and is the co-author of the best-selling book "Industrial Network Security".

Mr Kazuo Yamaoka  
Senior Solution Architect, NTT Security Japan  
Japan

- Kazuo Yamaoka is responsible for the development of cybersecurity architecture and consultation of OT and IoT Cyber Security. With more than 20 years of practical experience in the electric power industry, he provides practical OT cybersecurity solution development and consulting. His area of expertise covers not only utilities but also other domain's OT/industrial automation systems in factories and plants.

Ms Maggy Powell  
Principal Industry Specialist, Amazon Web Services  
United States of America

- Maggy Powell is a Security Assurance Principal Industry Specialist focused on the Power and Utility Sector. She joined AWS after 14 years in the power & utility industry, having worked in a variety of functions - regulatory risk, environmental permitting, reliability compliance and security operations. She was responsible for leading three technical cybersecurity teams dedicated to real time systems, including security engineering, industrial control systems (ICS) security operations centre, and security & compliance. She is well versed in the security and compliance challenges facing power and utility customers.

Mr Marco (Marc) Ayala  
Director, ICS Cybersecurity and Sector Lead at 1898 & Co  
United States of America

- Marco (Marc) Ayala is a process automation professional with over 25 years of experience working in petrochemical facilities where he designed, implemented, and maintained their process instrumentation, automation systems and process control networks. Marco has expertise with safety systems, advanced process control, enterprise historians and industrial network security where he worked with enterprise-IT to implement a corporate PCN security solution. He is active in the Oil and Gas, Maritime port, offshore facilities, and Chemical Sector cyber security efforts working alongside federal, local, and state entities for securing the private sector. Marco is a certified cyber instructor for ISA.

Ms Ong Chen Hui  
Cluster Director, BizTech Group, Infocomm Media Development Authority (IMDA),  
Singapore  
Singapore

- In architecting Singapore's digital future, Dr Ong Chen Hui, Cluster Director of BizTech Group at the Infocomm and Media Development Authority (IMDA) is overseeing efforts the Emerging Technology Programme, 5G innovation and IMDA role in the Research, Innovation, Enterprise (RIE2025)

national industry efforts in the areas of Artificial Intelligence & Data, Communications & Connectivity and Trust Technologies. Dr Ong has over two decades of experience in cybersecurity and technology innovation. Prior to her current role at IMDA, she was the APJ Chief Technology Officer in Trustwave – a Singtel company and Principal Member of Technical Staff in DSO National Laboratories, Singapore's national defence research and development organisation. At Trustwave, she drove its vision and oversaw the execution of emerging technologies in cybersecurity. Her portfolio covered building Minimum Viable Products (MVPs), consulting and vulnerability research in Operational Technology Cybersecurity, Big Data for Telco Cybersecurity, Automotive Cybersecurity and 5G cybersecurity. Dr Ong was also a member of the committee for TR68: Technical Reference for Autonomous Vehicles and the Cybersecurity Working Group in the 2018 Services and Digital Economy Technology Roadmap. In her earlier role as Principal Member of Technical Staff in DSO National Laboratories, she performed applied research, malware analysis, risk and vulnerability assessments. Her research work on Artificial Intelligence, Natural Language Processing and Deep Learning has been published in leading conferences.

Mr Robert Hannigan  
Chairman, BlueVoyant  
United Kingdom

- Robert Hannigan is a former Director of Government Communications Headquarters (GCHQ), the UK's largest intelligence and cyber security agency and established the UK National Cyber Security Centre in 2016. He retired from Government service after 20 years in national security roles, including the role of Prime Minister's Security Adviser. Robert writes on cyber, technology and national security issues in the Financial Times and is a Senior Fellow at the Belfer Center, Harvard, the Royal United Services Institute, and the Institution of Engineering and Technology, London.

Mr Robert M. Lee  
CEO & Co-Founder, Dragos, Inc  
United States of America

- Robert M. Lee is considered a pioneer in the ICS threat intelligence and incident response community. Robert serves currently on the U.S. Department of Energy's Electricity Advisory Committee, the World Economic Forum's Subcommittee on Cyber Resilience in Electricity as well as its Oil and Gas community, where he contributes as an Advisory Committee Member. A passionate educator - Robert is the course author of SANS ICS515 – "ICS Active Defense and Incident Response" with its accompanying GIAC certification GRID and lead-author of SANS FOR578 – "Cyber Threat Intelligence" with its accompanying GIAC GCTI certification.

Mr Zachary Tudor

Associate Laboratory Director, Idaho National Laboratory (INL)'s National and Homeland Security Science and Technology Science and Technology Directorate  
United States of America

- Zachary (Zach) Tudor is responsible for INL's Nuclear Nonproliferation, Critical Infrastructure Protection and Defense Systems missions. He has more than 30 years of experience in IT and cybersecurity management, operations and incident response. Previously, Tudor served as a Program Director in the Computer Science Laboratory at SRI International, where he supported cyber security and critical infrastructure programs. He has served as a member of (ISC)2's Application Security Advisory Board and the NRC's Nuclear Cyber Security Working Group, as well as the Vice Chair of the Institute for Information Infrastructure Protection at George Washington University. He is a Professor of Practice in the Computer Science Departments of the University of Idaho and Idaho State University, is the Chair of the Board of Directors of the International Information Systems Security Certification Consortium (ISC)2, and a member of the Commonwealth Cyber Initiative advisory board (Virginia).

#### About the Cyber Security Agency of Singapore

Established in 2015, the Cyber Security Agency of Singapore (CSA) seeks to keep Singapore's cyberspace safe and secure to underpin our Nation Security, power a Digital Economy and protect our Digital Way of Life. It maintains an oversight of national cybersecurity functions and works with sector leads to protect Singapore's Critical Information Infrastructure. CSA also engages with various stakeholders to heighten cyber security awareness, build a vibrant cybersecurity ecosystem supported by a robust workforce, pursue international partnerships and drive regional cybersecurity capacity building programmes. CSA is part of the Prime Minister's Office and is managed by the Ministry of Communications and Information. For more news and information, please visit [www.csa.gov.sg](http://www.csa.gov.sg).

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