October 9, 2007

NTAC 10/09/07
Tuesday, October 09, 2007
7:32 PM

Access code 0133542# (no one dialed in, call disconnected at 5:34 PM)

In attendance: Jeff Bartig, Steve Cotter, Brian Court, Cas D'Angelo, Dave Farmer, Dale Finkelson, Cheryl Fremon, Dave Jent, Mark Johnson, George Loftus, Paul Love, Dave Pokorney, Ana Preston, Dave Reese, Linda Roos, Paul Schopis, Terri Saarinen, John Streck, Joe St Sauver, Rick Summerhill, Rob Vietzke, Christian Todorov, Steve Wallace, Linda Winkler
NTAC Meeting
10/9/07 4:30 PDT/5:30 MDT/6:30 CDT/7:30 EDT
Agenda
1. Agenda bash
2. Report from the Transport Services Working Group
3. Report from Peering Working Group
4. CPS and IPv6 (see information below)
5. HOPI/DCN update
6. Proposed ARIN Policy (see information below)
7. Netflow collections
8. Update on Naval Observatory NTP server request
9. Election of NTAC Chair
10. Other topics

 AGENDA BASH -. Any additions? No. Heard another of things expressed, NTAC future enlight of the councils being formed. AOAC met Sunday - Dave Jent is interim chair, George Loftus is interim vice chair.

Dave Jent: Important that NTAC be technical advisory group to AOAC. Technical in nature, not geared to politics. Valuable position for NTAC to advise AOAC on technical matters and maybe even some non-technical ones. NTAC input could also be valuable for other councils as well.

Paul: We are continuing forward, some details to be worked out, but marching forward.

Dave Jent: AOAC - Architecture and Operations Advisory Council -- architecture and services we'd like to see, give advise to Internet2 to what would benefit the community, policy, security issues. We call it the Internet2 network, but it is the community's network. What do we collect from the community and rely back to Internet2 as advice. Major issue - one - from Sunday's meeting - communication issues. How do we receive input, how do we give input, and what do we do with it. How we get it -- email, anonymous letter is fine. Questions? No. Comments? Dave said AOAC email address will be shared.

REPORT FROM TRANSPORT SERVICES WG - no one present. Paul said group has been meeting regularly. Bill Owens did taxonomy of potential users. Contact Jerry Sobieski, Cort Buffington, or John Moore. This group meets third Tuesday at 4 PM.

PEERING WG -- Jeff Bartig stepped up to act as chair. Dan is busy doing optical deployment.

CPS and V6 -- SSW sent email to Paul about seeking strategy advice request .
September 11th note to Paul (NTAC chair) from Steve Wallace:

Internet2 is seeking both technical and strategy advice to inform
its implementation and operation of the commercial peering
service. As a suggestion for addressing technical issues, perhaps
a regularly scheduled presentation by the Internet2 NOC covering
the implementation and operations of the service, followed by a
dialog moderated by the NTAC peering chair and Internet2 lead
engineer (probably Matt Davy or similar from the NOC) followed up
with written suggestions and comments from the peering chair, would
be a good approach? I imagine this would be open to the entire NTAC.

In terms of advising on peering strategy, I suggest we convene a
regular (perhaps quarterly) meeting with Internet2 NOC engineers
and the peering WG chair to discuss strategy. Afterwards, the
chair and I2 would exchange e-mail acknowledging their
understanding of the strategy as well as address any concerns and
recommendations.

comments?

October 5th note to NTAC:

Greetings,

The text below describes a modified approach to leveraging the
commercial peering service infrastructure to enhanced Internet2
IPv6 connectivity. Grateful for any input or question from the
NTAC and the IPv6 working group.

thanks,

Steven Wallace

One of the goals of the CPS project is to improve commercial IPv6 connectivity for our R&E connectors and members. In addition to peering with other network providers via IPv4, our presence at these public peering locations has enabled expanded and upgraded IPv6 connectivity. It was our intent to connect the commercial IPv6 peers to the traditional R&E network service (original instance of AS11537, with which all connectors peer), however, due to a limitation in the Juniper VRF implementation, which I'll expand on in a latter paragraph, we're recommending a different approach. Rather than have the R&E network peer with commercial IPv6 networks, we're recommending that the CPS peer with them. The CPS network would then contain all commercial traffic, both IPv6 and IPv4. The traditional R&E service would contain non-commercial IPv6 and IPv4. Connectors may choose to BGP peer with the CPS for either or both IPv6 and IPv4 commercial connectivity.

