

NSI Framework

Uniquely identifying an NSA

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What is an NSA?

The Network Service Agent (NSA) is a **logical** software entity that implements the NSI interface as well as the supporting processes to interact with the transport resources and/or middleware to deliver the requested service.

Statements

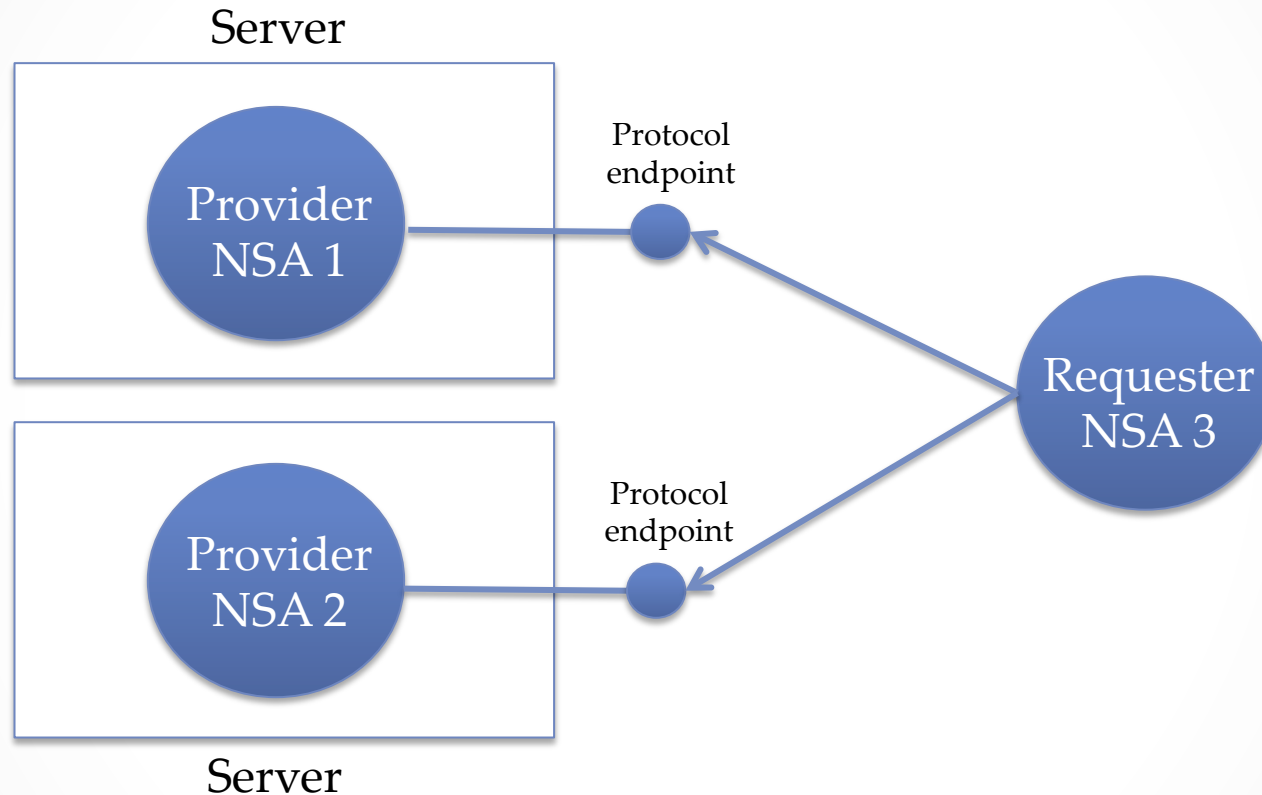
- A logical NSA entity is identified by a single NSA identifier.
- There is a one-to-one mapping between an NSA identifier and a physical network being modeled.
- A single NSA identifier cannot map to multiple physical networks.
- The requesterNSA and providerNSA elements in the NSI message header is the only mechanism that can be used to uniquely identify the source and target NSA for the message.

Statements

- The messaging layer address (SOAP endpoint) must not be used to uniquely identify an NSA.
- A network address must not be used to uniquely identify an NSA.
- Multiple logical NSA entities may exist on a single physical server.
- A single logical NSA may be implemented across multiple physical servers.
- A unique messaging layer address (SOAP endpoint) may exist for each logical NSA function (Discovery Service, Connection Service, and Topology Service).

