# Minutes NSI-WG conf call 18 Feb 2015

***Attendees:***

Guy R.

Miroslav Z.

Ralph

Diederik

Freek D

Henrik TJ.

Michal B.

Hans T

Artur (PSNC)

John M.

Chin G.

Tomohiro K.

***Apologies:***

***Agenda:***

* Ralph Koning and Miroslav Zivkovic fom UvA present their NSI topo distribution proposal.

***Minutes:***

UvA present their NSI topo distribution proposal

* Proof of concept on AutoGOLE last year
* Extended to support OF domains in MOTE project.
* Has 3 components
	+ Topology Index (TI) stores the location of the served topologies
	+ Topology Provider (TP) serves the topology files.
	+ Topology Consumer (TC)
* Index holds meta data about all of the files - includes list of neighbours, version number, URL etc.
* Miroslav: explained workflow for topo distribution
* Miroslav: PKI infrastructure needed to validate requester/provider

Discussion

* Chin: how are constraints described? Do you use a language? Miroslav – expressed a lists of constraints – this can be formatted as file submitted with the path request.
* Chin: can list be changed on a per-request basis? Miroslav – yes can submit new list of restraints on a per path request.
* Chin: how are pruned topologies handled, is there a way in which a topology consumer can identify the users associated with a topo request? Miroslav: per-user group topo request is not supported in the current solution.
* Miroslav: it is hard to address policy – needs policy language… this is not currently defined in this solution.
* Henrik: solution is rather technology centric – how will new services beyond the NSI CS be supported? Miroslav: needs further thought
* Chin: what is agenda for polishing the proposal e.g. some work on API?
* Chin: how does this proposal handle link utilization? Does the topo provider need to push a new topology each time the link utilization changes?
* John: main concern- this proposal requires full mesh of connectivity between providers and consumers of topology. This is in effect an overlay network and requires its own trust model. Is this complexity needed?
* John: second concern - Does this solution scale from the point of view of provisioning and policy enforcement?
* Miroslav: TI (topo index) is single point of failure, but can be modified to make multiple TIs.
* John: we should build a solution that leverages existing trust model. Building an overlay trust model as proposed by UvA will require a lot of extra infrastructure to implement -integration with PKI to support full mesh of providers and consumers is a development burden.
* Henrik: share John’s concern about building over-lay trust network.
* Henrik: transit networks are fundamental to the network architectures – so need a solution that reflects these network architectures – e.g. ESnet as transit network ‘hub’ with many small campus/regional networks as ‘spokes’.
* Guy: could be look-up service associated with transit network?
* Henrik: I see this as a framework rather than as a full solution, so many issues that need to be resolved.
* John: be careful about what is being evaluated here – specific mechanism to allow topology to be transferred is the core of this proposal. (pathfinding is not key to proposal).
* Guy: John’s solution focuses on a solution that makes use of existing trust relationships. In contrast Henrik’s solution emphasises implementing policy efficiently.
* John: each proposal tries to solve different issues, need to be clear what we are comparing here…