





















THE 2 ASIA-PACIFIC REGIONAL FORUM **ON SMART SUSTAINABLE CIT** AND e-GOVERNMEN PHUKET, THAILAND

International Telecommunication Union

Phuket Smart City Smart Growth



Phuket 2020 Smart City Smart Living Community



THE 2[™]ASIA-PACIFIC REGIONAL FORUM ON SMART SUSTAINABLE CITIES AND e-GOVERNMENT

PHUKET, THAILAND



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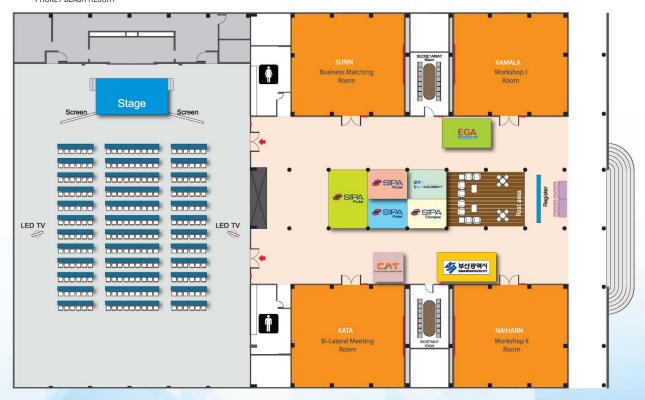


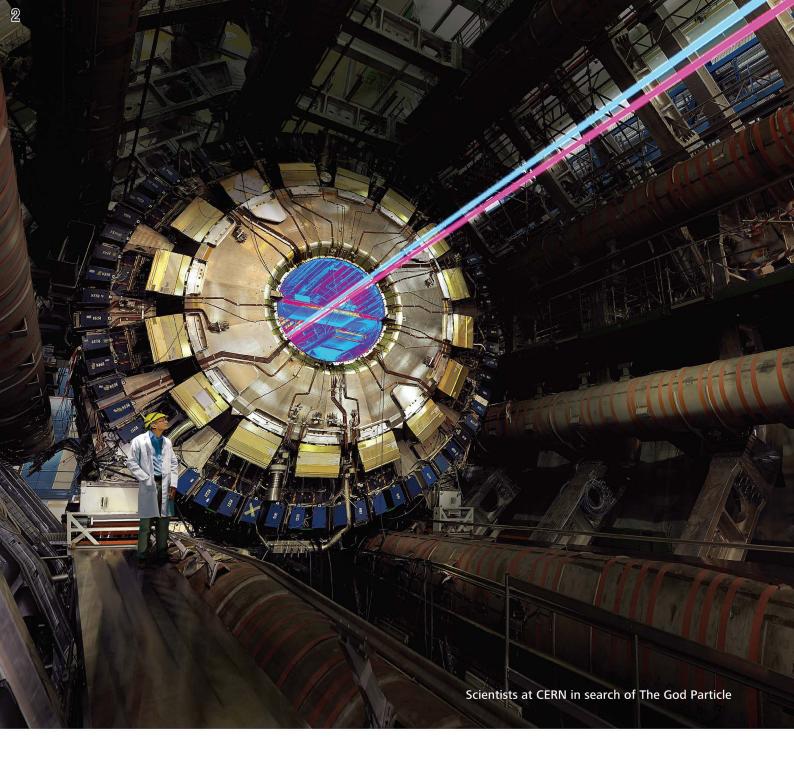






Le MERIDIEN EXHIBITION FLOOR PLAN





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- Ren Zhengfei, Huawei Technologies Co. Ltd. Founder





THE 2 ASIA-PACIFIC REGIONAL FORUM ON SMART SUSTAINABLE CITIES AND e-GOVERNMÉNT

PHUKET, THAILAND















Co-organized by

























Day 1: Tuesday 30 August 2016

07:30 - 09:00

Registration

09:00 - 10:00

Opening Session

Welcome remarks

Mr. Ioane Koroivuki, Regional Director, ITU Regional Office for Asia and the Pacific

