Pivotal Ready Architecture by Dell EMC
The ready, reliable and resilient way to deploy Pivotal Cloud Foundry on-premises

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Go “cloud-native” to keep pace with future of enterprise IT

The forces of globalization, rapidly evolving customer expectations and the constant threat of disruption are shaping the future of enterprise IT. In this environment of rapid change, the speed with which new applications can be delivered, the agility to deal with changes, and the ability to leverage data to drive operational and business insights are critical. Successful enterprises will be the ones that make digital transformation a top initiative.

Cloud-native is a modern approach to application architecture, development and delivery that has emerged as a natural response to the changes in business needs and infrastructure capabilities. This new model directly increases the speed and agility of application delivery for IT organizations and has proven its benefits for startups and established enterprises alike.

Forward-thinking organizations are turning to Pivotal® Cloud Foundry®, a cloud-native platform for deploying and operating modern applications, to accomplish a software-led digital transformation. Pivotal Cloud Foundry enables your organization to deploy new code as soon as it is available, reliably run applications at cloud scale, and improve your security posture with built-in capabilities.

Ease the move to IT transformation

Despite the benefits of Pivotal Cloud Foundry, adoption among traditional enterprises has been relatively slow due to a number of factors, including the effort required to integrate cloud-native software platforms with legacy infrastructure, limited availability of tooling and other expertise, and the fragmentation of processes and workflows when using the cloud-native model alongside traditional development.

Pivotal Ready Architecture by Dell EMC provides a tested and validated reference architecture on which to deploy a highly available enterprise-grade developer platform, helping remove time and risk from the process of building hybrid clouds. Built on hyper-converged VxRail, Pivotal Ready Architecture by Dell EMC delivers automated lifecycle management of the infrastructure, a critical element in accelerating your transformation into a digital business. It provides an “it just works” IT operator experience by optimizing the self-service, cloud-native development capabilities of Pivotal Cloud Foundry. An optional fault-tolerant object store — Dell EMC Elastic Cloud Storage — supports high availability and provides a reliable, fault-tolerant endpoint for your app data. Clear deployment guides, access to professional services, and comprehensive support for the entire stack further reduce your operational risk.

All this makes Pivotal Ready Architecture by Dell EMC the best way to deploy Pivotal Cloud Foundry on-premises in a ready, reliable and resilient way.

Resilient

Pivotal Ready Architecture by Dell EMC accelerates and removes the risk from customers deploying Pivotal Cloud Foundry on-premises. Pivotal Cloud Foundry helps customers by reducing the time needed to deploy an application from weeks or months to days or hours, empowering organizations with the agility they need to innovate, differentiate and grow. Pivotal Ready Architecture by Dell EMC is built on the only fully integrated, preconfigured and pretested VMware® hyper-converged infrastructure appliance family on the market: Dell EMC VxRail. Powered by Intel® Xeon® processors, VxRail dramatically simplifies IT operations while lowering overall capital and operational costs, allowing you to start small and scale as the business grows. Pivotal Ready Architecture by Dell EMC accelerates deployment of the Pivotal Cloud Foundry 2.0 suite/bundle/stack with proven deployment blueprints that can be stood up in days or weeks, compared to months or years of planning and implementation for do-it-yourself approaches.

Ready

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Reliable
Pivotal Ready Architecture by Dell EMC is a designed, tested and proven hardware and software design. It simplifies how customers are able to build, deploy, and manage their Pivotal Cloud Foundry 2.0 developer platform, giving you a truly agile environment to enable DevOps. Pivotal Ready Architecture by Dell EMC manages the full infrastructure lifecycle as well as tests and validates Pivotal Cloud Foundry with the entire stack. To help take the risk out of building a hybrid cloud, you have access to application portability across multiple clouds through Pivotal Cloud Foundry, and the flexibility to customize your Pivotal Ready Architecture by Dell EMC with value-added services and developer tools, as well as highly available object storage from Dell EMC.

