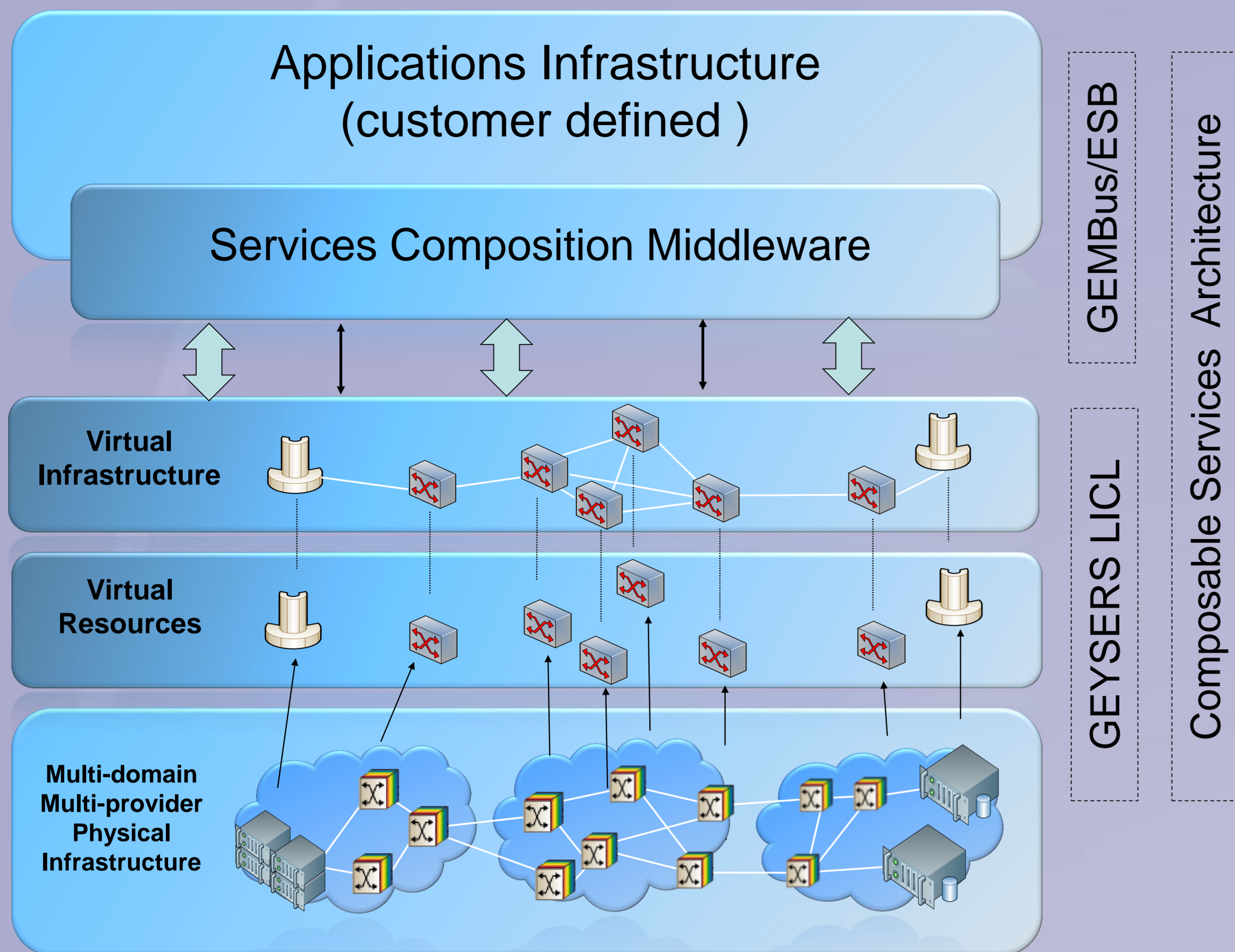


Platform for Interactive Services Composition

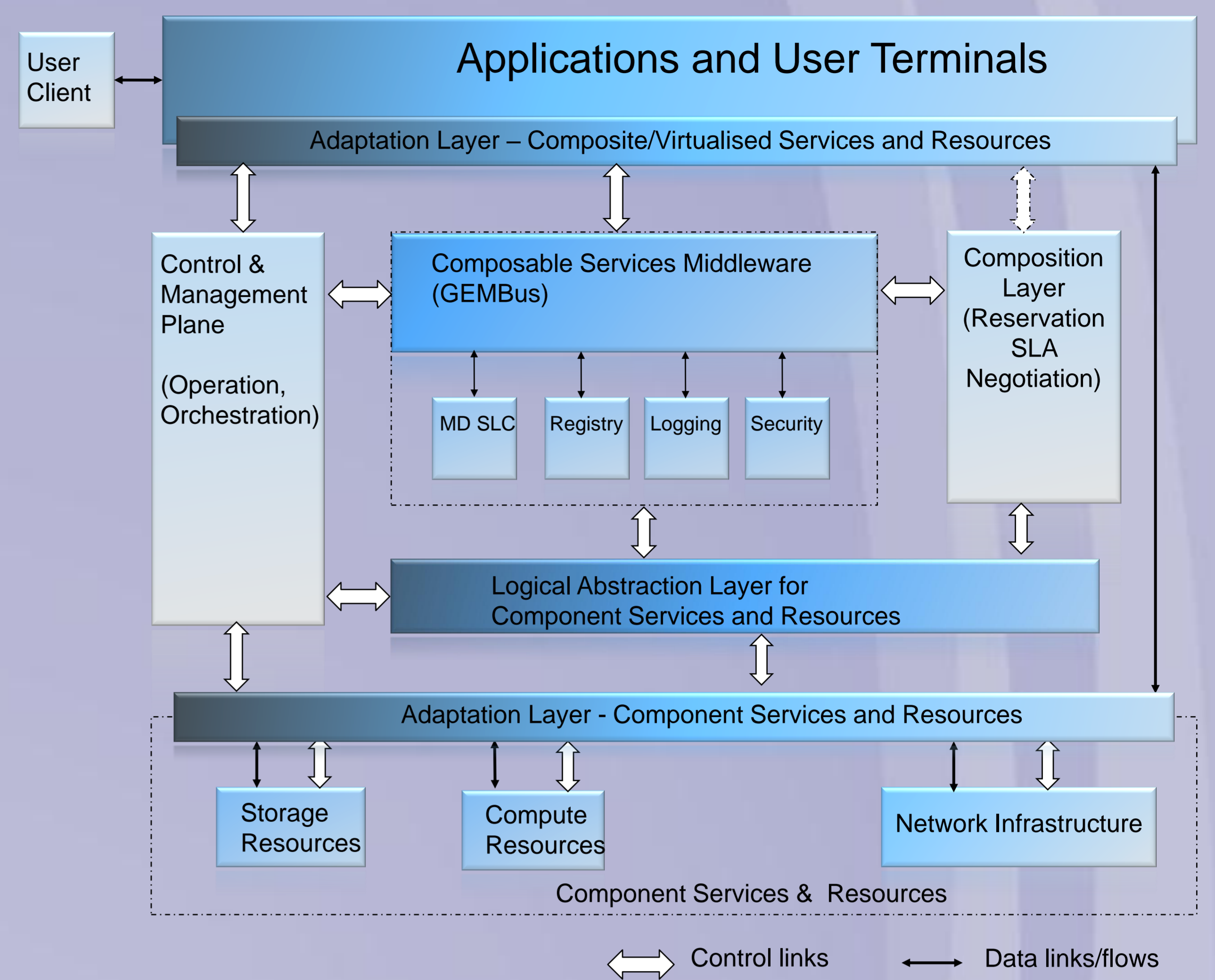
Multilayer Infrastructure stack



Architectural Framework for provisioning Infrastructure Services On-Demand (as Cloud IaaS) includes the following components