Welcome remarks

Dr. Young-sook Nam, Secretary General, World e-Governments Organization of Cities and Local Governments (WeGO)

Welcome remarks

Mr. Chatchai Khunpitiluck, Vice President, Software Industry Promotion Agency (SIPA). Thailand

Welcome remarks

Mrs. Airada Luangvilai, Senior Executive Vice President, Electronic Government Agency (Public Organization), Thailand

Welcome remarks

Mr. Chamroen Tipayapongtada, Phuket Governor

Opening remarks

H.E. Mr. Pansak Siriruchatapong, Vice Minister of Information and Communication Technology of Thailand

10:00 - 10:30 10:30 - 12:15

Group photo & coffee break

Session 1: Digital Transformation, Economies and Societies

With the rise of digital content and the increasingly global nature of ubiquitous networks, there is little doubt that new technologies, services and applications are having huge impacts on both social and economic development. But with all the benefits the evolving digital world offers, it also brings challenges for policy-makers and regulators, who must seek to balance the rights of all stakeholders. Ensuring that consumers benefit from the wealth of opportunities brought by the digital economy in an informed, responsive and safe manner is a challenge that can only be achieved through effective and smart regulation targeted at empowering consumers, redefining responsibilities and creating the conditions for a data driven economy to flourish.

This session will look at where countries' digital strategies are going and how best they can get there.

Moderator: *H.E. Mr. Muhammad Aimal Marjan,* Deputy Minister of Communications and IT, Afghanistan

Speakers & Panellists:

- *Mr. Charin Thiratitayangkul*, Vice President of Policy and Strategy Department, Electronic Government Agency (Public Organization), Thailand
- Mr. Syed Raza SHAH, Member (IT), Ministry of Information IT & Telecom, Pakistan
- Mr. Filipe Miguel Antunes Batista, Secretary General, ARCTEL-CPLP, Portugal
- Mr. Masanori Kondo, Deputy Secretary General, Asia-Pacific Telecommunity (APT)
- Mr. Austin Menyasz, Government and Regulatory Affairs APAC, GSMA

12:15 - 13:30

Lunch break

13:30 - 15:00

Session 2: Making a Smart City for Sustainable Development

Rapidly evolving Information Communication
Technologies (ICTs) can play a key role in
bringing about transformation across all
sectors involved in reaching global
sustainable development objectives. By serving
as the backbone of integrated and



innovative solutions, ICTs can help cities to overcome unwieldy challenges and work towards meeting the sustainable development as well as the urbanization targets of all SDGs.

This session will demonstrate and/or showcase strategies for developing a smart city towards sustainable development.

Moderator: *Mr. Wisit Atipayakoon,* ITU Regional Office for Asia and the Pacific **Speakers and Panellists:**

- Dr. Gi-Ryong Jung, Special Economic Adviser/Vice Mayor, Busan Metropolitan City, South Korea
- Mr. Pracha Asawateera, Manager, SIPA Phuket, Thailand
- Mr. Mohamed Shajahan bin Mohamed Iqbal, Vice President & Treasurer, FTTH Council Asia-Pacific
- Mr. Zhao Lining, Solution Director, Huawei Southeast Asia Marketing Department

15:00 - 15:30 15:30 - 17:00

Coffee break

Session 3: E-Government for Achieving Sustainable Development Goals

The promotion and use of ICTs by governments and public authorities will play a critical role in promoting, advancing and measuring the Sustainable Development Goals.

E-Government has the potential to realize the principle of "leaving no one behind" in the implementation of the 2030 Agenda. Governments worldwide now recognize the power of ICTs and e-government for the advancement and



transformation of the public sector landscape. The deployment of e-government can make public institutions more effective, accountable and transparent at all levels while providing inclusive public services to citizen, particularly to marginalized and vulnerable groups.

