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Chris Spears

Jeff Bartig

Paul Schopis

Dave Pokorney

Linda Roos

Dan Schmiedt

Apologies to anyone I left off the attendee list.

No agenda modifications.

Reports:

IPv6 WG: The workshop calls will restart on the 16th of March. The group continues to work at refining the workshop to make it more relevant and up to date. The NOC is checking on some of the point to point addressing to make sure it is consistent. Managing 2001:468/32 is moving over to the NOC as well.

Peering and Routing WG: The GRNOC is looking to minimize some of the emails they send out. They want to cut back on sending messages out when a dual homed connector loses one BGP peering. There was considerable discussion about sites could still get access to that information. There are now snap graphs available for TR-CPS:

SNAPP graphs available for TR/CPS

Now available at this URL: http://dc-snmp.wcc.grnoc.iu.edu/public-transitrail/

 Interface graphing (via SNAPP) had been pending tools alteration to support redacting specific peer facing interfaces, thanks to the NOC for working toward this these past few years! This is to adhere to expectations and mutual agreement by a handful of 3rd party networks, though that is the exception rather than the norm where typically interface usage should be visible via this URL.

https://routerproxy.grnoc.iu.edu/tr-cps/

http://atlas.grnoc.iu.edu/atlas.cgi?map_name=Internet2%20TR-CPS

Darrell will be putting together a strawman about prefix lengths for IPv6 prefixes.

Performance WG: They plan to have a meeting at the SMM.

SDN WG: Akbar introduced the working group and its chairs Deniz Gurkan and Dan Schmiedt. Deniz reported that the initial call was on Feb 15. The mailing list was set up at wg-sdn@internet2.edu. The co-chairs are currently engaged in collecting information about the current deployment status in Internet2 and working on a charter. The co-chairs both have ties to the research community.

AOAC Update:

The Architecture and Operations Advisory Council (AOAC) met on 22 February. Following the departure of George Loftus from the Council chair position, Charlie McMahon was elected as Chair and Paul Schopis was elected as Vice Chair. It was announced that Drew Perkins had left Infinera and therefore, had resigned from the AOAC. The AOAC sent a note of thanks to Drew and wished him well in his new endeavors. The Council then heard a presentation and had a discussion on early planning for the Internet2 Innovation Platform Initiative. The Initiative is intended to enable innovation within the US research and education communities by aggressively pushing the build-out of a set of intentional community investments that include expanded bandwidth, deeply programmable networks, application and cloud development strategies. All of these capabilities will be integrated through an intentional end-to-end architecture at the national, regional and campus level to create an environment for innovation. The AOAC discussed ideas regarding how to encourage use of this enabling platform. The AOAC welcomes comments on the Innovation Platform and its adoption by the community at aoac@internet2.edu. Discussion will continue on the Innovation Platform at future AOAC meetings.

Internet 2: (Chris Spears)

As of last week the phase 2 build is virtually done. There are a couple details on the last couple sections that are being completed now.

We have a large order of optical transceivers set to arrive in late March. This will provide the necessary 10G capacity on the network to begin migrating networks off the Infinera-based optical system and onto the BTOP-funded Ciena infrastructure. We anticipate this work will be spread across several months, beginning in April. I**nternet2 engineers will begin working with individual regionals to coordinate maintenance windows for the migration. We anticipate only a few minutes worth of downtime as circuits are migrated from one network to the other.**

 Innovation Platform (NDDI) RFP update:(Grover Browning)

The responses have all come back. The community team has met and discussed the responses. Bill Owens is currently working on a summary of the recommendations of that group. General approach was to move forward with a multivendor approach leveraging current equipment where possible.

IP and NDDI Infrastructures: Engaging the Stakeholders with Future Goals and Strategies (All):

Akbar began by outlining the overall goals of the innovation platform, these would include 100G connectivity, Open Flow and more connection points. He suggested that the NTAC/AOAC might be a good location to discuss how the stakeholders might become involved in understanding this process.

Bill Owens asked if it were possible to set the boundaries of the discussion, this was prompted by some concern about NDA's with the respondents. Akbar responded that we could keep this at a fairly high level, not going into the details of the RFP responses or the various companies capabilities at this point. Rather we need to establish two things:

1) How to engage the stakeholders? How for instance would this network interconnect with the Stakeholders networks.

2) The overall architectural considerations that are driving this activity and the consequences that has.

Paul Schopis asked about the real priorities in this activity. Is it primarily about 100G or about the SDN capability of NDDI or are they equal in significance or if not which is more critical?

John Moore agreed, saying we need some clarity about what the goals are for the community. Its hard he stated to distinguish the process of evaluating the conceptual framework/architecture that is driving this and goals of this activity from the resultant network because the overall service that is being offered is not all that clear as of yet. He also pointed out there was a new OCI solicitation from nsf that might well affect how campuses look at this activity. Eric agreed with that. For now John suggested we focus on understanding a process which will allow for maximum input from the community on the questions Akbar raised. He suggested that perhaps a workshop might be a good idea. This would allow a discussion of the concepts behind NDDI, the 10 and 100 G options, the research focus of this activity and when it might be ok to move toward a more production focus. Details of how to set up such a workshop were not discussed.

Eric stated that we need to create an environment that encourages innovation and differentiates the R&E networks from the commercial networks. Factors in this would be creation of science DMZ's, Performance monitoring and SDN.

Akbar pointed out there would be a face to face at the SMM. He asked what do we want to do at that meeting on this issue? Bill Owens opined that as of right now the overall process looks like this: There was an RFP which will drive a decision on equipment which will drive a purchase of some gear and the subsequent installation of that in the network. He wondered if it were possible to actually interrupt that process?

Akbar thought that the sooner we had this conversation the better, perhaps next month the summary could be presented. Paul Schopis asked if we could just ask the vendors how much it was ok to say about their activities, Bill pointed out that right now it did not seem like any of this was public. Paul then asked if perhaps it were possible to just state the broad overall results.

Bill wondered if Internet2 could share the RFP or at least the intro to the RFP with the community, as that part of the document is a very clear statement of the goals of this activity. Akbar agreed that would be useful but thought it should also be paired withe the slide presentations from JT's that Chris and Eric presented. That seemed fine though it was pointed out that the intro to the RFP is overall much more technical and detailed and that it is probably better suited to the NTAC for those reasons.

John Moore then suggested a discussion: This was to look at the intro to the RFP and discuss the implications of that for the overall community and the entire network. This was thought to be a very good and useful conversation and really had nothing to do with what vendors were chosen or not or even which ones responded. Bill and others agreed that making the intro available for the community to look at and use as a basis for a discussion was a very good idea.

Grover agreed that there was much that could be discussed about the overall structure of the architecture and the risks associated with this activity without any NDA issues. Dale offered to check on the status of sending out the RFP or at least parts of it to the NTAC. Eric also then pointed out the the RFP is just one piece of a dynamic story. This is something of a moving target and that needs to be kept in sight. Bill also mentioned that going back and looking at the presentations from Chris and Eric after having read the introduction was very helpful and made those presentations more meaningful.

John Moore reiterated that this really about the intro portion and not about the details of the ask and that the real question is "What are the implications of this architecture for the community?".

It was decided to meet again for further discussion in 2 weeks. Details of that forthcoming.

Dave Pokorney asked if the NTAC had been asked to review the services portfolio of US UCAN. Akbar said he would investigate that question. Dave also asked about the status of the Voice Services RFP. Chris Spears indicated it was still in process and that he would further check on the details.

The meeting was then adjourned.