- Composable Services Architecture (CSA)
- Service Delivery Framework (SDF) that defines the services provisioning workflow and supporting infrastructure services
- Infrastructure Services Modelling Framework (SMF)
- Security Architecture for dynamically provisioned infrastructure security services and trust management

Composable Services Architecture (CSA)

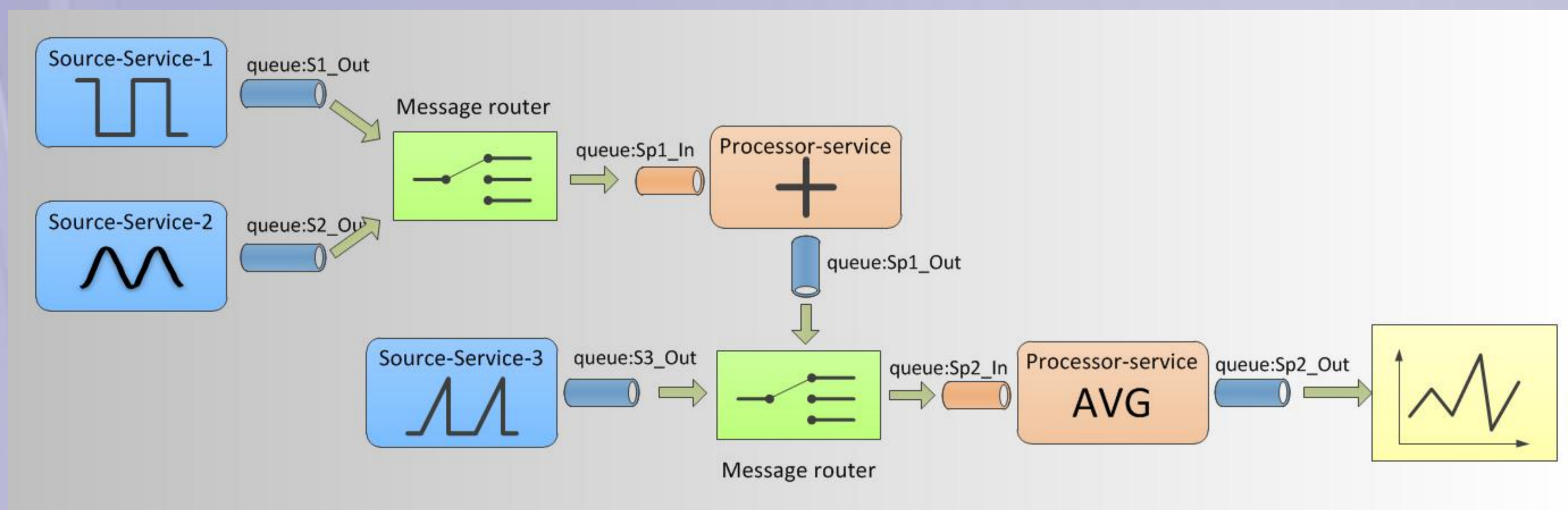


CSA provides a framework for Cloud based services composition, deployment and operation

