



APRICOT 2014

THE ASIA PACIFIC'S PREMIER INTERNET SUMMIT



PETALING JAYA, MALAYSIA

18–28 February 2014

Organized by **apia**  **APNIC**

Sunway Resort Hotel & Spa

APNIC 37



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 **APRICOT 2014**





Welcome Message

Dear APRICOT Delegate,

As you will no doubt be aware, APRICOT 2014 was originally intended to be held in Bangkok. But with the escalating political protests in Bangkok during December 2013 and January 2014, and the Thai Government's declaration of a state of emergency for the city of Bangkok in mid-January, it was with a very heavy heart that the APIA Board accepted the advice of our hosts, True and NECTEC, to relocate APRICOT 2014. The APIA Board are sorely disappointed at the lost opportunity for the Internet industry in Thailand, as this was to be our first return to Thailand since APRICOT 2002. The Board very much hopes to bring the conference back to Thailand in more positive circumstances in the future.

APRICOT's backup venue, in times of emergency, has traditionally been in Kuala Lumpur, Malaysia; it is centrally located in our region, easy to travel to for most, and has a large number of suitable venues to hold our conference. APNIC, who now operates the Secretariat on behalf of APIA, agreed to take on the challenge of relocating an almost completely prepared conference from Bangkok to Petaling Jaya (a satellite city of Kuala Lumpur).

Preparing the venues and infrastructure for a 500+ person conference as diverse and varied as ours is no small undertaking and the team, superbly led by Molly Cheam, has performed many miracles to make APRICOT 2014 a reality. The team includes staff at APNIC as well as the many volunteers who contribute their time and talents to APRICOT year in year out. The APIA Board greatly appreciates all contributions made towards the preparations and success of this event.

I would like to welcome all participants to APRICOT 2014. The regular programme of workshops continues, with 5 workshops on offer covering Routing, Advanced BGP,

Network Management, MPLS, and Security. The second week of the APRICOT summit includes tutorials and conference sessions, with keynotes from Professor Kanchana Kanchanasut, Dr Nii Quaynor and Pindar Wong.

The APIA Board would like to thank the tremendous support which True and NECTEC have provided to APRICOT in the months of preparation work during 2013. The Board would also like to thank APNIC for their considerable efforts in moving the conference. And the Board would like to thank the many volunteers from the community in the APRICOT Management, Programme, Fellowship and Technical Committees who have freely given their time and expertise to help create the APRICOT experience.

I hope all APRICOT 2014 delegates have an enjoyable conference and most importantly are able to share their experiences with fellow delegates and with colleagues who were unable to participate this year.

Philip Smith,
Chairman APIA Board



Welcome Message

It gives me great pleasure to welcome you to Petaling Jaya and APRICOT 2014. I believe this year is set to be an important one in the Internet's history and it is exciting to really begin the year in earnest at APRICOT 2014.

Many commentators have declared 2014 to be the year in which the "Internet of Things" (IoT) will become reality, with Internet-connected cars, TVs, toasters, tennis racquets and more entering our lives. Predictions vary wildly as to the number of devices connected to the Internet by 2020: anywhere between 26 billion and a huge 200 billion devices!

While the numbers are debatable (and sometimes entertaining), the serious underlying fact is a vastly increasing amount of devices are connecting to the Internet and, as we all know, demanding IP addresses. How network operators

handle this coming explosion in devices will be interesting to watch. IPv6 was effectively made for the IoT, and the IoT will be seriously constrained without it. Will operators accelerate the transition to IPv6; will they continue to increase network complexity by relying on Carrier Grade NAT (CGN); or will they do both, in a balanced dual-stack approach?

You'll hear plenty about the transition to IPv6 during the week at APRICOT 2014, and in particular Wednesday's plenary session the "Anatomy of CGN" should spark some healthy debate. Also on the agenda during the conference are DNSSEC, increasingly coming into focus in today's security environment; and IP address policies, with several new proposals up for discussion during the APNIC policy sessions.

Alongside the latest technology and policy content, APRICOT 2014 will also address the future of Internet co-operation, following the Montevideo Statement, the IGF in Bali, and the ongoing discussions on /1net. How the debate around Internet co-operation evolves in 2014 will be largely up to you, the participants in the Internet community. What are your views on how the Internet should develop in future? How do you believe IP addresses should be managed? Where should the global community discuss and address these issues? Are you and your

organization willing to play an active role in the future of Internet co-operation in the Asia-Pacific and beyond?

