



BKNIX PEERING FORUM <<<
>>> & ThaiNOG Day

BPF 2022

Summary Report of
BKNIX Peering Forum
2022

Summary Report of BKNIX Peering Forum 2022

THNIC Foundation and BKNIX Co., Ltd. annually host the BKNIX Peering Forum 2022 (BPF2022) to update participants from the Internet Exchange industry on related knowledge, technologies and trends. The BPF also offers participants invaluable networking and peering opportunities.

This year, the BPF2022 was transformed into a hybrid meeting to facilitate online and face-to-face meetings. Topics included network security management, 5G, edge computing, IoT and Internet trends in Thailand as well as the growing trend of the Datacenter market in ASEAN. The organizer also opened an online platform for peering and networking for all participants.

The participants at the BPF2022 comprised a wide range of communications and internet organizations, including Internet Service Providers, Carrier Service Providers, Data Center Providers, Internet Exchange Points and other related service providers, domestic and international from Singapore, Japan, Cambodia, Australia, India, Hong Kong, South Korea, Laos, Malaysia, the Philippines, Pakistan, Myanmar, Bangladesh, Brazil, Mauritius, Sri Lanka, Benin, the USA and Thailand, There were 228 on-site participants who joined the event hosted at the Carlton Hotel Bangkok Sukhumvit, Thailand while 472 participants joined online.

Presentation Topics

The keynote speaker, presenters and panel discussions provided informative and interesting sessions during the BPF 2022.

1. Welcome Speech and Opening Remark

by Dr. Gothom Arya, Chairman of THNICF



2. Privilege Presentations

- **ETIX Everywhere Smart Data Centers**

by Mr. Louis Blanchot, ETIX Everywhere



- **Internet Resilience Index**

by Mr. Naveed Haq, ISOC



3. Session 1: Keynote

- **Welcome to CyberWar**

– Long Term Ramification Unleashed by Russia's War

by Mr. Barry Greene, Akamai Technologies



4. Session 2: 5G, Mobile Edge Computing and IoT

- Reinventing 5G Cloud-Native Networks

by Mr. Minh Bui, AWS



- Edge Computing – NTT Offerings in Japan and Use Cases

by Mr. Kempei Mr. Fukuda and Katsuhiro Ohki, NTT



- Enhancing the performance of DoH using CDN edge compute and edge database

by Mr. Yin Chao, Akamai Technologies



5. Peering personal


Akamai Technologies

8:00 PEERING FORUM
17.5.2022 BKK
BPF 2022 Akamai Technologies 

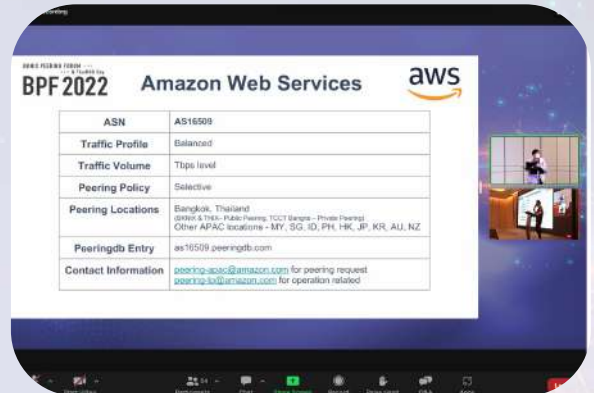
ASN	20940 (CDN), 32787 (DoS Mitigation)
Traffic Profile	Content for AS20940, mostly inbound for AS32787
Traffic Volume	200+Tbps for AS20940, variable for AS32787
Peering Policy	Open for AS20940, selective for AS32787
Peering Locations	100+ Public IXs included BKNIX for AS20940. BBIX, JPX, JPNAP (Tokyo), HKIX, Equinix IX (Sydney, Hong Kong, Singapore), IX Australia, MegaIX (Syd and Mel) and more for AS32787
Peeringdb Entry	as20940.peeringdb.com, as32787.peeringdb.com
Contact Information	peering@akamai.com



Amazon Web Services

8:00 PEERING FORUM
17.5.2022 BKK
BPF 2022 Amazon Web Services 

ASN	AS16509
Traffic Profile	Balanced
Traffic Volume	Tbps level
Peering Policy	Selective
Peering Locations	Bangkok, Thailand Osaka & Fukuoka, Public Peering, TCCT (Bangkok, Osaka, Fukuoka) Other APAC locations - MY, SG, ID, PH, HK, JP, KR, AU, NZ
Peeringdb Entry	as16509.peeringdb.com
Contact Information	peering-apac@amazon.com for peering request peering-ia@amazon.com for operation related



BKNIX



ByteDance



Fastly

8:00 PEERING FORUM
17.5.2022 BKK
BPF 2022 Fastly 

ASN	AS 54113
Traffic Profile	Content
Traffic Volume	100T+
Peering Policy	Selective
Peering Locations	<ul style="list-style-type: none"> Japan [BBIX, JPNAP, JPX, EquinIX] Hong Kong [EquinIX] Singapore [EquinIX, SGIX] Kuala Lumpur [MYIX] Manila, ePLDT Vito Makati [GetaIX] Soel [KINX] Bangkok, TCCF [BKNIX, THIX]
Peeringdb Entry	https://www.peeringdb.com/net/5520
Contact Information	Yutaro Fujii, yfujii@fastly.com Mara Yu, myu@fastly.com

Planned launch Mobile at Jumi!