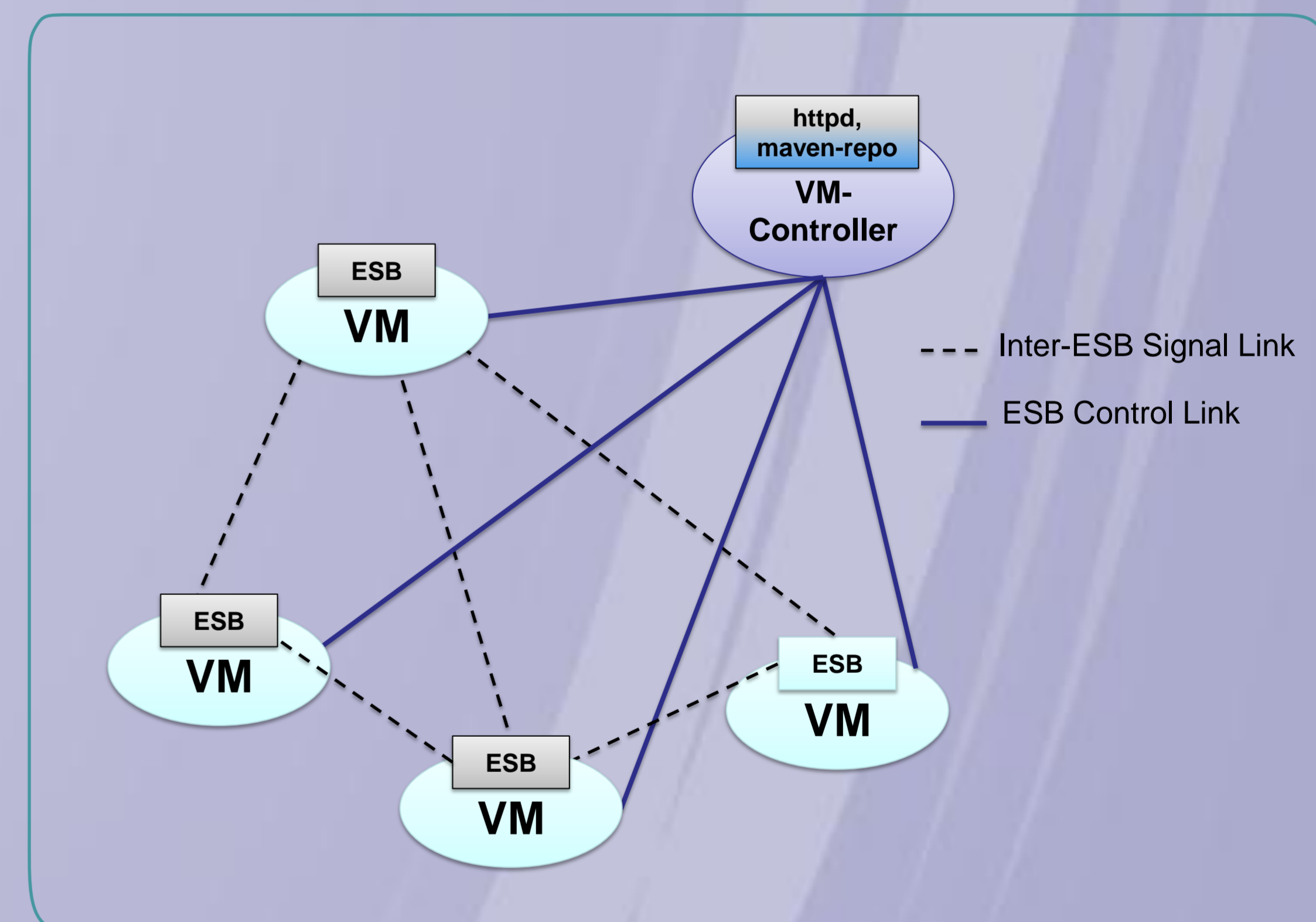
- Incorporates GEMBus (GEANT Multidomain Bus) as a Composable Services middleware platform
- Provides a basis for GEYSERS Logical Infrastructure Composition Layer (LICL) architecture definition to support combined Network+IT infrastructure services virtualisation and on-demand provisioning

