

Fall 2016

Fall 2016 NetGurus Meeting

Internet2 will provide NetGurus a room to be set in a closed Board style conference seating to support ~30 participants . The meeting will take place the Thursday after the Technology Exchange (Sept. 26-28, 2016) conference concludes. We will have a projector and screen available if needed by participants.

Summary

Location	Miami, FL
Room	Trade (Lobby Level)
Date	Sept. 29, 2016
Time	9:00am - 5:00pm

NOTE: Breakfast and lunch are on your own. A morning and afternoon break with snacks and beverages will be provided. We will go to dinner as a group the night before.

Tentative Agenda

Time	Activity
Breakfast	On your own
9:00am	Gurus start
10:30-11:00am	Break and networking (Brickell Foyer - Lobby Level)
Noon	Lunch on your own
3-3:30pm	Break and networking (Brickell Foyer - Lobby Level)
6:00pm***	Gurus and Guests Dinner

***Note that the dinner is on Wednesday night, instead of after the meeting Thursday.

Attendance

Contact Dan Brisson (dbrisson@uvm.edu) or Cas D'Angelo (cas.dangelo@oit.gatech.edu) to RSVP and for topics you wish to discuss during the meeting. Attendance limit is 30.

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Discussion Topics and Notes

Topics are submitted by participants. Please contact Dan Brisson (dbrisson@uvm.edu) or Cas D'Angelo (cas.dangelo@oit.gatech.edu) to add an item to the agenda.

- Internet2 network futures plan - What does the next generation network need to look like?
- DDoS attack mitigation
 - This topic was covered fairly heavily during the conference due to Internet2's interest in offering this service
 - NoX working with Akamai on a solution for members
 - Concerns about large scale attacks against an entire /16, not just a single or a couple of hosts
 - Use a CDN for critical web assets instead of paying for DDoS mitigation services
 - Cost of impact:
 - Business cost
 - Reputation
 - Multiple happy Arbor customers
 - Create a common list of contacts to call when under a DDoS
 - Talk with local Risk Management office about DDoS to assist with costs
 - 3 out of 30 participants paying for DDoS mitigation services
 - 15 out 30 use RTBH
- Cloud/Data center outsourcing, experiences, challenges
 - One school with "cloud first initiative" - explore cloud first for any new service
 - Virtualize and move servers to cloud
 - Another school with initiative 3yrs ago to move 75% of services to cloud - estimate that today only 3 out of a couple hundred have moved
 - Legacy app issues
 - Ready application developers an issue
 - Cloud is more expensive than led to believe
 - Looking now at private cloud now
 - Differences in offerings from cloud vendors
 - Bandwidth
 - IPSec
 - Resources available to researchers
 - 10 schools with private cloud service on campus - openstack
 - Only one school with "bursting into the cloud"
 - Report of a CIO forum with 4 CIOs speaking of advantages of the cloud
 - Keeping expertise in-house doesn't make sense
 - Rather have people manage relationships
 - How can we as network engineers be in the loop on enabling the move to the cloud
- Cloud automation
 - One school looking at Clicker for DNS automation
 - Another school going with Cisco offering
 - Ties into ServiceNow, Infoblox, Firewalls
 - Cloudlab mentioned
 - Setup VRF for connection to cloud
 - 3/4s of participants using VRFs on campus today
 - 5 with more than 10 vrf's on an interface
- Automated network configuration management tools and techniques

- Php/ipam used by one school
 - good documentation for automatic provisioning
- Digital Ocean
- Netbotz
- Netdot
 - swiss army knife
 - does not support VRFs
- Custom scripts to check:
 - Configs
 - ACLs not in use
 - DNS consistency
 - Check ospf database
- Spectrum
- Akips
- Infoblox
- Ansible & RANCID
- Solarwinds
- Netflow: SILK
- Splunk
- IPv6 deployment: L2 monitoring and auditing, IPv4 congruency
 - Netdb to scrape mac/ipv6 address
 - Slaac in use, b/c of Android not supporting DHCPv6
 - Anti-spoofing v6 ACLs
 - Ptp links at /127 out of a /64
 - FHRP protections still holding back until it's on par with v4
 - V4 and v6 ACL congruence
 - Concern of rogue RAs
 - Issues with appliances supporting v6 routing protocols such as OSPF, ISIS, BGP
- Wireless, issues of it becoming the dominant access method
 - AirPlay proximity
 - One school looking at Cisco ISE
 - Same school using 5ghz only SSID with 90% device use
 - Discussion on Packetfence
- Data Center Interconnect methodologies
 - One school using Cisco's FabricPath
- Carrier ethernet in the campus

Dinner Options

Pollos Jarras





Thanks for the Support

Many thanks to our sponsors who have made this meeting possible:

Marie Modrell
Kelly Faro
George Loftus
Internet2