SOLUTION BRIEF

One-Touch Provisioning for Automatic Cloudlet Onboarding

Overview

The rollout of 5G is transformative to the performance of many technologies, including applications requiring computing and performance speed. As more devices are introduced into the market, the ability to provide reliable service and satisfy users' expectations for stable connections is much needed. Riding the wave of the 5G distributed network rollout is exciting for most operators. It's an opportunity to expand their cloud infrastructure to distributed locations and continue their cloud-based offerings to considerable customer bases.

Operators offering edge cloud solutions often have a cloud infrastructure made up of several components where each component is integrated into a single cloud architecture. The components may include different IaaS layers (virtualization), different hardware, multi-vendors for the different layers that make up their edge cloud solutions, and other components. With this in mind, cloud automation becomes essential in ensuring that faster and automatic network infrastructure deployment to host their edge network can be quickly achieved.

The Challenge

While this can be an exciting time for operators, it does have its challenges. Scaling out a network infrastructure can be a huge undertaking. Full adoption of cloud automation can be seen across all types of businesses, and those businesses understand the advantages of automating cloud infrastructures. Cloud automation and the management of the data, applications, resources, and services provide an added layer of complexity when network infrastructure may consist of multiple cloud providers, different IaaS layers used, multiple hardware, and the need to manage resources spanning across multiple cloudlets in distributed locations. With these challenges in mind, operators can expect to see an increase in OPEX and dedicated resources to manage, track, administer, and maintain cloudlets as they scale out their infrastructure. Operators need a solution to accelerate this process with minimal resource requirements.

The Solution

The MobiledgeX platform solves this challenge by providing a full multi-tenant control plane that supports **one-touch provisioning** of edge cloud services. Our solution also offers a Cloudlet Resource Manager plugin, where edge infrastructure can be aggregated across the operator's network locations even if different IaaS layers are used within the cloud infrastructure. This provides operators with an infrastructure-agnostic approach and makes the task of scaling their infrastructure even more simplified. Whether operators are using VMware, VMware Sphere or VMware Virtual Cloud Director with our platform, operators experience a lower barrier of entry to quickly offer their cloud resources and services to developers.

First Advantage

With almost no configuration steps required with one-touch provisioning, operators can quickly onboard cloudlets even if their network infrastructure spans across different IaaS stacks, worry-free. Our platform considers the different mirage of components that make up a cloud infrastructure network and does not waiver in the performance and expediency levels that operators would expect otherwise. Their aggregated, federated cloud resources can be immediately available to developers once they grant developers access to their infrastructure.

Second Advantage

Once the cloudlet(s) are onboarded, and operators grant developers access to them, developers can immediately start deploying third-party external applications. Further, operators can use their own cloudlets and resources for their internal network workloads. Once developers are brought on to the platform, operators have complete control and visibility of all applications deployed.

With MobiledgeX, one-touch provisioning can:

- Reduce downtime for developers wanting immediate access to resources.
- Eliminate manual configuration for onboarding cloudlets.
- Decrease OPEX cost and resource allocation to manage scaling your business.

Benefits

Deploying Cloudlets

Learn the different access types available when deploying your cloudlets.

Debugging

Once cloudlets are available to developers, take advantage of the control and visibility of applications deployed onto cloudlets.

About MobiledgeX

MobiledgeX Inc. is building a marketplace of edge resources and services that will connect developers with the world's largest mobile networks to power the next generation of applications and devices. MobiledgeX is an edge computing company founded by Deutsche Telekom AG and headquartered in San Francisco, California. Additional information can be found at https://mobiledgex.com