

nClouds | AWS Case Studies

Avaya

AVAYA**Industry**

Unified communications, cloud computing, cybersecurity

Location

Santa Clara, CA

Challenge

Migrating a strategic, on-premises service to public cloud to improve scalability, developer experience, and sales velocity

Featured Services

Cloud migration, DevOps, digital transformation

About Avaya

Avaya is a global leader in digital communications software, services, and devices for businesses of all sizes. The company specializes in providing open, intelligent and customizable solutions for contact centers and unified communications while offering the flexibility of cloud, on-premises, and hybrid deployments to help management services teams optimize solutions for highly reliable and efficient deployments. They currently serve more than one million business customers with their two segments, Avaya Global Services and Global Communications Solutions. The company has received numerous awards, including the 2017 North American Customer Value Leadership and the 2017 Gold Edison Award for innovation in the category of Cyber Security.

For more information, visit www.avaya.com/

Benefits Summary



Faster provisioning



Better customer experience



Scalability



Improved operator experience

CHALLENGE

Migrating a strategic, on-premises workload to the cloud

Since 2001, Avaya has been providing integrated communications solutions to companies of all sizes worldwide. Until May 2017, the company used on-premises virtual machines (VMs) to host their Avaya Breeze™ Collaboratory sandbox service, which they provisioned manually. The Collaboratory service gives organizations an environment in which to develop the applications they need to address a variety of challenges.



Working with nClouds, we architected a new sandbox offer on AWS to augment our pool of on-premises VM environments. The result is that we reduced the provisioning time for our CPaaS developer sandbox from several days to less than three hours, and have eliminated barriers to scalability of our lab service. This gives us the ability to rapidly and automatically build sandboxes on demand for internal and external customers, enhance the developer experience, and improve sales velocity.”

Valerie Heath, Avaya Senior Product Manager & Developer Evangelist

While the platform was great at solving customer problems, it took several hours to provision a new development environment. Longer provisioning cycles meant that Avaya was unable to maximize their sales velocity and customer/developer experience. This created a variety of challenges for the team:

- High costs associated with maintaining on-premises infrastructure.
- Inability to rapidly scale and react quickly to customer demands.
- Sub-par customer experience resulting from slow delivery or queuing for lab space.
- Lack of automation meant that repetitive build management and customer onboarding tasks were performed manually.
- Internal labs were shared by many users, resulting in sub-optimal performance from lab resources that were over-subscribed.

To improve the reach of their cloud development environment, Avaya needed to migrate the base Amazon Machine Images (AMIs) and have the ability to deploy more than 100 VMs to the cloud, on-demand through an automated process. “With a platform as open as Avaya Breeze, sandboxes are a must-have for customers, integrators, and ISV developers. With help from nClouds to provide build automation into AWS, we can provide all internal users with a sandbox and can place our customers much more rapidly.” – Valerie Heath, Avaya Senior Product Manager & Developer Evangelist

Why AWS and nClouds

Avaya was referred to nClouds, a Premier Consulting Partner of the AWS Partner Network (APN), to migrate their VoIP VM images to the cloud. **“We were impressed with nClouds’ technology and knew that we needed to expand into a publicly hosted cloud in order to scale our service, fully automate our old process, and become ready for e-commerce. The partnership with nClouds resulted in a solution that met the needs of our internal users and was adopted by associates in multiple regions.”** - Kurt Haserodt, Avaya Senior Distinguished Engineer

Using AWS CloudFormation and custom Chef provisioning code, the team at nClouds was able to provision a new environment for Avaya’s VoIP Breeze service and migrate the service to the public cloud. The team also built an automated dashboard to enable end users to request labs, manage the lifecycle of their environments, and perform power management with a click of a button.

The automation built out by nClouds resulted in provisioning time being reduced from days to under three hours and the ability to quickly roll out a newer version of Avaya Breeze to internal consumers as well as potential future external clients.

By hosting Avaya’s new offer in the cloud, the company leveraged several Amazon Web Services:

- **Amazon Elastic Compute Cloud (Amazon EC2)** - Services that are part of the environment run on Amazon EC2 instances and are organized using AWS instance tags.
- **Amazon Route 53** - A highly available and scalable cloud Domain Name System (DNS) web service for routing end users to Avaya’s applications.
- **Amazon S3** - An object-based storage for storing and retrieving any amount of data from Avaya’s environment.
- **Amazon Elastic Container Service (Amazon ECS)** - A highly scalable, high-performance container orchestration service for managing and scaling Avaya’s virtual machines.

Avaya customer use cases:

- Supporting real-time engagement and collaboration through voice, video, data, messaging, conferencing, mobility, and more.
- Automating and communications-enabling generic business processes.
- Increasing workforce productivity.
- Improving customer experiences and loyalty.
- Identifying and remedying agent issues and process problems to help ensure regulatory compliance.
- Delivering seamless experiences across channels.



With a platform as open as Avaya Breeze, sandboxes are a must-have for customers, integrators, and ISV developers. With help from nClouds to provide build automation into AWS, we can provide all internal users with a sandbox and can place our customers much more rapidly.”

Valerie Heath,
Avaya Senior Product
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Evangelist

- **AWS CloudFormation** - Provisions all the resources needed for Avaya’s applications in an automated and secure manner.
- **Amazon Virtual Private Cloud (Amazon VPC)** - Enables Avaya’s users to request their own private environment with a click of a button.
- **Amazon ElastiCache** - Provides blazing fast in-memory data store and sub-millisecond latency to power Avaya’s applications.