The Juniper routers are limited to a single VRF being associated with a sub-interface, and each sub-interface (on the same physical port) shares a common Ethernet MAC address. Public exchanges have both IPv6 and IPv4 in the same vLAN, making it impossible, given the Juniper limitations, to connect to both IPv6 and IPv4 via separate VRFs without using a physically separate interface on the router as well as a second port on the public exchange.

The net effect of connecting commercial IPv6 peers to the CPS network is that for Internet2 Connectors to realize the improved IPv6 connectivity, they will be required to establish a second BGP session with the Internet2 router. This second session may be used for both CPS as well as the improved IPv6 connectivity, or either independently. All IP multicast connectivity (both v6 and v4) will continue to be provide via the R&E network.

Steve suggested quarterly meeting with NOC engineers and Peering WG to discuss strategy. SSW didn't say, but would included exchange of info to be considered proprietary. Paul said it sounds good. Jeff's thought it sounds ok. Quarterly meetings where I2 would update the NTAC and Jeff would coordinate with NTAC. Paul, because of the change in chair, asked if there was record of who wanted to be in Peering WG. TO DO: Linda will look. Paul does not want to exclude folks who want to participate. TO DO: folks interested should contact Jeff. Caren from the NOC will be lead engineer. IPCommodity WG @internet2.edu

SSW explained initial conversation for how commercial peering infrastructure would be used for v6 peering activity. Policy for Abilene has been to provide transit for those services. Found limitation in the juniper multiple vrf limitation. SSW explained that you can't have single vlan in more than one vrf, and separate incidents share the same mac address. 10 gig interfaces are expensive. Gone back and forth, could do some looping thru owned switch and not tell the exchange people. They couldn't come up with a way to do this. SSW said Matt Davy suggested doing it by having commercial IPV6 folks at these exchanges. For a connector, they could just V6 peer with that instance or be v6 and v4. Today, we offer all of the v6 stuff in R& E instance. SSW not on v6 mailing group. Heard folks prefer it. Would like NTAC concensus. Dave Farmer asked for more info. SSW talked about clugy way PAIX to Palo Alto. Would prefer not to do it, uses CCC in the juniper, and rack LAN switch in the juniper. Prefer to migrate those to the CPS, schedule it, notify folks, and move to that direction in an orderly coordinated way.

Cas asked what happens if folks don't subscribe -- nothing. They just wouldn't use it. Jeff summarized taking the v6 transit and moving it the CPS. SSW said it allows us to get transit from multiple places, the same provider in three locations, not just cluged at PAIX. Jeff asked about today's Internet2 connectors. SSW said if that's the way we go, that could be the requirement. Could leave cluge in one place. We need to decide the n-state or come up with other solutions. Dave Farmer asked what ends up remaining in the R&E network v6. SSW said all the international R&E peers, fednet v6 (the lionshare right now). Dave Farmer asked where do the measurement nodes fit in to all of this. SSW said traffic going thru same routers that make up R&E background. Still working on netflow issues. Dave Farmer talked about services boxes in v6 land and in the R&E network. If he has v6 at home, can he get to those boxes?
SSW said if all connectors agree this is a reasonable way forward. Dave Farmer talking about certain measurement devices. Things like NDT, things in Abilene network that are destinations for testing. SSW understands, good question, not sure of reply. Dave said providing those for the world to test to -- which they are today -- to preserve that. SSW said could be rolled into the CPS instance. Dave Farmer asked if service boxes could go into separate vrf -- can talk later. SSW talked to Matt Davy -- he said multicast will never work right. Paul asked did it ever? 🙂 Other solutions may involve loop back cables. SSW said you could put those services into the CPS vrf. Dave Farmer asked if peer went down. First law here is "do no harm to yourself." Making services available to R&E people and to the world. NDT server (Carlson's stuff), various other things on core (BWTCL servers, and more). TO DO: SSW will investigate and report back. Paul asked if having a short term sub group would be helpful? Yes. Dave Farmer, Jeff Bartig mentioned framework. TO DO: SSW to send findings to whole group. Subgroup will come up with recommendation and proposal.

HOPI Update -- Rick Summerhill mentioned plenary today and other sessions. Making progress, getting take down on connectivity to the regionals. Happy with the progressions. Paul said he has received his first request. Questions or comments for Rick? Rick asked what is relationship between DCN and Transport Services WG? Is there a relationship? Jerry Sobieski, John Moore and Cort Buffington. Paul said they were trying to figure out, Dave Farmer said a super set, Paul said it's a chicken and egg problem.