This session will discuss about emerging e-government issues and trends, and identify challenges and opportunities of e-government as an enabler of sustainable development.

Moderator: *Mr. Ilyas Ahmed,* Chief Executive, Communications Authority of Maldives **Speakers and Panellists:**

- Mr. R.M.D.B. Meegasmulla, Secretary, Ministry of Sustainable Development and Wildlife, Sri Lanka
- *Mr. Henry Ah Ching,* Assistant Chief Executive Officer, Economic Planning and Policy Division, Ministry of Finance Government of Samoa
- *Mr. Keping Yao,* Governance and Public Administration Expert, United Nations Project Office on Governance (UNPOG)
- Mr. Stefanos Fotiou, Chief, Environment and Development Division, UNESCAP

Day 2: Wednesday 31 August 2016

07:30 - 09:00

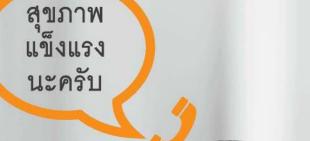
Registration

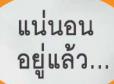
09:00 – 10:30 Session 4: Smart City Policy Framework and City-to-City Cooperation for Smart Sustainable City Development

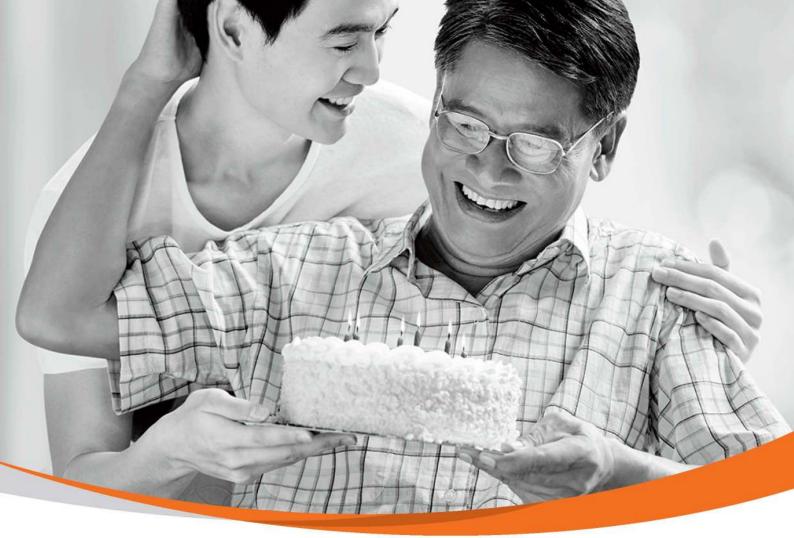
In times of limited resources and the need to devise smart and innovative solutions to meet modern urban challenges on an urgent basis, city-to-city cooperation can serve as an efficient and effective way to mobilize development resources to help cities jointly work towards sustainable urbanization. By strengthening the capacity of cities around the world to define and resolve their problems themselves in close engagement with their citizens, city-to-city or "decentralized" cooperation can help cities explore synergies and build potentially cost-effective and mutually beneficial partnerships based on shared experiences and best practices among peer groups.











หมื่นแสนล้านความรู้สึกของคนไทย เรามีหน้าที่เชื่อมโยงให้ใกล้กัน

CAT มุ่งมั่นพัฒนาโครงข่ายที่มีศักยภาพอย่างไม่หยุดยั้ง ทั้งโทรศัพท์ระหว่างประเทศ **CAT 009** เครือข่าย 3G ความเร็วสูง **my by CAT** เพื่อการสื่อสารที่ครอมคลุม และเข้าถึงทุกความรู้สึกของคนไทยทุกคน

CAT ผู้วางโครงข่ายและรักษาเสถียรภาพทางการสื่อสารของไทย

Madriosday 31 August 2016

This session will demonstrate effective policy framework on developing a smart city and feature collaboration among cities in Asia, as well as Asian and European Cities, to showcase how cities are joining forces to share resources, catalyze action and develop smart and transformative solutions based on technology-enabled innovation.