Globe Telecom

8:00 PEERING FORUM
17.5.2022 BKK
BPF 2022 Globe Telecom 

ASN	4775
Traffic Profile	EyeBalls
Traffic Volume	5Tbps+
Peering Policy	Open
Peering Locations	26 locations : US, Asia, JPN, HKG, SNG, PHL) EU (remote Peering)
Peeringdb Entry	as4775.peeringdb.com
Contact Information	Achie Aleniza, peering@globe.com.ph



- JPIX



- JPNAP



- RouteViews



- SeaIX



- SUNeVision / iAdvantage Ltd.



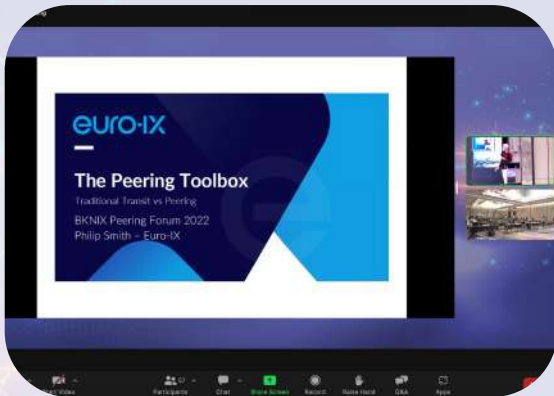
- TELEHOUSE Thailand



6. Session 3: Technology / Content & Peering

- **Peering Toolbox**

by Dr. Philip Smith, NSRC



- **Thailand Internet Landscape**

by Dr. Chalernpol Charnsripinyo, NECTEC



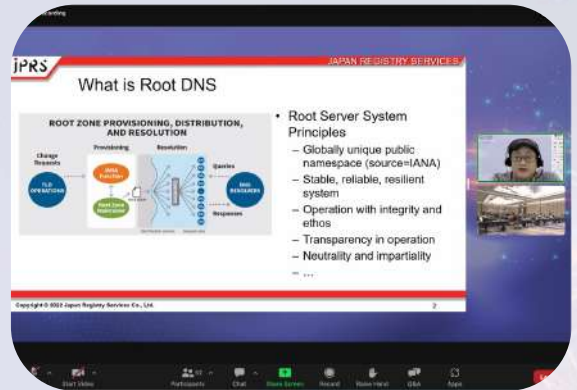
- **Inspiring Thailand Connectivity Hub**

by Ms. Waleporn Sayasit, TCC Technology



- **Root DNS Update: Yet Another Root Server coming to Thailand**

by Mr. Shinta Sato, Japan Registry Services (JPRS)



- **Data Center Authorization and Support by the National Broadcasting and Telecommunications Commission (NBTC)**

by Air Marshal Dr. Thanapant Raicharoen, NBTC Commissioner of



7. Session 4: Panel discussion – “Data Center Market in ASEAN”

Moderator: Dr. Jesada Sivaraks

Panelist:

- Ms. Budsarin Pradityont, ST Telemedia Global Data Centres (Thailand)
- Mr. Juta Pansang, TELEHOUSE Thailand
- Mr. Pierre Patris, ETIX Everywhere



8. BPF Quiz

Moderator: Mr. Jirawat Karanwittayakarn



9. Peering Meeting

The event brought together managers, engineers and business decision-makers of both local and international ISPs, IXPs and Interconnection Service Providers for two days of meetings presentations and networking events, thus, providing great opportunities for those who make peering and interconnection decisions for their network.



Peering Meeting



Sponsors

The Thai Network Information Center Foundation and BKNIX Co., Ltd. thank sponsors who contributed to the BKNIX Peering Forum 2022 and help make the event successful.

Platinum Sponsor:



Titanium Sponsor:



Network Sponsor:



Gold Sponsor:



TCC TECHNOLOGY GROUP



Silver Sponsor:



In-kind Sponsor:



Participants

The participants at the BKNIX Peering Forum 2022 comprised a wide range of communications and internet organizations as shown below;

On-site participants	Number of participants
Australia	1
Hong Kong	1
India	2
Japan	6
Korea South	1
Malaysia	2
Singapore	14
Thailand	200
Other	7

Online participants	Number of participants
Australia	4
Hong Kong	5
Japan	5
Laos	5
Malaysia	2
Nepal	1
Philippines	1
Singapore	7
Taiwan	1
Thailand	434
United Kingdom	1
United States	6

Sponsor Fellowship

The BKNIX Fellowship program aims to provide an opportunity for network engineers and security personnel as well as network Officers from Southeast Asia to broaden their IXP network and knowledge. ISOC and AWS have provided support two participants, Mr. Nawin Thammara of Chiang Mai University and Ms. Kuljaree Tantayakul of Prince of Songkla University with fellowships that enabled them to attend both the BPF2022 and post-event workshop, titled “Routing Infrastructure and Security Operations Workshop” (25 - 27 May 2022).