NSA Deployment Examples

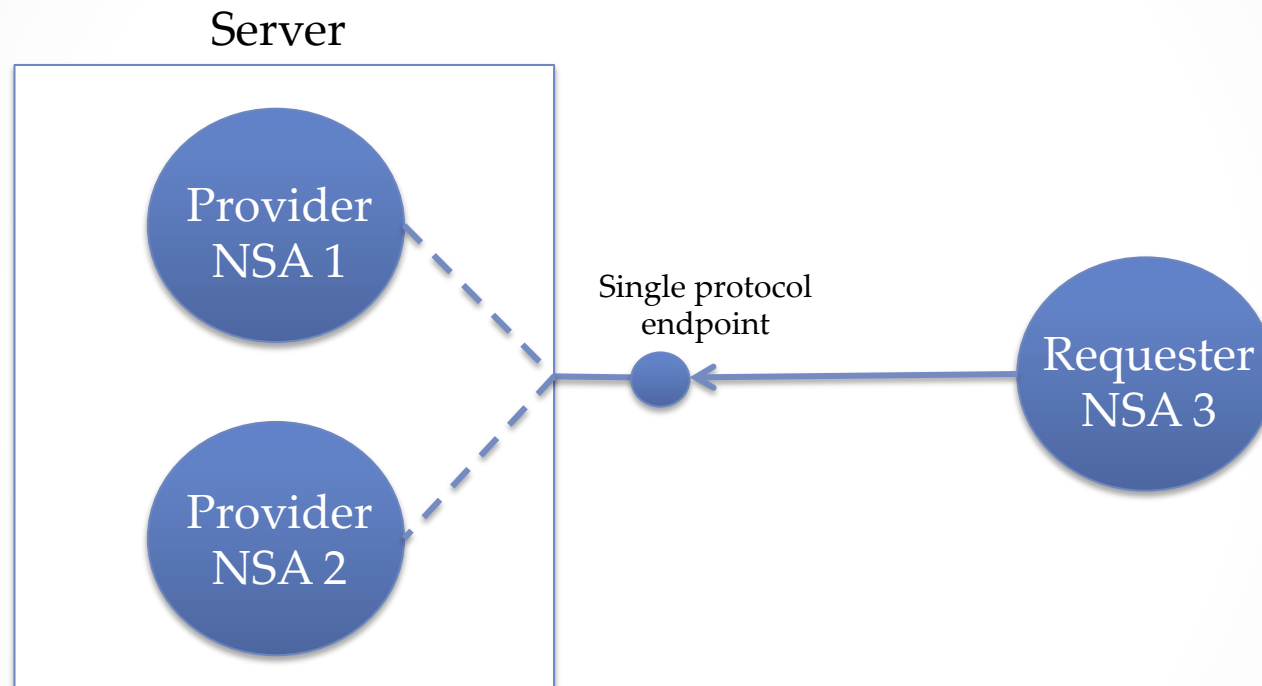
Standard view – Multiple servers



- In this example there are multiple logical NSA each on a dedicated server with a dedicated protocol endpoint.