Chair and Moderator: *Dr. Arvind Kumar Mishra,* Member of Board of Directors, FTTH Council Asia-Pacific

Speakers and Panellists:

- Sr. Hj Rozali Hj Mohamud, Municipal Secretary, Municipality of Seberang Perai,
 Malaysia
- *Mr. Tony S. Jun, Project Advisor*, Overseas Project Development, Seoul Urban Solutions Agency, South Korea
- Mr. Parakrama Dahanayake, Former City Councilor, Galle Municipal Council, Sri Lanka

10:30 - 11:00

Coffee break

11:00 - 12:30

Session 5: Partnering with Smart Citizens for The City We Need

Recent experiences from cities and local governments show that ICT-enabled civic participation can enhance the dialogue between city managers and citizens for more inclusive, empowered and creative communities. This session will highlight success stories of local governments in using smart technologies to foster citizen engagement in local governance throughout the process of policy and service development —by such means as online referendums, open data systems, and crowd sourcing platforms —to ensure that the voices of all are heard and the needs of all are met.

The shared stories will shed light, among other things, on the following questions: How are local governments receiving citizen feedback and reflecting them in policy development, letting citizens know that they have been heard and their input considered? How have cities concretely benefited from introducing systems that encourage inclusive policy making and civic engagement? How are local governments ensuring that citizens, especially the least represented/marginalized, are aware of, have the capacity, and actually use civic participation systems?

Chair and Moderator: *Ms. Haidy Ear-Dupuy,* Social Development Specialist, Asian Development Bank (ADB)

Speakers and Panellists:

- Mr. Kinlay Dorjee, Mayor, Thimphu Municipality, Bhutan
- Ms. Germie Q. Deang, Head, ICT Division, City Government of San Fernando La Union, Philippines
- Mr. Shiva Raj Adhikari, Deputy Director, International Relations, Kathmandu, Nepal

12:30 - 14:00

Lunch break

14:00 - 15:30

Session 6: IoTs and Data Revolution for the Smart Sustainable City

Immense amounts of data are being generated every day in our cities through an ever growing array of innovative technologies, including smartphones, social media, and the Internet of Things (IoT). As city leaders around the world grapple with the implications of "Big Data", it is becoming clear that data may represent one of the most powerful modern assets that if harnessed properly, can deepen the understanding of how cities function, inform the policy and decision-making processes, and support the monitoring of results across urban sectors for enhanced efficiency, quality of life, and new economic opportunities.

Through case studies and expertise in IoTs/Big Data, speakers in this session will examine ways to improve how data is generated/ used and various implications of data for cities.

Moderator: *Dr. Abbas Maaroof,* Consultant, UNDP-Jakarta **Speakers and Panellists:**

- Ms. Mellyana Frederika, Programme Specialist, Pulse Lab Jakarta- UN Global Pulse
- *Dr. Hoai Duc Nguyen,* Head, IT Division, Department of Information and Communications, Da Nang, Vietnam
- Ms. Waltraut Ritter, Managing Director at Knowledge Dialogues and Honorary Advisor to the Digital21 Strategy Advisory Committee of the HKSAR Government

15:30 - 16:30

Session 7: Keynote Address and Panel Discussion

Keynote Address: *Ms. Ajarin Pattanapanchai,* Deputy Secretary General, Office of the Board of Investment, Thailand

16:30 - 17:00

Refreshments



Day 3: Thursday 1 September 2016

07:30 - 09:0009:00 - 10:30

Registration

Session 8: Cybersecurity and Public Safety

One of the most sensitive issues on information sharing lies in the possibilities of an invasion of personal information and weak network security. Hence, the importance of building confidence and security in the use of ICT was emphasized, notably to protect personal data and privacy and to strengthen the security and robustness of networks.