Following the tradition of recent years, there will be an i-Governance session at APRICOT 2014 on Wednesday, where some of these questions will be discussed with a diverse and distinguished panel. I strongly encourage you to attend this session and take an active role – not only do we want to hear your views, but your voice has an equal impact in our shared multistakeholder model.

As usual, those who could not physically join us here in Petaling Jaya can still participate in APRICOT 2014 through a variety of online channels. You can enhance your conference experience by getting involved in the event online too, via the APRICOT website or on social media, and I encourage you to use the #apricot2014 hashtag on all your social media posts to add to the discussion.

I do hope to meet with as many of you as possible during the week and hear your thoughts on what's going on in your organization. Enjoy APRICOT 2014 and the warm hospitality of our Malaysian hosts.

Paul Wilson

Director-General, APNIC

Conference Highlights

Anatomy of a CGN

09:00-10:30
Wednesday, 26 February 2014
Grand Caymans, Level 10

Hear about the latest updates on CGN from network operators and scientists who are testing and monitoring CGN use. Be prepared for a robust discussion among panellists and audience participants.

APIIPv6TF and IPv6 Readiness Measurement BoF

16:00-19:00
Wednesday, 26 February
Grand Caymans, Level 10

This is a collaborative BoF, held together for the first time at APRICOT 2014. Participants will get an update from various economies on their v6 deployment and measurement methods and outcomes.

IPv6 Tutorials

NEW - 464XLAT: Breaking Free of IPv4

16:00-17:30
Tuesday, 25 February
Bahamas 1, Level 12

Attend the world's first 464XLAT Tutorial with Cameron Byrne from T-Mobile. This tutorial will review the 464XLAT architecture (RFC6877) and how it applies to mobile and broadband networks to enable growth beyond IPv4, while minimizing translation, tunnelling and positively incentivizing end-to-end IPv6 deployment.

IPv6 in Mobile Networks

14:00-15:30
Tuesday, 25 February
Bahamas 1, Level 12

This tutorial complements the 464XLAT tutorial and focuses on a big picture of IPv6 implementation in mobile networks.



Conference Highlights

From Governance to Cooperation: Decoding the Puzzle

14:00-15:30
Wednesday, 26 February
Grand Caymans, Level 10

Share your thoughts on the ongoing discussions about the evolution of global multistakeholder Internet cooperation. This session is a follow-up on the Montevideo Statement, and includes discussion on Net Mundial and /1net.

APNIC 37 Policy Special Interest Group (SIG)

09:00-15:30
Thursday, 27 February
Grand Caymans, Level 10

Discuss the latest proposals and have your say in how Internet number resources are managed.