Sponsor Fellowship :



Appendix A

Agenda 23–24 May 2022

BPF2022 Agenda - 23 May 2022

09.30 - 10.00	Registration
10.00 – 10.15	Welcome Speech and Opening Remark - Dr. Gotham Arya, THNICF Group Photo Session Present the token of appreciation to all sponsors
10.15 – 10.45	Privilege Presentation <ul style="list-style-type: none">ETIX Everywhere Smart Data Centers by Mr. Louis Blanchot, CEO of ETIX Everywhere (Onsite)Internet Resilience Index by Mr. Naveed Ul Haq, ISOC (online)
10.45 – 12.00	Session 1: Keynote Welcome to CyberWar - Long Term Ramification Unleashed by Russia's War by Mr. Barry Greene, Akamai Technologies (online)
12.00 – 13.00	Network Lunch
13.00 – 14.00	Session 2: 5G, Mobile Edge Computing and IoT <ul style="list-style-type: none">Reinventing 5G Cloud Native Networks by Mr. Minh Bui, AWS (online)Edge Computing - NTT Offerings in Japan and Use Cases by Mr. Kempei Fukuda (Online), NTT & Katsuhiro Ohki, NTT (Onsite)Enhancing performance of DoH using CDN edge compute and edge database by Mr. Yin Chao, Akamai Technologies (online)

14.00 – 14.15	Peering personal - Akamai Technologies, Ryan Lui (Online) - BKNIX (Onsite) - Fastly, Maria Yu (Online) - JPIX, Mawatari (Onsite) - RouteViews, (Onsite) - SUNeVision / iAdvantage Ltd., Mike Ng (Online) - TELEHOUSE Thailand, Juta Onsite (Onsite)	- Amazon Web Services (Onsite) - ByteDance, Jonathan lee (Onsite) - Globe Telecom, Achie Atienza (Online) - JPNA, Hidekazu Yokouchi (Onsite), Mizuki Kobayashi (Onsite) - Sea IX, Choon Hau Cheah, Dong Liang (Onsite)
14.15 – 14.30	Break	
14.30 – 15.30	Session 3: Technology / Content & Peering <ul style="list-style-type: none"> • Peering Toolbox by Dr. Philip Smith, NSRC (Onsite) • Thailand Internet Landscape by Dr. Chalernpol Charnsripinyo, NECTEC (Onsite) • Inspiring Thailand Connectivity Hub by Ms. Waleeporn Sayasit, TCC Technology (Online) • Root DNS Update: Yet Another Root Server coming to Thailand by Mr. Shinta Sato, Japan Registry Services (JPRS) (Online) 	
15.30 – 15.45	Break	
15.45 – 16.00	"แนวทางการอนุญาตและสนับสนุน Data center ของ กสทช" by Air Marshal Dr. Thanapant Raicharoen, Commissioner of NBTC (Onsite)	
16.00 – 17.00	Session 4: Panel discussion – “Data Center Market in ASEAN” Moderator: Dr. Jesada Sivaraks Panelist : <ul style="list-style-type: none"> • Ms. Budsarin Pradityont, ST Telemedia Global Data Centres (Thailand) • Mr. Juta Pansang, TELEHOUSE Thailand • Mr. Pierre Patris, ETIX Everywhere 	
17.00 – 17.30	BPF Quiz Moderator: Mr. Jirawat Karanwittayakarn	
17.30 – 20.30	Peer and Cocktail	

ThaiNOG day - 24 May 2022

09.30 - 10.30	Session 1: Mikrotik vs Fortigate (Thai Language) (onsite) by Mr. Pongpipat Thunyawiraphap by Mr. Supadej Suthiphongkanasai
10.30 - 10.45	— Break —
10.45 - 11.30	Session 2 (Thai Language) <ul style="list-style-type: none">• Extending VXLAN-EVPN to the Campus and Data Center Interconnect (DCI) by Mr. Therdtoon Theerasasana, Cisco Systems (onsite)• Network automation & AIOps by Mr. Pichan Pratummal, Juniper Networks (online)
11.30 - 12.15	Session 3 (English Language) <ul style="list-style-type: none">• RPKI operations by Dr. Philip Smith, NSRC (onsite)• An Impactful Security BCP by Mr. Barry Greene, Akamai Technologies (online)
12.15 - 13.30	— Lunch —
13.30 - 15.00	APNIC / ThaiNOG - Securing DNS with DNSSEC (Part 1) by Ms. Shane Hermoso, Training Delivery Manager by Mr. Md. Abdul Awal, Network Analyst / Technical Trainer
15.00 - 15.15	— Break —
15.15 - 16.45	APNIC / ThaiNOG - Securing DNS with DNSSEC (Part 2) by Ms. Shane Hermoso, Training Delivery Manager by Mr. Md. Abdul Awal, Network Analyst / Technical Trainer
16.45 - 17.00	Wrap-up & Closing