Cyberspace is far from secure today, and there is an urgent need to take action—at national as well as international levels—against all forms of cyber threats. Government and stakeholders should assess the reliability, vulnerability, and threat environments of the infrastructures and employ appropriate protective measures and responses to safeguard them. Greater cooperation between all stakeholders at the national, regional and international levels is also required.



This session will focus on principles, frameworks, technology options, and good practices on safeguarding security and privacy in the cyber world especially in digital public services whereby drawing experiences and lessons learned from various countries.

Chair and Moderator: *Mr. Marco Obiso,* Cybersecurity Coordinator, ITU **Speakers and Panellists:**

- Mr. Taylor Roberts, Global Cyber Security Capacity Centre, University of Oxford
- Mr. Veeravoot Voottilertanan, Solution Manager, Huawei Thailand Enterprise Department
- Ms. Noelle Francesca de Guzman, Regional Programmes Coordinator for Asia Pacific, Internet Society (ISOC)
- Mr. Md. Reaz Ahmed, Director General, Department of Disaster Management, Bangladesh

10:30 - 11:00

Coffee break

11:00 - 12:30

Session 9: Cyber Incident Management Drill (SIMULATION)

E-Government offers unique opportunities for developed as well as developing nations. Apart from the automation of mass processes e-government approaches can help to roll out services to rural areas, speed up processes and strengthen the connection between government/administration and citizens/businesses. It is therefore not surprising that more and more countries are implementing e-government services.



At the same time it is important to keep an eye on cyber threats. Being mindful about potential risks does not contradict the idea of smooth and fast implementation of e-government services but is part of risk management. Cyber attacks that threaten e-government exist already. The risk landscape developed quickly over the last years. Today we witness transnational attacks with increasing quantities and qualities.

To facilitate the discussion about cyber threats with regard to e-government service a "live cyber incident simulation" will be carried out. The aim of this "war gaming "approach is to provide senior decision makers with an overview about the most recent attacks as well as global trends and at the same time familiarize them with best practices in defense. ITU for many years organizes "Cyber Drills" both on the regional level as well as — upon request — on the national level. This specific element, that focuses on high level decision makers, is part of the methodology and various governments in the Asia-Pacific region already benefited from this approach.

Speaker: Prof. Dr. Marco Gercke, Cybercrime/Cybersecurity International Expert

12:00 - 13:30 13:30 - 15:00

Lunch break

Session 10: New Role for Governments in the Era of ICT Startups

The importance of ecosystems of innovative people has never been as evident as in the case of startups. Silicon Valley or Cambridge are excellent examples of successful ecosystems. The emergency of such ecosystems as key components for innovative brings a new dimension for governments seeking to set new policies to foster innovation.

There is a risk that public administrations might jeopardize startup ecosystems if their main proposed action is to pour public money into them. This would result in public money competing against money from alternative finance or venture capital. There are, however, some creative ways of financially supporting startups that could have a positive impact.

This session will focus on the role that governments and public administrations should play in fostering the entrepreneurial ecosystem in which information and communication technology (ICT) growth can thrive?

Moderator: Mr. Mohamad Ba, Head, Innovation Division, ITU **Speakers:**

- Mr. Joseph Gaylord, Innovation Support Officer, ITU
- Prof. Dr. Sunmoo Kang, Chair of KOREN Technology Support WG, South Korea
- · Dr. Alex LIN, Head of Infocomm Investments Pte Ltd., Singapore
- Mr. David Sehyeon Baek, Chief of Informational Affairs, Cooperation & Public Relations, Gyeonggi Center for Creative Economy & Innovation, South Korea

