# Minutes NSI meeting @ OGF32 Salt Lake City

## General discussions

* Service Definitions semantics are a non-normative part of CS protocol. Jerry’s section becomes an appendix. Short paragraph should be included on how to use SD to understand semantics of SD contents. Also syntax of SD handling in protocol needs to be defined.
* There are sufficient people attending Lyon meeting to have a meeting. One of the targets of this meeting should be to digest results of Rio.
* There will be a PSNC presentation/demo of NSI on AutoBAHN at the Future Internet meeting in October.
* A BoF will be requested in SC – this will allow us to socialize the NSI.
* Tomohiro presented on the state machine, John MacAuley presented on the WSDL, Chin presented on security.
* Messages should have sufficient information to be able to do authentication. Authorization could also be performed with this information.
* Trust is between RA and PA, transitive trust should be secure. HTTPS Security layer: Digitally sign with certificates use WS-Security. SSL/TLS is proposed for transport security
* Policy based SOAP extensions for authorization – WSDL must include field to provide sufficient info (certificate) SAML security attribute. Basic profile example – each NSA has its own x.509 certificate. Agreement out-of band on policy
* Demo – plugfest participants should agree a demo topology for pathfinding.
* Duration – need to be clear how to interpret this in the document. Not used for plugfest.

AP: TK to prepare state transition table for protocol doc.

AP: JM to prepare set of exception types for fail messages

# Open issues

1. Issue: What information is included in a confirm message?  
   Decision: Remove state information on provision/reservation confirmation, otherwise no change from current WSDL definition.
2. Issue: What information is included in a fail message – in particular should details of each of the child failures be included in response. Optional? Format?  
   Decision: Set of error codes need to be defined. Local and child exceptions should be distinguished. Exceptions should include optional field to supply details.
3. Issue: Handling authorization failures of children – how should the failure information be reported upstream?  
   Decision: As per item 2
4. Removed… see item 10
5. Issue: Id structures – Current WSDL states: globalReservationId (UUID), connectionId (UUID)  
   Decision: Requirement is for statistical uniqueness, not verifiably unique.  
   GlobalReservationId mandates OGF URN (reference artefact 6478 and URN OGF), connectionId: UUID
6. Issue: Should forwarding of the globalReservationId be mandatory? Who generates this? RA or ‘user’?   
   Decision: The globalReservationId field is always present and it is recommended that it should be filled in. Filling with a null field is allowed, but when filled it is mandatory to use OGF URN. Version 1.0: forwarding of globalReservationsId to all children is mandatory.  
   Future versions: Forwarding of the globalReservationId to children is mandatory if agreed by negotiation.
7. Issue: Queries – what does the response include? Current document states that query request has 3 fields that can be filled: connection Id, globalReservationId, state

A. When one or more IDs are specified, then returns: the reservations details\* for the connections and the state of each connection. \* Detail includes all of the attributes included in the response to a reservation request

B. no ids are specified, then returns: a list of all of the current connections associated with requester along with their states.

C. If the state is specified, then returns: a list of reservations associated with that request in the specified state.

Note: no information on children is returned.

Decision: 2 attributes now supported connectionId and globalReservationId. i.e drop state attribute. Only A and B are needed. Note: current version of query does NOT ‘walk the tree’ or include recursive query. Do we add this in version 1.0? No! not in this version

1. Issue: Terminology: releaseProvision or release?, terminateReservation or terminate?  
   Decision: use release and terminate as primitive names.
2. Issue: Need to document how blank startTime and blank endTime should be interpreted.  
   Decision: Null startTime = now, null endTime = infinite. ‘duration’ attribute will NOT be used in the plugfest. Decision on accepting and interpreting infinite reservations will be based on policy.
3. Issue: STP format? WSDL defines syntax as: NetworkId/LocallyUniqueId  
   Decision:  
   NSAid: urn:ogf:network:NSnetwork:<NSnetworkid>  
   STP: urn:ogf:network:stp:<NSnetworkid>:<localid>  
   <NSnetworkid> = eg layer2.netherlight.net
4. Issue: How long should the state machine retain connection information in the terminate state? – how long is this information able to be queried?  
   Decision: Configurable time retained– no need to define a this time, based on local usage/need/policy?
5. Issue: Message sequence rules – for example can a provision be sent before a reservation confirmation is received? – no. But a terminate message can be sent before the reservation confirmation is received.  
   Decision: For each state any unexpected .rq messages should return a standard failed response with error code: ‘message not accepted in this state’, in accordance with TK message transition table.  
   Ignore and drop unexpected .cf .fl messages
6. Issue: Transaction ids, are these needed?   
   Decision: Leave this in for plugfest, these can be removed if they are found to be of no use.
7. Issue: Is ‘path’ needed?   
   Decision: The ordered list of STPs is an optional object. These should be treated as a hint – i.e. it is not mandatory for the PA to honour these.
8. Issue: Reservation persistency required? Is recovery possible using the protocol?   
   Decision: No judgement on this issue now. Inder will propose some text to describe the recovery mechanism.
9. Issue: Timeouts – handling these needs to be described in protocol document.  
   Decision: If RA does not get a response within a configurable timeout time, then the RA may choose to resend or choose to terminate. The timeout time will be set at the plugfest.

# NSI Plugfest

Participants: AutoBAHN (Radek K.), OpenDRAC (John M.), OSCARS (Vangelis), G-Lambda (AIST (Tomohiro Kudoh), KDDI (Takahiro Miyamaoto)), NORDUnet (Henrik),   
KISTI (dynamic KL) (Jeong Hoon Moon)

Decision 1: NSI plugfest communications will use NSI mailing list

Decision 2: advanced interoperability testing will be done by developers on a bilateral ad hoc basis.

AP1: NSI group to freeze the NSI WSDL and state machine – CS document to be updated.

AP2: Jerry to work with group of developers to agree a list of plugfest challenges

Need the following to be included in Jerry’s challenges/procedures:

* challenges/test matrix
* test procedures/scenarios
* set of topologies: each challenge will need a topology

AP3: JS to follow up with RNC regarding logistics at Rio, room, tables, network…

AP4: JM to remind all to send weekly status report to NSI email list.

# NSI @ SC11

ION service likely to be available for SC demo

Goal to show NSI working on automated GOALs.