What were the Operational issues?

• Operating in a distributed environment.
  • Shared resources
  • May not have a direct connection to the resource you own.

• Interactions between NOC’s
  • Contact information
  • Everyone understanding who was responsible for what

• Communications with and from the Vendors
  • They need to understand that the NOC seeing the circuit is not always the owner of the circuit.
  • May get calls from a 3rd party.

• Who owns a problem?
  • Initiator, Circuit owner, Source or Destination?

• Building redundancy using the resilience of the structure

• Implementing Policy
  • Every ANA member has some amount of assured bandwidth.
What were the solutions

• Information!
  • Make sure all the contact lists are up to date and shared.
  • Work with vendors to make sure they understand who they are to notify and who they should accept calls from.
  • Make sure that escalation paths for every circuit are well understood by all the NOC’s.
  • A NOC will generally be responsible to its members issues, even if the data is traversing a path not owned by the NOC’s organization
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How has it worked?

• Actually very well.
• All of the NOC’s seem to have understood and learned how to interact and share ticket information.
• Interactions with Vendors have generally been fine.
• To my knowledge connectivity has never been lost, though outages have occurred.
What needs to be done?

• Still not always clear who owns an end to end problem.
  • But that is hard no matter what.

• More data on usage and activity should be shared between NOC’s.
  • Not sure about how much perfSONAR data is used or shared.
  • Did get an ANA MADDASH set up.

• More documentation on setup of backups.

• Not certain the change management process is done that well yet.
  • ANA does not have a CAB.
  • May not need one, again its getting information out that matters.
How well does this scale?

• Can this model work for the GNA?
  • Not entirely clear if it can work globally.
    • But it really does not need to.
  • It can certainly work regionally.
    • Which is how the Federated model was designed to work.
    • And functionally GNA will likely be a set of regional federations.

• Key features to make it work.
  • Get the right people in the room, its not senior engineers who do operations it’s the service desk and NOC.
  • Senior Engineers come into play when needed.
  • Information, Information …
    • The more the better.
How well does this scale?

• Don’t assume that just because you set something up it will work forever.
  • Regular, though not necessarily frequent, reviews are a very good idea.

• When events occur check and see if it was in fact handled correctly.
  • Maybe not every time, but certainly from time to time.

• Periodically review documentation and make sure it is still up to date.
  • Things change