15:00 - 15:30 15:30 Closing Session Refreshments

Global Smart City in Busan

Open IoT Platform based Smart City Test-bed



Vision

01

Global Reference Smart city

02

Sustainable city

03

IoT oriented Knowledge creation city

Objective ~2017

Cultivating 500 IoT specialists



Bring-up 50



Fostering 5 global hidden champions



entrepreneurial companies



Operating 5 global common services

 Contents of promotion

Establishing open smart city platform

Demonstrating smart city service

Establishing & operating smart city test-bed support center

- Establishing and demonstrating open frame platform certified by international standards (oneM2M)
- Securing interoperability by interfacing global standard platform with heterogeneous platform
- Identifying and implementing the smart city service focusing on the citizen experience & participation
- Connecting & aligning with the smart city services promoted by a major city
- Establishing regional IoT innovative eco system for fostering collaboration among industry, research centers, university and academic organization
- Developing the smart city infra to promote SMEs & Start-ups





Leading-edge Technologies for Smart Building & City

Innodep, software development company, provides a smart solution for public safety and national security.

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Access Access





CRITICAL ISSUES

Cybersecurity: A safety net for Smart Sustainable Cities



Cybersecurity: A safety net for Smart Sustainable Cities

By Giampiero Nanni, Government Affairs EMEA, Symantec

News media carry near-daily reports of high-profile cybersecurity incidents. Most organizations, in most industry sectors, will have suffered some form of cyberattack, granting the topic a vivid position in most of our minds and especially in those of leaders in the private and public sectors.

An ITU Telecommunication Standardization Sector (ITU–T)
Technical Report on "Cybersecurity, data protection and cyber resilience in Smart Sustainable Cities" takes a direct approach to its discussion of the most prominent cyberthreats to smart cities.

The report analyses the general technical architecture of a Smart Sustainable City to illustrate the complex security challenges faced by strategists and implementers. In analysing the functional components of a smart city, the report pinpoints vulnerabilities in the security of the sophisticated technologies that make cities "smart". Following an examination of the conceptual basis of cybersecurity, data protection and resilience, the report provides guidance on how to protect against, detect, respond to, and recover from cyberattacks.

CRITICAL ISSUES

Cybersecurity: A safety net for Smart Sustainable Cities

With the help of a number of sample scenarios, the report explores how any "smart" development needs to account for the fact that the information and communication technology (ICT) systems managing these developments are inevitably and increasingly prone to cyberattacks, carried out by a diverse set of malicious actors, with varying motivations and with growing determination, sophistication and an expanding set of tools at their disposal.

Every new connection opens a new door to cyberattacks

The capabilities of Smart Sustainable Cities will be enacted not only by traditional ICTs, but also by advanced emerging technologies including the Internet of Things (IoT), Radio-Frequency Identification (RFID), Machine-to-Machine (M2M) communications, Bluetooth*, Cloud Computing and Big Data.

We are connecting more and more of the components of a city, exploiting the potential of networking to increase the efficiency and sustainability of city processes. Typical examples of smart-city applications include smart traffic lights and the incorporation of sensors in public and private vehicles to optimize

traffic flow; mobile apps to report minor traffic accidents; smart energy and water grids; and smart meters collecting data on energy and water consumption.

Numerous sensors and devices embedded within a smart city will give rise to unprecedented capabilities to deliver innovative new services to city dwellers. However, increasing ICT complexity and augmented connectivity — together with the vast amounts of data generated — will also increase the vulnerability of smart-city systems to both malicious cyberattacks and unintentional incidents. Every new device connected to an Internet address opens a new door to malicious attacks aimed at disrupting city services or gaining unauthorized access to data.

It is essential that next-generation urban systems are conceived with cybersecurity and data protection in mind if city administrators are to ensure service continuity and the safety and wellbeing of citizens and businesses.

A Smart Sustainable Cities will host an abundance of opportunities for hackers, and the scope of the challenge is clear when we consider that the security of critical infrastructure and services is at stake. Disrupting a city's transportation systems, energy grid or any of the other engines supporting urban life would be sure to bring a city, or at least parts of it, to its knees.

