

Collaboration of Application and DCN using OSCARS client API

NICT

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background

- JGN2plus is a testbed in Japan. And providing L2 connection service to researchers.
- Dynamic Circuit Network (DCN) service also available for dynamic VLAN users.
- In most of cases, Application user doesn't care about network. However, Applications needs bandwidth guarantee. (familiar with DCN capabilities)
- Use cases are fixed ingress point and egress point, application, bandwidth and less variable parameters.
 - It means, web interface is too much for application user.

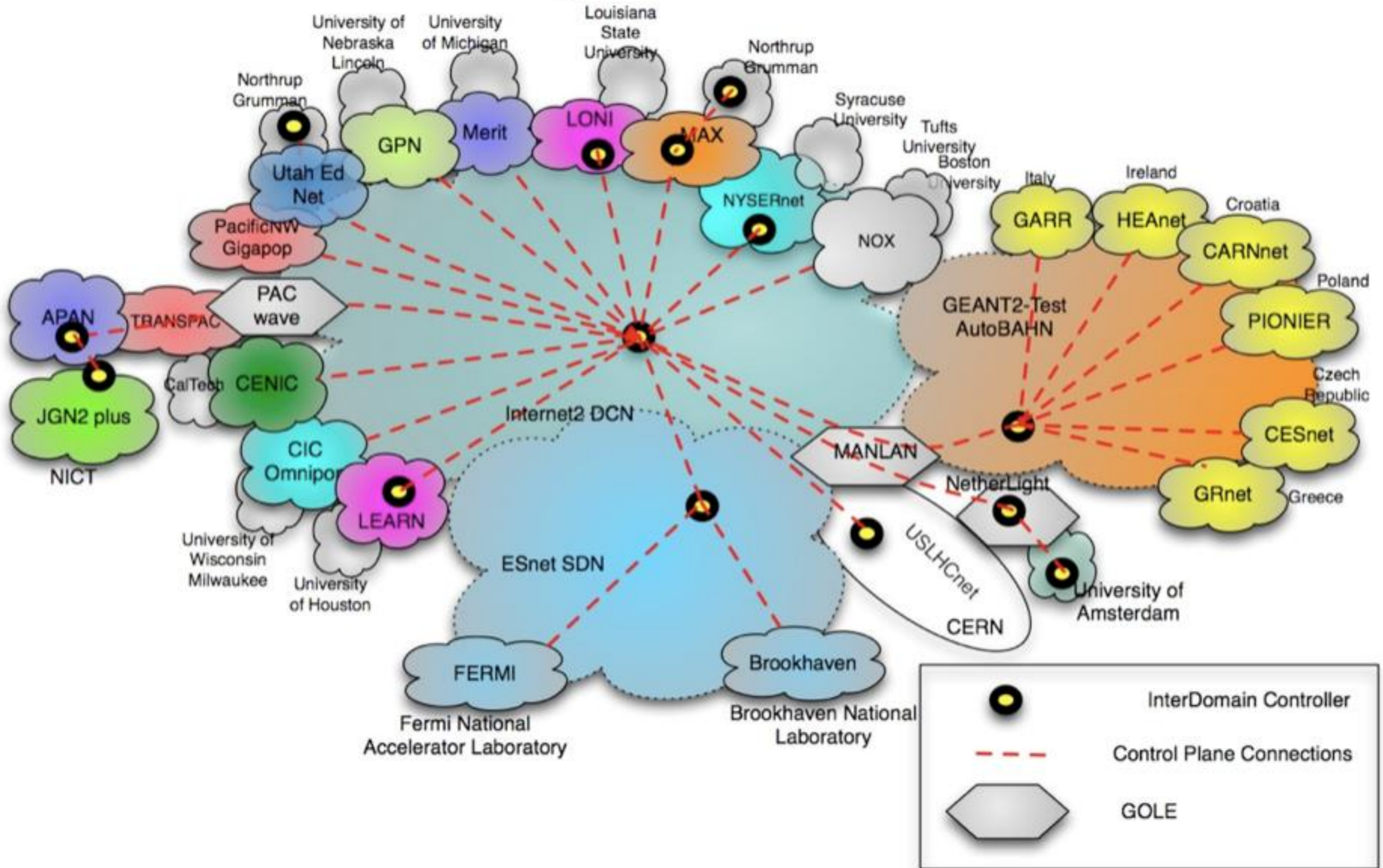
OBJECTIVE

- We want to make more simplify use of DCN for such kind of users.
- And more collaboration of application and DCN control interface is better.

What is DCN

- End to End VLAN provisioning requested by users dynamically
- Inter domain interoperability
- DCN softwares are introduced by Internet2 (OSCARs, Dragon)

Global Dynamic Circuit Network



Simple use case

- Using OSCARS JAVA Client API (not WebUI)
- VLAN request to IDC and Application is run from UNIX sh command line.
- and close Application.

Demo ScEnario

- VLC with Tiled Display Wall (Video streaming application)
- Video Client waiting for Stream.
- Video server start
 - 1. request DCN connection
 - 2. wait establish
 - 3. start appilcation and streaming.

progressing work

- More simple interface for user, “client agent” will be installed
- User profile is created by considering how the connection will be used
- Both of user profiles and certification keys could be controlled by network operator
 - only predetermined profiles are used
 - variable parameter could be set when user make request.
- IDC WebUI will also available (coexistence)

DCN Client agent