Appendix B

Speakers Biology

Dr. Gothom Arya



Chairman of the THNIC Foundation

After obtaining a Doctoral degree in France, I returned to teach electrical engineering at Chulalongkorn University for 28 years. I then became an Election Commissioner for 4 years and a Registrar for 2 years at the Asian Institute of Technology. Since then I have been working at Mahidol University on Peace Building, especially in the Far South of Thailand. I also serve in many civil society organizations including the THNIC Foundation as its chairman.

Mr. Louis Blanchot



CEO of ETIX Everywhere

Blanchot is leading his company in providing Global Housing Solutions from small end-users to industry-leading Datacenter providers.

Mr. Naveed Ul Haq



Regional Director, ISOC

Naveed Ul Haq is the Asia-Pacific Regional Director for Infrastructure and Connectivity, leading technical, policy, and advocacy work in Internet access, infrastructure, and community development domains. He is an experienced ICT practitioner, with more than 19 years of experience working with governments, telecommunication operators, development partners, service providers, and civil society organizations. Prior to joining the Internet Society, Naveed was working with Pakistan Telecommunication Authority (PTA), Government of Pakistan, as Assistant Director, Information & Communication Technologies (ICT). He is also an alumni member of ICANN's fellowship, ISOC's Next Generation leadership, and Diplo Foundation's Internet Governance capacity building program.



Mr. Barry Raveendran Greene

Principal Architect, Akamai Technologies

For over 30 years, Barry Raveendran Greene has applied his organizational leadership, business acumen, “cyber-security” & networking experience to the expansion of the Internet. Barry’s Operator-Centric innovations have cleared the path to Internet success by finding solutions for DDOS, network scalability, and content distribution. Barry has been responsible for pioneering tools for DDOS defense (the Clean Pipe’s Architecture, Netflow, FlowSpec, etc.). He has orchestrated industry-wide responses to direct threats to the Internet (Code Red, Slammer, Conficker, DCWG, and much more). Barry works at all levels of the industry from the CxOs to the creative core that drives networking. He is a “cyber-security” advisor to governments and was responsible for building the “global trust community” of security professionals (the underground white hat community which enables effective takedowns). Barry has instigated, created, deploy, and driven many of the security innovations used in today’s anti-DDOS, Vulnerability management, service provider security, and DNS security solutions.

Barry comes to Akamai in the Carrier, Security, and Enterprise BU as a Principal Architect. He is part of Akamai’s continued investment to deliver services that make the Internet Fast, Reliable, and Secure. Barry is an expert in Edge Compute deployment architectures and scaling services throughout the Internet. Those technical skills are combined with Strategic foresight to understand where the industry is heading, building the capabilities, capacity, and deployment experience to be ready for the Internet’s next wave.



Mr. Minh Bui

Senior Solutions Architect, Amazon Web Services (AWS)



Mr. Kempei Fukuda

VP, Services Grand Design, NTT LTD.

Kempei joined NTT in 1989 after getting bachelors degree from International Christian University, Tokyo. Since 1993, has devoted most of the time to global and internet business for NTT. Starting from participating in the buildout and operation of R&E network, moved on to creating NTT's first global internet backbone in 1997, and now being the head of engineering for internet services offered by NTT Communications. He also participated in some of the submarine cable projects, and was board member of PCLC, owner of PC-1 cable system.



Mr. Katsuhiko Ohki

SE for APAC, NTT Ltd

Ohki joined NTT in 2014 after getting master's degree from London University, School of Oriental and African Studies, London. Since 2014, He has devoted most of the time to global and internet business for NTT. Starting from NTT Communications' Global IP Network (GIN) Customer engineering work in Japan, and then transferred to Hong Kong in 2015 to take care Product management and business plan for GIN. Now having the Responsibilities focused on supporting GIN sales and business development for the whole ASEAN region.



Mr. Chao Yin Loong

Enterprise Architect, Akamai Technologies

Chao Yin Loong has more than 20 years in the video and network industry. He started his career at MediaCorp Singapore where he implemented the first DVB-T network in South East Asia. He has worked at Cisco Systems implementing various OTT video streaming infrastructure for customers. Currently he is a Technical Solutions Architect with Akamai Technologies helping large media customers architect and deploy a robust streaming architecture from both an application and infrastructure point of view.



