B3. Dynamic Real-time Infrastructure Planner (DRIP)

The attributes marked with a * are confidential and should not be disclosed outside the service provider.

<table>
<tr><td>Service overview</td><td></td></tr>
<tr><td>Service name</td><td>Dynamic Real-time Infrastructure Planner (DRIP)</td></tr>
<tr><td>Service area</td><td>compute</td></tr>
<tr><td>Service phase</td><td>alpha</td></tr>
<tr><td>Service description</td><td>The Dynamic Real-time infrastructure planner (DRIP) allows application developers to plan a customized virtual infrastructure based on application level deadline constraints and resource budgets, provisioning the virtual infrastructure using standardized interfaces (TOSCA and OCCI), deploy application components onto the virtual infrastructure, and start execution on demand.</td></tr>
<tr><td>Customer group</td><td>Any</td></tr>
<tr><td>User group</td><td>Distributed application developers</td></tr>
<tr><td>Value</td><td>Automated selection of optimal VMs and VM topology for an application workflow with deadline constraints; automatic provisioning of VMs according to the planned topology; automatic installation of application containers onto provisioned VMs from remote repositories.</td></tr>
<tr><td>Tagline</td><td>Optimised infrastructure planning and provisioning for time-critical applications.</td></tr>
<tr><td>Features</td><td>Partial critical path based VM infrastructure planning; Automated networked VM provisioning with support for multiple sites; Remote deployment of containerised application components onto provisioned VMs.</td></tr>
<tr><td>Service options</td><td>
<table>
<tr><th>Option</th><th>Name</th><th>Description</th><th>Attributes</th><th></th></tr>
<tr><td>1</td><td></td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td></td><td></td><td></td></tr>
<tr><td>3</td><td></td><td></td><td></td><td></td></tr>
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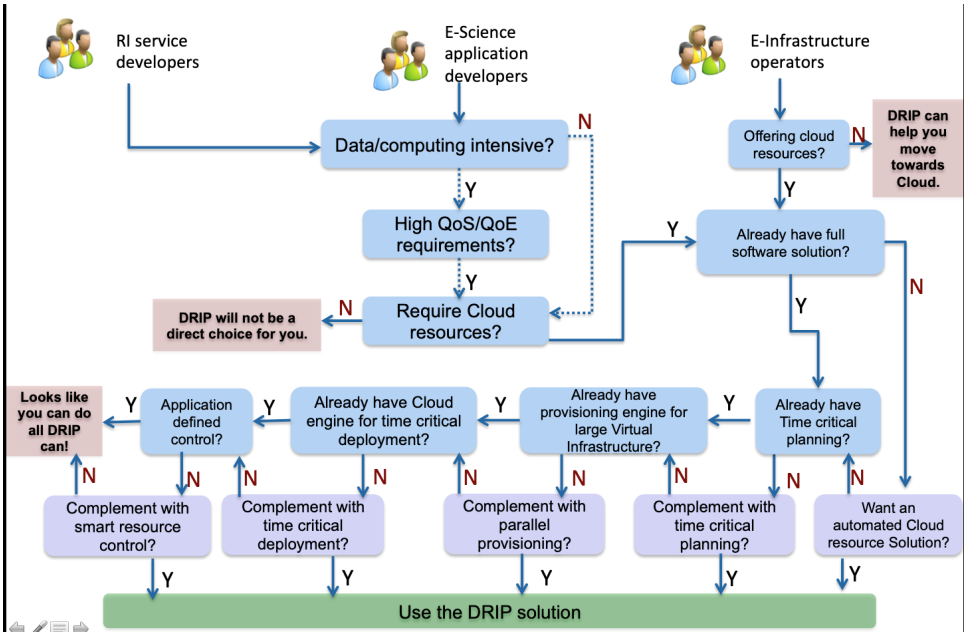
</td></tr>
<tr><td>Access policies</td><td>Policy-based.</td></tr>
<tr><td>Service management information</td><td></td></tr>
<tr><td>Service owner *</td><td>UvA (University of Amsterdam)</td></tr>
<tr><td>Contact (internal) *</td><td>Spiros Koulouzis: S.Koulouzis@uva.nl</td></tr>
<tr><td>Contact (public)</td><td>Zhiming Zhao: Z.Zhao@uva.nl</td></tr>
</table>

Request workflow *	See: https://github.com/QCAPI-DRIP/DRIP-integration/wiki 
Service request list	See: https://github.com/QCAPI-DRIP/DRIP-integration/wiki
Terms of use	https://github.com/QCAPI-DRIP/DRIP-integradation/wiki
SLA(s)	No SLA at present.
Other agreements	See: https://github.com/QCAPI-DRIP/DRIP-integration/wiki
Support unit	
User manual	https://github.com/QCAPI-DRIP/DRIP-integration/wiki
Service architecture	
Service components	<table><tr><th>#</th><th>Type</th><th>Name</th><th>Description</th><th>TRL [1]</th></tr><tr><td>1</td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td></td><td></td><td></td></tr></table>
Finances & resources	
Payment model(s)	Free.
Pricing	
Cost *	
Revenue stream(s) *	Project funding (H2020 SWITCH, ENVRIplus, VRE4EIC),
Action required	

[1] Technology Readiness Levels (TRL) are a method of estimating technology maturity of components during the acquisition process. For non-technical components, you can specify "**n/a**". For technical components, you can select them based on the following definition from the EC:

- **TRL 1** – basic principles observed
- **TRL 2** – technology concept formulated
- **TRL 3** – experimental proof of concept
- **TRL 4** – technology validated in lab
- **TRL 5** – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
- **TRL 6** – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)

- **TRL 7** – system prototype demonstration in operational environment
- **TRL 8** – system complete and qualified
- **TRL 9** – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies)