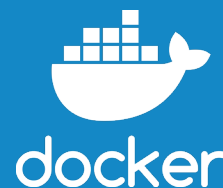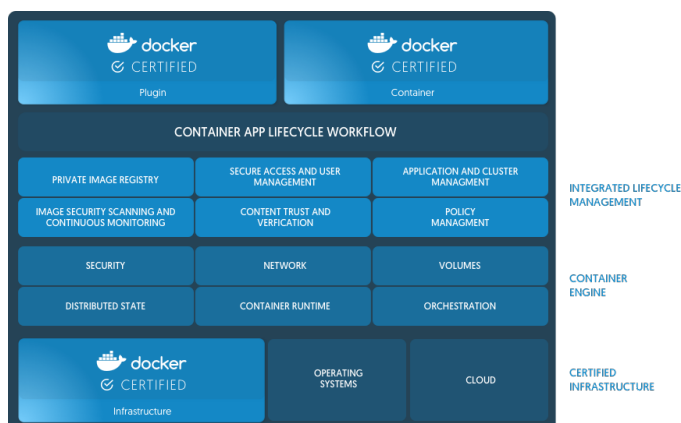# Docker Enterprise Edition

Integrated container management and security platform

Docker Enterprise Edition (EE) is a Containers-as-a-Service platform for IT that manages and secures diverse applications across disparate infrastructure, both on-premises and in the cloud. Docker EE fuels innovation by bringing traditional applications and microservices built on Windows, Linux or mainframe into a single, secure software supply chain. With Docker, organizations can modernize applications, infrastructure and operational models by bringing forward existing IT investments while integrating new technology at the rate of business.

Modernization Without Disruption

IT organizations are under pressure to modernize for the digital era, but are constrained by having multiple infrastructure and technology stacks to maintain. Docker EE standardizes legacy, microservices and ISV applications with uniform packaging that does not require changes to the underlying code. This creates a single, secure software supply chain that brings diverse teams into the same application delivery process, regardless of both the application type and destination platform. The unified operating model allows organizations to respond more quickly to market changes and deliver innovation faster and more securely.


Designed for enterprises running critical applications in production at scale, Docker EE is more than just a container orchestration solution; it is a full lifecycle management solution for the modernization of traditional applications and microservices. Docker enables enterprise organizations to gain agility and application portability while saving costs with a non-disruptive solution that can be easily adopted into existing IT environments.

Docker Enterprise Edition Core Capabilities

- **Secure Software Supply Chain**: A software supply chain is the ability to take applications from a developer's laptop, through testing, QA, staging, all the way to production—all with a consistent process and end-to-end security. Docker EE unifies the operating the model to accelerate application delivery across a broad set of applications, allowing enterprises to ship more applications, more often, and in a more secure manner.

- **Multi-Architecture Orchestration**: Docker EE is the only platform for managing Windows, Linux, and Linux-on-mainframe applications in the same cluster, providing developers and IT a consistent experience regardless of the application type. With granular role-based access controls (RBAC), organizations can support multiple applications teams and multiple architectures in the same environment for lower overhead and higher overall application density. This contributes to significant cost savings above and beyond containerization alone.

- **Infrastructure Independence:** Docker EE abstracts applications from the underlying infrastructure, making it easier to move applications between different infrastructure platforms, including on-premises environments and public clouds. Docker EE is optimized for all major Linux distributions, Windows Server 2016 and major cloud providers to provide a simple and consistent user experience while Certified infrastructure delivers a reliable platform on any infrastructure for app portability without lock-in.

Secure Software Supply Chain
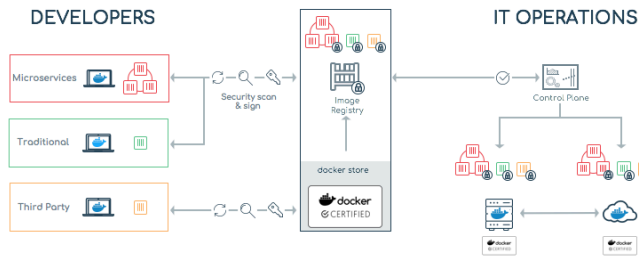
Docker Enterprise Edition delivers a secure software supply chain by providing the following:

- **Secure image management** – Operate a private registry for secure storage and management of images and granular access control to repositories. Manage images versions, metadata, and optimize storage resources with garbage collection. Repositories can be marked as immutable to prevent inadvertent changes.

- **Image content cache** – Reduce latency and improve performance for remote development teams with remote (or satellite) caches to enable faster downloads of Docker images for distributed development teams.

- **Policy-based image promotion** – Define policies to automatically promote images from one repository to another repository within Docker Trusted Registry. Criteria can include tags, package names, vulnerabilities, or license review

- **Automate workflows with webhooks** - Registry webhooks pass real-time information to 3rd party tools like CI/CD solutions. You can use Webhooks to cause an action in another application in response to an event in the registry.

- **Application health checks** - Improve reliability and resiliency with health checks for services. Configure the frequency of checks in UI or in the image Dockerfile to ensure timely checks and reconciliation, if needed.

In addition, there are several security features that ensure end-to-end security across the supply chain:

- **Runtime security** – Automatic mutual TLS ensures that the default mode of communication within the system is encrypted and protected. Built-in root Certificate Authority (CA) with automatic certificate rotation ensures systems remain secure

and online. Support for external CAs and ability to configure rotation frequency provides teams with additional flexibility.

- **Integrated secrets management –** Securely store secrets (API key credentials, etc) encrypted at rest and in transit to only the exact app service that requires them to operate. Docker EE allows teams to easily create, manage and deploy secrets for app services on both Windows and Linux-based containers.