Resilient
The move to cloud computing is causing a shift in application architecture. New software patterns, collectively called “cloud-native,” deliver unheard-of levels of application resilience and flexibility. This requires a new type of platform, one that supports high availability and horizontal scale. Pivotal Ready Architecture by Dell EMC offers multisite, multifoundation, and multiple availability zone configuration for delivering enhanced uptime, geographic coverage and resilience, based on your needs. For added security, Dell EMC support, deployment, and consulting services is there for every step of your cloud journey.

How will you use Pivotal Cloud Foundry?

App modernization
Use a modern cloud-native architecture and modern DevOps approach to refactor and replatform.

- Evolve important business apps that interact with middleware stacks that are a decade old or older.
- Move past inflexible app servers and stacks that don’t support automation.

Microservices
Adopt a microservices architecture that boosts velocity.

- Deploy microservices via continuous delivery, and give developers a frictionless path to production.
- Deploy small changes frequently, and see big benefits over time.
- Run apps on a platform that makes “the right thing the easy thing” and further a DevOps culture.

Modern software design
Embrace an agile and lean approach to digital transformation.

- Build new cloud-native apps featuring an API-first design.
- Deliver features to users across many devices.
- Operate at startup speeds by reducing time to market for new code.

The Four Forces of Modern Digital Transformation

1. DevOps — Working together in teams that match the layers of the underlying system
2. Agile methodologies — Deploying code quickly and gathering feedback continuously
3. Containers — Enabling quick, reliable, and consistent application deployment across different environments
4. Microservices — Employing resilient and scalable pieces of applications that can be easily managed, updated and replaced by small teams
**Transform to a Digital Enterprise**

“CIOs need to ensure they make the changes required to drive better customer experience, such as moving toward agile development and delivery models, cloud architectures, and rapidly evolving technologies such as social, mobile and advanced analytics.”

— Forrester Research
Forrester’s Tech Management Balanced Scorecard, September 2016

**Do any of these challenges sound familiar?**

“We want to run Pivotal Cloud Foundry on-premises, but we don’t have the resources to design, certify, and build a cloud-native app development solution on our own.” Planning, designing and building a custom cloud-native solution is a complex project that often takes months or years — too long if you need to roll out a solution to address immediate business needs. It can also be costly to maintain over the long term. Many companies find that doing it themselves requires the majority of their IT resources and budget, leaving few resources to focus on innovation and projects that add real value to the business. Pivotal Ready Architecture by Dell EMC provides a proven process for deploying and managing a cloud that works today — and beyond.

“We need an ‘easy button’ for building a cloud-native app development solution that removes the risks involved with planning, installation, and configuration.” Digitally transforming a business is risky enough. Complexity exists at each layer, so building and maintaining a functional, resilient cloud can be very difficult. If you’re looking for a reliable way to get up and running with Pivotal Cloud Foundry with less risk, Pivotal Ready Architecture by Dell EMC enables you to quickly deliver a platform for the fastest path to digital transformation without the cost, time, complexity or uncertainty of building your own platform.

“We can’t afford to have applications going down for five days or even five minutes. We need a hardened, proven architecture to keep our apps highly available.” Today’s businesses operate 24x7, and customer expectations for instantaneous information and service are higher than ever. Pivotal Ready Architecture by Dell EMC automates many day-to-day administrative tasks to reduce the chance for human error, and supports four layers of high availability and zero-downtime deployments.”
Pivotal Ready Architecture by Dell EMC

Pivotal Ready Architecture by Dell EMC is built on the Dell EMC VxRail appliance to provide the best way to run Pivotal Cloud Foundry on-premises. Designed with simplicity in mind, Pivotal Ready Architecture by Dell EMC is certified to reduce complexity throughout its lifecycle from installation to ongoing maintenance. Pivotal Ready Architecture by Dell EMC provides you with greater control and flexibility over your IT transformation with three customizable starting configuration sizes, add-on functionality such as object storage, and services.