ARIN POLICY - Dale talked about PPML -- and where proposals to ARIN get voiced. He mentioned the need to reply to some of these policy proposals. Slash 8 will quickly start to diminish, ability to get address space will become stringent. Proposals about how v6 allocations are made, notion IETF came up with is a suggestion. Number resource allocation policy -- Dale read policy and mentioned election. Folks vying for positions are mainly from commercial organizations without having interest of university or researchers at heart. Dale sent email to Steve to find out if anyone cares. Yeah, so, we're fine? Dale has deep felt suspicion that ARIN will influence the numbers space and we will have to interact. As a community, we should thing about how we do this. Mark mentioned George. Dave Farmer said it would be good at network policy committee. Mark Johnson does send someone to ARIN. It's usually held around NANOG. Dale said don't subscribe to PPML. Primarily small and midsized ISPs who are active. Large ISPs have enough resources to do what they need to do. Leah Roberts is on advisory council and has been and understand much of this and has represented Stanford. Not to the greater broader attention, except perhaps at CENIC. Paul suggests, on the PPML as well, shear volume is spam. Lots is meaningless. So much info to digest -- he has a day job. Maybe breaking this down to having a chair and asking for folks to monitor certain topics, wade thru, synopsis and report out. Dave Farmer glad issue was raised. Sees opportunity there, willing to be flexible, get concessions from them. Registry contract - have director sign

without legal. There will be no amendments, we can change it whenever. Doesn't recognize sovereign entity in state of Minnesota. May be opportunity to engage, for governmental entities this isn't appropriate. Dale said ARIN would be thrilled. To do so, you propose a policy, goes to advisory council, goes on PPML, and then acted. UNL is a member. Michael Lambert. Maybe we need to look at policy structure, see how it reflects our needs as well as various ISPs and move forward or not. Suggestion is well taken to pursue reasonable why for this does not happen. Joe doesn't interface with them. George asked if there is way to interface at a higher level. No, this is public policy process, meeting semi annually, eight people on advisory and assigned to act as shepherd to follow discussion to present to council the consensus of community. Many times it is what does the public think, what do our constituents want us to do. SSW support having an artificial intelligence monitor of this list to monitor what is relevant and interested to this community. Dale said there are minimalist filters, but that takes time. Some policies just die. Paul asked if it is the case, putting PPML aside, do we need to be concerned with what gets to policy level, Educause "call your congressman". Dale said to keep in mind if your organizations are not participatory, folks will see your emails, but no vote since not ARIN member. Part of this, Richard Germanson at Joint Techs there to make the case, keep ARIN in front of this community. This has made an impact. Folks are aware. Not affect in terms of enhancing participation. Belongs here? Or some other place around this topic to increase levels of participation - Dales view may differ from Dave's or Paul's. It is important to have input to the process. Don't want to wake up and find difficult rules. Dave Farmer said one or two page white paper why community should reengage with ARIN. Something he can take to his management, what they can get out, why timely, why important, why his organization should pay attention and join. Eddie Winston NC-REN was just elected -- Mark Johnson gave late breaking news. Dale suggested having Mark's person give update to this and provide a wider version. TO DO: Mark will try to get him to the next Joint Techs. Scott Bramner is on the board of trustees, but by the time policy gets there, there is little backing away unless incredibly stupid idea. To George and Dave Rees, Dave Farmer said RONs are ISPs in our community. From a Quilt perspective, is there something we should do here? How many virtual IPs on a single server.... 🙂   Dave Farmer, if we want to do something, white paper for folks to take to university or RONs to devote resources to this. TO DO: Dale agrees and willing to get in touch with others and produce something. Dave Farmer also suggests a presentation at a Member Meeting so folks can see. We're doing good on the Joint Techs front. Dale will tell Paul who is on the list. Cas, Dale, Mark and Paul are members of ARIN. Very few medium to small institutions are members. Further comment or questions? None.

Netflow Collections -- Rick asked if Matt Z. has submitted descriptions. TO DO: Rick to remind Matt to send this.

Update on Naval Observatory NTP server request -- Dave Farmer has not yet done anything on this, but appreciates the reminder.

Election of NTAC Chair -- Linda reported one nominee. Paul would like to open floor to other nominations. Current nominee is Paul Schopis, and accepted the nomination. Self nominations are permitted. Motion by Paul Love to close nominations. Seconded. All in favor? Aye. No opposition. Abstentions? None. Paul Schopis is named NTAC Chair by unanimous vote.

Other topics for today? No. Other topics to go to AOAC? No.

Motion adjourned. Moved and Seconded. Done. 5:38 PM.