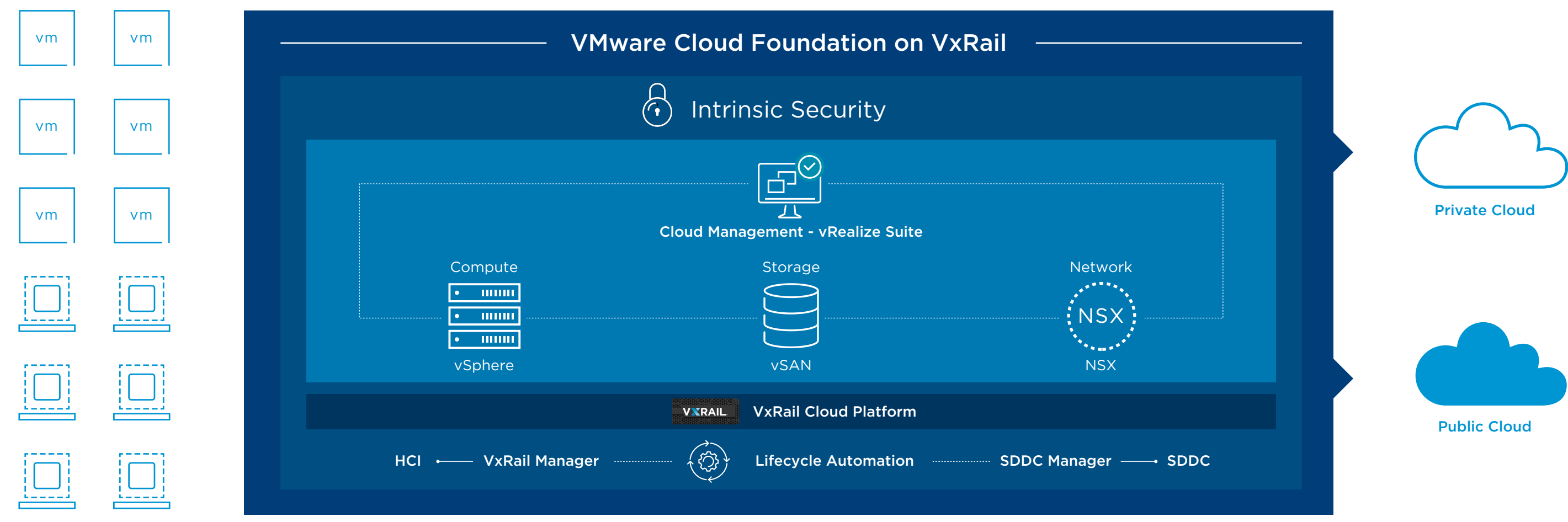


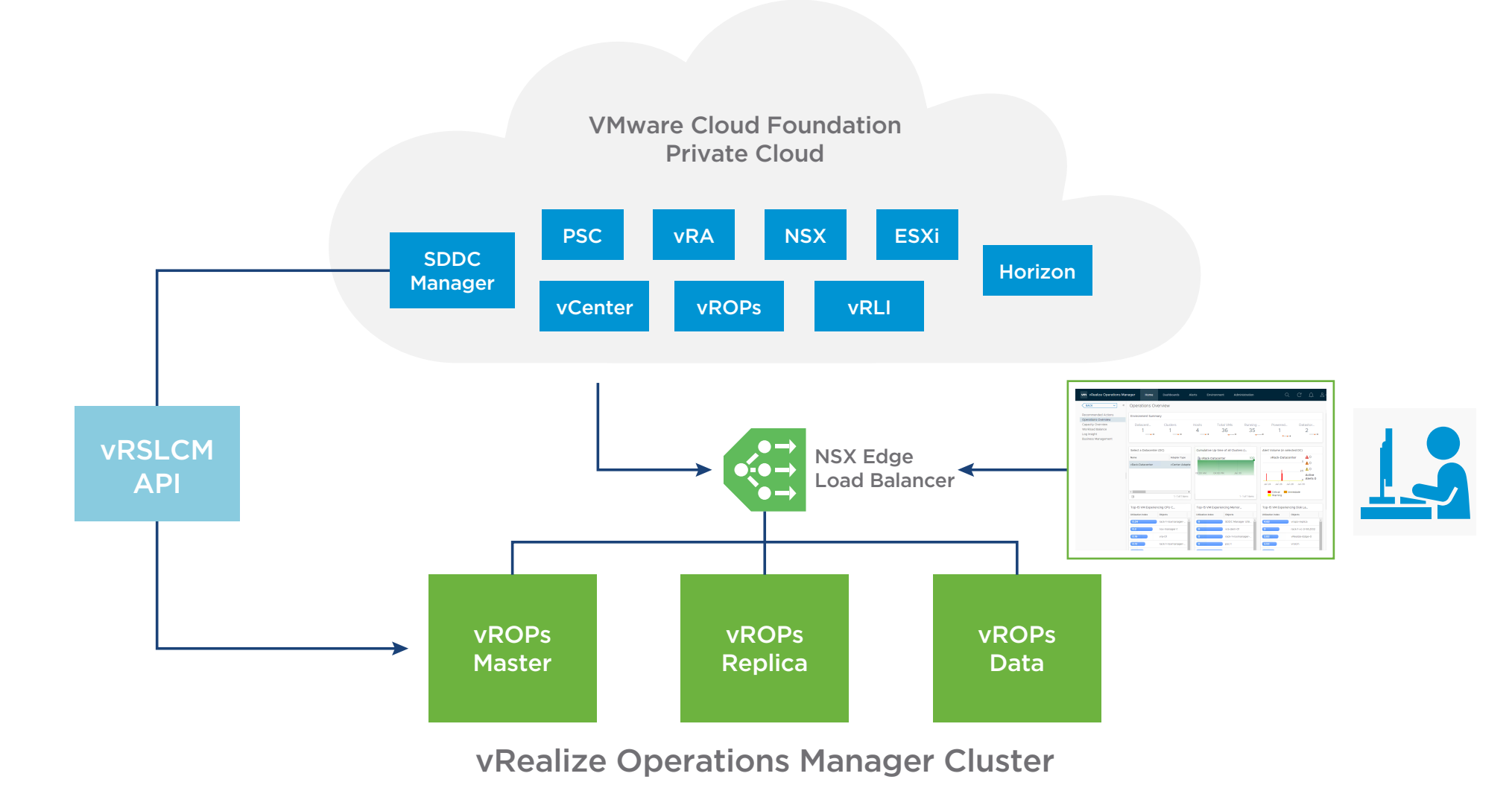
Overview

VMware Cloud Foundation on VxRail delivers an experience you won't find on any other infrastructure running VMware Cloud Foundation. It builds upon native VxRail and Cloud Foundation capabilities with additional unique Dell EMC and VMware