VMware Delivers Cloud Foundry, the Industry's First Open PaaS

VMware and Cloud Development Leaders Rally Around Open Platform-as-a-Service to Accelerate Application Development and Delivery for the Cloud Era; Available Now, Next Generation Open Application Platform Provides Broadest Choice of Developer Frameworks, Application Services and Cloud Deployment Options

PALO ALTO, CA -- (MARKET WIRE) -- 04/12/11 -- VMware, Inc. (NYSE: VMW), the global leader in virtualization and cloud infrastructure, today delivered Cloud Foundry™, the industry's first open Platform-as-a-Service (PaaS). Available today, Cloud Foundry represents a new generation of application platform, architected specifically for cloud computing environments and delivered as a service from enterprise datacenters and public cloud service providers. Cloud Foundry streamlines the development, delivery and operations of modern applications, significantly enhancing the ability of developers to deploy, run and scale their applications in cloud environments while embracing the widest choice of public and private clouds, industry-standard high productivity developer frameworks and application infrastructure services.

"The shift to cloud computing is fundamentally transforming what businesses and consumers expect from applications, profoundly challenging traditional application development and infrastructure," said Tod Nielsen, Co-President, Application Platform, VMware. "Cloud Foundry delivers a dramatically simplified approach that embraces the diversity and speed of modern development that is at the heart of today's most successful applications while exploiting key trends in mobile, social and cloud computing."

With today's announcement, VMware is introducing a new VMware-operated developer cloud service, a new open source PaaS project and the first ever "Micro Cloud" PaaS solution. VMware introduced Cloud Foundry today at a live event attended by thousands of developers and led by VMware CEO Paul Maritz, Rod Johnson, SVP, Application Platform Strategy, VMware, Mark Lucovsky, VP Engineering, Application Platform, VMware and Derek Collison, CTO and Chief Architect, Application Platform, VMware. Key developer community leaders highlighted the value of an open PaaS in advancing highly productive development frameworks for the cloud. Speakers include: Dion Almaer and Ben Galbraith, co-founders of FunctionSource, Ryan Dahl, creator of Node.JS from Joyent, Ian McFarland, VP, Technology, Pivotal Labs, Roger Bodamer, 10Gen, steward of MongoDB, and Michael Crandell, CEO and co-founder of RightScale. Further industry support and blogs are available from 10Gen and RightScale.

Application Development for the Cloud Era

Modern application development faces a growing set of challenges:

- Diversification of application development frameworks driving higher productivity across multiple languages
- New application needs including growth in mobile, social and SaaS integration in mainstream applications
- Broad innovation in application services, creating new data, messaging, and web service application building blocks for large scale, highly distributed data challenges common in cloud computing
- Heterogeneous cloud deployment options and the customer imperative to deploy and migrate applications flexibly across enterprise private clouds and multiple cloud service providers

PaaS offerings have emerged as the modern solution to the changing nature of applications, increasing developer efficiency, while promising to let developers focus exclusively on writing applications, rather than configuring and patching systems, maintaining middleware and physical machines and worrying about network topologies.

Early PaaS offerings, however, restrict developers to a specific or non-standard development frameworks, a limited set of application services or a single, vendor-operated cloud service. These incompatible platforms inhibit application portability, locking developers into a particular offering and restricting movement of applications across cloud providers or even into an enterprise's own datacenter.

"For all of the developer interest in the potential benefits to PaaS solutions, actual adoption has been slowed by their employment of non-standard components and frameworks which raise the threat of lock-in," said Stephen O'Grady, Principal Analyst at RedMonk. "With Cloud Foundry, VMware is providing developers a PaaS platform with the liberal licensing and versatility to accommodate the demand for choice in developer programming languages."
Cloud Foundry: Choice of developer frameworks, application services and clouds

Cloud Foundry is a modern application platform built specifically to simplify the end-to-end development, deployment and operation of cloud era applications. Cloud Foundry orchestrates heterogeneous application services and applications built in multiple frameworks and automates deployment of applications and their underlying infrastructure across diverse cloud infrastructures.

Cloud Foundry extends VMware's commitment to Open PaaS, enabling the broadest choice of development frameworks and languages, heterogeneous application services and cloud deployment environments. Cloud Foundry also delivers the highest degree of portability, minimizing lock-in by enabling developers to migrate applications between environments, across cloud providers and enterprise datacenters without disruption or modification to the application.

Cloud Foundry supports popular, high productivity programming frameworks, including Spring for Java, Ruby on Rails, Sinatra for Ruby and Node.js, as well as support for other JVM-based frameworks including Grails. The unique, open architecture will enable additional programming frameworks to be rapidly supported in the future. For application services, Cloud Foundry will initially support the MongoDB, MySQL and Redis databases with planned support for VMware vFabric services.

