

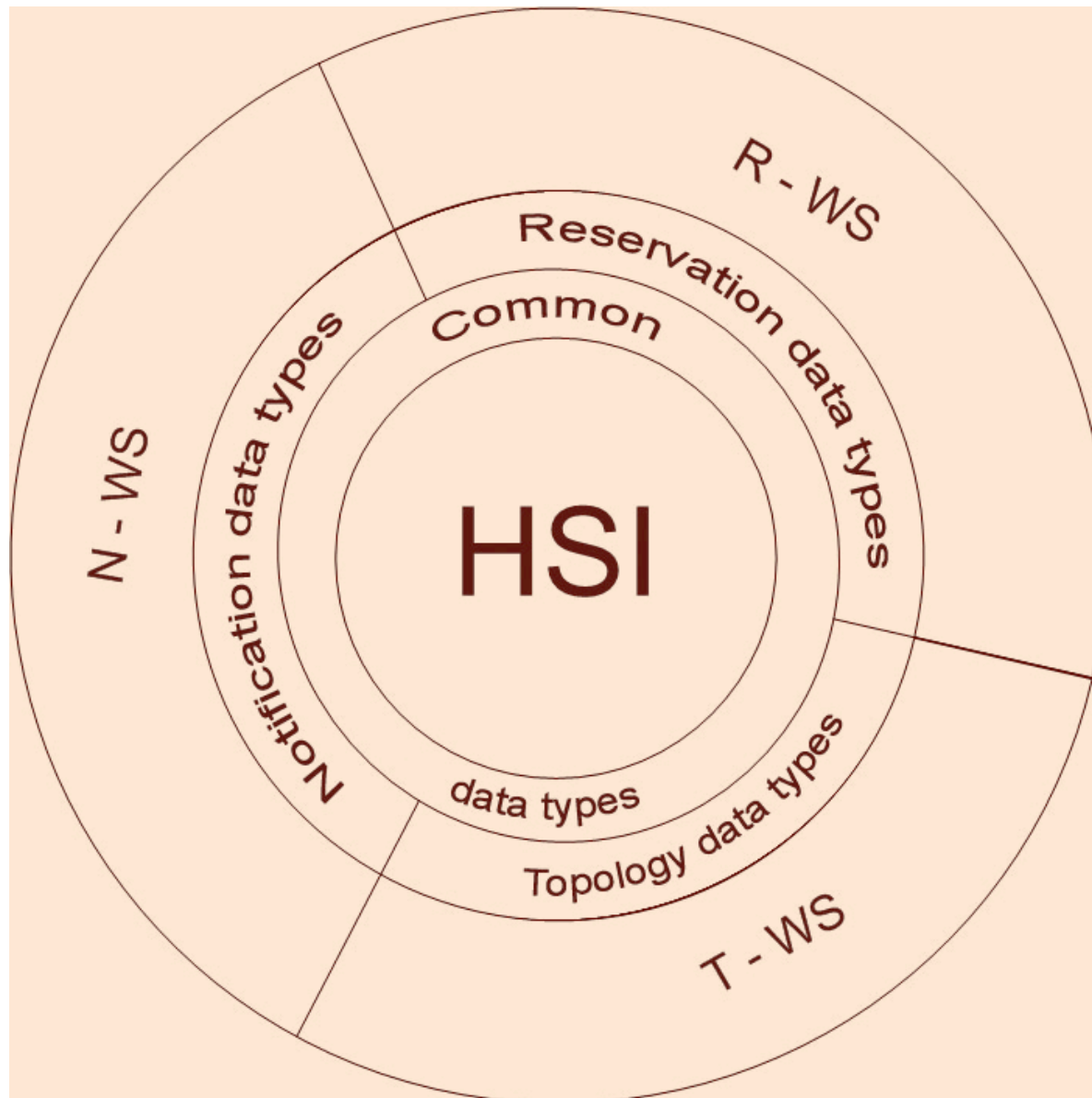
# Harmony protocol

EU-FP6 Phosphorus project