Dr. Philip Smith

NSRC

Philip Smith has been working in the Internet industry since the early 1990s after catching the Internet bug in the mid 1980s while at University. He runs his own consulting company, PFS Internet Development. Philip spends some of his time working for the Network Startup Resource Centre as a Senior Network Engineer and Training Coordinator, assisting with Network Operations Groups coordination, and providing network design assistance and training around the Pacific, South and South East Asia, the Middle East and Africa. He previously worked at APNIC as Learning and Development Director, where his team's responsibilities ranged from Training, APNIC Conferences and Events, Network Operations Group support, Technical Programmes such as IPv6 Deployment, Internet Exchange Points, and Rootname Server deployments, and the Information Society Innovation Fund grants programme.

Before APNIC, he was a member of the Internet Infrastructure Group in CTO Consulting Engineering of Cisco Systems for more than thirteen years. He also served for 3 years on the Board of Trustees of the Internet Society. Prior to joining Cisco, he spent five years at PIPEX (incorporated into UUNET, and now part of Verizon's global ISP business), the UK's first commercial ISP, where he was Head of Network Engineering. As is common with startups in a rapidly growing marketplace, Philip gained deep experience in all of the engineering roles in an ISP, from support engineer, network operations, engineering, and development, before assuming responsibility for the entire UK network operation. He was one of the first engineers working in the commercial Internet in the UK, and he helped establish the LINX Internet Exchange Point in London and played a key role in building the modern Internet in Europe.

Over the last decade and a half, Philip has been actively involved in providing consultation and advice to ISPs primarily in the Asia Pacific region, but also to other providers around the world. He concentrates specifically on network strategies, design, technology, and operations, as well as configuration, scaling, and training. He has played a major role in training ISP engineers, co-founding the Cisco ISP/IXP Workshop programme, and providing ISP training and tutorials at many network operations events around the world, including NANOG, RIPE, APNIC, SANOG, MENO, AfNOG, PacNOG and APRICOT conferences. His other key technology interests include IPv6, BGP, OSPF and IS-IS, and network performance and data analysis.

He has also been working to promote and develop the Internet in the entire Asia Pacific region and has been actively involved in bringing the Internet to some countries in the region. He also is actively involved in establishing Internet Exchange Points around the world, as well as advising on peering and inter-ISP relationships across the industry. He is Chair of the Board Directors of APIA (the Asia Pacific Internet Association), the organisation which organises and manages APRICOT, the region's annual ISP operations and technology conference and co-chair of APOPS (the region's ISP operational forum). Philip is also involved in the organisation committees of MENO, SANOG and PacNOG, helps out with several country NOGs, and is a past chair and member of the NANOG Steering Committee (now NANOG Board).

Philip also has a particular research interest in the growth of the Internet and provides a detailed daily analysis of the IPv4 routing table, from an Asia Pacific perspective, to the general operator community worldwide.

Philip is a Doctor of Philosophy and has a First Class Honours Degree in Physics. A native of Scotland, he lives in Brisbane, Australia.



Dr. Chalernpol Charnsripinyo

Senior specialist and Director of Technology Support Services Division at National Electronics and Computer Technology Center (NECTEC)

Dr. Chalernpol has participated in Internet development in Thailand since 1992.

He is a founding member of Thailand IPv6 Association, and Thailand Research Education Network (ThaiREN) Association. He has been involved in several national ICT projects and international network infrastructure projects in the past 20+ years.



Ms. Waleporn Sayasit

GM – Corporate Communications, TCC Technology

As part of TCC Technology management team and spearheading strategies, her devotion greatly reflects continuous growth for TCC Technology and magnifying expansion beyond regional level. As General Manager – Corporate Communications, Ms Waleporn Sayasit is corporation’s spokesperson ambassadating the company, conveying appropriate messages regarding public announcement as well as maintaining relationship with company’s local and international audiences including clients, partners, media, and other opinion leaders.

Prior to joining TCC Technology, Mrs. Sayasit has well proficient background of finance and investment proven by her experiences of business analysis and development of corporate strategies. Her academic background:

BA in Economics from Thammasat University, Thailand and MBA in MIS (Management Information System) from Western New England College, (Presently Western New England University, Massachusetts, USA) brought her to engage in Technology Ecosystem, starting her role as Equity Dashboard Project and afterward Business Development Manager and Marketing Director in Technology-related fields.



Mr. Shinta Sato

General Manager, Research and Development Department
Japan Registry Services Co., Ltd. (JPRS)

Shinta Sato is currently General Manager of Research and Development Department at Japan Registry Services Co., Ltd. (JPRS) in Tokyo, Japan. In his 20+ years of experience working for JPRS, he has been involved in operation, administration and planning of TLD DNS services and TLD registry services. During the period, he worked for introducing IPv6, DNSSEC, and IP Anycast technologies to .JP DNS. In 2005, when JPRS started to jointly operate the M-Root with WIDE Project, he joined the M-Root operation team. He is a member of ICANN RSSAC Caucus since 2014.