jointly engineered integration features that make VxRail the only VMware Cloud Foundation infrastructure offering with full stack integration. This helps simplify, streamline, and automate IT operations and provides the simplest path to hybrid cloud yet.



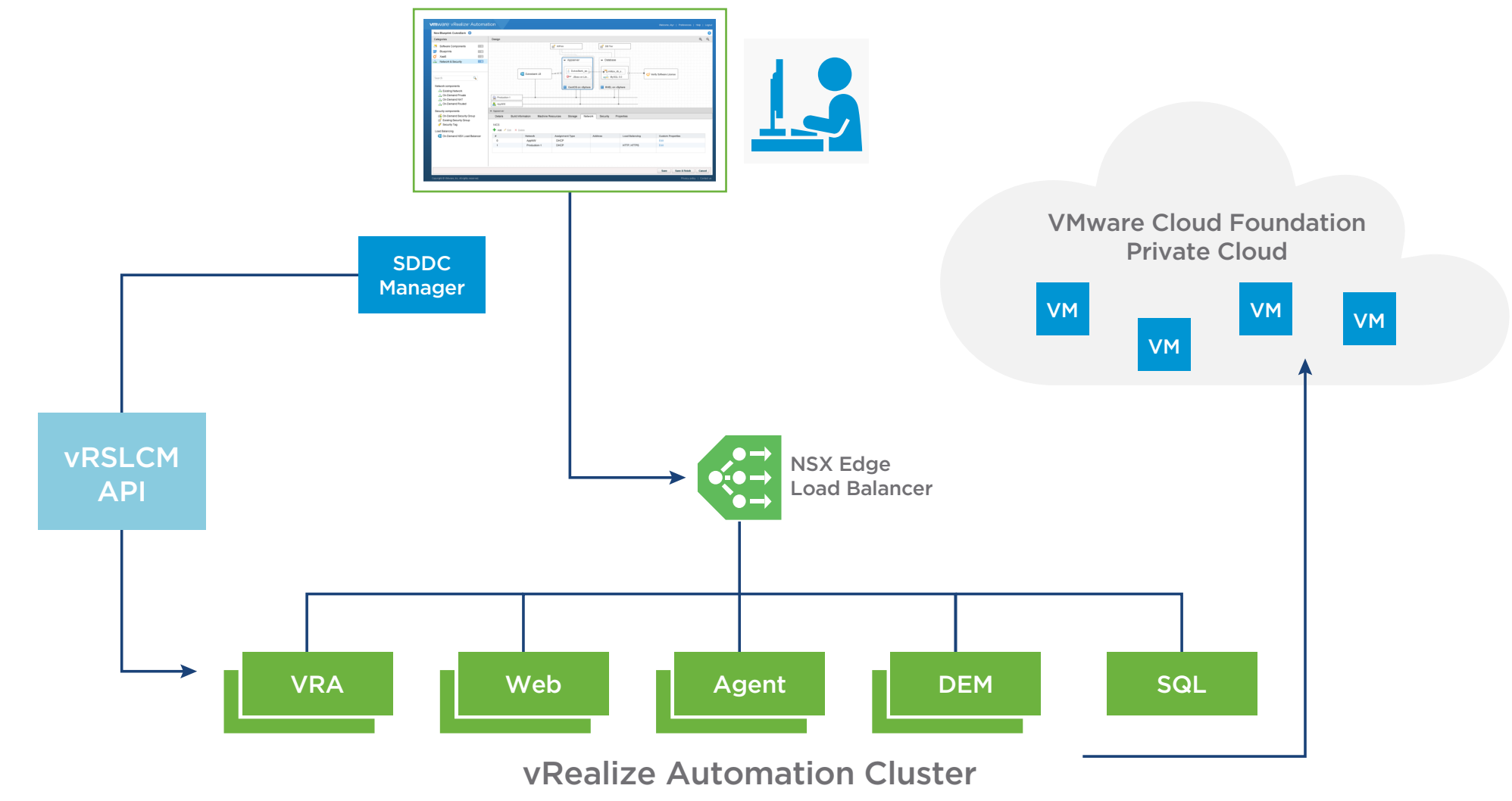
vRealize Operations Manager Architecture

