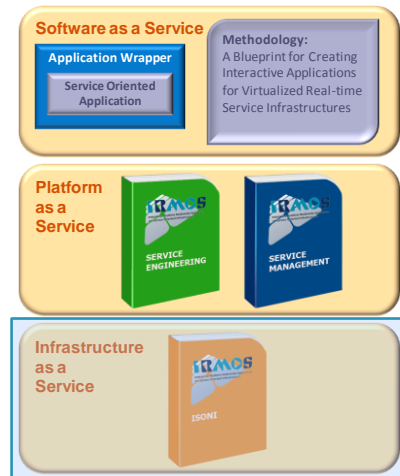


Intelligent Service Oriented Network Infrastructure (ISONI)

ISONI (Intelligent Service Oriented Network Infrastructure) consists of a network of resources (including CPU, storage, networking and software) that allows resource sharing among multiple services, providing fully virtualized resources with QoS guarantees necessary for interactive real-time applications. ISONI reduces the complexity for service providers/developers to roll out new network based services as it takes care of the automatic deployment of the services on best fitting resources distributed in a network and their management at runtime.



Key Features

- *Provisioning of fully virtualized resources (Compute, Network, and Storage) with QoS guarantees* across all resources which is required for real-time interactive applications.
- *SLA Management* (IaaS to PaaS provider), called Technical-SLA, including QoS terms.
- *Resource description* of the Service in Virtual Service Networks (VSN), Ontology model based interface, using RDF graph models (OWL).
- *Redundancy and fault tolerance*, including e.g. live migration of virtual machines.
- *Temporal isolation between services* on Compute, Network and Storage level.
- *Resource selection and reservation* methods, for all types of resource, hierarchical resource management for distributed data centers.
- *Resource Monitoring*, in particular a path supervision framework to monitor the network resources on service level.

Building Blocks

- *ISONI Gateway:* provides secured access to ISONI.
- *ISONI Info System:* provides information about general supported capabilities of the ISONI domain, OWL templates for service description and price information.
- *ISONI SLA-Manager:* responsible for the negotiation and management of Technical-SLAs with the ISONI customer, e.g. PaaS providers.
- *ISONI Network Virtualization:* includes the complete virtualization and management of the network resource.
- *ISONI Execution Virtualization:* includes the complete virtualization and management of the processing/compute resource.
- *ISONI Storage Virtualization:* includes the complete virtualization and management of the storage resource.

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Further information: <http://www.irmosproject.eu>

