

## IntelloT component available for OC #2 integration - Details

<b>Name</b>	TSN Controller
<b>Responsible partner(s)</b>	Siemens AG
<b>Brief description</b>	<p>A modular network controller, which gathers topology information from the active network through LLDP. It provides topology information and receives communication service requests, i.e. requests for data streams with guaranteed quality of service. For these requests it computes a network schedule and reserves resources on the network nodes accordingly. Additionally, a privileged tenant might request the network controller to isolate a node, e.g. a malicious or faulty node.</p>
<b>Interfacing (I/O)</b>	<p>REST-based northbound interface and web-UI to provide topology information and to receive communication service requests and isolation requests from tenants.</p> <p>Netconf-based southbound interface to network nodes to gather topology information and configure network nodes, i.e. to reserve network resources.</p> <p>Additional southbound interface adapters, e.g. for vendor specific CLIs of devices not supporting netconf, are possible.</p>
<b>Main interactions</b>	<p>Receive communication service requests from tenants, in UC3 typically from the edge orchestrator, via northbound interface.</p> <p>Configure network nodes in order to reserve network resources for requested streams.</p>
<b>Deployment</b>	Can be deployed locally, on VMs or Dockerized, but needs direct layer-2 access to TSN infrastructure.
<b>Licensing</b>	Proprietary
<b>Deliverable references</b>	Please refer to deliverable <b>D2.6 – “High level architecture (final version)”</b> , subsections <b>2.1.2, 2.1.3, 2.1.4, 2.2.2, 2.2.3, 2.2.4, 2.3.2, 2.3.3, 2.3.4, 2.4.2, 2.4.3, 2.4.4, 2.5.1, 2.5.3</b> , for more details regarding interfacing & integration of TSN controller.