vRealize Operations Manager is installed by the SDDC Manager using the vRealize Suite Lifecycle Manager API and is load balanced with NSX. Once installed, it is then configured to automatically collect performance metric data from all of the VMs in the Management Domain, including the SDDC Manager controllers, PSC, vCenter, vRealize Suite, NSX, Horizon suite, and ESXi hosts. The cloud administrator is then able to manage performance, monitor alerts, and optimize capacity all from the vRealize Operations Manager dashboards.



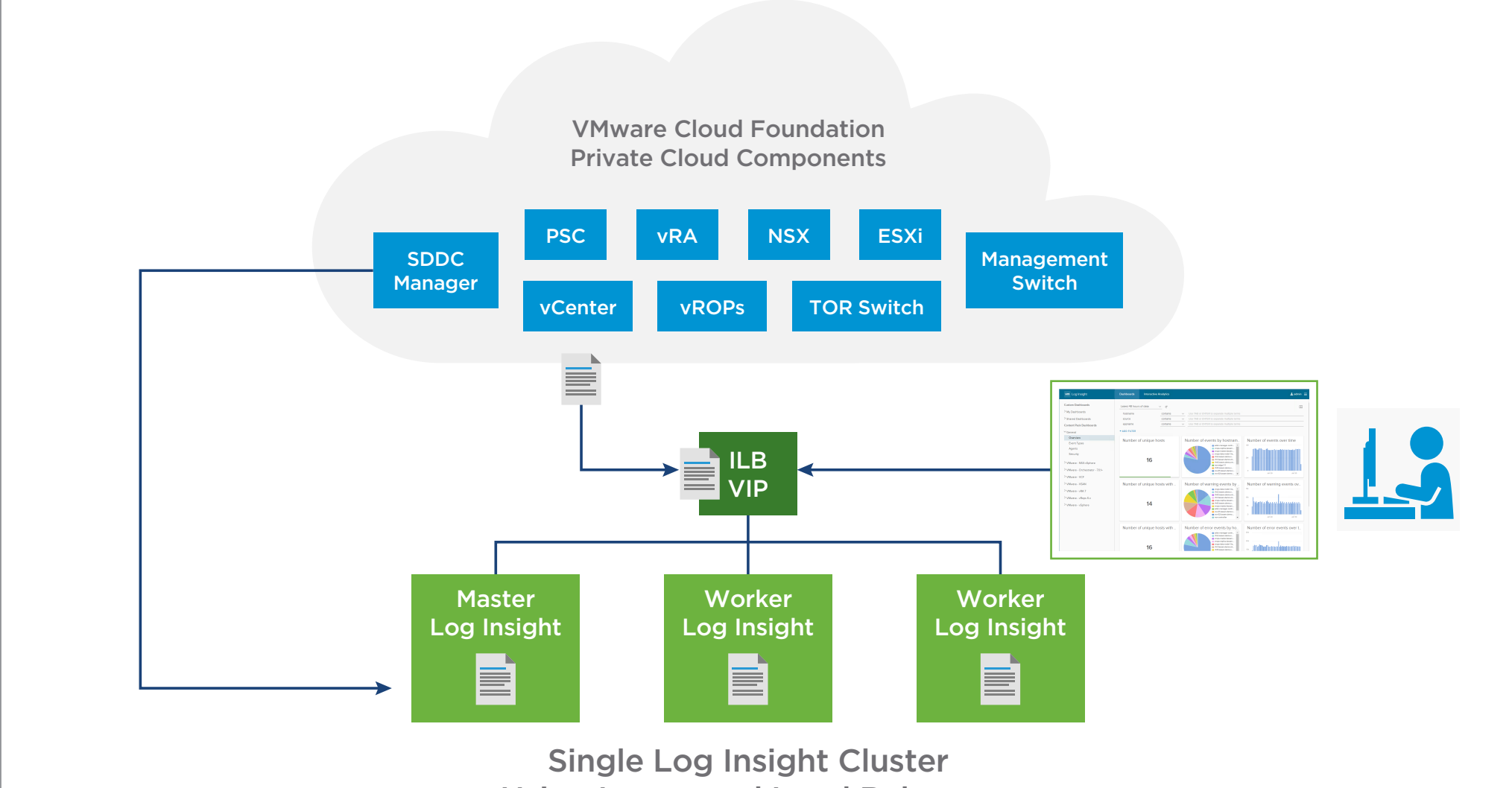
vRealize Automation Architecture