NSA Deployment Examples

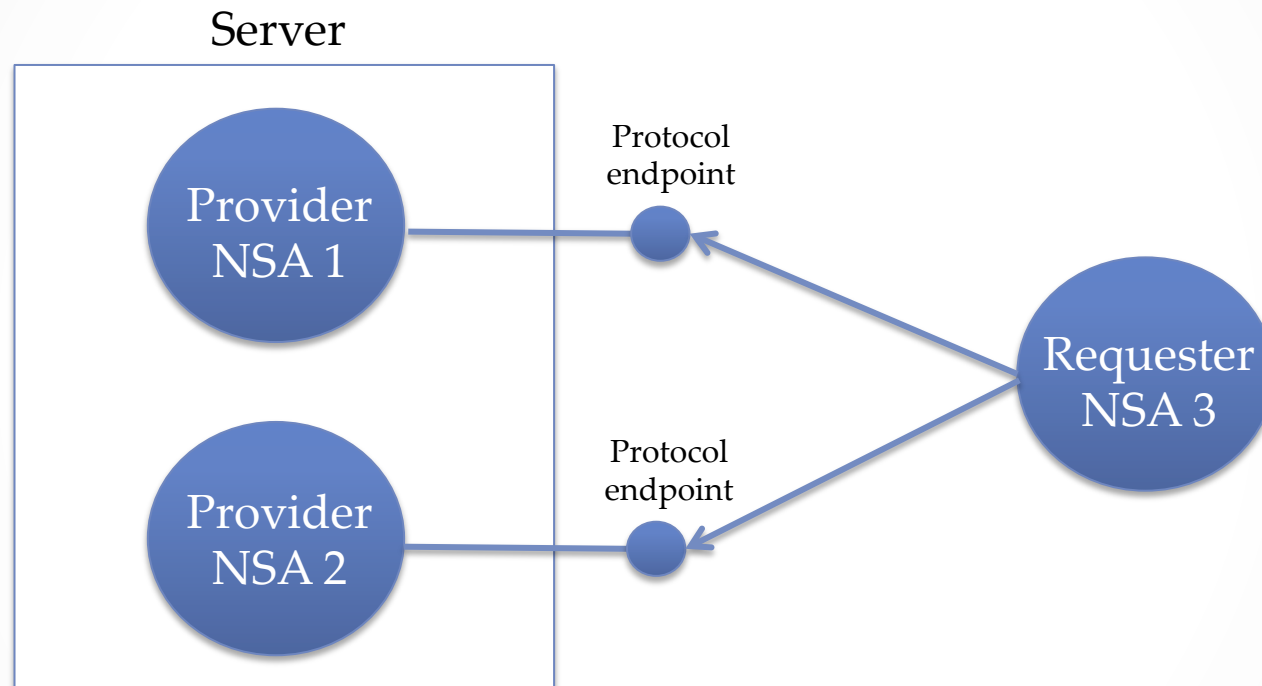
Single Server – Multiple NSA – Single Protocol Endpoint



- In this example there are multiple logical NSA present on a single server, however, they share a single protocol endpoint.

NSA Deployment Examples

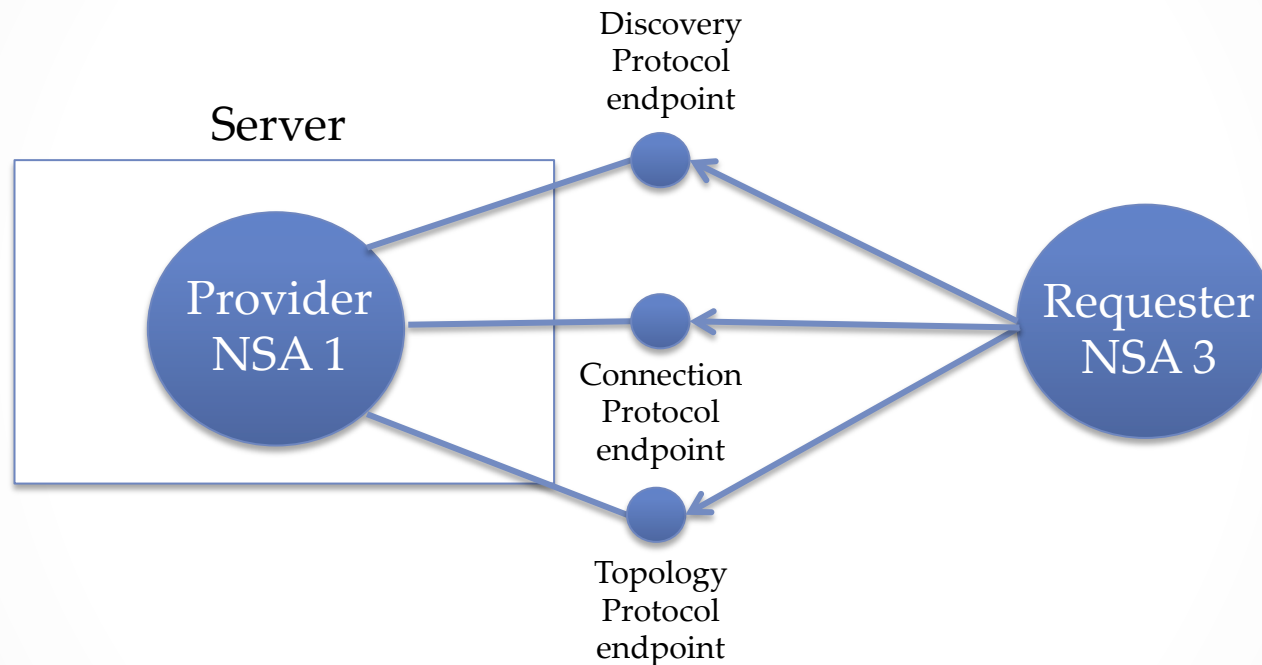
Single Server – Multiple NSA – Multiple Protocol Endpoint



- In this example there are multiple logical NSA present on a single server each with a dedicated protocol endpoint.

