

Advanced Platform Services on JGN2plus

# Dynamic Circuit Network(DCN)

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# Why Dynamic Provisioning?

- Network is a Resource
  - Network itself should be also considered as a “resource” and bandwidth should be allocated to users appropriately

## Dynamic

Can select different end-points, bandwidths, and durations

Resources are only used when needed

Efficient – unused resources can be used by others

No charge when not in use

**Green!**

## Static

End point parameters can't be changed

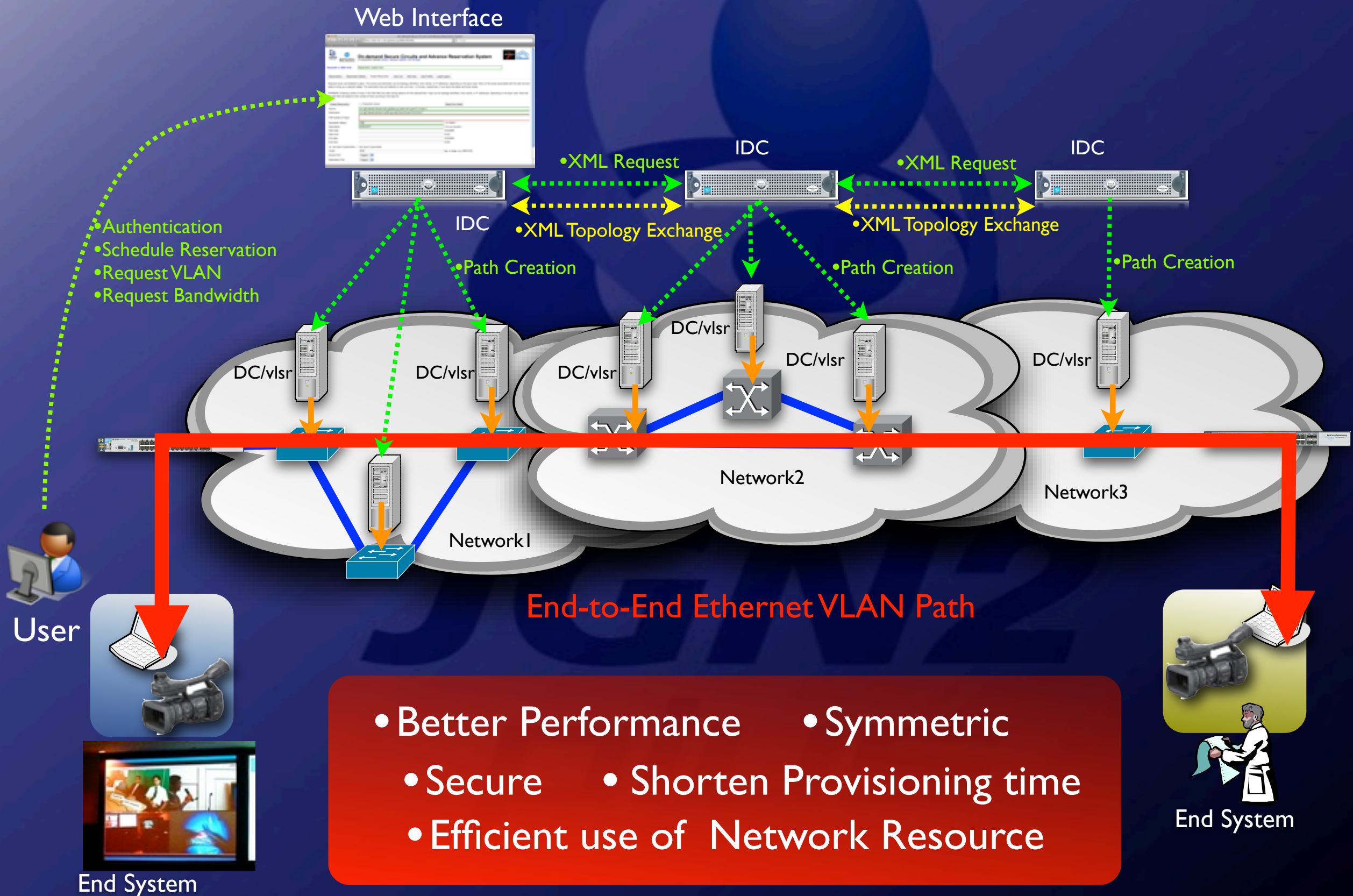
Resources are allocated even when not in use

Inefficient – unused resources are unavailable

Charged even when not in use

**Not green**

# DCN Multi-domain Control Plane





# Expansion into to Asian Region



- Expand DCN connection to NRENs within APAN
  - Having a Layer2 Ethernet connection with JGN2plus/APAN-JP
    - ThaiREN(Thailand), SingAREN(Singapore), ASGC/ASCC(Taiwan), KOREN(KOREA), CERNET/CSTNET(China)
- Explore appropriate applications for global DCN connection in Asian region



# DCN brief Live Demo

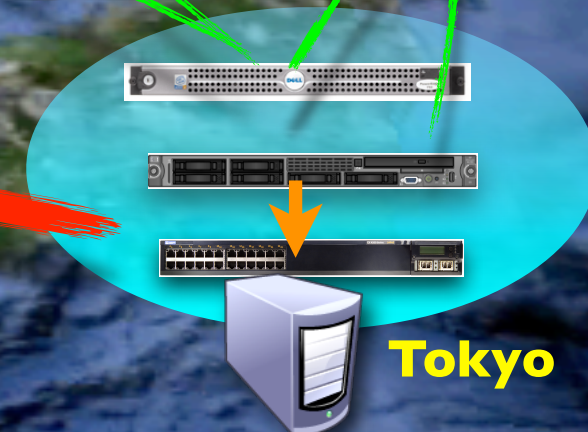
- Intra-domain VLAN path creation between Fukuoka and Tokyo in Japan
- Verify the End-to-End connectivity and traffic by automatically

**Here!  
Bangkok**

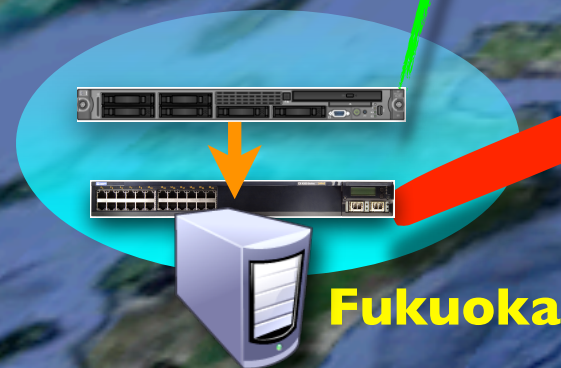


Control Plane

**Automatically ping and Iperf  
over Data Plane**



**Tokyo**



**Fukuoka**



# Today's DCN Demonstration

Network Diagram for DCN demo in AFICT '09

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Rev0 · 6