vRealize Automation is installed by the SDDC Manager using the vRealize Suite Lifecycle Manager API and is load balanced with NSX. Once deployed the vRA administrator can create blueprints and deploy VMs to the VMware Cloud Foundation Private cloud.



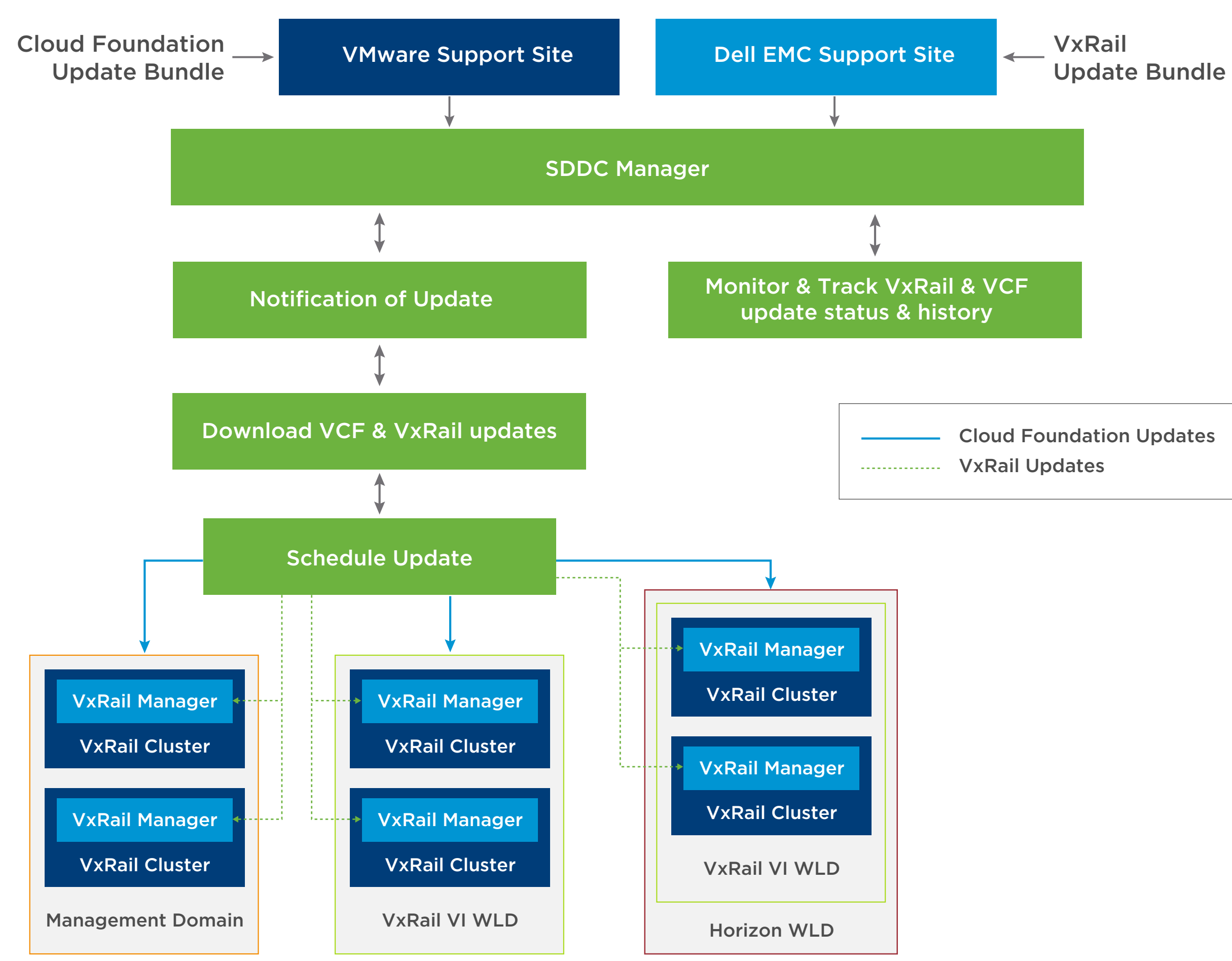
vRealize Log Insight Architecture

Log Insight is automatically installed by the SDDC Manager during the bring up process. Once installed, it is then configured to collect unstructured syslog data from all VMware Cloud Foundation components. Including the SDDC Manager controller, PSC, vCenter, vRealize Suite, NSX, Horizon suite, ESXi hosts, top of rack and management switches. The cloud administrator is then able to review all the aggregated log information from the Log Insight dashboard.