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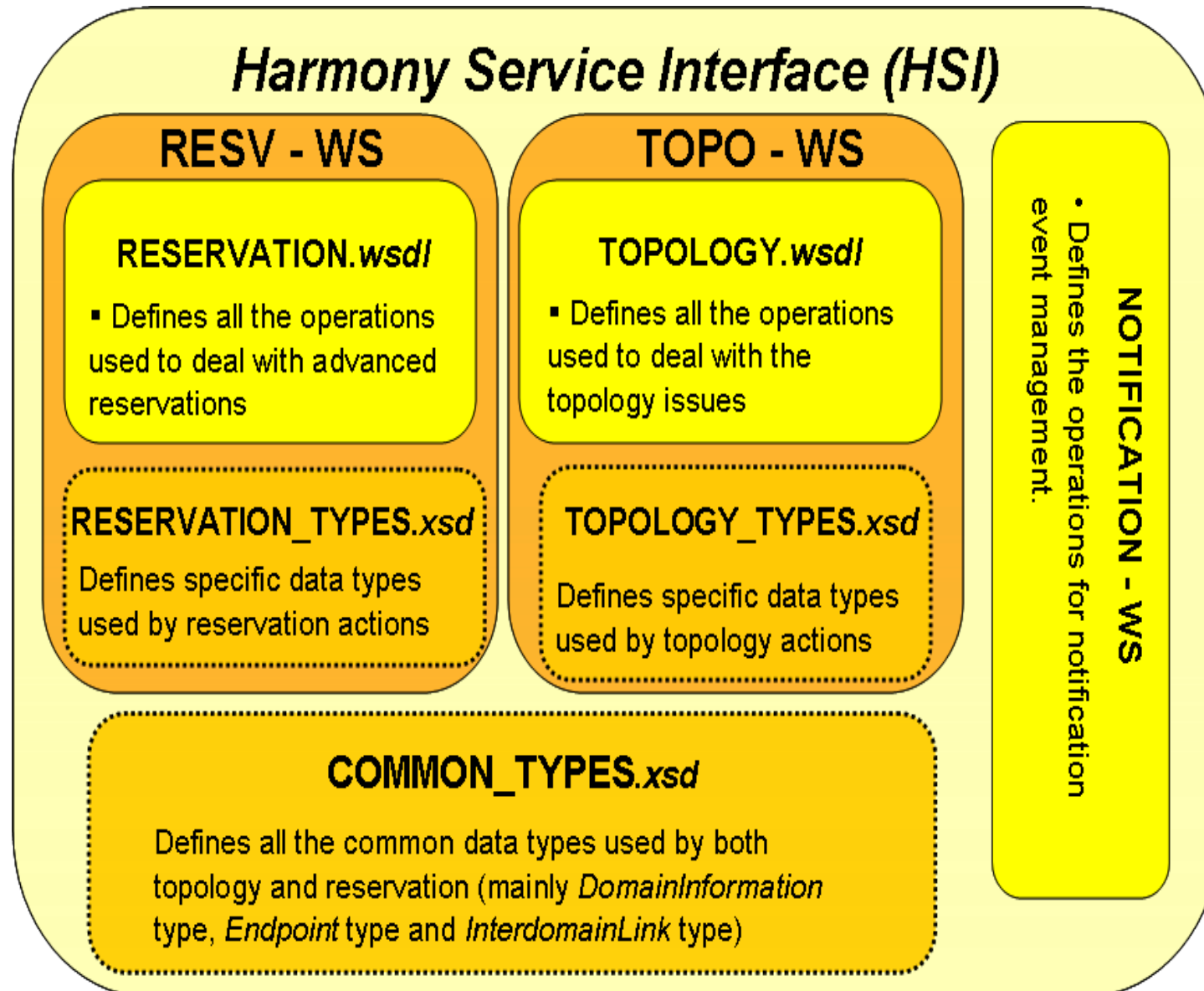
NSI-wg