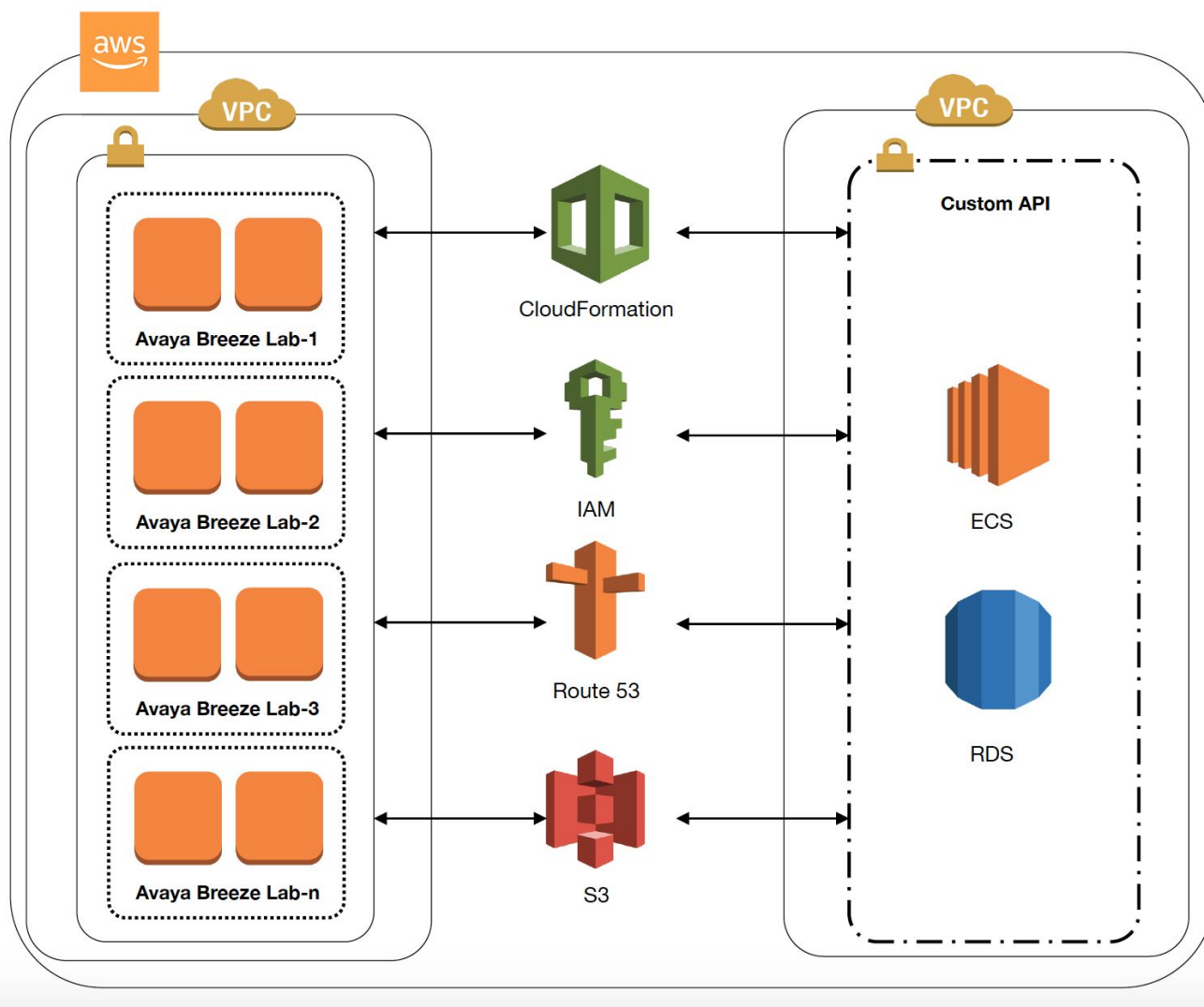
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The solution stack includes additional essential tools and services:

- **Chef** - A configuration management tool for managing infrastructure as code.
- **Redis** - A scalable in-memory data store built to power real-time applications with sub-millisecond latency.

nClouds Solution Architecture for Avaya

nClouds helped Avaya build a secure and scalable environment for their VoIP developer sandbox service. The new architecture also leverages a microservices API built with Python and Django to enable customers to quickly spin up new environments on demand. The microservices API is deployed on Amazon ECS.



The Benefits: New Business Value in Many Forms



Faster provisioning.

In the past, it took several days to manually provision new applications for the Avaya Breeze™ service. Today, it takes just three hours. Multi-region deployments are done automatically now through the custom API. Breeze and SMGR node requirements are copied between accounts and across regions with a simple API call.



I expect to at least double our customer base without adding headcount, and with increased automation will soon be able to deliver different types of lab templates so that our developer community can experience the full power of what Avaya has to offer.”

Valerie Heath,
Avaya Senior Product
Manager & Developer
Evangelist



Better customer experience.

Prospective customers now have the ability to create on-demand Breeze labs, which are essential for the Avaya Breeze engagement development platform. Customers require pre-production lab environments to perform proofs-of-concept for pre-sales activities or new application development.



Scalability.

Previously, the Collaboratory Service was limited to its captive pool of premise-hosted labs, which limited its ability to scale. This led to occasional delays in fulfilling orders and left Avaya associates frequently wanting for lab space, as external customers were given first priority. Avaya's work with nClouds means that the team now can provide sandbox space to all Avaya associates, and support many more external users.



Improved operator experience.

Lab creation automation means that no human intervention is required for repetitive build management and customer onboarding tasks, which are tedious and can be error-prone.

About nClouds

nClouds is a certified, award-winning provider of AWS and DevOps consulting and implementation services. We partner with our customers, as extensions of their teams, to build and manage modern infrastructure solutions that deliver innovation faster. We leap beyond the status quo.

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