

# NML/NSI Topology Service

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# Topology Service in nutshell

- NML/NSI compatible TS service.
- Simple RESTish style! Over HTTP(s).
- Supports simple PUB/SUB model.
- Easy to build clients; cURL just works fine.
- Has the hooks for feature extensibility (things I couldn't do due time constraints)

# TS Messaging

- Simple messaging format.
- Can be extended to add content signing for security!

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<message xmlns:nml="http://schemas.ogf.org/nml/2013/05/base#"
  xmlns="http://schemas.ogf.org/nsi/2013/09/messaging#">
  <body>
<!-- NSI/NML Elements -->
  </body>
</message>
```

# TS Operations

- Insert (HTTP POST):

```
curl -v -XPOST -H"Content-Type: application/xml" -d@msg.xml  
http://host:8080/urns
```

- Retrieve (HTTP GET):

```
curl -v http://host:8080/urns/urn:ogf:network:example.net:NSA
```

- Subscribe (HTTP GET):

```
curl -v -N -H"Connection: keep-alive"  
http://host:8080/urns/urn:ogf:network:example.net:NSA
```

- Update Replace (HTTP PUT):

```
curl -v -XPUT -H"Content-Type: application/xml" -  
d@msg2.xmlhttp://host:8080/urns/urn:ogf:network:example.net:NSA
```

# Future Features

- Implement Security: AuthN/AuthZ and message signing.
- Implement Delete operation (HTTP DELETE).
- Implement Caching: or in other words recursive operations.
- Implement a URN resolution service (but that is really a different service)

# Where can I find it?

- A test instance is running on:
  - <http://ltest.es.net:8080/urns>
- You can start your own instance:
  - <https://github.com/ahassany/topology-service/wiki/Using-NML-NSI-Topology-Service>
- You can contribute code to:
  - <https://github.com/ahassany/topology-service>
- If you like reading long documents checkout:
  - <http://goo.gl/n0y2Xy>

Thanks