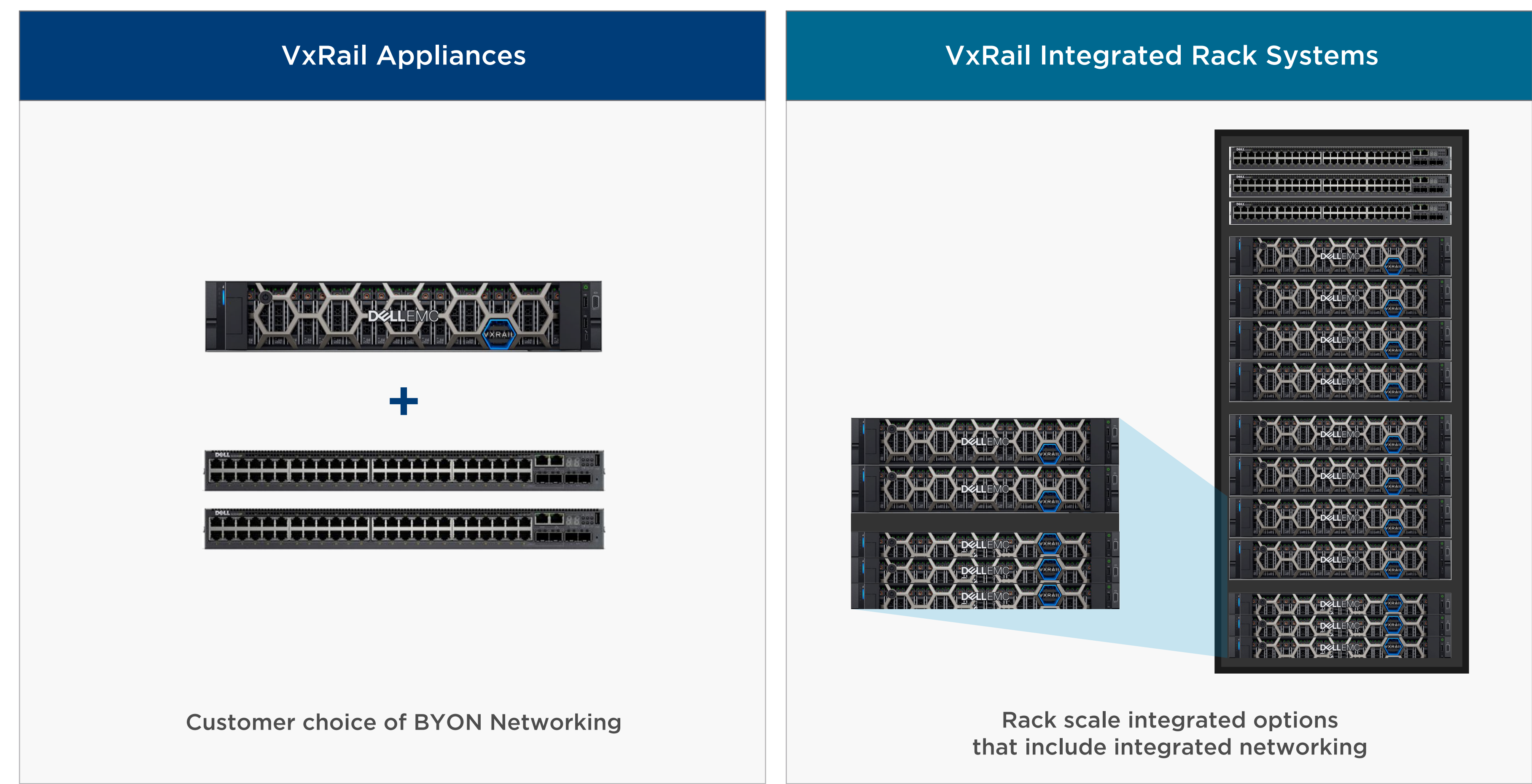
Cloud Foundation on VxRail Full Stack Lifecycle Management Architecture

Cloud Foundation on VxRail features built in full stack lifecycle automation including VxRail hardware. SDDC Manager orchestrates the LCM of vCenter, PSC, SDDC Manager, NSX, and vRealize Suite above the ESXi and vSAN layers of VxRail. Integrated with the SDDC Manager management experience, VxRail Manager is used to lifecycle manage ESXi, vSAN and HW firmware. This is accomplished using a fully integrated and seamless SDDC Manager orchestrated process that leverages VxRail Manager APIs to execute it natively for every VxRail cluster in a workload domain.



