



dish wireless

About DISH Wireless

DISH is a provider of TV services to more than 19 million customers across the U.S. After successfully disrupting the cable TV industry, DISH is now turning its attention to the communications industry. DISH Wireless is investing USD \$10 billion into building a U.S.-wide 5G network that currently covers more than 70% of the population.

Industry

Telecommunications

VMware footprint

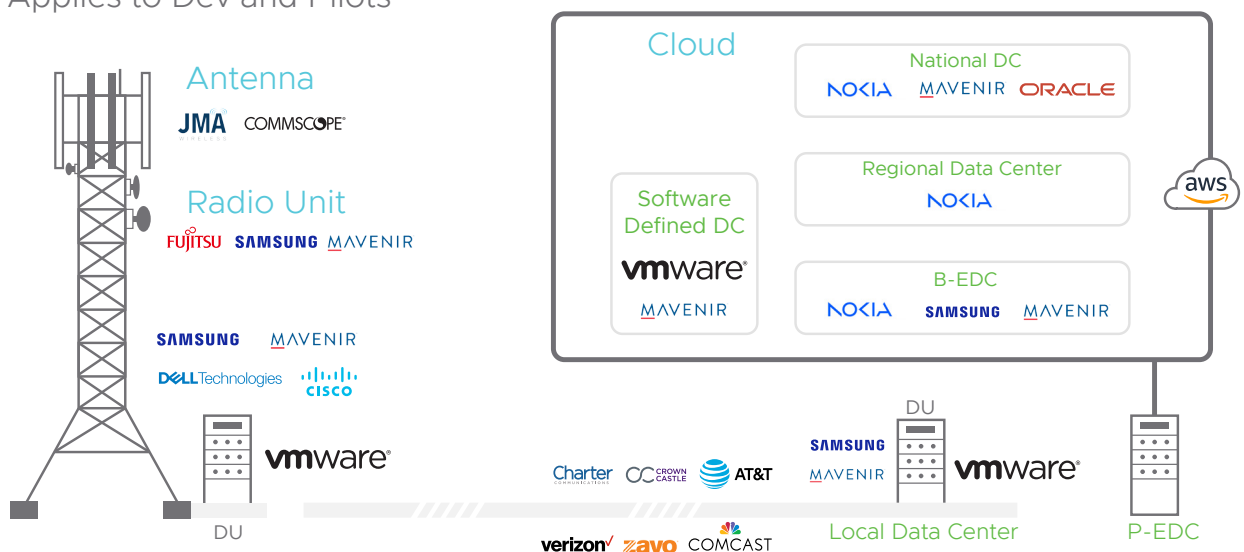
- VMware® Cloud™ on AWS
- VMware Telco Cloud Platform™
- VMware Telco Cloud Automation™
- VMware Telco Cloud Service Assurance™
- VMware Professional Services

DISH Wireless Relies on VMware to Build, Deploy and Monitor Its Cloud Native 5G Network

Unlike other service providers that are trying to incorporate legacy technologies to deliver 5G services, DISH Wireless has built its 5G open radio access network (O-RAN) from the ground up. VMware Telco Cloud Platform creates an abstraction layer across multiple network domains and allows DISH Wireless to leverage hyperscale public cloud capacity where needed while maintaining core control points. DISH Wireless now runs its network traffic on a multi-vendor versatile, cloud native environment that helps the company rapidly develop and deliver new 5G services.

DISH Wireless Open RAN 5G Network

Applies to Dev and Pilots



DISH Wireless Network Architecture Diagram

An appetite for disruption

In 2020, DISH Wireless became a nationwide U.S. wireless carrier through the acquisition of Boost Mobile. It is now building a 5G standalone network and redefining the way people and things connect. The DISH Wireless 5G network promises an unparalleled service experience for consumers and enterprise—and will power the adoption of Internet of Things (IoT) innovation.

Realizing the 5G opportunity

The DISH Wireless 5G network is fully cloud native and software-defined. Programmability allows DISH Wireless to quickly spin up the optimal network configuration for a service and automatically deploy it across clouds and domains. DISH Wireless has full control over how its network resources are allocated to its customers—allowing it to program its network accordingly to address customer SLAs and support new, innovative services, and routes to revenue, for its customers.

While other CSPs undertake an arduous transition from closed, proprietary systems to open, multi-vendor environments—especially in the RAN—the organization’s network is built to be open. Its entire 5G infrastructure is designed to interoperate with multiple vendors.

Building a programmable, scalable and automated network

VMware Telco Cloud Platform enables DISH Wireless to utilize network functions from industry-leading network providers, while optimizing and accelerating its 5G network deployment through multidomain, multilayer automation.

VMware Telco Cloud Platform provides an abstraction layer across multiple network domains and allows DISH Wireless to leverage AWS hyperscale public cloud capacity where needed, while maintaining core control points. In addition, the software-defined nature of VMware Telco Cloud Platform supports the company’s open multi-vendor ecosystem.

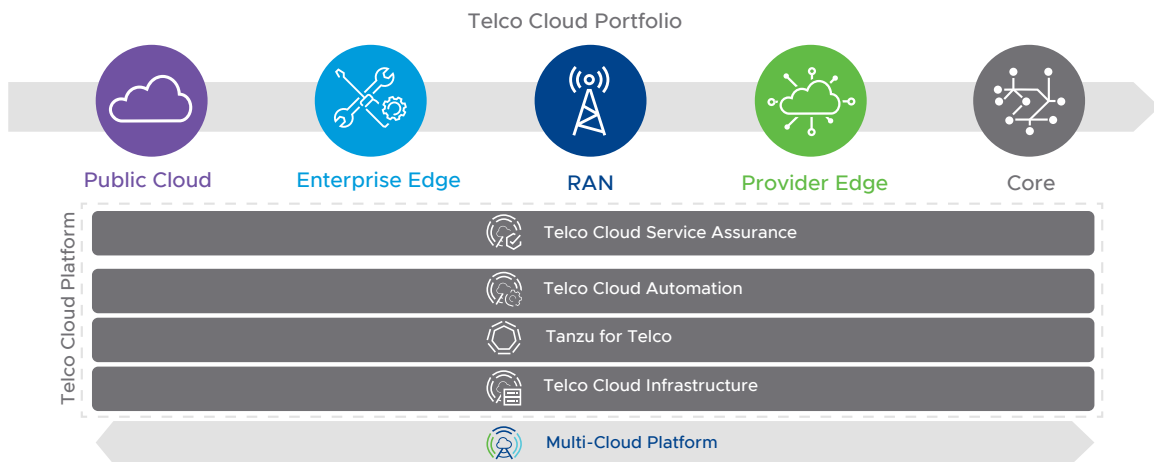
VMware Telco Cloud Service Assurance is also being leveraged by DISH Wireless in the mobile core and RAN as a cross-domain, multilayer automated assurance that holistically monitors and manages their complex infrastructure and services.

It reduces complexity for operation teams in both network operations center (NOC) and/or service operations center (SOC) with a single pane of glass for fault management, performance management, service management, configuration management, root cause analysis and service impact analysis in a multi-vendor, multi-cloud environment.

DISH Wireless is using cloud native and O-RAN technologies for its 5G network. The network efficiently combines the distributed RAN, public cloud and private cloud environments on the horizontal platform provided by VMware. It delivers a unified infrastructure to host various network functions tailored to the company’s network architecture and business strategies while providing consistent operations across clouds.

Two key partners selected by DISH Wireless—Mavenir and Samsung—have jointly developed an automated cell site deployment model, grounded in a CI/CD pipeline, that integrates the Mavenir and Samsung virtualized distributed unit (vDU) running on the VMware Telco Cloud Platform RAN. The partnership aims to implement and streamline cloud-native architecture and RAN site deployment so DISH Wireless can scale faster.

VMware Telco Cloud Portfolio Applies to Dev and Pilots



Cloud-smart automation and assurance from VMware allow DISH Wireless to treat its network as fungible, where one can quickly assemble specialized service packages to meet diverse internal and customer needs.

The organization's open, multi-vendor 5G RAN brings new and additional orchestration requirements that come with any network. Operations teams perform lifecycle management of each cloud native component, including managing ongoing software upgrades and large-scale testing, design and onboard network functions, in a unified automated way, across clouds. The DISH Wireless 5G deployment model automates most of this effort, drastically simplifying its operations to accelerate the network roll-out.

The network supports end-to-end intelligence and dynamic traffic automated management, including across the RAN. The network can track real-time performance and available network resources. It then autonomously optimizes itself based on the needs of a given service or slice—including optimizing Kubernetes clusters with dynamic infrastructure policies from VMware.

VMware manages Level 1 to 3 support across the physical and virtual network environments through the VMware Professional Services team.

Shifting service expectations in the communications industry

The engagement establishes a platform from which DISH Wireless can propel a shift in the communications industry. The characteristics of the DISH Wireless 5G network will enable the business to redefine service expectations. Instead of selling one-size-fits-all connectivity, DISH Wireless will adopt new technologies, such as network slicing and O-RAN, to provide customized, bespoke network services.



“VMware Telco Cloud solutions will serve as a powerful foundation for our cloud native, software-defined 5G network. By bringing together innovations such as the distributed cloud, edge computing and network slicing, this software will help us provide our customers with customizable, secure solutions that will be more cost-effective than legacy, vertically integrated hardware-reliant alternatives.”

—Marc Rouanne, EVP and Chief Network Officer, DISH Wireless.