Air Marshal Dr. Thanapant Raicharoen

Commissioner of The National Broadcasting and Telecommunications Commission (NBTC)

He has an interesting career such as a Programmer at SIEMENS Company in Germany, a Visiting Researcher at the University of Maryland College Park, U.S.A., Chief of Plan and Policy Section in the office of Information Technology, Director of Information Technology Division, and Director of Plan and Engineer Division for Defence Information and Space Technology Department, Senior Specialist for the Office of the Permanent Secretary for Defence, Deputy Secretary-General of NBTC and then become the Commissioner of NBTC.



Dr. Jesada Sivaraks

Jesada Sivaraks received the B.E. degrees, in Telecommunications Engineering from KMITL, Thailand in 1990. He graduated M.Sc. and Ph.D. in Electrical Engineering from Oklahoma State University and Florida Atlantic University in 1997 and 2001, respectively. Working experience, he joined the military information department of Supreme Command Armed force in 1991-1994. In year 2001, he was the principal Engineer at Protura Wireless, Half Moon Bay, California with 3 patent pending at WIPO (World Intellectual Property Organization). He involved various fields of wireless communication such as designing the antenna for mobile phone and setting the method of hand/head effect to mobile terminal.

He has joined to TOT as engineer of International Telecommunications. Also, he was one of the 3G Strategy Team in 2004-2007 and with the Wireless Business group at TOT. Now, he takes care of the business strategy of TOT's Wireless business group. Moreover, he has been invited to be the special Guest speaker or instructor in various classes of Graduate students in many universities.

He was the Secretary to the National Broadcasting and Telecommunication Commission Vice Chairman. As the regulator role, he is member of variety sub commission such as the sub commission of preparation for 2.1GHz Spectrum auction, the sub commission of preparation for 1800MHz Spectrum, the sub commission of mobile spectrum roadmap, the sub commission of framework of Thailand satellite licensing, etc..



Ms. Budsarin Pradityont

General Manager, ST Telemedia Global Data Centres (Thailand)

Ms. Budsarin is responsible for driving major improvements across the general management, operation, and sales functions.

Prior to joining STT GDC Thailand, Budsarin was a data centre industry leader and veteran with more than 20 years of experience. She held several executive roles at T.C.C. Technology Co., Ltd. (TCCtech) including General Manager. Budsarin was one of the founding members of TCCtech and was an instrumental force in co-managing the establishments of data centres and designing other value-added services i.e., connectivity services and SAP managed hosting services for top enterprises and multinational companies. Her expertise also lies in business development, strategic planning, and sales.

Budsarin graduated with a Master of Science in Management Information Systems from the University of Baltimore, USA and a Bachelor's Degree in Business Administration (BBA) from Thammasat University, Thailand.



Mr. JUTA PANSANG

Director, Head of Sales & Marketing, TELEHOUSE Thailand

He is a Director, Head of Sales & Marketing at TELEHOUSE Thailand since January 2022. In his previous work, he joined KDDI Corporation Head Quarter in Japan since 2004. While at KDDI, he had 6 years' experience in Corporate Solution Engineer Department, 2 years in Information System Department. During a career he also been assign the key role for IT Infrastructure Integration of well-known Bank in Thailand and after supported KDDI global business expansion Data Center in Thailand, and had established the new company as TELEHOUSE Thailand He worked with various project with 18 years in Telecommunication industry at Global Business KDDI Japan, KDDI Singapore and KDDI Thailand. He graduated bachelor's degree from Osaka University and earned a master's degree from The University of Tokyo, on the major of Telecommunication Engineering by receiving Monbusho Scholarship to study in Japan.



Mr. Pierre Patris

ETIX Everywhere

He serves as Business Development Advisor Asia, In charge of identifying new locations for data center footprint expansion in Asia.



Mr. Jirawat Karanwittayakarn

Technology Evangelist, LINE Thailand

Jirawat is a software developer with over 10 years of experience. He currently works at LINE Thailand, as a Technology Evangelist. Since discovering LINE APIs and Firebase, he has spent most of his time learning about them.

He lives in Bangkok, Thailand where he is actively involved in the local LINE and Firebase communities such as speaking at conferences, writing blog posts and creating code samples all over Thailand. He also founded the largest Thailand Firebase developer group with over 10,000 members.

His passion is to help developers learn and adopt new mobile development methodologies and frameworks like LINE APIs and Firebase. While he is not developing, he likes to spend time with his wife and children.



