

# Radial

## ECOMMERCE SOLUTION PROVIDER FACED UNPRECEDENTED DEMAND FOR ONLINE RETAIL DURING THE PANDEMIC, DRIVING IT TO SEEK A FLEXIBLE AND SCALABLE CLOUD INFRASTRUCTURE TO SUPPORT ITS CLIENTS.

### The Challenge

Radial, a technology provider that supports a deep roster of retailers, witnessed an unforeseen surge in orders for its e-commerce services during the COVID-19 pandemic in 2020. The company provides omni-channel e-commerce technology, such as order management, payment processing, order routing, fulfillment and analytics services. It also offers outsourced call center services and cloud-based business continuity services for its retailer customers.

Radial needed to quickly increase scalability and business continuity into its existing environment for its call centers. As lockdowns pushed more and more business, Radial anticipated that the holiday rush would begin in early November rather than Black Friday with more than a 10x increase in demand across all of its omnichannel clients. This prompted an urgent need for significantly greater cloud capacity.

### The Solution

As a result of the COVID-19 Pandemic and subsequent quarantine, Radial anticipated a dramatic spike in demand for e-commerce-based transactions, driving up the need to elastically add call agents to their existing on-prem customer care platform. Radial believed that while the typical holiday season normally starts the week of Thanksgiving (Black Friday), the quarantine would accelerate the demand as soon as early November 1. In order to support the increase in demand (across all of the omni-channel clients) Radial had to invest in IT to accelerate the addition of an estimated 3500-4000+ call agents, representing more than a 10x increase of the 350 call agents the current on-prem environment can support.

Additionally, with the HW shortages and decrease in manufacturing during quarantine, options for building infrastructure resources on-prem was not feasible given the timeframe. VMC was the only viable option.

Radial engaged Presidio to thoroughly evaluate its existing environment and perform an efficient Virtual Desktop Infrastructure (VDI) migration to Amazon Web Services (AWS) without any service interruption to its clients. The migration had a tight timeline and couldn't afford to be bogged down in an arduous right-sizing application analysis, especially since a parallel effort to redesign the VMware Horizon VDI environment was also critical to supporting the anticipated demand.

To execute the project, Presidio deployed Horizon on VMware Cloud on AWS, a hybrid cloud service for virtual desktops and applications. Radial also tapped Presidio to build out two software-defined data centers (SDDCs) to boost business continuity. Radial would have previously had to buy

and deploy new hardware for additional compute needs, a time-consuming, costly proposition especially given, the pandemic had impacted supply chains and manufacturers, making it difficult to acquire hardware.

The new SDDC allows Radial to leverage VMware's Elastic Distributed Resources Scheduler (EDRS) to scale its clusters in response to demand. It can now add or remove hosts automatically based on the "optimize for lowest cost" policy. The algorithm runs every five minutes, and the scaling decisions also consider trends that are tracked over time.

Once the primary SDDC was brought online and connected, the Virtual Desktop implementation team tested and deployed each applications into the VDI environment. After testing and validation, F5 application services were configured to split the load between systems, allowing production traffic to use the AWS cloud for the applications' primary transit. Once operational, Presidio configured the environment to add a secondary SDDC that gave Radial a fully redundant solution that incorporated best practices around connectivity for critical resources in AWS.

Following a smooth migration, Presidio dove into modernizing Radial's customer care platform. The team tackled multiple aspects of the migration concurrently to quickly map the new AWS solution to the existing on-premises Horizon VDI environment.

The initial environment, a fully automated deployment leveraging Cloud Formation first went live in Radial's eastern United States region. Once the environment was online, critical networking elements were added to provide reachability. This foundation was built upon AWS VPN, →