# The Harmony Service Interface (HSI) – Overview



- **HSI is composed mainly by three components (Web Services):**
- **Reservation-WS:** This WS enables the middleware to create, cancel and query advance reservations.
- **Topology-WS:** This module enables Harmony to store, retrieve, modify and delete the resource-related information according to the topology of the controlled network domains.
- **Notification-WS:** This WS is in charge of the event notification management. The motivation for this WS is to eliminate the need for the system to be polled periodically.
- **HSI is WSRFv1.2 compliant**

# HSI Network Services – Detail



# HSI – Reservation Service

## Messaging (all have response; \*Response):

- *isAvailable*
- *createReservation*  
Service Info (ID, typeReservation, Connections..), jobID,  
Notification URL consumer
- *getReservation*  
ReservationID, ServiceID
- *getReservations*  
Start time, end time
- *getStatus*  
ReservationID, array servicesID
- *cancelReservation*  
reservationID
- *completeJob*
- *cancelJob*
- *activate*
- *bind*

networkReservationPortType		
isAvailable		
input	isAvailable	isAvailable
output	isAvailableResponse	isAvailableResponse
UnexpectedFault	UnexpectedFault	UnexpectedFault
InvalidRequestFault	InvalidRequestFault	InvalidRequestFault
OperationNotAllowedFault	OperationNotAllowedFault	OperationNotAllowedFault
EndpointNotFoundFault	EndpointNotFoundFault	EndpointNotFoundFault
TimeoutFault	TimeoutFault	TimeoutFault
OperationNotSupportedFault	OperationNotSupportedFault	OperationNotSupportedFault
createReservation		
input	createReservation	createReservation
output	createReservationResponse	createReservationResponse
getReservation		
input	getReservation	getReservation
output	getReservationResponse	getReservationResponse
getReservations		
input	getReservations	getReservations
output	getReservationsResponse	getReservationsResponse
getStatus		
input	getStatus	getStatus
output	getStatusResponse	getStatusResponse
cancelReservation		
input	cancelReservation	cancelReservation
output	cancelReservationResponse	cancelReservationResponse
completeJob		
input	completeJob	completeJob
output	completeJobResponse	completeJobResponse
cancelJob		
input	cancelJob	cancelJob
output	cancelJobResponse	cancelJobResponse
activate		
input	activate	activate
output	activateResponse	activateResponse
bind		
input	bind	bind
output	bindResponse	bindResponse

