APPLICATION DEVELOPMENT ON VBLOCK SYSTEMS

Converged Infrastructure Accelerates Application Development.

DevOps teams need to rapidly provision and de-commission infrastructure to support various phases of the application development life cycle. Yet, developers often find that obtaining network, compute, and storage infrastructure involves long lead times for procuring and provisioning systems. As a result, new application functionality is postponed and business initiatives are stalled. Now, IT organizations are virtualizing DevOps to provide a more flexible, efficient solution.

Organizations may virtualize the DevOps environment to support several scenarios:

• Implementing a new agile development process
• Ramping up a major business initiative involving IT support for new products and services
• Developing complex applications touching many systems
• Supporting geographically distributed development staff
• Maintaining IT control over development systems which otherwise would be outsourced from cloud vendors
• Replacing outdated test beds to support an expanding virtual infrastructure
• Leveraging mixed workload economies of scale as part of a data center consolidation

Vblock™ Systems from VCE provide an enterprise-class converged and virtualized IT-as-a-service (ITaaS) infrastructure that is ideally suited to DevOps. Unified provisioning of compute, network, and storage resources enables IT to rapidly build out development and testing environments. And leading edge storage technologies enable DevOps to use actual production data in a test environment. The Vblock System’s multi-tenancy capabilities enable IT to segment areas and build tiered service profiles based on business needs. Together these capabilities support the DevOps process.
**Why Vblock Systems are Ideal for DevOps**

In enterprise environments, developers sometimes wait a week to a month for servers, networking, and storage resources provisioned with the right operating systems, software, and tools they need for just a few days of development work.

Vblock Systems provide a total converged DevOps platform, with industry-leading compute, networking, storage, and virtualization technology by Cisco, EMC, and VMware. The systems are pre-engineered, tested, and validated units perfectly suited for a self-service development environment. They support the rapid, iterative process of development that requires reactive scaling and provisioning of all components based on demand.

Once IT deploys a Vblock System, DevOps personnel can set up and take down resources as needed. A self-service interface can be implemented to give developers unprecedented autonomy. All server, network, and storage resources associated with applications in production can scale together quickly and easily to match demand. Once DevOps phases have been completed, the ITaaS infrastructure can be quickly de-commissioned and made available for other uses within the enterprise.

Strict design control enables Vblock Systems to meet specific performance and availability levels while maintaining a balanced, optimized, and easily managed converged infrastructure. Because they are modular, highly scalable infrastructure, Vblock Systems can accommodate a wide array of application deployment requirements.

**Choosing the Right Vblock System for DevOps**

**The Vblock System 100** is “right-sized” to meet the capacity, workload and space requirements of mid-sized datacenters and distributed Enterprise remote offices. By leveraging Vblock System 100, companies experience the repeatability, architecture standardization, and business results synonymous with the Vblock System.

With pre-defined fixed configurations, Vblock 100 is designed to:

- Bring the power and benefits of the Vblock System family into a value-focused solution
- Deliver core IT services (file/print and domain) for mid-sized datacenters and distributed Enterprise remote locations in industries such as healthcare and advanced manufacturing.
- Offer dedicated local instance business application support including VDI, SharePoint, Exchange
- Provide predictable performance and operational characteristics

**Vblock System 200** is “right-sized” to meet the capacity, workload and space requirements of mid-sized datacenters and distributed Enterprise remote offices. By leveraging Vblock System 200, companies experience the repeatability, architecture standardization, implementation flexibility and business results synonymous with the Vblock System.
With pre-defined, variable configurations the Vblock System 200 balances real workload requirements with fastest time to value, reducing risk and complexity. Vblock 200 is designed to:

- Bring the power and benefits of the Vblock System family into a value-focused solution
- Deliver core IT services (file/print and domain) for mid-sized datacenters and distributed Enterprise remote locations
- Provide Dev/Test and co-location datacenter support
- Efficiently handle mixed workload requirements for mid-sized datacenters
- Offer Business applications with data segregation requirements (eDiscovery, eArchive...) with predictable performance and operational characteristics

Vblock System 300 is an enterprise and service provider ready system, designed to address a wide spectrum of virtual machines (VMs), users, and applications. It is ideally suited to achieve the scale required in both private and public cloud environments. Vblock 300 has been engineered for greater scalability and performance to support large enterprise deployments of mission-critical applications, cloud services, VDI, mixed workloads and application development and testing. Every Vblock System 300 is available with the market-leading EMC VNX storage arrays.

Vblock System 700 is an enterprise, service provider class mission-critical system for the most demanding IT environments – supporting enterprise workloads and SLAs that run thousands of virtual machines and virtual desktops. It is architecturally designed to be modular, providing flexibility and choice of configurations based on demanding workloads. These workloads include business-critical enterprise resource planning (ERP), customer relationship management (CRM), and database, messaging, VDI, and collaboration services. Vblock System 700 leverages industry’s best director-class fabric switch, the most advanced fabric based blade server, and the most trusted storage platform.

Vblock System 700 delivers greater configuration choices, 2X performance and scale from previous release, flexible storage options, denser compute, five 9s availability, converged network and support for new virtualization platform that accelerates time to service and reduces operations costs.

DevOps Customer Success Stories on Vblock Systems

A major player in the payment card industry saw an opportunity to simplify the purchase experience of its online and mobile users by developing a new service geared to an on-the-go market segment. The new service required the rapid development of a suite of new applications including a new mobile payment feature. The company purchased two Vblock Systems 700 units—one for production and the other for test and development. With the Vblock Systems, the company was able to stand up a new development environment in 45 days and drastically reduce time to provision new user environments. The new infrastructure handles thousands of customer transactions per minute with over a dozen simultaneous security checks on each. As part of the new service, the Vblock Systems host applications handling transaction approval and merchant tracking over distributed networks with the instantaneous response times demanded in the industry. Since standard Vblock Systems can be deployed in locations across the globe and managed remotely, IT can centrally monitor systems and ensure compliance. With the infrastructure processing transactions closer to the source, latency is reduced and performance enhanced.

A Fortune 150 financial services company embarked on a $1 billion development project for a new generation of applications to improve customer experience and help the company extend its competitive advantage. IT had been taking up to 90 days to provision new development infrastructure and the company wanted to pare down that number substantially. The company chose Vblock Systems and VMware’s vFabric tools to support the application development work. Now, developers can instantiate new development and testing environments in minutes rather than months and have a standard platform for development, staging and production.

A total of eight Vblock System 700 units were deployed across several data centers. Each Vblock 700 was configured to support over 1000 virtual machines. The hundreds of developers dedicated to this effort started work right on schedule, with all systems operational in less than 30 days. With Vblock Systems, the company was able to focus its IT efforts on building a competitive advantage. The standardized nature of Vblock Systems made it possible for the financial services firm to reduce deployment risk and eliminate the time and cost of testing across different environments. Applications performance is consistent on each move from development to testing to staging environments across all Vblock 700 Systems.