



Enabling Grids for E-scienceE

BAR Development MJRA4.7

Florian Scharinger
F2F, NeSC, Edinburgh

www.eu-egee.org



- **Uniqueness of Service IDs**

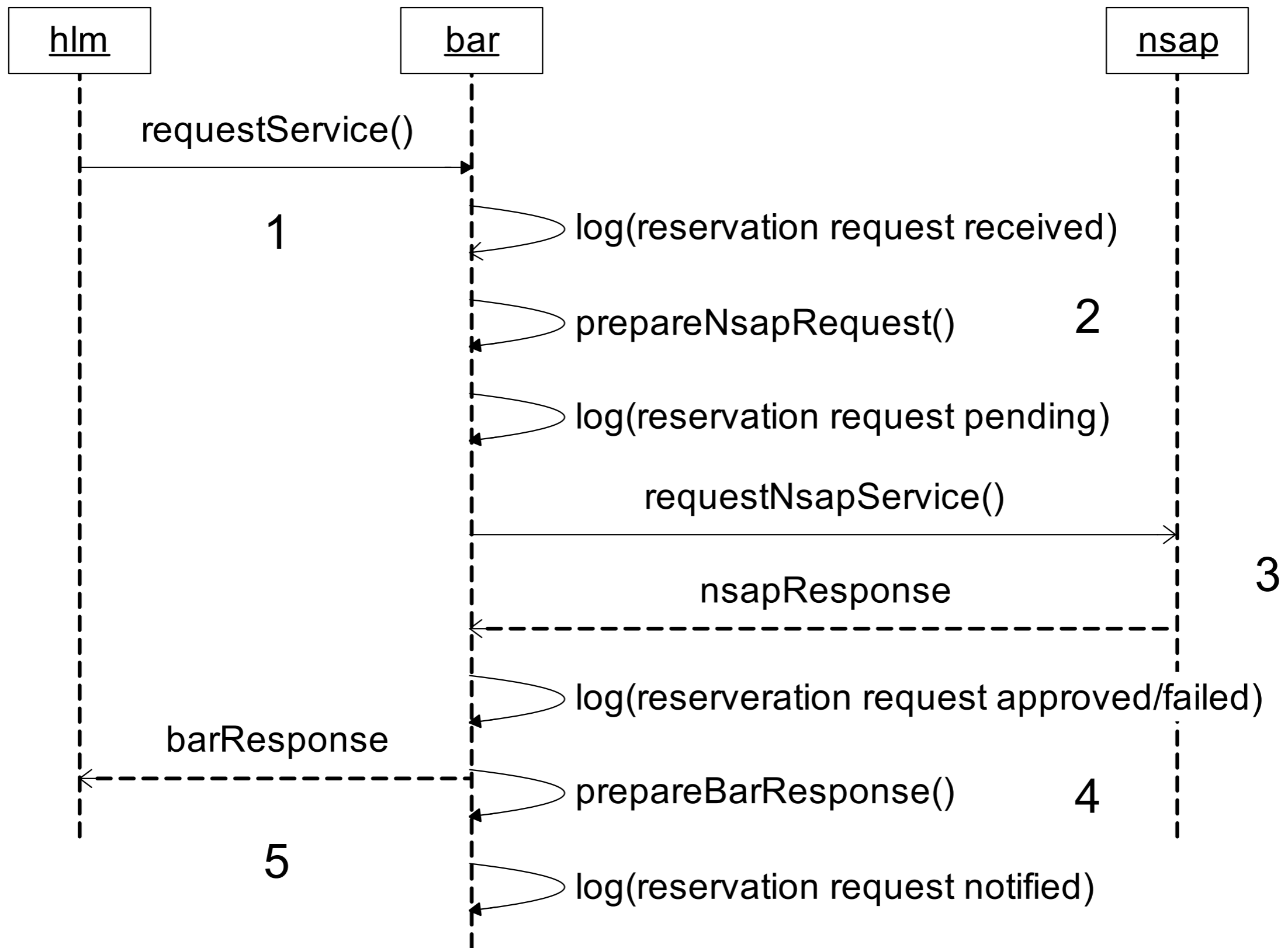
(From last F2F):

- NSAP MUST ensure uniqueness within its domain
- NSAP MAY ensure uniqueness globally
- BAR MUST ensure uniqueness of Service IDs returned to HLM are unique globally

