

# Red Hat Announces Pathway to Enterprise-Ready Linux Containers

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*Industry's first certified container ecosystem program combines an integrated application delivery platform and open standards support to help drive enterprise adoption of secure containerized applications based on Docker*

RALEIGH, N.C.--(BUSINESS WIRE)-- Red Hat, Inc. (NYSE: RHT), the world's leading provider of open source solutions, today announced the launch of the first certified, end-to-end ecosystem program for Linux containers based on Docker, a key component of the company's vision for containerized applications unveiled in March 2014. Leveraging Red Hat's vast network of thousands of partners and independent software vendors (ISVs), this ecosystem program is designed to enable the design, development and delivery of certified, trusted and secure application containers to end users through a set of industry standards, including the Docker container format and the Docker Engine.

Representing the next wave of enterprise application architecture, Linux containers facilitate the creation of an efficient, composable fabric of lightweight "microservices" that can be woven into more complex applications, yet are still flexible enough to adapt to changing IT needs. Much like traditional applications, containerized applications still interact with the operating system and require enterprise-class support, security and the knowledge that a Linux container actually contains only the intended application code, not harmful or malicious code.

Red Hat will balance this desire for application flexibility and innovation with enterprise security and reliability, by taking application containers to the same state of enterprise readiness and support as the company did for Linux nearly 13 years ago. Underpinning this effort is Red Hat Connect for Technology Partners, a new overarching partner program designed to accelerate a vibrant ecosystem of technology companies whose solutions run on or integrate with Red Hat products, starting with containers.

Through Red Hat Connect for Technology Partners, ISV partners can more effectively engage and collaborate with Red Hat and other like-minded partners on container-based solutions. Participating partners will gain access to the Red Hat Container Development Kit (CDK), a collection of tools and resources that enable developers to easily build and maintain containerized applications based on Docker for the Red Hat ecosystem. Red Hat Connect for Technology Partners also provides partners with access to documentation, knowledge-bases and forums, as well as certification tools and services that support the container's lifecycle.

As part of Red Hat's vision for certified, trusted Linux containers, these certification tools deliver the Red Hat Container Certification, which verifies that a container's content is from trusted sources and that both it and the container itself are secure, free of known vulnerabilities, and will work on Red Hat infrastructure - enabling a robust end-to-end solution that is fully supported by Red Hat and its partners. Following in the footsteps of Red Hat's existing certification program for applications running on Red Hat Enterprise Linux, the Red Hat Container Certification program delivers a new level of trust, security and lifecycle management to the enterprise world.

The final element of Red Hat's new container ecosystem program is a distribution vehicle for these certified application containers, ultimately in the form of federated, standardized container registries. Starting with a supported registry from Red Hat - the Red Hat Container Registry - and with future plans to enable partners and ISVs to host their own registries for Red Hat certified containers - enterprises will be able to source application containers from this certified registry pool, greatly mitigating the risk and security concerns associated with consuming containers from unknown sources.

While certified, trusted containers delivered through Red Hat's container ecosystem are a key piece of the company's overall Linux container vision, Red Hat's vision reaches even further. For enterprise customers to fully embrace Linux containers, Red Hat believes that open standards and an integrated application delivery platform are also critical.

## Driving Industry Standards

Red Hat has long supported the key industry standards behind Linux containers, playing a critical role in creating efficiency for customers, container portability and increasing technology re-use. A key underlying goal of this effort is to prevent fragmentation of solutions, which creates complexity for customers. In collaboration with other partners, Red Hat has driven the development of technologies such as SELinux, cgroups, namespaces and systemd, as well as the evolution of the Linux kernel to integrate with these tools and orchestration technologies.

Over the past year, Red Hat has extended its standards work into new areas around Linux containers, including the Docker and Kubernetes projects. Red Hat also supports and collaborates on the creation of a standard container format alongside Docker and backs the creation of metadata, indices and search standards for container registries, as well as standards for container trust and provenance within the Docker project. All of these standards help customers be more efficient, drive technology re-use, and facilitate the ultimate goal of complete container portability.