APNIC 37 APNIC Member Meeting

09:00-15:30
Friday, 28 February 2014
Grand Caymans, Level 10

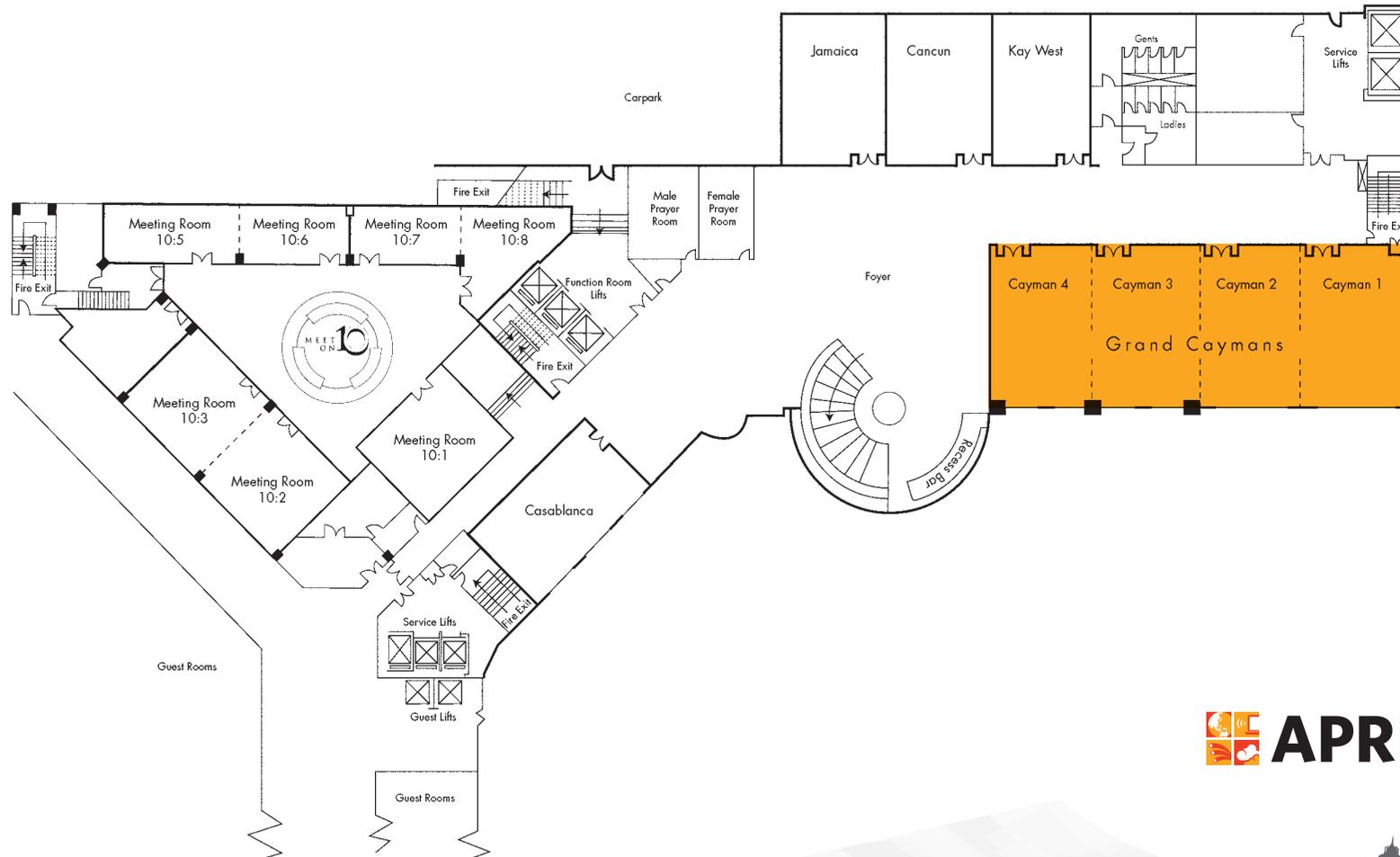
Get the latest updates on APNIC's operations and activities.