Mr. PONGPIPAT THUNYAWIRAPHAP

เริ่มใช้เน็ตเวิร์กในยุค ArcNET ความเร็ว 1.7Mbps และ 10Base-2 ความเร็ว 10Mbps ในยุคที่ระบบปฏิบัติการยังเป็น Novel Netware อยู่ในวงการสื่อสารตั้งตั้งแต่ยุคโมเด็ม และเป็น SYSOP ของ BBS ก่อนที่จะมีการให้บริการอินเทอร์เน็ตในประเทศไทย

1997 ออกแบบและวางระบบเน็ตเวิร์ก ขนาด 600 จุด ครอบคลุม 5 อาคาร ผู้ใช้งาน 2,400 คน

1999 บริหารระบบเน็ตเวิร์กที่มีคอมพิวเตอร์มากกว่า 1,300 เครื่อง

2000 ตำแหน่ง Technology Committee โรงเรียนนานาชาติร่วมฤดี ได้รับรางวัล Apple Distinguished School จากบริษัท Apple เป็นโรงเรียนแห่งที่ 2 ของ Asia ที่ได้รับรางวัลนี้ เนื่องด้วยการนำเทคโนโลยีเข้ามาเสริมระบบการศึกษาอย่างมีประสิทธิภาพ

2003 เป็น Microsoft Certified Trainer

2008 เป็น IT Director ให้กับบริษัทมหาชน และรับผิดชอบระบบออกอากาศดิจิทัลที่เป็น High Availability

2013 เป็น Mikrotik Certified consultant

2018 เป็น Mikrotik Certified Trainer

ปัจจุบัน เป็นผู้เชี่ยวชาญอุปกรณ์ Mikrotik และเน็ตเวิร์ก เป็นที่ปรึกษาให้กับองค์กรต่างๆ ตั้งตั้งแต่พนักงานจำนวน 30 – 1,200 คน ทั้งทั้งบริษัทมหาชน, โรงพยาบาล, โรงแรม, อพาร์ทเมนท์, บริษัท SMB ฯลฯ



Mr. Supadej Suthiphongkanasai

Founder, VR Online Co.,Ltd.

Supadej Suthiphongkanasai (Founder, VR Online Co.,Ltd.)

- Founder VR Online Co.,Ltd.
- Mikrotik Certified Trainer
- Former Director of Thai Webmaster Association
- Former MC of Beartai Hitech and TechOffside



Mr. Therdtoon Theerasasana

Technical Solutions Architect, Cisco Systems

He has more than 25 years experience in consulting, designing, deploying, lecturing and troubleshooting many Enterprise, Public Sector, Education, and Service Provider networks. He specializes in IP routing, IP Multicast, IPv6, MPLS, Cable Modem, Data Center, Software Defined Networking (SDN) and Service Provider's related Technologies.

Therdtoon joined Cisco Systems in 2000 as a customer support engineer at Cisco TAC, Sydney, Australia. He is currently holding Technical Solutions Architect position and responsible for Thailand and Indochina regions.

He also holds three CCIE Certifications, Routing & Switching, ISP Dial and Service Provider.

Therdtoon has bachelor degree in Electronics Engineering (2nd Class honours) from KMITL. Before joining Cisco, He was the Technical Support Engineer at Dimension Data Thailand for 3 years and Technical Manager at NetOne Network Solution for 5 years.



Mr. Pichan Pratummal

System Engineer, Juniper Networks

I started my career with PTT Plc. as a Network Engineer. PTT Plc. At PTT I learned a lot of technology in the network area from Multi-Location Data Center and multiple WAN technologies such as Frame relay and MPLS. While I work at PTT, I spent my own saving money to take a CCIE Bootcamp course at India and take CCIE exam which I pass in 2011.

To seek for more challenge job, I left PTT and join 3D Networks (Thailand) as a Senior Network Engineer. I become more focus on Unified Communication Technology. After 2 years in Postsale Team, I have changed my role to Presale and start to provide consult and design the network for the customer. This changes me in a lot of ways, especially in my soft skill in communication and presentation to the customer. I also have an opportunity to work overseas while I work at 3D Network.

In 2016 I join Dataone Asia(Thailand) as a Network Specialist and work mainly for Juniper Network Solution. I have an opportunity to be a speaker for many events that were held by Dataone and Juniper(Thailand). I work closely with Juniper(Thailand) and deliver a successful solution to many large Service Provider and Enterprise. I also take this as an opportunity to have a deep dive study in Juniper Network Certification Program. I also pass JNCIE exam in year 2018 as a second Expert Level Exam in my career life.

In 2018, I joined IBM as a Network Solution Manager which I take charge of providing various solution from multi-vendor such as Cisco and Juniper to Financial Sector Customer. I work mainly with Software Define Network Solution such SDWAN, SD-Access.



Ms. Shane Hermoso

Network Operations Engineer - Senior Technical Trainer, APNIC

Network operations engineer and technical trainer for 10+ years in the Internet industry. Skilled in IPv6, Network security, DNS and Routing.



Mr. Md. Abdul Awal

Network Analyst / Technical Trainer

Awal works for BGD e-GOV CIRT, the National CSIRT in Bangladesh. He manages the network and security operations of the National Data Center.



