Cisco Application Centric Infrastructure Integration with Virtual Computing Environment (VCE™)

Cisco extends the Cisco® Application Centric Infrastructure (ACI) policy framework to VCE™ Vblock™ Systems converged infrastructure.

Solution Overview

VCE is the leading innovator of converged infrastructure systems. Customers rely on VCE for the fastest deployment of infrastructure and applications, the highest application performance and availability, and the lowest total cost of ownership (TCO). Vblock Systems are standardized on Cisco Data Center products, including Cisco Unified Computing System™ (Cisco UCS®), Cisco Nexus®, and Cisco MDS 9000 Family products.

Cisco ACI is an innovative architecture that simplifies, optimizes, and accelerates the entire application deployment lifecycle.

Together, Cisco and VCE have partnered to deliver the next generation of converged infrastructure enabled for Cisco ACI. The joint solution delivers Vblock Systems enabled for Cisco ACI using Cisco Nexus 9000 Series Switches. Through the exceptional performance capabilities of the Cisco Nexus 9000 Series, Vblock Systems can meet the highest demands for network performance and scalability, enabling Vblock Systems to provide customers with unprecedented agility in application deployment.

Challenges

The growing complexity of next-generation applications means that traditional approaches to application deployment and management no longer meet business expectations. In a competitive world, customers must deploy applications quickly and then rapidly and safely add or remove resources from already running applications to meet the demands of users, based on service-level requirements, time scheduling, and cost factors.

Existing current approaches to application deployment and lifecycle management are not agile enough to meet the demands of an increasingly changing world.

Solution: Cisco ACI Integration with VCE Vblock Systems

The VCE Vision™ Intelligent Operations software enables true agile application deployment and lifecycle management using technologies such as the evolving Topology and Orchestration Specification for Cloud Applications (TOSCA) standard. When combined with these new application deployment standards, Cisco ACI enables VCE Vision software to rapidly implement new network services to securely provide applications with the required communications infrastructure and enable application administrators to scale their applications without risk of negatively affecting other applications.

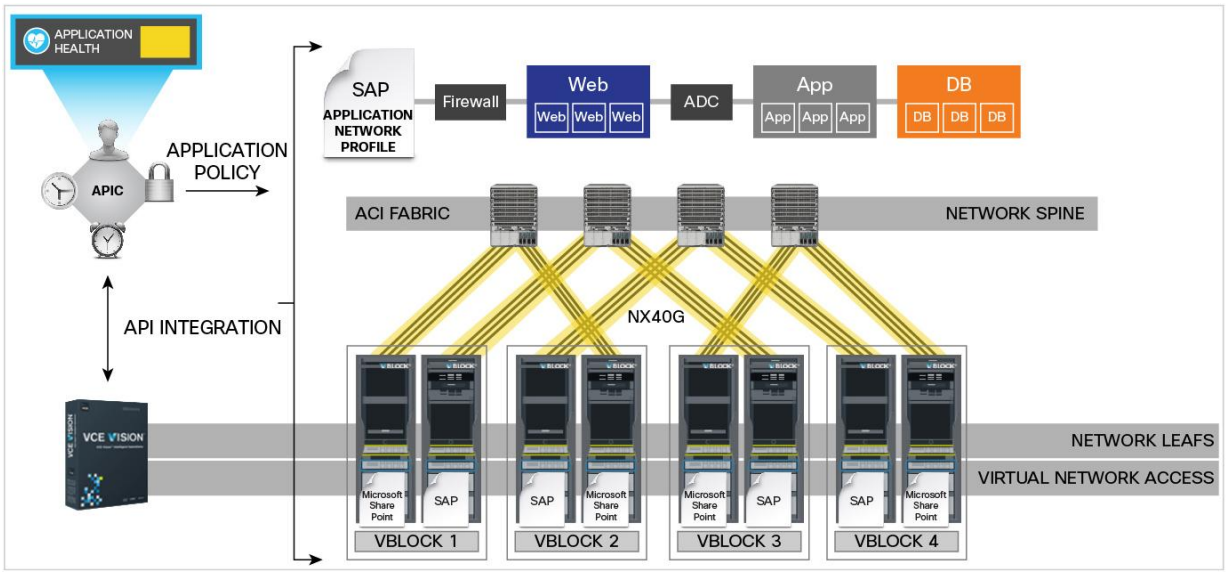
For example, VCE and SAP are collaborating to enable the automated deployment of SAP NetWeaver Business Warehouse on Vblock Specialized Systems for SAP HANA software to address the needs of sophisticated big data projects. The solution is declaratively configured to take full advantage of the powerful features of Cisco ACI and VCE Vblock Systems to deliver the real-time power of HANA running SAP NetWeaver Business Warehouse, significantly reducing time to value and TCO while meeting customer security and governance policies.

VCE offers Cisco Nexus 9000 Series Switches as modular options for Vblock Systems. These switches enable customers to immediately gain the benefits of the Cisco Nexus 9000 Series while preparing them for the powerful new capabilities of Cisco ACI.

To help customers accelerate adoption of Cisco ACI in their Vblock Systems, VCE will be expanding its industry-leading VCE Cloud Accelerator Services. These services combine business process, operations, and organizational transformation expertise that has been designed, tested, and optimized for Vblock Systems enhanced for Cisco ACI.

Figure 1 provides an overview of the Cisco ACI and VCE Vblock Systems solution.

Figure 1: Cisco ACI and VCE Vblock Systems Solution



Solution Benefits

- Visibility: Vblock Systems are designed for, and customers derive the greatest benefit from, deploying applications in virtualized environments. VCE Vision software provides Vblock Systems users with insightful metrics relating to the computing and storage resources consumed for each application.

  Vblock Systems with Cisco ACI provides customers with a complete application centric view into infrastructure, enabling customers to confidently add or remove resources from application tiers to meet user demands and rapidly identify and address the cause of problems affecting applications without affecting other applications using the same infrastructure components. Customers can deploy and scale complex applications to meet variable demands from application users, while making the best use of IT resources.

- Agility: Cisco ACI integration with Vblock Systems enables IT departments to quickly deploy new technologies with little risk and then efficiently manage those resources in data center architectures that are optimized for virtual environments and IT as a service (ITaaS). Customers can shift resources to focus more on innovation and less on maintenance.

- Openness: Through open and standards-based aggregation of Vblock Systems functional, environmental, and operational characteristics, this joint solution simplifies integration into existing and emerging management frameworks, providing a complete system configuration and health context and introducing a new level of converged operations for IT infrastructure.

Simplicity: VCE engineering performs roadmap, software configuration, and patch management planning, delivering regular software release updates. VCE also provides a single support contact for integrated customer support operations to simplify all support operations.

- Automation: Through focused integration with leading applications, application deployment and operations can be standardized and simplified. Customers can optimize application performance and operations through Vblock Systems that support Cisco ACI, while significantly reducing the need for traditional, error-prone processes associated with deployment and maintenance of IT infrastructure and applications.

Reliability: Vblock Systems that support Cisco ACI offer the fastest and lowest-risk path to new technology adoption for next-generation data center products. VCE's fully documented and defined engineering process for manufacturing and sustaining Vblock Systems puts VCE in the unique position of being able to deterministically upgrade existing data center deployments with the new generation of Cisco networking infrastructure.

For More Information

- Cisco ACI strategy: http://www.cisco.com/go/aci.
- VCE enablement of Cisco ACI: http://www.vce.com/aci.

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