 **APRICOT 2014**



Venue Layout

Level 10

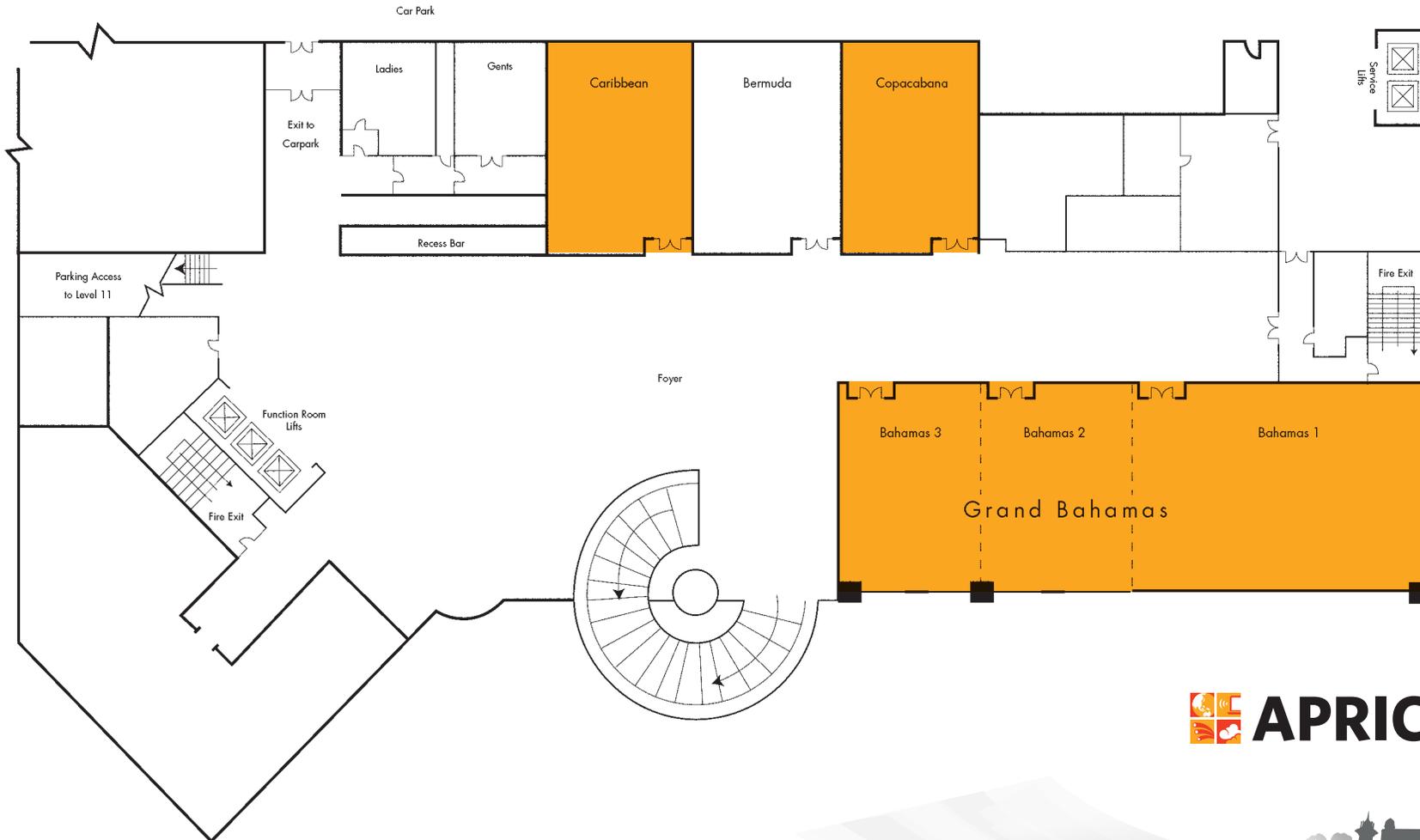


 **APRICOT 2014**



Venue Layout

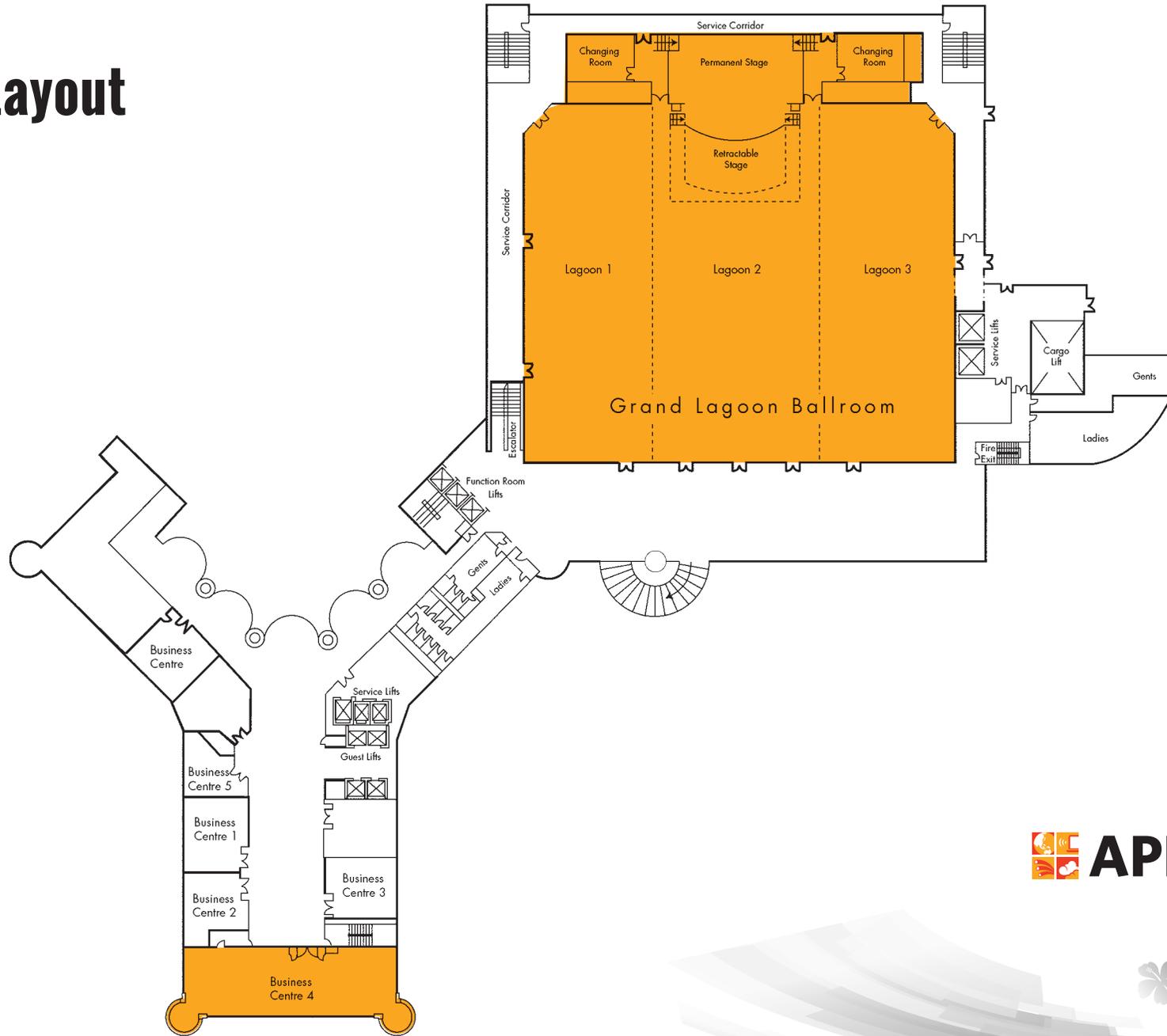
Level 12



 **APRICOT 2014**

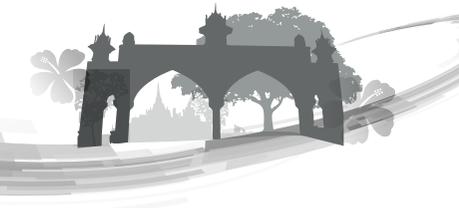
Venue Layout

Level 15



 **APRICOT 2014**

Conference Timetable



MONDAY FEB 24, 2014

TIME	ROOM LAGOON 2 LEVEL 15	ROOM GRAND CAYMANS LEVEL 10	ROOM BAHAMAS 1 LEVEL 12	ROOM BAHAMAS 2 & 3 LEVEL 12	ROOM BUSINESS CENTRE 4 LEVEL 15	SOCIAL EVENTS
07:00 - 09:00						
09:00 - 10:30			APNIC IRM Tutorial (I)	DNS/DNSSEC Tutorial	APTLD IGov	
10:30 - 11:00	MORNING TEA					
11:00 - 12:30		ICANN Update	APNIC IRM Tutorial (II)	DNS/DNSSEC Tutorial		
12:30 - 14:00	LUNCH - LAGOON 3, LEVEL 15					
14:00 - 15:30	OPENING CEREMONY & Plenary					
15:30 - 16:00	AFTERNOON TEA					
16:00 - 17:30	APOPS Plenary (I)					
17:30 - 19:00						Newcomers Lobby Lounge
19:00 - 22:00						APRICOT Opening Social

KEY

- APRICOT
- APNIC
- SOCIAL EVENT
- OTHER EVENTS

Conference Timetable



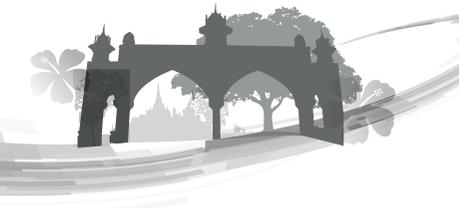
TUESDAY FEB 25, 2014

TIME	ROOM LAGOON 2 LEVEL 15	ROOM GRAND CAYMANS LEVEL 10	ROOM BAHAMAS 1 LEVEL 12	ROOM BAHAMAS 2 & 3 LEVEL 12	ROOM BUSINESS CENTRE 4 LEVEL 15	SOCIAL EVENTS
07:00 - 09:00						
09:00 - 10:30	APOPS (II)	Infrastructure	Traffic Engineering	NIR SIG		
10:30 - 11:00	MORNING TEA					
11:00 - 12:30	Peering Forum (I)	Conference: Security Session 1	IPv6 Transition Technologies	APNIC NIR HM & Tech Workshop		
12:30 - 14:00	LUNCH - LAGOON 1, LEVEL 15					
14:00 - 15:30	Peering Forum (II)	NOG Reports	IPv6 in Mobile Networks Tutorial	Network Security Tutorial		
15:30 - 16:00	AFTERNOON TEA					
16:00 - 17:30	Peering Forum (III)	APNIC Services	464XLAT Tutorial	Network Security Tutorial 2		
17:30 - 19:00		IPv4 address leasing BoF	Network Security Devices IPv6 Verification BoF	Disaster Emergency Communication BoF		Peering Cocktail Lobby Lounge
19:00 - 22:00						

