

Resources Working Group Breakouts

PRAGMA 30

Manila, Philippines

Agenda

1st day (16:00 - 18:00, 28, Jan.)

- Beth - RDA, where are we, what are the near term plans, mid-term goals, how others can get involved (15-20 min).
- Shava - How PRAGMA boot works, thoughts on using Clonezilla within the workflow. How PRAGMA Scheduler works, how to join PRAGMA Scheduler (30-45 min).
- Renato/Paul/Cayelan -- How to get others involved in the Lake Eco expedition. Contribute resources, help find domain collaborators (15-20 min).

2nd day (14:20 - 15:50, 29, Jan.)

- Kohei - PRAGMA ENT and work done to make it easier to add users. Detailed status.
- Yoshio -- concrete steps to rebuild the PRAGMA cloud
- Phil - Update on image storage used on comet (reducing dependency on Rocks)

Demo Phases

- ▶ Phase I (Jan 2016, PRAGMA 30 Manila)
 - ▶ Use static GBIF subset for Southeast Asia as input to Lifemapper,
 - ▶ Input datasets bundled into VM.
 - ▶ User has ID of two projection result datasets (both result sets have same internal ID (e.g., 317)), and uses RDA services to determine whether they came from the same VM or from the primary VM and its clone
- ▶ Phase I.5 (Mar 01, 2016, RDA P7 Tokyo):
 - ▶ Define minimal metadata needed for software objects and data objects.
 - ▶ Minimal metadata must be sufficient to distinguish one VM from the other, and one projection result from the other
 - ▶ Define type definition for both minimal metadata definitions; register with Data Type Registry
 - ▶ Associate two properties with the PID (handle): URL to landing page and pointer to the type definition that describes the minimal metadata



Demo Phases

- ▶ Phase 2 (Sep 2016, PRAGMA 31):
 - ▶ Demo: After seeing change to iDigBio input dataset, use new PRAGMA data infrastructure to identify, download, and faithfully replay run with new iDigBio input dataset to visually compare before and after.
 - ▶ Input datasets ingested dynamically into VM (workflow dynamically accesses iDigBio.)
 - ▶ Rocks roll for PRAGMA-RDA data service (includes data service, client, PID Information Types service, Data Type Registry service) but not handle service

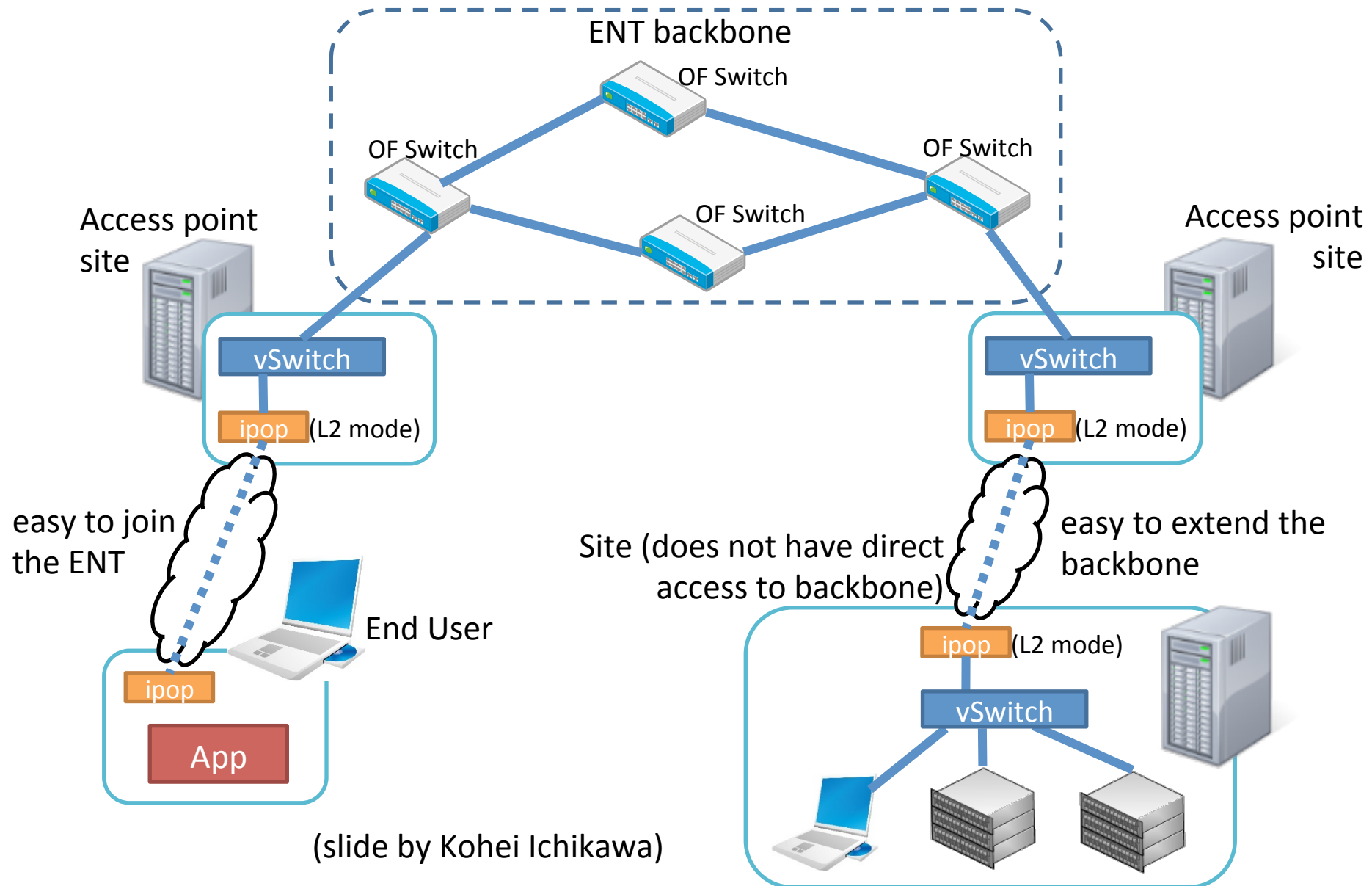


Roadmap of PRAGMA-ENT

- Pragma31
 - Expand ENT to more Asian countries
 - Stable AutoVFlow
 - Monitoring & visualization tool
 - Reservation or scheduling service
 - VM & Network
- Pragma32
 - User friendly UI & API
 - Making reservation from Web or API & automation
- Pragma33
 - Expand ENT to at least 10 institutions



Extending ENT backbone through IPOP



Expanding resources (by PRAGMA 31)

- Lake expedition
 - Currently
 - UF, Azure; CloudLab
 - Additional resources
 - Comet/SDSC virtual cluster
 - Evaluate dynamic provisioning of back-end HTCondor nodes to GRAPLEr
 - PRAGMA-booted virtual cluster nodes
- IPOP + ENT
 - IPOP virtual networks available for all ENT sites: (at least) UF, UCSD, NAIST, AIST, NCHC

PRAGMA Cloud: Goals for PRAGMA 31

- Integrate 6 additional sites: AIST, NAIST, Thammasat / Kasetart, IU, UF, CNIC
- Integrate PRAGMA-ENT
- Integrate more virtual cluster images and get feedback from early users (Bioscience WG)
- Integrate image management with Google drive and Clonezilla
- Integrate Cloud Init and boto with pragma_boot for greater portability
- Package and document software