

## Academic Involvement In IPv6

### About NAv6

- NAv6 National Advanced IPv6 Centre
  - Established by Ministry of Energy, Water
    & Communication (MEWC) Malaysia in March 2005
  - Formalized under Universiti Sains Malaysia (USM) as a Research Centrre under the university in November 2008
- Located in Universiti Sains Malaysia.
  Penang, Malaysia





#### What Do We Do?

- Promote IPv6 research, development and utilization in Malaysia
- Study and monitor the impact of the protocol transition particularly for Malaysia and monitor regional development
- Commit to continuous research, experiment and development of new applications as well as the porting of existing applications to the new IPv6 specifications
- Provide the necessary environment and course structures to train and nurture IPv6 programmers and experts for Malaysia and the region



## Other Things We Do

- Conduct cutting-edge R & D in IPv6 technology
- Bridge the gap between Academia and Industry in the field of Advanced Computer Networks
- Work towards a developed nation by 2020
  - By contributing scholars and scientists with high level expertise in Advanced Computer Networks
- Facilitate Malaysia to be a Post Graduate Educational hub in the field of Advanced Computer Networks
- Commercialize the research products of the Centre



### IPv6 Activities In NAv6

# Training & Human Resources

 Creating IPv6 engineers & programmers for Malaysia and the region

## Monitoring & Audit

• Facilitating a smooth transition from IPv4 to IPv6 in Malaysia and monitoring regional developments in this area

## Awareness & Promotion

• Generating public awareness with regards to IPv6

#### Core R & D

 Continuous research, experiment & development of new applications and porting existing applications to IPv6



## Training @ NAv6

Our Training Programs

Network Fundamentals

IPv6 Certification Program (CNE6)

• Level 1 & Level 2

Certified IPv6 Network Programmer (CNP6)



## Training Program Objective

 Give in-depth information on the transition from IPv4 to IPv6

• Expose the participants on the technical expertise needed in the deployment of IPv6 in the organizations network

 CNP6 course concentrates in porting IPv4 based applications to IPv6 and writing IPv6 based applications



#### Network Fundamentals

- Introduces basic networking concepts, especially transport & routing protocols
  - Explain how the Internet works
  - Describe how connection and connectionless transport functions
  - Understand routing approaches



# Certified IPv6 Network Engineeer (CNE6) – Level I

- Learn how to plan &implement in multi-vendor or commercial environment
  - Implement new networking software &devices to support IPv6
  - Implement auto-configuration for managing IPv6 addresses
  - Obtain and configure upgrades for common OS



# Certified IPv6 Network Engineeer (CNE6) – Level II

- · Learn how to plan and implement in multi-vendor or commercial environment
  - Plan & manage the migration of a network to IPv6
  - Implement new networking software and devices to support IPv6
  - Install & configure associated network services such as DNS & routing protocols
  - Update & configure common networking applications (emails, web servers etc)
  - Configure routers & dual-stack



# Certified IPv6 Network Programmer (CNP6)

- Learn how to write and implement IPv6-capable applications in a mixed network environment
  - Understand the benefits of IPv6-capable applications
  - Perform IPv6 socket programming and porting
  - Rewrite client & server application to be IPv6-ready
  - Parse and map IPv6 addresses



### Who Should Attend?

#### CNE<sub>6</sub>

- Network administrators
- Network support personnel
- Network designers
- Networking consultants
- IT managers and directors

#### CNP6

- Network programmers
- Network designers
- Networking consultants
- IT managers and directors



## Duration

Training	Duration
Network Fundamental	2 days
Certified Network Engineer in IPv5 (CNE6 – Level I)	4 days
Certified Network Engineer in IPv5 (CNE6 – Level I)	4 days
Certified IPv6 Network Programmer (CNP6)	5 days



## Training Approach

- Instructor-Led Training
  - Set in an interactive classroom environment
- Hands-On Lab
  - Step by step hand on labs with detailed instructions and guide are provided to reinforce all key concepts



### Some Statistics

- Started since 2005
- Have trained about 900 people to date
  - Government agencies, private organizations, academic institutions
    & telcos
  - Including international participants:
    - Indonesia, Vietnam, Singapore, Thailand, Philippines, Myanmar, Cambodia, Brunei, Jordan, China, India, Sri Lanka, Iraq & Iran



### For More Info

- Go to www.nav6.usm.my/content\_training.php
- Or contact Mr. SK Lim at sklim@nav6.usm.my



#### THANK YOU

