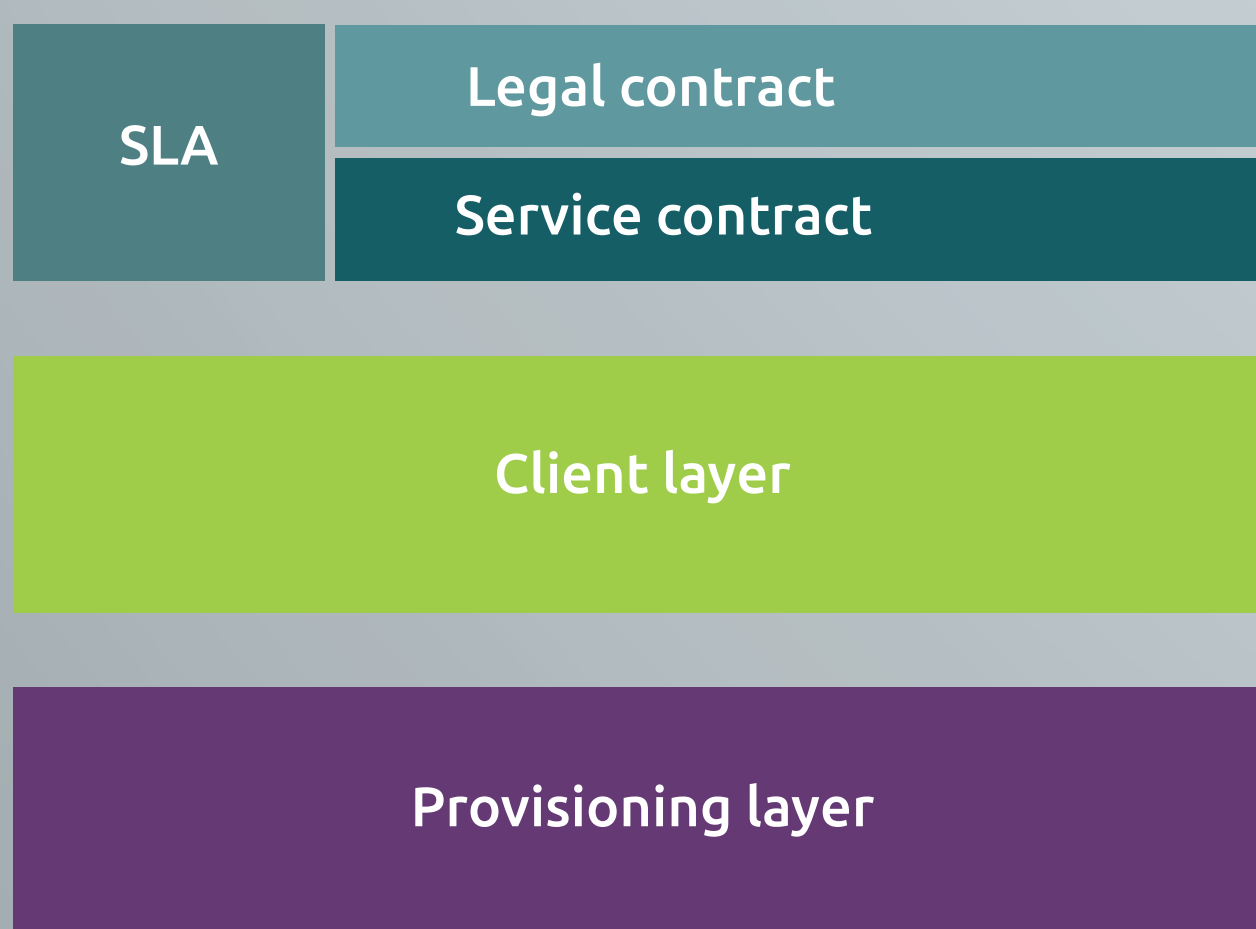


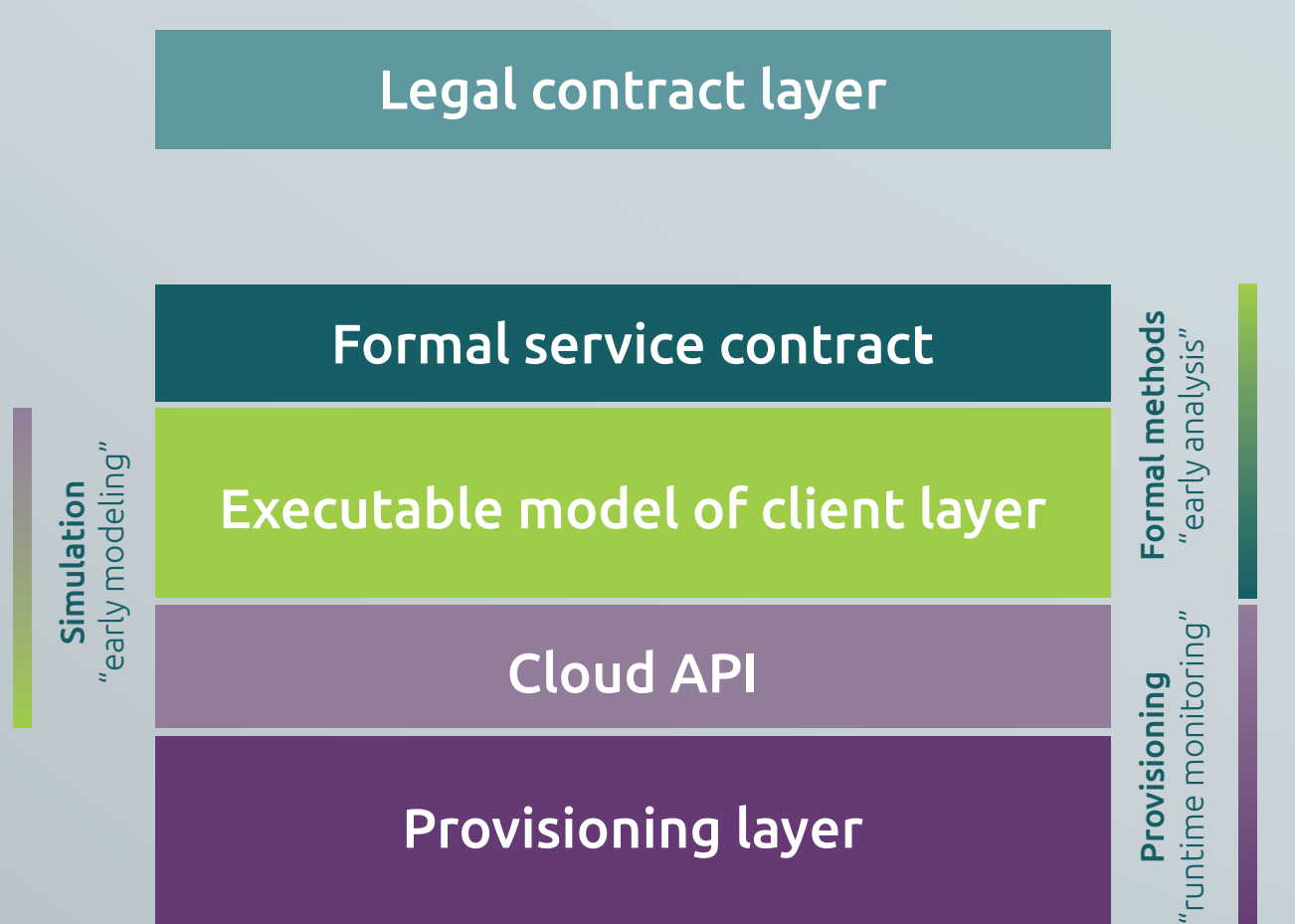
Engineering Virtualized Services



Three separate layers of a deployed cloud service



The integrated approach of Envisage



Envisage develops a semantic foundation for virtualization and service-level agreements (SLA) that goes beyond today's cloud technologies. This foundation makes it possible to **efficiently develop SLA-aware and scalable services**, supported by highly automated analysis tools using formal methods. SLA-aware services are able to control their own resource management and renegotiate SLA across the heterogeneous virtualized computing landscape.

The main outcome of Envisage is a practical **open-source framework for model-based development** of virtualized services that includes (1) a behavioral specification language for describing resource-aware models; (2) a simulator with visualization facilities; and (3) tool support for automated resource analysis, validation of SLA, code generation, and runtime monitoring of SLA for deployed services.