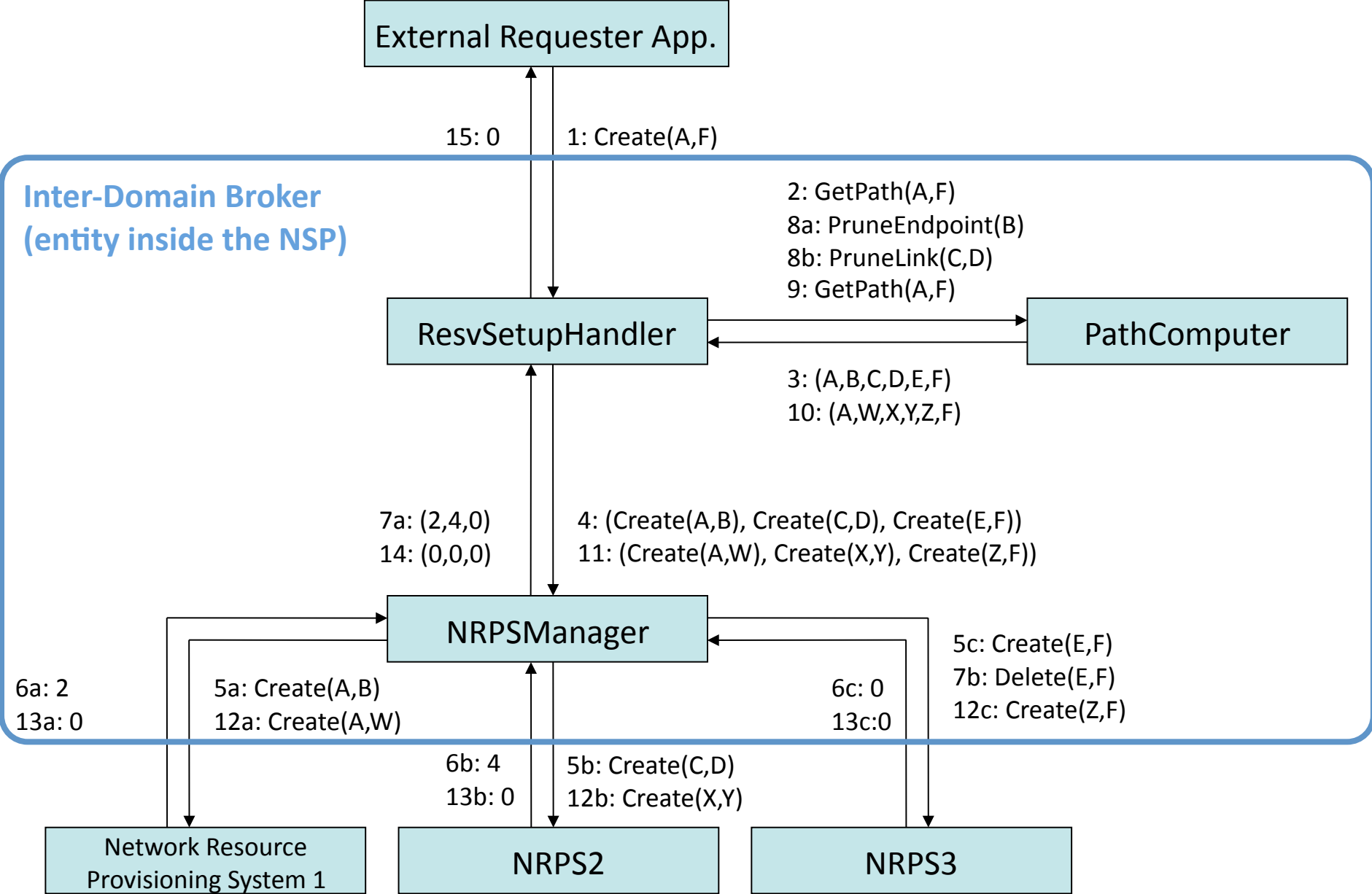
# HSI – Topology Service

## Messaging (all have \*Response):

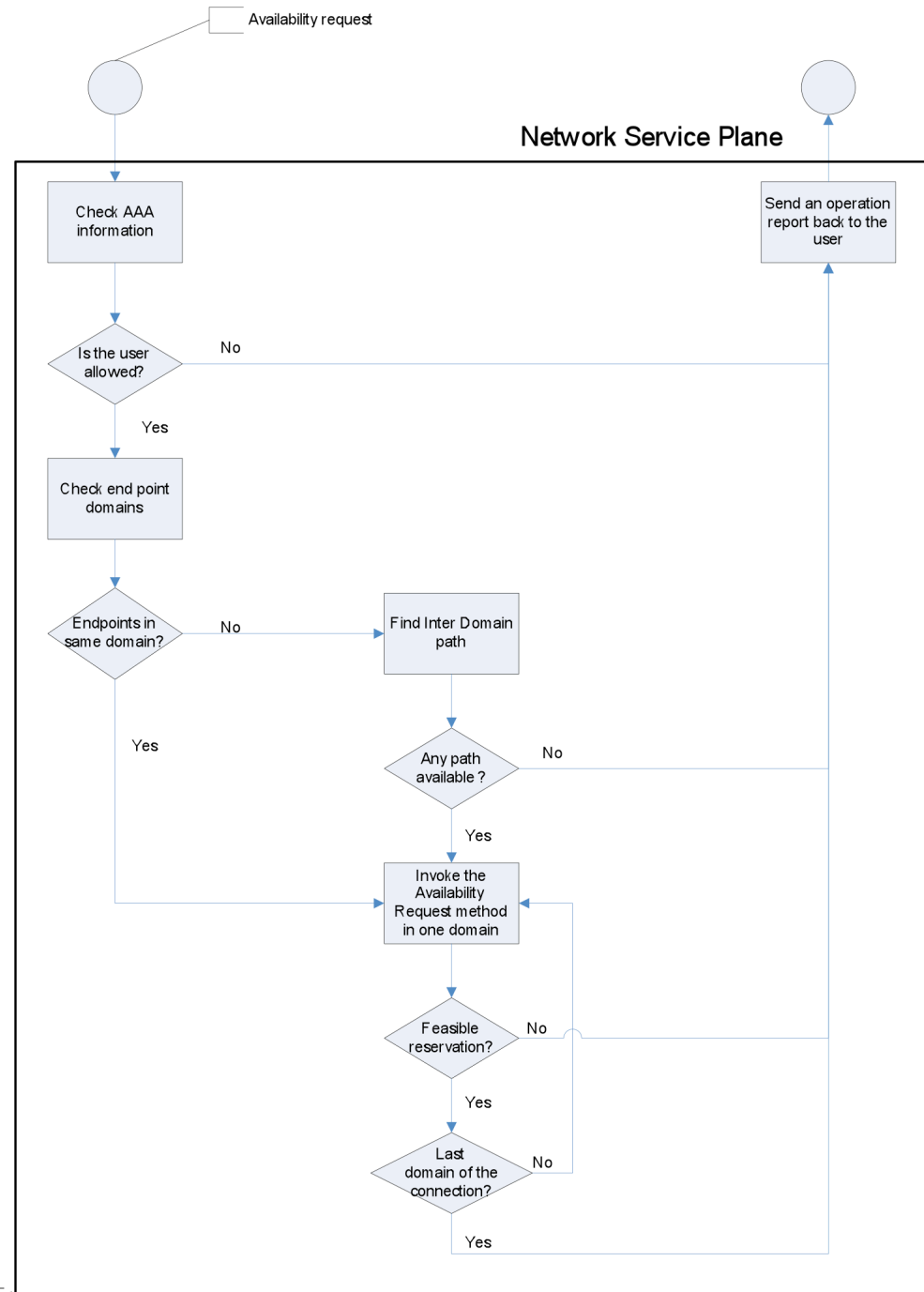
- *addOrEditDomain*
- *add/delete/edit/get Domain(s)*  
Identifier, Reservation EPR, Relationship, Bw, Description
- *add/delete/edit/get Endpoint(s)*  
Identifier, Name, Description, Interface, DomainId, Bw
- *add/delete/edit/get Link(s)*  
Identifier, Source Endpoint, DomainId, Costs

TopologyIFPortType		
addOrEditDomain		
input	addOrEditDomain	addOrEditDomain
output	addOrEditDomainResponse	addOrEditDomainResponse
addDomain		
input	addDomain	addDomain
output	addDomainResponse	addDomainResponse
deleteDomain		
input	deleteDomain	deleteDomain
output	deleteDomainResponse	deleteDomainResponse
editDomain		
input	editDomain	editDomain
output	editDomainResponse	editDomainResponse
getDomains		
input	getDomains	getDomains
output	getDomainsResponse	getDomainsResponse
addEndpoint		
input	addEndpoint	addEndpoint
output	addEndpointResponse	addEndpointResponse
deleteEndpoint		
input	deleteEndpoint	deleteEndpoint
output	deleteEndpointResponse	deleteEndpointResponse
editEndpoint		
input	editEndpoint	editEndpoint
output	editEndpointResponse	editEndpointResponse
getEndpoints		
input	getEndpoints	getEndpoints
output	getEndpointsResponse	getEndpointsResponse
addLink		
input	addLink	addLink
output	addLinkResponse	addLinkResponse
deleteLink		
input	deleteLink	deleteLink
output	deleteLinkResponse	deleteLinkResponse
editLink		
input	editLink	editLink
output	editLinkResponse	editLinkResponse
getLinks		
input	getLinks	getLinks
output	getLinksResponse	getLinksResponse

# R-WS Resv. Setup in the Network Service Plane (NSP)



# R-WS Availability request



# R-WS CreateResv. request