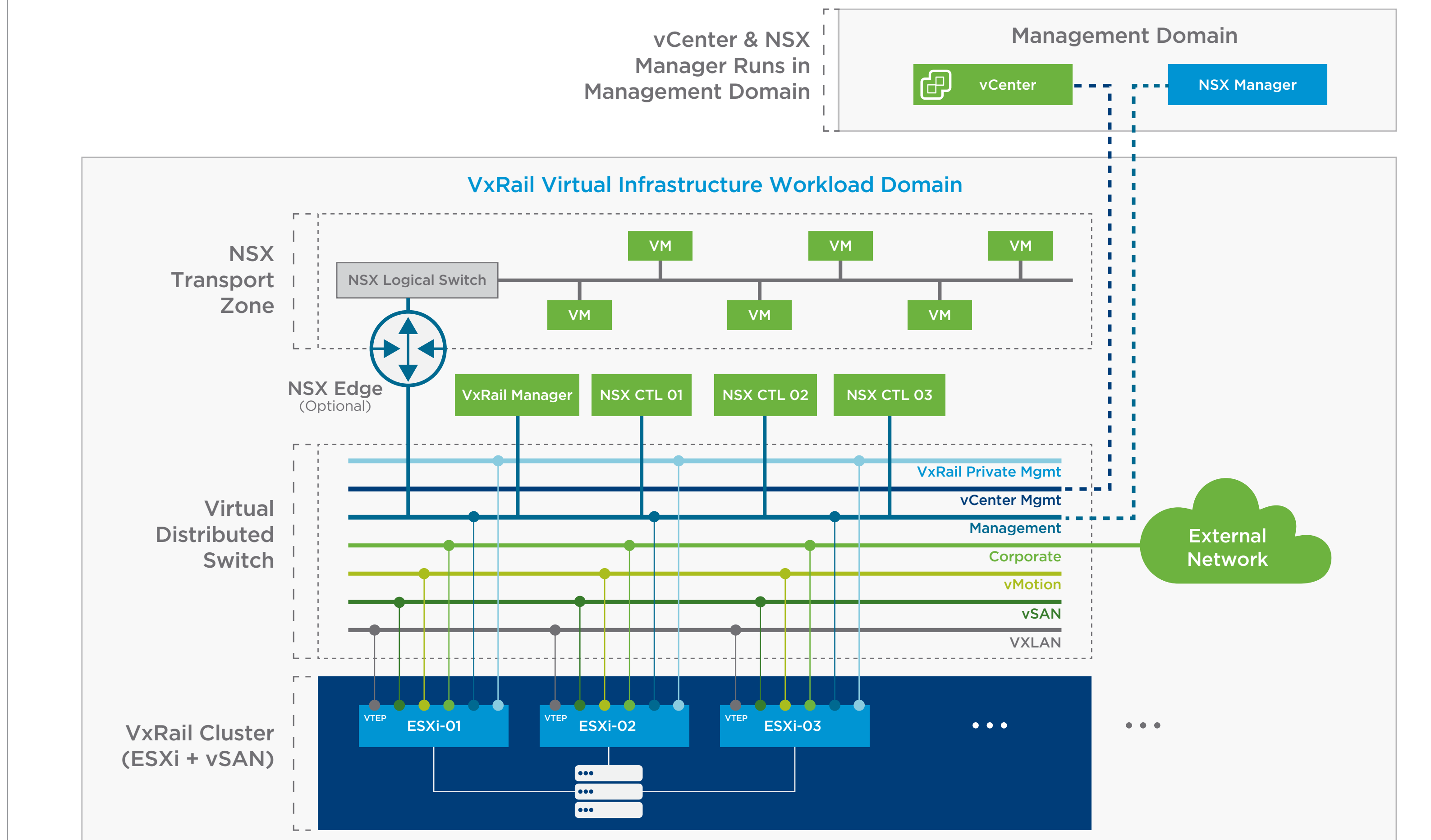
VxRail Delivery Options

Cloud Foundation on VxRail supports a flexible Bring Your Own Network (BYON) architecture. This allows for customer choice in VxRail delivery options. You can purchase VxRail appliances and supply your own networking and install it in your own racks or you can get it as a VxRail integrated rack, a rack scale integrated system with integrated networking.