Mr. Kittinan Sriprasert

Technical Manager, Bangkok Neutral Internet Exchange (BKNIX)

Kittinan Sriprasert is the Technical Manager at Bangkok Neutral Internet Exchange (BKNIX) – First Layer 2 IXP in Thailand. He is also the first engineer who works at BKNIX from the very beginning. He is responsible for developing overall infrastructures including network planning, operational optimization, or maintenance and services to enhance the performance and security of internet exchange infrastructures. Before BKNIX, He was a network engineer at Advance Info Services (AIS), Mobile & Broadband Operator in Thailand where his responsibilities were troubleshooting a network problem in various kind of services on different vendors and coordinating with several NOC from other service providers and also field engineers all over the country. He usually contributes to the workshop such as BGP, Network Monitoring, etc. with University Network (UniNet) and Thailand Research and Education Network (ThaiREN). He is also a member of the Thai Network Operators Group as a steering committee.

Appendix C

Press Release

BKNIX unveils its strength after COVID, hosting a hybrid Peering Forum to bolster its position as a regional hub

BKNIX Company Limited (BKNIX) together with the Thai Network Information Center Foundation (THNIC) hosted the hybrid, onsite-online, BKNIX Peering Forum (BPF2022) on 23-24 May 2022 at the Carlton Hotel Sukhumvit, Bangkok, Thailand, after last year, when it was organized only online due to the Covid-19 pandemic. This year, there was a large number of registered participants, both face-to-face and online further demonstrating the growing digital driving force because of current uncertain conditions. At the event, ATK testing was conducted to help prevent the spread of Covid-19 and ensure the safety of attendees.



Dr. Gothom Arya, chairman of the Thai Network Information Center Foundation (THNIC), spoke at the opening ceremony, saying how it was a pleasure that all could reunite with each other in a very warm face-to-face meeting. Moreover, after two years of social distancing due to the Covid-19 pandemic, this was the first on-site meeting with a bigger attendance than usual. Unfortunately, as the pandemic is on its way out, another scourge has stepped in, in the form of war.

He went on to say, “One of the crucial weapons in this war are complex computer systems capable of launching “Cyber Attacks” in a borderless manner on enemy systems. Nowadays, “Cyber War” can have an impact on the whole world. Thus, we are fortunate to have Mr. Barry Raveendran Greene of Akamai Technologies as the keynote speaker on the topic, ‘Welcome to Cyber War – Long Term Ramification Unleashed by Russia’s War’. His speech could serve as a wake-up call to the dangers of cyberwar and to prepared to cope with it.”

“Today, it seems the lockdowns to reduce the spread of the virus in the past has resulted in a growing demand for internet usage. I am delighted that we initiated the Thailand Neutral Internet Exchange Center several years ago and are now contributing to the increased capacity of large data exchange. We intend to make BKNIX the center of internet formation exchange in the region to support future growth.”



Ms. Patama Bunnag, Manager of BKNIX Co., Ltd. said, “BKNIX is moving towards becoming a regional hub. This year, the amount of data exchange at BKNIX has reached 100 Gbps for the first time. We have tried to add more Points of Presence, or PoP, for wider coverage. To prepare BKNIX to become a regional hub in the near future, we are collaborating with the hyper-scale data center provider ST Telemedia Global Data Centers, or STT GDC Thailand, to establish a new BKNIX Point of Presence that will allow Tera-bit data exchange. Moreover, we have our first two members connected to our Chiangmai PoP, Chiangmai University, and UniNet. The goal is to increase the stability of the connection and increase the efficiency of internet data exchange in the northern region by reducing central dependency, as this should evolve into another important internet exchange point of the country.”

This year, the BPF2022 was transformed into a hybrid meeting to support both online and face-to-face meetings. The topics covered, which are currently in the spotlight, included Network Security Management, 5G, Edge Computing, IoT, and Internet Trends in Thailand, as well as the growing trend of the Data Center Market in ASEAN. The organizer also opened an online platform for peering and networking for all participants.

This event was supported by ISOC, ETIX Everywhere, AWS, Cable Connect, APNIC, NBTC, Netflix, TCC Technology Group, Telehouse, NTT Global IP Network, Google, Opendgear, JPNAP, Meta, BBIX, STT GDC Thailand, Console connect, True IDC, .TH and NSRC. Participants had the chance to meet key representatives from these organizations via the online meeting and socializing platform.

Participants at the BKNIX Peering Forum 2022 came from a wide range of communications and internet organizations, including internet service providers, carrier service providers, data center providers, Internet Exchange Points, and other related service providers, both domestic and international, coming from Singapore, Japan, Cambodia, Australia, India, Hong Kong, South Korea, Laos, Malaysia, the Philippines, Pakistan, Myanmar, Bangladesh, Brazil, Mauritius, Sri Lanka, Benin, USA, and Thailand, with more than 300 registered participants.

For more information and to catch up with the event, please visit <https://peeringforum.bknix.co.th>.

BKNIX, or Bangkok Neutral Internet Exchange, is the first neutral Internet Exchange Point (IXP) service provider in Thailand. Established in 2015, it has been operated under the Thai Network Information Center Foundation (THNICF), allowing members to connect through powerful devices with world-class technology. It is an important infrastructure that supports the internet exchange in the country with high data volumes at the terabits per second (Tbps) level.