- **Image signing, verification and policy –** Docker Content Trust protects images from man-in-the-middle attacks while moving across the network. Users can cryptographically sign an image at build time, creating a record of who created or modified the image, and enforce policies before an application can be deployed to production.

- **Image scanning and vulnerability monitoring –** Docker Security Scanning ensures only high integrity applications are running in production. Docker Security Scanning indexes the components in both Windows and Linux DTR images and compares them against a known CVE database. When new vulnerabilities are reported, Docker Security Scanning matches the components in new CVE reports to the indexed components in your images, and quickly generates an updated report.

Multi-Architecture Orchestration
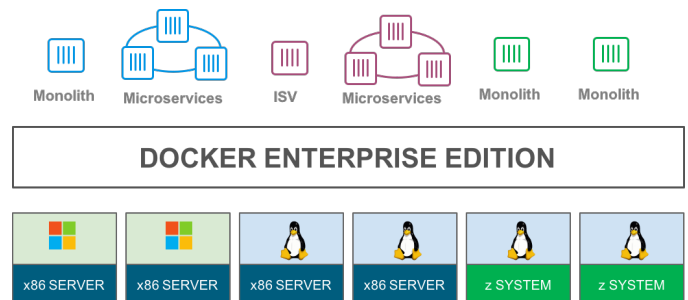
Docker EE is the only container platform that orchestrates across mixed clusters of Window, Linux, and mainframe worker nodes. Some key features include:

- **Unified management** – Manage all system components from an integrated web console including; users, containers, services, networks, volumes, secrets and nodes. View cluster-level or

container specific metrics and view detailed activity streams to audit usage.

- **Frictionless deployment** – Consistently deploy different types of applications with Docker Compose files or with a few click directly from the UI. Simply point and click to scale and manage services.

- **Simple cluster management** – A single command can create and join nodes to a cluster. Easily add, remove nodes or change roles to adjust to application requirements.

- **Rolling updates** – Gain confidence in deploying new features and updates with rolling updates. Available performance metrics allow teams to monitor progress and quickly rollback when necessary.

- **Enhanced access controls –** Integrate Docker EE with corporate LDAP/AD and manage roles and responsibilities to all system components including apps, nodes, secrets, networks and volumes. Leverage either pre-configured roles or design custom roles that align to existing organization processes.

- **RBAC for nodes** – Provide an additional layer of isolation by granting certain users or teams access to specific nodes. Also enables a "Bring Your Own Node" service model for IT services organizations.

Infrastructure Independence

Docker EE allows enterprises to freely move applications between multiple infrastructure platforms in a consistent manner. Some key features that support this include:

- **Certified Infrastructure -** Docker EE is optimized and tested to setup easily and operate smoothly on enterprise Linux distributions, Windows Server 2016 and leading cloud providers like Amazon Web Services and Microsoft Azure.

- **Choice of infrastructure -** Gain the freedom to deploy anywhere today and move apps tomorrow. Docker EE is an infrastructure agnostic platform that can be installed on any physical, virtual or cloud infrastructure.

- **Full stack portability** - Docker EE is an application platform allowing developers to define networking, storage, secrets and more at the application level.

A separation of concerns allows developers to define app configurations and IT to deploy and manage them on different infrastructures without recoding. Eliminate the "works of my machine" problem, once and for all.

- **Extensibility** - Docker EE provides open interfaces, drivers, web hooks and plugins to easily integrate to a variety of enterprise systems and processes. Certified Plugins and Containers provide an extra level of quality and assurance for production environments.

Enterprise Support and Partner Ecosystem

Besides platform capabilities, Docker is committed to delivering an enterprise-grade experience. That includes:

- **Predictable releases and maintenance** – Proactively plan deployments and upgrades with a regular release cadence with one year of support per release. Software maintenance includes security patches and hotfixes back-ported to every version under support.

- **Support from the source –** Get support from the team that built the platform. Business Day (9am-6pm) and Business Critical (24x7x365) support plans are available with committed service levels from the Docker support team. Backed by the engineering team behind the Docker platform.

- **Trusted Enterprise Partners** – Docker EE is available with Level 1 and 2 support through leading enterprise technology companies including Canonical, Cisco, Cloudera, HPE, IBM and Microsoft, extending existing enterprise relationships.

- **Certified Containers –** Independent Software Vendors (ISV) package and distribute their software as containers for Docker EE. These containers are built with best practices, tested, scanned, and reviewed. Cooperative support from Docker and the ISV.

- **Certified Plugins –** Technology partners package and distributes their Networking and Volume Plugins as containers for Docker EE. Built with best practices and must pass a suite of API compliance testing, are scanned, and reviewed. Cooperative support from Docker and the plugin provider.

Get Started with Docker Enterprise Edition

Docker EE is available as a monthly or annual subscription inclusive of software and support. There are three tiers available to meet different use cases:

	Enterprise Edition Basic	Enterprise Edition Standard	Enterprise Edition Advanced
Container engine and built-in orchestration, networking, security	X	X	X
Docker Certified Infrastructure, Plugins, and ISV Containers	X	X	X
Image Management Private registry, caching (Windows and Linux)		X	X
Docker Datacenter Integrated container app management		X	X
Docker Datacenter Enhanced RBAC, LDAP/AD support		X	X
Integrated secrets management, image signing (Windows and Linux)		X	X
Secure multi-tenancy with node-based isolation			X
Automated image promotion			X
Image security scanning and continuous vulnerability scanning (Windows and Linux)			X

Docker EE is available from Docker sales, online via Docker Store, with direct level 1 and 2 support from Alibaba, Canonical, Cisco, HPE, IBM, Microsoft, and a network of Docker Authorized Resellers.

Try Docker Enterprise Edition

Experience Docker Enterprise Edition without installing any software through the Docker Hosted Trial. Get started at https://dockertrial.com

www.docker.com