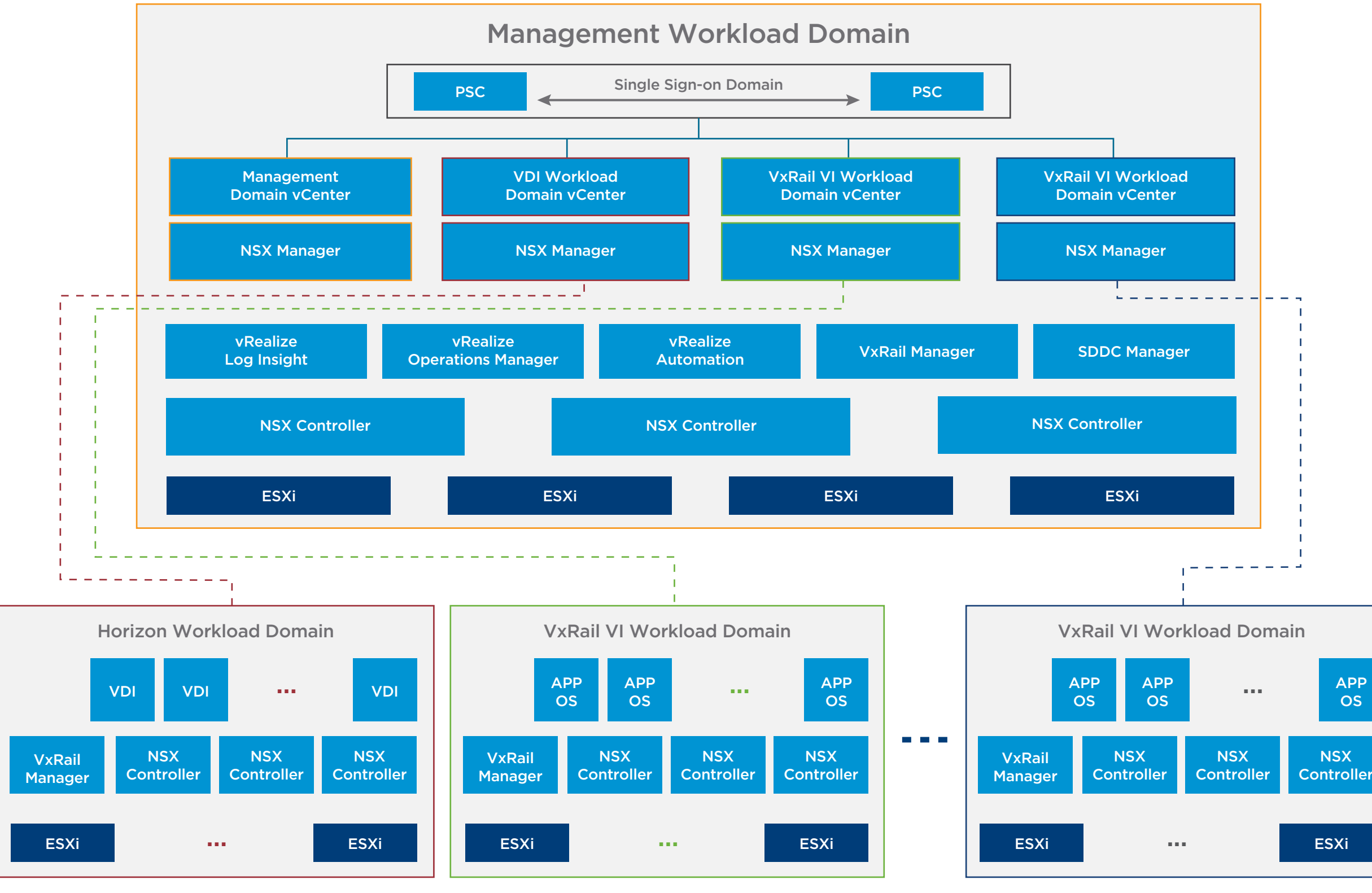
Workload Domain Network Architecture

Cloud Foundation implements a virtual network overlay that runs on top of the physical network data plane. Physical hosts are logically grouped into vSphere clusters (represented as workload domains) wherein a Virtual Distributed Switch is configured and port groups created. VMware NSX is also installed with a default transport zone. Logical switches, Edge Service Gateways (ESGs), distributed logical routers, distributed firewalls and application virtual networks are manually created based on workload needs. All VxRail clusters used also run VxRail Manager software that is preloaded in the factory and provides additional HCI cluster serviceability and support capabilities that are natively integrated with SDDC Manager. VxRail Management networks are configured as part of initial VxRail automated cluster build operations.



Compute Architecture

VMware Cloud Foundation scales up to 15 workload domains per instance. Each workload domain can be patched or upgraded independently. Workload domains start with a minimum of 3 VxRail hosts and scale up to 64 in a single cluster. Workload domains can scale up to more than 64 hosts with support for multiple VxRail clusters within a domain. Each workload domain has its own vCenter Server and NSX Manager instance. All vCenter Server instances are connected together with vSphere Enhanced Link Mode.