## Integrated Application Delivery

For the actual delivery of these certified application containers, Red Hat offers a full continuum of infrastructure platform solutions, including the newly-launched Red Hat Enterprise Linux 7 Atomic Host, Red Hat Enterprise Linux 7.1, and soon OpenShift 3, currently in beta. Unlike other vendors in the industry, Red Hat solutions will help to deliver the portability of enterprise-grade containers across the open hybrid cloud platform spectrum, from bare metal to private cloud to Platform-as-a-Service (PaaS) to the largest public clouds. With these infrastructure platform solutions, Red Hat also offers the tools and content needed to build containers, integrate application orchestration and application life cycle management from development to production, utilizing built-in policies for security and user

access. Beginning with the general availability of Red Hat Enterprise Linux 7 in June 2014, these aforementioned products are all integrated with Docker for the container build and runtime environment.

## Supporting Quotes

*Paul Cormier, president, Products and Technologies, Red Hat*

"Containers represent a massive shift in how enterprises consume applications, but in doing so the critical aspects of the traditional application lifecycle, namely security and certification, must be retained as well. With the industry's first certified, secure, end-to-end container ecosystem, Red Hat now leads the way in enabling Linux containers for the enterprise, from conceptualization to development to delivery, maintaining the key innovations of the technology without sacrificing the basic enterprise needs of application security and provenance."

*Gary Chen, research manager, Cloud and Virtualization System Software, IDC*

"Containers are an exciting emerging technology, but as enterprises begin to deploy containers, they will require a full solution stack. Modern container technology is about much more than just the actual isolation container, and can include things such as packaging tools, orchestration systems, and even online services. Red Hat is integrating containers across their product portfolio, from Red Hat Enterprise Linux 7 Atomic Host to OpenShift, as well as creating an ecosystem of partners and ISVs for certification and deployment option through Red Hat Connect to give customers a holistic, open, and extensible solution to meet a variety of enterprise IT needs."

*Ken Cheney, vice president, business development, Chef*

"Enterprises in all industries are demanding automated solutions for rapidly delivering applications and infrastructure in heterogeneous environments, including the recent wave of container technology adoption. Together, Chef and Red Hat are enabling the automated and continuous deployment of containers. We're excited to be part of Red Hat's certified container ecosystem."

*Ben Golub, CEO, Docker*

"We are excited to see Red Hat create a certification program that will drive even more ISVs to create Docker container-based services, which furthers the already incredible content choice for developers. Docker and Red Hat continue to collaborate closely in the community, to advance the Docker container format and Engine, and to define open standards in areas like trust and provenance. We are also exploring ways to federate Red Hat certified content from Red Hat Container Registry into Docker Hub and Docker Hub Enterprise to provide users the broadest array of Dockerized apps to choose from to compose distributed applications."

*Willy Tarreau, chief architect, HAProxy*

"HAProxy Technologies is very proud that its years of commitment around the world's most deployed open source load balancer are recognized by a renowned company like Red Hat which shares the same values. Red Hat has proven early the benefits of containers technology for both public and private clouds. In this context, they valued the high flexibility of a software load balancing solution such as HAProxy, whose performance and reliability has been demonstrated worldwide for over a decade. Beyond its involvement in the community version, HAProxy Technologies develops, maintains and supports an enterprise-grade version called HAPEE whose additional features make it the de facto standard choice for demanding applications."

*Doug Matthews, vice president, Information Availability, Symantec*

"Symantec continues to work alongside Red Hat as enterprises look toward containerized Linux applications, to provide a robust high availability framework for Docker infrastructures and individual containers with Symantec™ Cluster Server powered by Veritas. Complete with auto discovery for availability configurations that account for inter-container dependencies, instantaneous fault detection and recovery, Symantec is working with Red Hat to ensure customers can confidently adopt Linux containers for their Tier-1 applications"

## Additional Resources

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Learn more about [Red Hat's container vision](#)

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