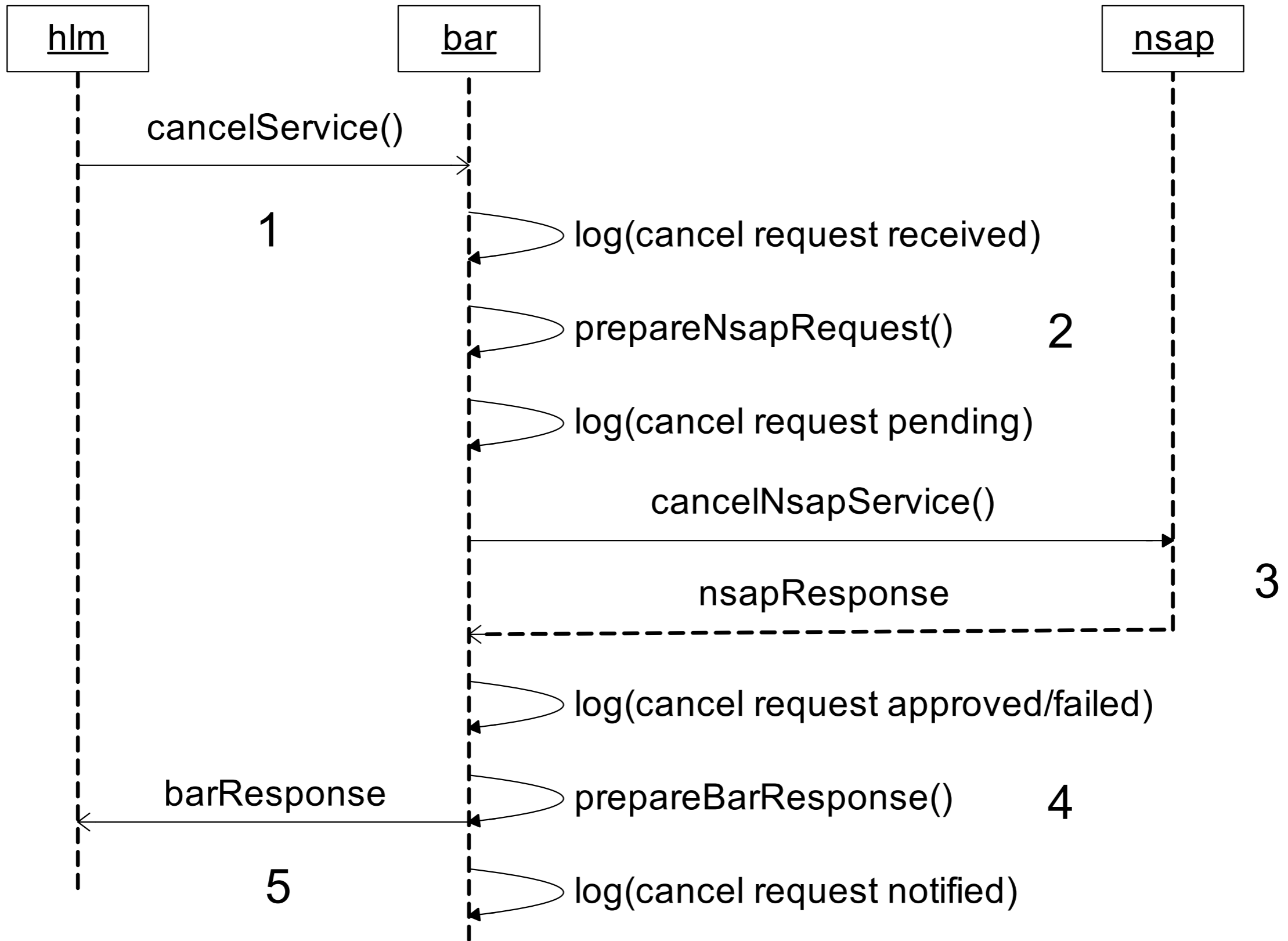
- **Proposed solution for BAR**

- `<BAR generated unique ID>:<NSAP unique ID>`
- BAR unique ID could be either
 - BAR instance specifier
 - hash code from NSAP service URL

- **In case a request could not be processed correctly**
- **Only for services which modify resources**
 - Reserve Service: GDFT and VLL
 - Cancel Service
- **When?**
 - Always when something unexpected happens and the actual status of the request is not known
 1. BAR crashes
 2. NSAP crashes
 3. BAR – NSAP Network connection lost (?)
 4. HLM – BAR Network connection lost (?)
- **How?**
 - BAR needs to check logs on start-up (1, 2)
 - BAR can recover immediately (3,4)

