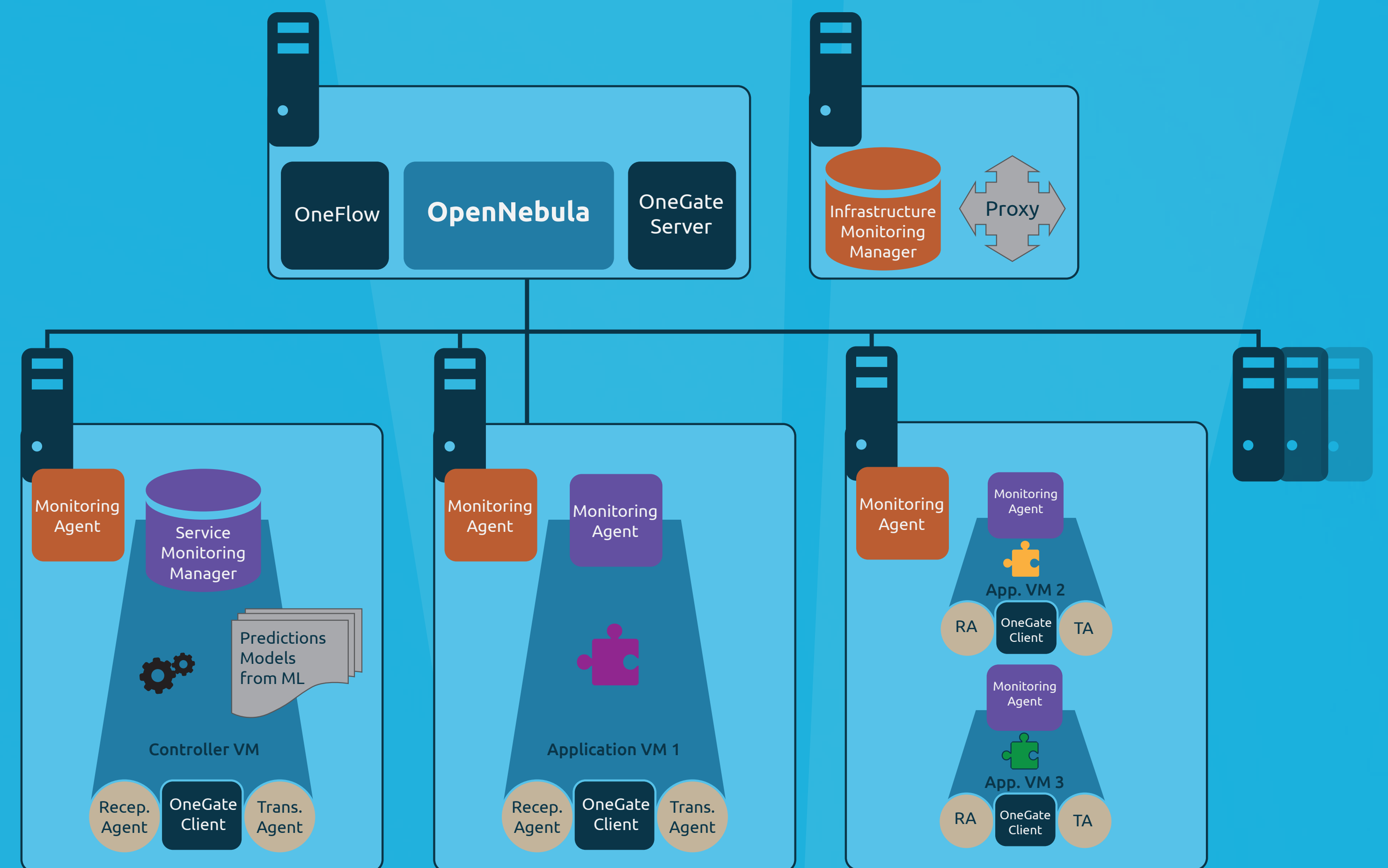



At a Glance

- **Goal:** To improve the **availability** and **performance** of services deployed in the cloud, while allowing significant **operational expense savings**.
- Innovative solutions for a **proactive and autonomic management** scheme of cloud services.
- PANACEA-enabled services will be able to **manage themselves, recovering** from many inevitable anomalies and **autonomously optimizing** their performance in changing conditions.




Panacea Innovations

 **Proactive Autonomic Management**
Machine learning framework for real-time prediction of anomalies (software crash, SLA violation) and proactive reconfiguration

 **Pervasive Monitoring**
Adaptive prioritization of which nodes to monitor, achieving low overhead monitoring, fine-grained data and high accuracy

 **Online QoS-Driven Task Allocation**
Allocation of incoming jobs to the best available resources in order to maintain and improve QoS of the jobs

 **Cloud Management Platform for Autonomic Services**
Self-awareness and self-configuration mechanisms as well as reconfiguration operations in the cloud manager

 **Overlay Routing System**
Self-healing and self-optimizing routing overlay, shielding distributed services from path outages and performance degradations of the Internet

 **Overlay Simulation**
Provides a simulation environment to design and optimize overlay networks



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