Research Partners

CUTS International
ARPI Australian Risk Policy Institute
iiit-b International Institute of Information Technology Bangalore

Department of Telecommunications
Ministry of Communications
Government of India

Supported by

Australian Government
Department of Foreign Affairs and Trade

International Conference

Identifying Elements of Ethical and Regulatory Framework for 6G and Creating Opportunities for India and Australia

**AUGUST 17, 2022 | WEDNESDAY | 0900 – 1745 IST
THE METROPOLITAN HOTEL, NEW DELHI
(Hybrid mode)**

Background

Cyber and critical technologies have assumed high importance from geopolitical and strategic point of view, which in turn is increasingly influencing international relations, including trade and investment. Being vibrant democracies, India and Australia strategically came closer and signed a Comprehensive Strategic Partnership in June 2020, which inter alia aims to elevate bilateral cyber cooperation.

The Australia-India Cyber and Critical Technology Partnership (AICCTP) recognises that both countries have a key role to play in contributing to the global development of critical and emerging technologies such as Artificial Intelligence (AI), next generation telecommunications (5G/6G), Internet of Things (IoT), quantum computing, synthetic biology, blockchain and big data. The main purpose of the Partnership is to develop an open, secure, free, accessible, stable, peaceful, and interoperable cyberspace and technologies that adhere to international law.

Consequently, for the security and resilience of their telecommunications network, both countries endeavour to work closely on next generation networks, such as 5G and 6G, in order to ensure diverse and trusted technology supply chains. The aspiration is also to undertake joint engagement with Indo-Pacific partners to improve region's cyber capabilities to promote resilient and trusted cyberspace.

In this backdrop, CUTS International is implementing the project "Ethical 6G: Identifying Elements of Ethical Framework for 6G and Creating Opportunities for India and Australia" in partnership with Australian Risk Policy Institute (ARPI) and International Institute of Information Technology, Bangalore (IIITB). The Project is supported by the Department of Foreign Affairs and Trade (DFAT), Australia under the AICCTP Grant.

The Project has the following objectives, which this Conference seeks to propagate:

- To actualise practical cooperation and collaboration between India and Australia on evolving 6G telecommunication technology;

- To influence international discourse to achieve an open, secure, free, rules-based Indo-Pacific region;

- To strengthen understanding of the ethical framework for 6G technology development and deployment;

- To create an enabling environment in India and Australia for their contributions to the 6G standard making process; and

- To create opportunities for Indian and Australian firms to invest in 6G networks and related equipment making and propagate 6G deployment in the Indo-Pacific region.

Agenda

0900 – 0930	Registration and Networking with Tea/Coffee
0930 – 1100	**Inaugural Session** **Strengthening India-Australia Partnership on Cyber and Critical Technologies** *How to create an enabling environment that helps in achieving the aims of Australia-India Cyber and Critical Technology Partnership? What roles Indian and Australian polity can play to bring on board different stakeholders in both countries to adhere to the objectives of India- Australia partnership?* **Pradeep S Mehta**, Secretary General, CUTS International **Barry O'Farrell AO**, Australian High Commissioner to India **Lt Gen Dr S P Kochhar**, Director General, Cellular Operators Association of India (COAI) **A S Verma**, Deputy Director General, Telecommunication Engineering Centre, Department of Telecommunications, Ministry of Communications
1100 – 1130	Networking with Tea/Coffee
1130 – 1300	**Technical Session 1** **Cyber and Critical Technologies – Strategic Importance and Opportunities for India and Australia** *How to take AICCTP's agenda forward in the digitally connected yet geopolitically divided world? What could be the pathways for both countries to*