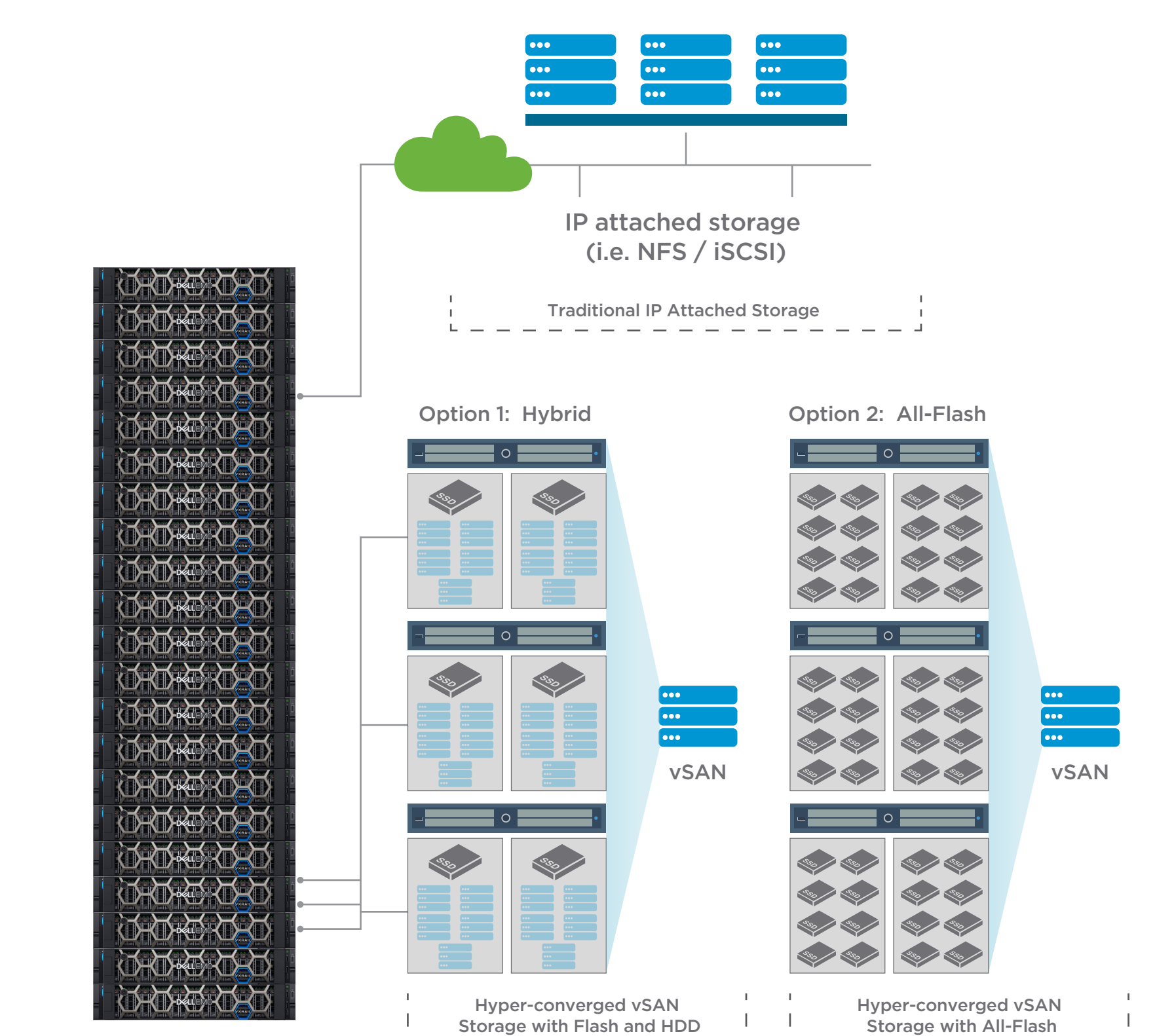
VxRail Hardware Configuration Options

Cloud Foundation on VxRail leverages native VxRail HCI appliances based on 14th Generation Dell EMC PowerEdge servers certified for Cloud Foundation. All VxRail Series models are available and support a full portfolio of flexible Configure To Order (CTO) hardware options.

G Series Nodes	E Series Nodes	P Series Nodes	V Series Nodes	S Series Nodes
Compute Dense	Low Profile	Performance Optimized	VDI Optimized	Storage Dense
G560/F	E560/F	P570/F	V570/F	S570
Full platform refresh to Dell EMC 14G PowerEdge servers based on Intel® Xeon® Processor Scalable Family Higher core counts, faster clock frequency, more memory channels, faster memory, higher endurance and redundant boot devices				
2000W or 2400W PSU Single or Dual socket 10GbE or 25GbE support NVMe cache support	1100W PSU 10GbE or 25GbE NVMe cache support	1100W or 1600W PSU 20 capacity drives 10GbE or 25GbE support	2000W PSU Up to 3 GPUs 8 more capacity drives 10GbE or 25GbE support	1100W PSU 10GbE or 25GbE support

Storage Architecture

Cloud Foundation on VxRail implements a highly scalable and performant native VxRail HCI-based storage subsystem with vSAN. Both hybrid and all-flash configurations are supported. As an option, iSCSI and NFS network attached storage are supported as ancillary storage options.



Security Architecture Features

VMware Cloud Foundation on VxRail includes many comprehensive security features to protect your virtual and physical infrastructure. This includes hardware security with TPM, VMDK encryption, vMotion encryption, vSAN data at rest encryption, NSX distributed firewall, NSX edge VPN, NSX edge firewall, and vRealize Network Insight.