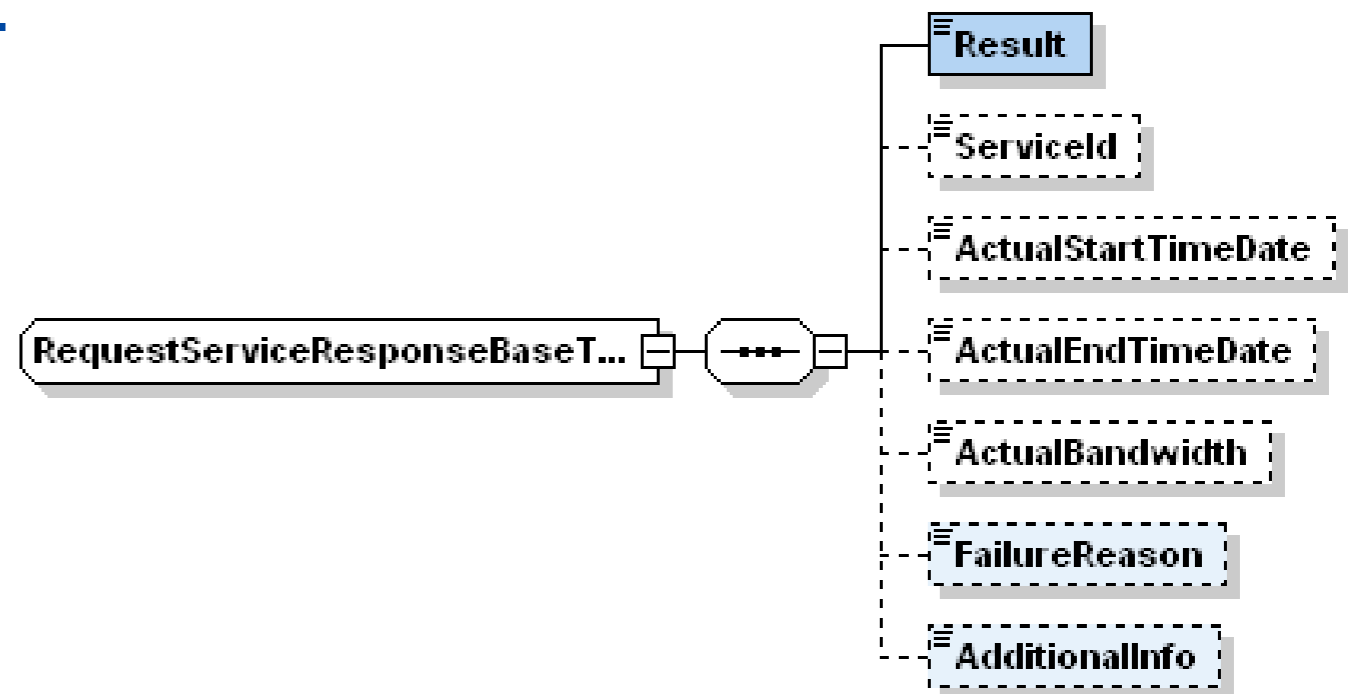


Crash at	Recovery action
1	N/A
2	Delete last log
3	<p>Problem: It is not known if NSAP executed request. In case of a reservation a Service ID is not known for cancellation.</p> <p>In case of a cancellation request, this one could be sent again?</p>
4	<p>Reservation Request: Cancel Service</p> <p>Cancel Request: Nothing to do?</p>
5	N/A ?



- **In which situations should an (SOAP) Fault be sent?**

- In unexpected situations like
 - Service Discovery failed
 - Connection to service failed
 - Request failed (\neq request could not be fulfilled)
- “Normal” error handling? E.g.
 - Missing Parameters
 - Wrong Service ID
 - Invalid Service ID
 - ...



- ➔ Should we move “result, failure reason and additional information” to fault types?

- **Applies for communication to:**
 - NSAP
 - (Remote) BAR
 - L-NSAP
- **Supposed Axis Fault Exceptions:**
 - ServiceDiscoveryException
 - ServiceName
 - ConnectionFailedException
 - ServiceName
 - ServiceURL
 - TimeoutException -> NPM
 - SecurityExceptions
 - RequestProcessingException (?)
 - ServiceName
 - ServiceURL
 - RequestData?

- **Debug [file, log4j]**
- **Info [file, log4j]**
- **Audit information [?, ?]**
 - Who
 - Distinguished Name (for secured services)
 - NSAP Transaction ID
 - What
 - Request and Service Type
 - Request specific data)
 - When
- **Recovery information [?, ?]**
 - Request type (*reservation, cancellation, query*)
 - State (*received → pending → approved | failed → notified*)
 - Service ID
 - ?