KEY

	APRICOT
	APNIC
	SOCIAL EVENT
	OTHER EVENTS
	CLOSED EVENTS

Conference Timetable



WEDNESDAY FEB 26, 2014

TIME	ROOM GRAND CAYMANS LEVEL 10	ROOM BAHAMAS 1 LEVEL 12	ROOM BAHAMAS 2 & 3 LEVEL 12	ROOM BAHAMAS 3 LEVEL 12	ROOM BUSINESS CENTRE 4 LEVEL 15	SOCIAL EVENTS
07:00 - 09:00						
09:00 - 10:30	APNIC Plenary: Anatomy of CGN	APCERT (I)	ISOC NetOps Workshop (I)			
10:30 - 11:00	MORNING TEA					
11:00 - 12:30	APNIC Global Reports	APCERT (II)	ISOC NetOps Workshop (II)			
12:30 - 14:00	LUNCH - LAGOON 1, LEVEL 15					
14:00 - 15:30	From Governance to Cooperation: Decoding the Puzzle	APCERT (III)				
15:30 - 16:00	AFTERNOON TEA					
16:00 - 17:30	APIv6TF and IPv6 Readiness Measurement BoF	APCERT (IV)	Response RateLimiting with BIND Tutorial			
17:30 - 19:00		Network Abuse BoF	Network Function Virtualization BoF			
19:00 - 19:30						Women in ICT Business Centre 4, Level 15 18:00-19:30

KEY

- APRICOT
- APNIC
- SOCIAL EVENT
- OTHER EVENTS
- CLOSED EVENTS

Conference Timetable



THURSDAY FEB 27, 2014

TIME	ROOM GRAND CAYMANS LEVEL 10	ROOM BAHAMAS 1 LEVEL 12	ROOM BAHAMAS 2 & 3 LEVEL 12	ROOM BAHAMAS 3 LEVEL 12	ROOM BUSINESS CENTRE 4 LEVEL 15	SOCIAL
07:00 - 09:00						
09:00 - 10:30		Routing	Designing and Deploying SP WiFi 1			
10:30 - 11:00	MORNING TEA					
11:00 - 12:30	Policy SIG 2	Conference: DNS Session	Designing and Deploying SP WiFi 2			
12:30 - 14:00	LUNCH - LAGOON 1, LEVEL 15					
14:00 - 15:30	Policy SIG 3	Lightning Talks	Know your backbone: DWDM			
15:30 - 16:00	AFTERNOON TEA					
16:00 - 17:30	Closing Plenary					
17:30 - 19:00						
19:00 - 21:00						APRICOT Closing Social Mantra Restaurant & Bar, Sunway Pyramid Tower Hotel

KEY

- APRICOT
- APNIC
- SOCIAL EVENT
- OTHER EVENTS
- CLOSED EVENTS

Conference Timetable



FRIDAY FEB 28, 2014

TIME	ROOM GRAND CAYMANS LEVEL 10	ROOM BAHAMAS 1 LEVEL 12	ROOM BAHAMAS 2 LEVEL 12	ROOM BAHAMAS 3 LEVEL 12	ROOM BUSINESS CENTRE 4 LEVEL 15	SOCIALS
07:00 - 09:00						
09:00 - 10:30	APNIC AMM 1					
10:30 - 11:00	MORNING TEA					
11:00 - 12:30	APNIC AMM 2					
12:30 - 14:00	LUNCH - FUZION, LEVEL 1					
14:00 - 15:30	APNIC AMM 3					
15:30 - 16:00	AFTERNOON TEA					
16:00 - 17:30						
17:30 - 19:00						
19:00 - 21:00						AMM Closing dinner

