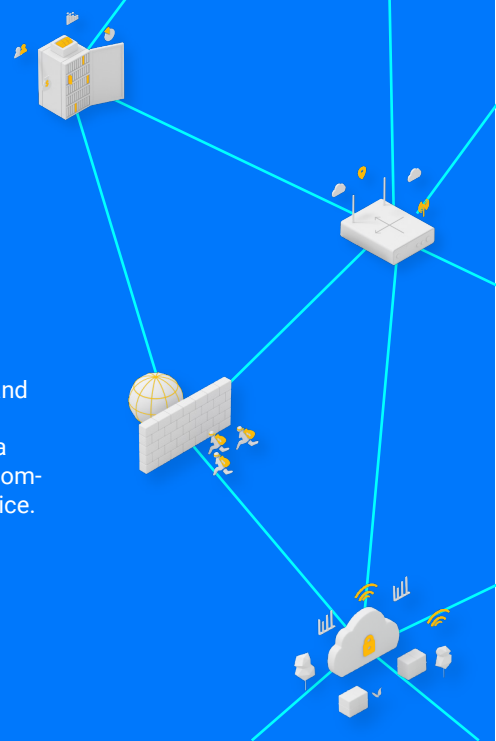


ONAP Solution Brief

Enhancing ONAP with Advanced Cloudify Services

Cloudify & ARIA integrations with the ONAP OOM, DCAE, and VNF SDK projects allows you to run ONAP on a multi-cloud environment, providing a generic platform to manage Kubernetes and Docker as the base platform that are used to run ONAP. Cloudify enables you to expand ONAP to manage physical network functions, as well as non-cloud native network services through a common platform. All this, with the built-in user management, security, multi-tenancy and custom-portal speeds up the time it takes to launch those services into a production-grade public service.



Cloudify for ONAP



Training & Education



Lab and Development Environment for ONAP



Network Security through application-driven networking



Supporting Edge Computing and other future services



Benefits for System Integrators & VNF Providers

Training and Education

Cloudify provides an ONAP Fundamentals & Advanced workshop, TOSCA training and labs that supercharge your team's knowledge and path to getting hands-on experience with ONAP and TOSCA in no time.

Lab and Development Environment for ONAP

Cloudify provides lab services that makes it easy to launch ONAP environments in minutes, giving developers and users the ability to experiment with the technology, and update the environment to the latest ONAP build through a single click experience.

In addition, Cloudify enables you to run multiple instances of ONAP through a common Cloudify management platform, providing a common control plane for managing a development, QA and production environment.

- **Integration of ONAP with existing network services**

Cloudify provides a simple way to automate existing and physical network functions, and connect them into a service that runs through ONAP. In this way, it's possible to make the move to virtual networking significantly simpler by allowing more agile and gradual steps.

- **Early and gradual adoption of ONAP at lower risk**

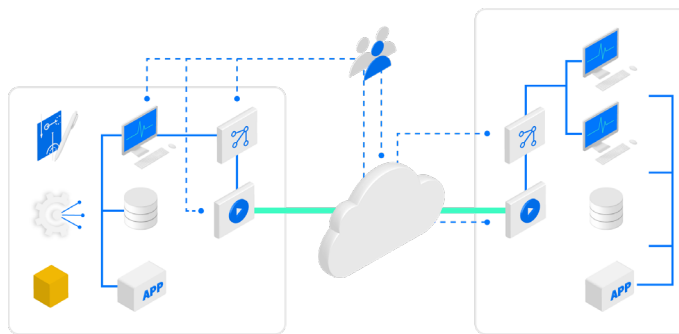
ONAP is a new project, and as any new project, it is expected to evolve through a long (and often times painful) maturity cycle. Using Cloudify alongside ONAP provides a smoother path to grow with ONAP adoption as it gains maturity, all without having to wait first for that to happen. Cloudify already supports TOSCA as its core modeling language, and is able to serve as an abstraction layer that will allow users to choose the target orchestration engine that best fits their needs.

Additional Features:

- Single Pane of Glass - Manage ONAP alongside other IT services
- Multi-Site Management for ONAP - Dev/Test alongside multi-site deployments
- Cloudify for Service Orchestration (Via ONAP SO Adapter) - Manage the dependencies between ONAP services, as well as automate the management workflow tasks such as upgrade, updates, and more
- Robust Multi-VIM Orchestration - Handle multi-cloud environments without compromising on the least common denominator, without being bound to a specific platform

Network Security through application-driven networking

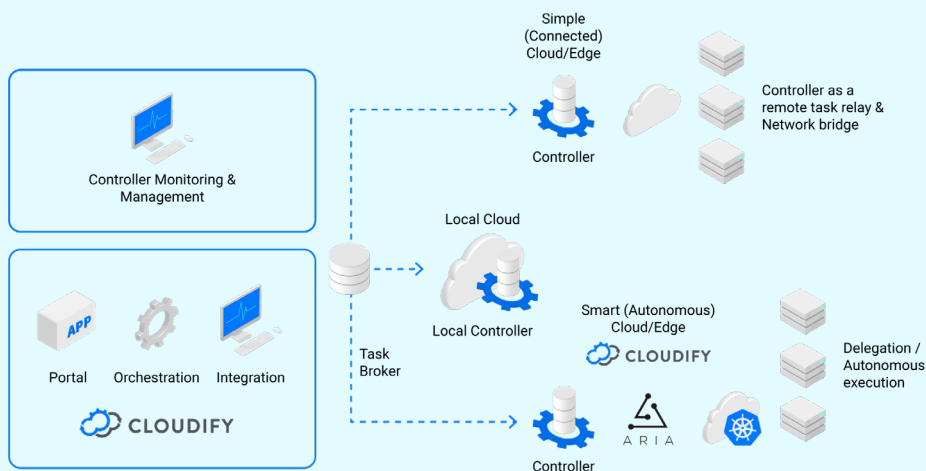
Using a common lifecycle management for application and network services allows you to create application-defined firewalls, security rules and policies, open and closed security networks, only when needed.



Supporting Edge Computing and other future services

Cloudify's modular orchestration was built to manage large-scale, heterogeneous, distributed deployments. This modular deployment model provides greater flexibility to deal with footprint through lightweight orchestration at the edge, as well as network bandwidth and vulnerabilities by adding autonomous management capabilities at the edge. This minimizes the communication with the central management.

Cloudify is best suited to bridge multi-network segments, and has a central manager running on one network that can manage an edge device or group of devices through a local controller.



Benefit for System Integrators and Partners

NFV projects many times come with a fairly large portion of custom services for integrating the NFV orchestration into the OSS/BSS backend, billing services, custom portal and more.

System integrators have a key role in delivering the actual solution for service providers. The Cloudify solution for ONAP is open and highly customizable, and provides system integrators with all the building blocks that will enable them to customize and white label solutions to fit their specific solution stack.

Benefit for VNF Providers

VNF providers could use Cloudify and ARIA to make their VNFs compatible with ONAP, and in the same way remain independent of ONAP to allow them to serve other markets and deployment environments, such as enterprises and public clouds.

Cloudify and ARIA provide a lightweight management layer that will allow VNF providers to easily integrate with their own management stack while choosing varied support models, starting from free to full end-to-end support models.

MetaSwitch, Lumina Networks, Spirent, Versa, Fortinet, F5, Huawei and many others already support Cloudify as part of their VNF offering.

Learn more about how Cloudify is involved in the ONAP Project, in this [technical white paper](#).