NSA Deployment Examples

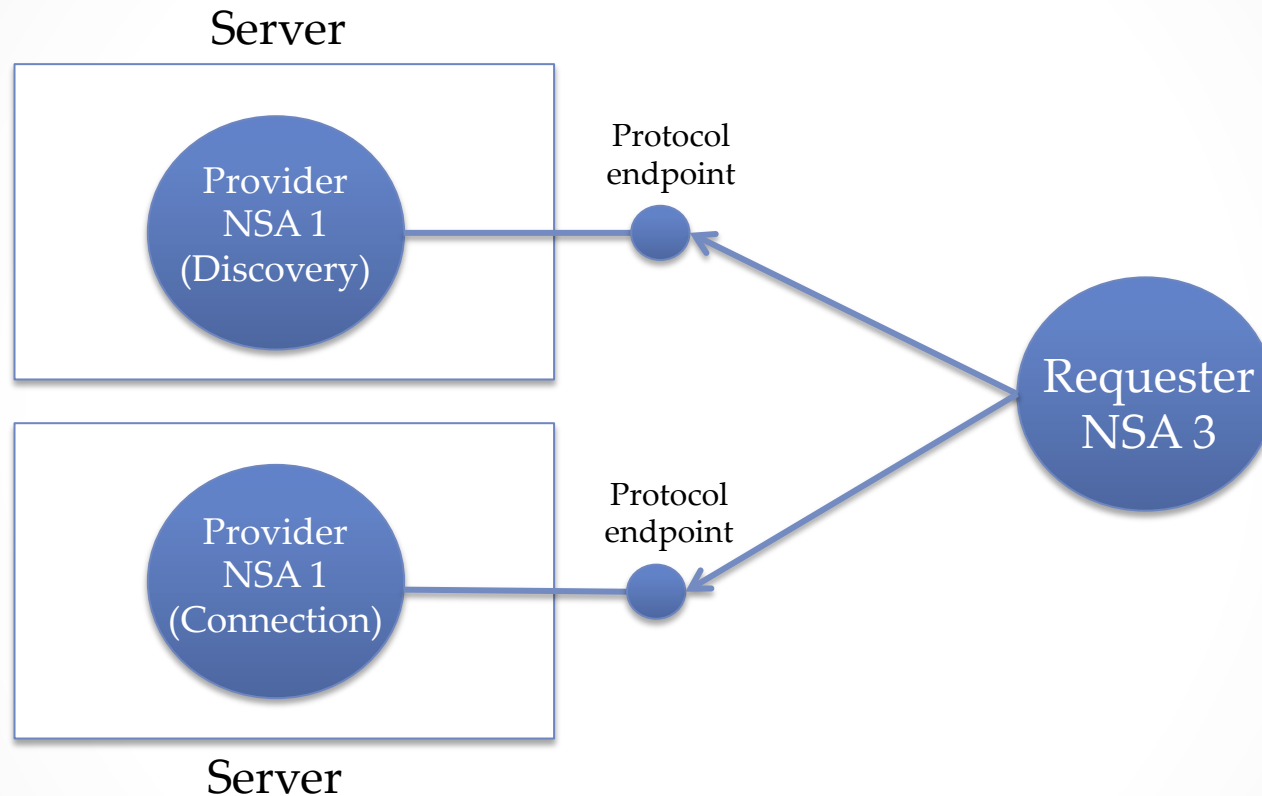
Single Server – Single NSA – Multiple Protocol Endpoint



- In this example there is a single logical NSA present on a single server with a dedicated protocol endpoint for each supported service.

NSA Deployment Examples

Multiple Server – Single NSA – Multiple Protocol Endpoint



- In this example there is a single logical NSA with individual functions deployed on a dedicated server.