Cisco and Docker Alliance

Cisco and Docker Alliance and Solution Announcements

Q. What does the alliance include?

A. The strategic alliance includes joint development by Cisco and Docker and their ecosystem partners, with sales and support across Cisco customers and channel partners, to help ensure that Docker Datacenter works transparently for applications deployed across hybrid clouds, converged infrastructure, and Cisco UCS® servers. The two companies are pursuing a phased approach of delivering solutions that span a range of products that address a wide range of requirements.

Q. What is being announced at this time?

A. Cisco is announcing the strategic alliance with Docker, commercial support for Contiv 1.0, and two Cisco Validated Designs:

- Validated design describing Docker Datacenter deployed on Cisco UCS® B-Series Blade Servers and C-Series Rack Servers

- Validated design for Docker Datacenter on FlexPod converged infrastructure

Contiv 1.0 and the validated designs are available now. Docker has certified Contiv and now offers Contiv in at The Docker Store (see https://store.docker.com/).

Q. Will Cisco be reselling Docker Enterprise Edition or Docker Datacenter?

A. No. Cisco will not be reselling Docker products at this time. However, the companies will continue to explore ways to expand their alliance.

Q. What are the benefits of the Cisco Validated Designs and what do they include?

A. The validated designs help ensure ease of deployment and optimized performance for Docker applications across the stack. Cisco is working with our infrastructure partners, including NetApp, to provide unified and certified solutions for the entire application journey, whether organizations are containerizing traditional applications, refactoring applications to microservices, or creating new applications.

- The validated design for Docker Datacenter (DDC) on Cisco UCS describes installation of DDC on Cisco UCS B-Series Blade Servers and C-Series Rack Servers. It includes installation of all three products included in the DDC subscription: Commercially Supported (CS) Docker Engine, Docker Trusted Registry (DTR), and Docker Universal Control Plane (UCP).This solution is for stateless applications that do not have storage persistence requirements. It describes two alternatives for deployment:
  - UCP controller and DTR running on separate nodes
  - UCP controller and DTR co-located for a smaller server footprint; not recommended for large-scale or production environments

- The validated design for Docker Datacenter on FlexPod includes DDC on Cisco UCS and is implemented on Cisco UCS B-Series Blade Servers, Cisco Nexus® Family switches, and the NetApp storage system
  - The NetApp AFF 8040 storage system is integrated with Docker Datacenter using the NetApp Docker Volume Plugin (nDVP) to provide persistent storage for containers using the Network File System (NFS). Containers are deployed and managed by Docker UCP

Q. What is Contiv?

A. Contiv is an open-source project sponsored by Cisco (see http://contiv.github.io). It provides a unified networking fabric for heterogeneous Docker deployments on virtual machines, bare-metal systems, and public and private clouds. Cisco will continue to develop Contiv as an open-source project, and Cisco will now offer worldwide technical support for the commercial version of Contiv.

Contiv includes the following features:

- A feature-rich policy model to provide secure, predictable application deployment
- Integration with Docker Compose application blueprints
- Best-in-class throughput for container workloads
- Multitenancy, isolation, and overlapping subnets
- Integrated IP address management (IPAM) and service discovery
- A variety of physical topologies: Layer 2 (VLAN), Layer 3 (Border Gateway Protocol [BGP]), overlay (Virtual Extensible LAN [VXLAN]), and the Cisco software-defined networking (SDN) solution (Cisco Application Centric Infrastructure [Cisco ACI™])
- IPv6 support
- Scalable policy and route distribution
- Service load balancing, including built-in east-west microservices load balancing
- Traffic isolation for storage, control (for example, etcd/consul), network, and management traffic

Q. Why is Contiv an open-source project?

A. Contiv was established from the beginning as a community project, and it is intended to be open. It was a natural fit for Cisco to lead this effort, particularly the networking component. We wanted to give back to the community, using and building on the code for use cases and products. We created Contiv specifically to provide a framework for operators to define operation policies for infrastructure with containerized applications. Everyone benefits from efficient and precisely governed container deployment. We are getting interest from community members, because they see the value in this effort and are actively contributing to the project.

Q. What types of customers are asking for joint Cisco and Docker solutions?

A. Customers are implementing containers across a wide range of enterprise applications and business services because of their many efficiencies and advantages. Many customers are in the early stages of adoption, and proven solutions from Cisco and Docker give them the confidence to adopt containers more rapidly in their organizations. In addition to creating new applications using containers, they are evaluating or implementing operations to:

- Containerize traditional applications
- Refactor existing applications into microservices

Cisco Sales and Resellers

Q. Who are Cisco's target customers for these solutions?

A. The main target customers are:

- Software-as-a-service (SaaS)–based companies

- Customers developing scale-out applications

Q. What are some main use cases?

A. Use cases include:

- Application modernization

- Development of new applications

- Organizations implementing DevOps and continuous integration and continuous delivery (CI/CD)

Q. Is any particular certification required to resell the Cisco and Docker solutions?

A. No.

Q. Does Cisco intend to resell Docker Datacenter and other Docker products?

A. Initial sales activities will be a meeting in the channel model. Resale of Docker products is under consideration.

Q. Can Cisco partners sell Contiv 1.0 and Cisco and Docker solutions?

A. Contiv is available as a free download from GitHub and from The Docker Store, so partners can download it. Technical support for Contiv must be addressed separately, when it is available.

Next Steps

Q. I located a prospect who is interested in the Docker solutions. What do I do?

A. For now, send an email to ask-ucs-docker@cisco.com to request help as needed. Understand the business challenge the customer is seeking to solve and the workloads that will be hosted on the FlexPod and Cisco UCS systems. Sales assets include:

- Solution briefs for the Docker on Cisco UCS and Docker on FlexPod Cisco Validated Designs

- Customer presentation slide deck

- Technical white paper about Docker on Cisco UCS

To learn about opportunities, send us an email message at ask-ucs-docker@cisco.com.

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