	traverse in the fast changing geopolitical scenario? How effective could be the QUAD and QUAD-plus approach?
	How pertinent are the threats of cyber-attacks on critical infrastructures in India and Australia? What are the opportunities for India and Australia vis-à-vis trade and investments in cyber and critical technologies, including local manufacturing of network and related equipment?
	Subimal Bhattacharjee, Independent Consultant on Defence and Cyber Security and former Country Head, General Dynamics (Moderator)
	Georgina McKay, First Secretary, Australian High Commission, New Delhi
	Sameer Patil, Senior Fellow, Strategic Studies Programme, Observer Research Foundation
	Pip Wyrdeman, Partner, Cyber, PwC Australia (Virtually)
	Bart Hogeveen, Head of Cyber Capacity Building, Australian Strategic Policy Institute (Virtually)
	Ravi Thapar, former Indian Ambassador to Lebanon and New Zealand and Professor and Executive Dean, Jindal School of International Affairs, O.P. Jindal Global University
1300 – 1400	Lunch
1400 – 1530	**Technical Session 2** **Understanding 6G, Its Standards, and Related Issues and Concerns** *6G is going to have a much bigger and more complex ecosystem than that of 4G and 5G. In order to ensure the resilience of the 6G network and trust in the same, a coordinated effort from all stakeholders is mooted. Many activities like indigenous R&D, enhanced interventions in its standard making, local manufacturing of network and other relevant equipment etc. would help achieve such resilience and trust. For all this to happen, an enabling environment is crucial.* *How to achieve stakeholder coordination to achieve resilient-by-design and trusted-by-design 6G ecosystem? What India can learn from Australia and vice versa? Are there lessons to be learnt from other countries?* *Since, 6G involves Terahertz communication and dynamic spectrum sharing, what are the challenges in standardisation and regulation of radio spectrum for 6G and beyond? What lessons the 5G experience offers for India and Australia?* *The standardisation process has largely been driven by Telcos and Network Equipment Manufactures up to 5G; however, 6G involves embedded intelligence. Is there any scope for stakeholders such as AI/ML start-ups, Distributed Ledger*

Technology providers influencing newer standards?

How will 6G affect a common broadband user? Will it be an inclusive technology or will it only serve certain niche business segments like remote healthcare, energy optimising utilities, and advanced retail to name a few?

V Sridhar, Professor at the Centre for IT and Public Policy, International Institute of Information Technology Bangalore (IIITB) (Moderator)

Lt. Gen. Dr. S P Kochhar, Director General, Cellular Operators Association of India (COAI)

Ashok Jhunjhunwala, Institute Professor, Department of Electrical Engineering, Indian Institute of Technology, Madras (IITM) (Virtually)

Mahesh Uppal, Director, Com First (India) Private Limited

Kumar N Sivarajan, Co-Founder and Chief Technology Officer, Tejas Networks (Virtually)

Rajeev Shorey, CEO, The University of Queensland–IIT Delhi Academy of Research

Bharat Bhatia, President, ITU-APT Foundation of India (IAFI)

1530 – 1600	Networking with Tea/Coffee
1600 – 1730	**Technical Session 3** **Identifying Elements of Ethical and Regulatory Framework for 6G** *Several ethical issues have been raised in information and communication technology (ICT) as well as in the digital and cyber space. The present regulatory framework seems to be struggling in addressing such concerns. The policy pace is unable to catch up with the advancements in digital technologies and its unfair and unethical usage. Instances of over-regulation and under-regulation can be found across the globe – in both developing and the developed countries.* *Ethical issues in ICT and digital space have many dimensions, which include but not limited to, security, privacy, trust, inclusivity, competition and consumer protection. The upcoming 6G technology offers an opportunity for course correction with respect to crafting an optimal ethical and regulatory framework.* *What are security vulnerabilities and risks for critical infrastructure? What are ethical issues and risks associated with AI/ML (Machine Learning) and IA (Intelligence Augmentation)? How to pre-empt and address such risks so that we have a resilient 6G ecosystem?* *How complex cyber security scenario could be in 5G, beyond 5G and 6G? Whether the efforts made by the government towards cyber security are sufficient to deal with cyber threats or there is a need to do more?*

	Whether the privacy breach and data security threats are going to enhance with the adoption of 6G? What has been the experience in this regard with the roll out of 5G? Whether privacy and data security issues in 6G will require amendments in national digital strategies and regulatory frameworks? How can digital market players, network and telecom equipment manufacturers contribute towards privacy-by-design and security-by-design?
	What are major competition concerns in ICT sector and in digital space? Whether ex post competition enforcement is sufficient to deal with such concerns, or ex ante regulations are needed to discipline the market players?
	Allan Asher, Chair and Managing Consultant of Foundation for Effective Markets and Governance (FEMAG) (Moderator)
	Aruna Sharma, former Electronics and Information Technology Secretary to the Government of India (Virtually)
	Tony Charge, President, Australian Risk Policy Institute (ARPI) (Virtually)
	Deepak Maheshwari, Public Policy Consultant and Senior Visiting Fellow, ICRIER
	N K Goyal, President, CMAI Association of India
	Rajat Kathuria, Dean, School of Humanities and Social Sciences and Professor, Economics, Shiv Nadar University India (Virtually)
1730 – 1745	Closing Remarks and Vote of Thanks
	Ujjwal Kumar, Associate Director, CUTS International and Deputy Head, CUTS-CCIER

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