KEY

-  APRICOT
-  APNIC
-  SOCIAL EVENT
-  OTHER EVENTS
-  CLOSED EVENTS

List of Speakers

KEYNOTE SPEAKERS

Kanchana Kanchanasut
AIT

Nii Quaynor
NITA

Pindar Wong
VeriFi

SPEAKERS

Adam Gosling
APNIC

Adib M. Monzer Habbal

Adiel Akplogan
AFRINIC

Aftab A. Siddiqui
Cybernet

Ahmad Alkazimy
ID-CERT

Andrei Robachevsky
ISOC

Alastair Johnson
Alcatel-Lucent

Andy Davidson
Allegro

Andy Linton
NSRC

Anna Mulingbayan
APNIC

Arnold Nipper

Ashlyn Rodgers
Telecom Fiji

Axel Pawlik
RIPE NCC

Bani Lara
DOST

Bijal Sanghani

Cameron Byrne
T-Mobile US

Charles Conte
Microsoft

Che-Hoo Cheng
Chinese University of Hong Kong

Clarence Filselfs
Cisco

Cody Williams

Craig Ng
APNIC

Cristel Pelsser
IJ

David Conrad

Dean Pemberton
InternetNZ

Dr Govind
NIXI

Eddie Parra
Juniper Networks

Eddy Winstead
Internet Systems Consortium (ISC)

Einar Bohlin
ARIN

Fakrul Alam
bdHUB

Frank Salanitri
APNIC

Gaurab Raj Upadhaya
Limelight Networks

Geoff Huston
APNIC

George Kuo
APNIC

Greg Hankins
Alcatel-Lucent

Gunter Van de Velde
Cisco Systems

Henk Steenman

Hervey Allen
NSRC

Hideo Ishii PACNET
Global Singapore

Hiroki Kawabata
JPNIC

Hongsoon Jung
KrCERT/CC

Ingrid Wijte
RIPE NCC

James Spenceley
APNIC EC

Jan Zorz
Internet Society (ISOC)

Jane Coffin
Internet Society (ISOC)

John Crain
ICANN

Joonhyung Lim
KISA

Juan Alejo Peirano
LACNIC

Kasu Venkata Reddy
Cisco

Katsuyasu Toyama

Khoudia Gueye
NSRC

Kieren McCarthy
.NXT

Krystal Waine
InternetNZ

Kuo Wei Wu
NII-EPA

Kurt Erik Kindqvist
Netnod

Leo Vegoda
ICANN

Maemura Akinori
APNIC EC

Marco Brandstaetter
DE-CIX

Mark Tinka
SEACOM

Masatak Mawatari
JPIX

Md. Hayder Ali
Fiber@Home

Michael Biber
APIPv6TF

Michael Fincham
Unleash

Miwa Fuji
APIPv6TF

Naveen Tandon
At&T

Ng Seo Boon
Cisco

Patrick Okui
NSRC

Paul Ooi Cong Jen

Paul Wilson
APNIC

Phil Regnauld
NSRC

Philip Smith
APIA

Pierre Baume
Netnod

Rajesh Chharia
ISPAT

Rajnish Singh
ISOC

Ralf Weber
Nominum

Randy Bush
IJ

Raphael Ho
Equinix

Reza Shahab
Alcatel-Lucent

Rinalia Abdul Rahim
Compass Rose

Ritz Campbell

Roland Dobbins

Santanu Dasgupta
Cisco Systems

Scott Brown
CERT Australia

Sheau Ching Chong

Sheng-Wei Kuo
TWNIC

Sheryl Hermoso
APNIC

Shian-Shyong Tseng
TWNIC

Shin Miyakawa
NTT

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Sify Technologies

Simon Sohel Baroi
Fiber@Home

Srinath Beldona
Yashasvi

Srinivas Chendi
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Sunny Yeung
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Teddy Mantoro

Therdtoon Theerasasana
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Toshio Tachibana
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Ulziitogtokh
Mobicom

Vincent Atienza

Viraphan Samadi
AIT

Watcharapong Padumon
TOT

Wei Yin Tay
Cisco

Yoshinobu Matsuzaki
IJ

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JPRS

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Yu-Chuang Kuek
ICANN

Yurie Ito
APCERT

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Community



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Bronze



Network Equipment



Fellowship



APNIC Member Meeting



Newcomers



Women in ICT



AMM Closing Dinner



Local Supporters



 **APRICOT 2014**



What next?

APRICOT 2015
24 Feb - 6 March 2015



rwoan / flickr

 **APRICOT 2014**