Cloud Foundry is not tied to any single cloud environment, nor does it require a VMware infrastructure to operate. Rather, Cloud Foundry supports deployment to any public and private cloud environment, including those built on VMware vSphere® those offered by VMware vCloud® partners, non-VMware public clouds and demonstrated support for Amazon Web Services by cloud management provider RightScale.

Cloud Foundry will be offered in multiple delivery models:

- **New VMware Operated Developer Service** - Available today in beta release, www.CloudFoundry.com is a full function public cloud PaaS service, operated by VMware, enabling developers to access Cloud Foundry and providing a test bed for new services and operational optimization. Via this multi-tenant PaaS environment, developers can deploy and cloud-scale their applications in seconds. Developers can sign up for invitations today to use this service.

- **Open Source, Community PaaS Project** - Available today at www.CloudFoundry.org, this open source project and community under Apache 2 license enables developers to inspect, evaluate and modify Cloud Foundry software based on their own needs, while also minimizing the risk of lock-in. This model provides the highest degree of extensibility, allowing the community to extend and integrate Cloud Foundry with any framework, application service or infrastructure cloud.

- **New Cloud Foundry Micro Cloud** - Available Q2 2011, Cloud Foundry Micro Cloud will be a complete, downloadable instance of Cloud Foundry contained within a virtual machine on a developer's desktop, enabling simplified development and testing of applications. This unique model will enable developers to build and test applications on their own machines and ensure that applications running locally will also run in production, without modification on any Cloud Foundry-based private or public cloud.

- **Cloud Foundry for the Enterprise and Service Providers** - In the future, VMware will also offer a commercial version of Cloud Foundry for enterprises who want to offer PaaS capabilities within their own private clouds and for service providers who want to offer Cloud Foundry via their public cloud services. This commercial solution will enable enterprises to integrate the PaaS environment with their application infrastructure services portfolio. Service provider solutions will further deliver on the promise of portability across a hybrid cloud environment, enabling freedom to deploy internally or migrate to one of VMware's nearly 3,500 vCloud partners.

"In today's era of cloud computing, open technology is more essential than ever," said Rod Johnson, SVP, Application Platform Strategy, VMware. "Just as an open model enabled Spring to evolve as a solution ideally suited for the needs of the Java community it serves, Cloud Foundry's open architecture and community process will enable developers to enjoy PaaS productivity and simplicity while extending the technology to their specific needs."

**Additional Resources:**

- VMware and Cloud Foundry community Webcast and replay
- Steve Herrod, VMware CTO executive viewpoint on Cloud Foundry
- Rod Johnson, SVP, Application Platform Strategy, VMware viewpoint on Cloud Foundry
- Community support
Community viewpoints and blogs in support of Open PaaS:

- 10Gen
- RightScale
- Steve Herrod, VMware CTO executive viewpoint on Open Paas strategy: VMware's commitment to Open PaaS

About VMware
VMware delivers virtualization and cloud infrastructure solutions that enable IT organizations to energize businesses of all sizes. With the industry leading virtualization platform -- VMware vSphere® -- customers rely on VMware to reduce capital and operating expenses, improve agility, ensure business continuity, strengthen security and go green. With 2010 revenues of $2.9 billion, more than 250,000 customers and 25,000 partners, VMware is the leader in virtualization which consistently ranks as a top priority among CIOs. VMware is headquartered in Silicon Valley with offices throughout the world and can be found online at www.vmware.com.

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Forward-Looking Statements
This press release contains forward-looking statements including, among other things, the effect of cloud computing on business and consumer expectations from applications, the expected availability of Cloud Foundry Micro Cloud and other planned Cloud Foundry products and services and the expected benefits of Cloud Foundry and open PaaS environments for customers. These forward-looking statements are subject to the safe harbor provisions created by the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from those projected in the forward-looking statements as a result of certain risk factors, including but not limited to: (i) adverse changes in general economic or market conditions; (ii) delays or reductions in information technology spending and government subsidies; (iii) competitive factors, including but not limited to pricing pressures, industry consolidation, entry of new competitors into the virtualization market, and new product and marketing initiatives by our competitors; (iv) our customers' ability to develop, and to transition to, new products and computing strategies, (v) the uncertainty of customer acceptance of emerging technology; (vi) rapid technological and market changes in virtualization software and platforms for cloud and desktop computing; (vii) changes to product development timelines; (viii) our ability to protect our proprietary technology; (ix) our ability to attract and retain highly qualified employees; and (x) the successful integration of acquired companies and assets into VMware. These forward looking statements are based on current expectations and are subject to uncertainties and changes in condition, significance, value and effect as well as other risks detailed in documents filed with the Securities and Exchange Commission, including our most recent reports on Form 10-K and Form 10-Q and current reports on Form 8-K that we may file from time to time, which could cause actual results to vary from expectations. VMware assumes no obligation to, and does not currently intend to, update any such forward-looking statements after the date of this release.

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