Pivotal Ready Architecture by Dell EMC is built on Dell Technologies solutions including:

• **Dell EMC VxRail** is the only fully integrated, preconfigured, and pretested VMware hyper-converged infrastructure appliance family on the market. It dramatically simplifies IT operations while lowering overall capital and operational costs.

• **Dell EMC Networking top-of-rack (ToR) high-density switches** offer ultra-low latency and line rate performance designed for data centers.

• **Pivotal Cloud Foundry** provides infrastructure abstraction, OS Patching, services marketplace and built-in tools for scaling, metrics, and more. Customers can choose to deploy either...
  - **Pivotal Application Service (PAS)** is an abstraction for applications. Development teams can increase speed and deploy code to production thousands of times per month.
  - **Pivotal Container Service (PKS)** is an abstraction for containers based on Kubernetes. Use PKS to run developer-built containers, ISV apps, and Apache Spark on the PCF platform.

• **VMware vSphere®** optimizes performance, availability and efficiency from infrastructure and applications, making it the ideal foundation for any cloud environment.
Why Dell EMC?

Dell Technologies companies have played a critical role in transforming computing to enable more affordable and more pervasive access to technology around the world for more than 30 years. Today, the computer industry is at a critical inflection point that will redefine the types of products and services your business demands, including greater mobility, virtualization, cloud computing and ubiquitous data capacity and access.

The combination of Dell and EMC brings together two industry-leading companies with strong reputations for value and innovation. Dell EMC has emerged as a new company with a strong product and services portfolio, significant new skills and capabilities, reorganized operations, an optimized global supply chain and a world-class management team — all to provide solutions with industry-leading value, ease of use and flexibility. Dell EMC holds leadership positions in some of the biggest and largest-growth categories in the IT infrastructure business, and that means you can confidently source your IT needs from one provider — Dell EMC.

- #1 converged infrastructure¹
- #1 in traditional and all-flash storage²
- #1 virtualized data center infrastructure³
- #1 cloud IT infrastructure⁴
- #1 server virtualization and cloud systems management software (VMware)⁵
- #1 in data protection⁶
- #1 in software-defined storage⁷

Today, Dell EMC offers solutions for every person at every age and in every profession—from a four-year-old child just starting school to a data center systems administrator to the CIO of a global corporation. Dell EMC powers:

- 98% of global Fortune 500 companies
- Millions of small and medium businesses
- More than 10,000 schools, 295,000 classrooms, and millions of students worldwide
- Every G20 government
- 400,000 physicians and 4,000 hospitals
- 167,000 channel partners globally
- 60,000 retail locations
- Millions of consumers

¹ IDC WW Quarterly Converged Systems Tracker, Q1 2017, June 2017, Vendor Revenue.
³ Dell EMC Annual Report, 2015.
⁴ IDC WW Quarterly Cloud IT Infrastructure Tracker, April 2017, Vendor Revenue — EMC Q4 2016.
Services and financing

Dell EMC Professional Services
Solutions customized for your needs
Leverage on-site integration or application implementation with Dell EMC Professional Services.

Deployment assistance when you need it
You can trust Dell EMC and partners to deploy the racked configuration in your data center, including network cabling, operating system, firmware and hypervisor with Dell EMC ProDeploy.

Support is always on for you
Enjoy unlimited access to 24x7 chat, email and phone support services with how-to assistance and disaster recovery from Dell EMC ProSupport.

Dell Financial Services
Let the wealth of leasing and financing options from Dell Financial Services help you find opportunities when your organization faces decisions regarding capital expenditures, operating expenditures and cash flow.

- Leasing and financing solutions are available throughout the U.S., Canada and Europe.
- Dell EMC Financial Services can finance your technology solution.
- Electronic quoting and online contracts offer an efficient purchase experience.

Learn more about Dell Financial Services.

Find out more today
Don’t wait any longer to find out how Pivotal Ready Architecture by Dell EMC can help you accomplish a software-led digital transformation. Contact your Dell EMC or partner sales representative to learn more, today.