This scenario might sound abstract or unrealistic, but it is in fact a very plausible one given the wide range of technologies used in current urban infrastructure and lessons learnt from past instances of such attacks.

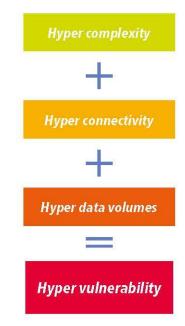
Turning the tide on cyberattacks

Ultimately, cybersecurity, information protection, privacy and system resilience are issues first and foremost relevant to policy and governance, and then to technology.

These themes require the attention of public administrators and decision-makers, especially considering the gravity of the consequences of malicious attacks on critical infrastructure, which would deprive citizens of essential services in areas spanning from transportation to utilities, health care, emergency services, public safety and more.

As it stands, the confrontation between cyberattackers and defenders is asymmetrical, with attackers holding the upper hand.

Attacks are increasingly complex, sustained, persistent, targeted and astute. Defenders are constantly playing a game of catch-up, always a few steps behind attackers. In other words, cyberattackers are leap-frogging defences in ways organizations lack insight to anticipate. Unlike



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CRITICAL ISSUES

Cybersecurity: A safety net for Smart Sustainable Cities

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cyberattackers, cybersecurity is not the core occupation of these defenders, forcing them to strike a balance between the strength of their defences and the business impact of their construction.

Can we restore balance in this fight, tilting the scales in favour of defenders? That depends on the overall cybersecurity posture of an organization. This posture will be determined not only by the composition of technical cybersecurity measures, but also by the prevailing attitude and culture of an organization with respect to cybersecurity. The organization, as it relates to a Smart Sustainable Cities, will be made up of city administrations and the wider ecosystem of smart-city stakeholders.

The ITU—T Technical Report on Cybersecurity, data protection and cyber resilience in Smart Sustainable Cities provides guidance on the effective protection of data and applications from malicious attacks, in terms of processes, people, and technology. With appropriate processes in place, multi-stakeholder collaboration and good governance, technology can provide tangible solutions to the challenges facing cybersecurity, information protection and system resilience.

Appropriate processes, teams and skills should be put in place at the city level, making full use of threat intelligence and Computer Security Incident Response Teams (CSIRTs).

Technical solutions enabling encryption, strong authentication and data-loss prevention should be deployed to protect systems and data, together with suitable back-up and recovery techniques to ensure the resilience of the systems involved and the continuity of the services that they support.

And perhaps most importantly, city leaders should nurture a culture of cybersecurity among the individuals of the extended city administration, building a sound security posture where cybersecurity processes and technical measures are supported by safe attitudes and habits.

The new ITU–T Study Group 20 on "IoT and its applications including smart cities and communities" aims to be a valuable partner to cities intent on building a sound security posture. The group offers technical assistance to city stakeholders as they pursue their smart-city ambitions. One of the chief aims of Study Group 20 is to provide a platform for the collaboration of the many stakeholders in the smart-city arena. Only through collaboration will we understand the contributions expected of us in building a culture of cybersecurity in smart cities.

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โดยแยกเป็นหัวเรื่องย่อยๆ ได้แก่

Government Kiosk



Government Application Center (GAC)

collects all mobile applications

designed and developed by all government agencies



Government Kiosk

provides government information

Ö.

online services for people via kiosk which set up on public area all over Thailand



data.go.th

discloses government data

(more than 700 data sets)

which is considered useful for the general public.

The data can help encourage innovations which benefits the entire society as it can be reused free of charge to develop applications or start new businesses





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2016

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	Chengdu		
	Da Nang		
	Dakar		
	Dambulla		
	Dar es Salaan		
	Dhaka North		
	Dhaka South		

Dharan Municipality

East Nile Locality
Elkhawi Locality
Erbil

Frankfurt

Gadarif City
Gadarif State
Galle
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Jakarta

Kassala State
Kathmandu
Kepri
Kigali
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Matale
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