Demo Scenario: Service Composition, Deployment, Operation

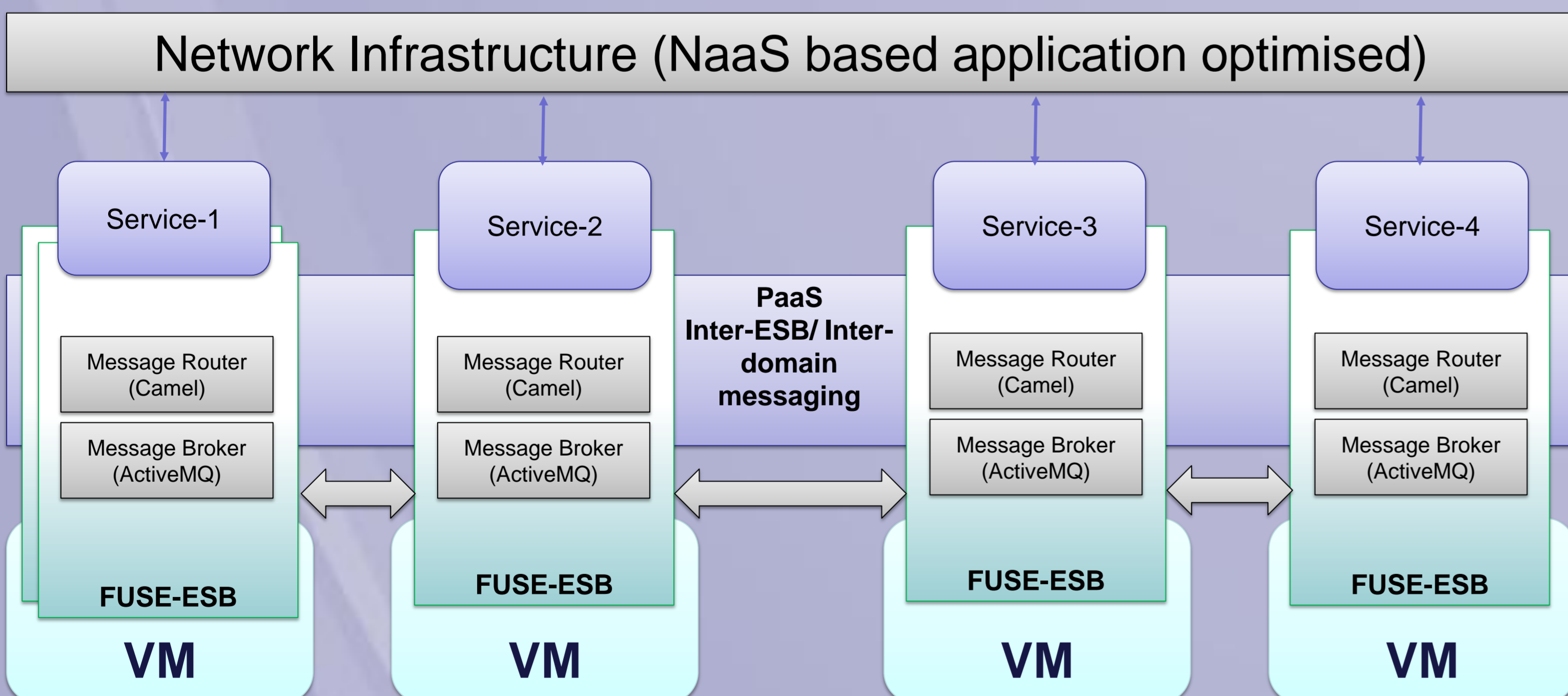
Services Composition Workflow



Controller and Network of Brokers



Testbed Architecture for ESB based Cloud PaaS



Signals routing:

```
from("jms:S1_Out").to("jms:S3_In")
;
from("jms:S2_Out").to("jms:S3_In")
;
from("jms:S3_Out").
bean(LogSignal.class,
"log(${body})");
```

Configuration beans.xml

```
<route>
  <from uri="jms:S1_Out"/>
  <to uri="jms:S3_Out"/>
</route>
<route>
  <from uri="jms:S2_Out"/>
  <to uri="jms:S3_Out"/>
</route>
<route>
  <from uri="jms:queue:S3_Out"/>
  <to
    uri="bean:logger?method=log"/>
</route>
```

Future Research and developments

- Extension to open ESB based Cloud PaaS development platform and environment
- Extension to and integration with the GEMBus/GEANT3 Composable Services testbed
- Integration with the GEYSERS Infrastructure Services Virtualisation testbed
- Creating testbed for dynamically provisioned infrastructure security services

Contributing projects:

GEYSERS (FP7-ICT-248657) – www.geysers.eu
 GEANT3 (FP7-ICT-238875) – www.geant.net

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