

IBM Cloud Infrastructure Center

Highlights

- Simplifies infrastructure as a service management
 - Enablement for software-defined infrastructure
 - Self-service portal for easy workload deployment
 - Easy management of deployment, capture, and catalog
 - Standard-based integration via OpenStack APIs
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Empower how you deploy and manage Infrastructure as a Service

Many organizations have unique data sensitivity needs, such as internal policies, government regulations or industry compliance requirements. As a result, these organizations typically require private cloud as part of their hybrid and multicloud strategy. The IBM Z® and IBM® LinuxONE™ platforms running Linux® provide the advantages of a private cloud, designed to deliver the cloud benefits in a security-rich, scalable and reliable environment.

IBM Cloud Infrastructure Center is an advanced infrastructure management offering, built on OpenStack, that provides on-premises cloud deployments of z/VM Linux virtual machines on the IBM Z and LinuxONE platforms¹ and the integration to higher-level cloud automation tools, such as IBM Cloud Automation Manager or VMware vRealize Automation (vRA) / Orchestration (vRO).

Infrastructure as a Service

Infrastructure-as-a-Service, commonly referred to as "IaaS", delivers fundamental compute, network, and storage resources to consumers on-demand. IaaS enables you to instantiate and decommit, scale and shrink resources on an as-needed basis. Such services can be exploited either via APIs or via a self-service portal.

Cloud Infrastructure Center is an IaaS offering that provides a consistent, industry-standard user experience to define, instantiate, and manage the lifecycle of virtual infrastructure, deployment of images (operating system and applications), and policies to maximize resource utilization. It is built to require no specific platform skills from the user and minimal platform skills from the administrator to accelerate cloud deployments.



Linux virtual machines provide an excellent private cloud on IBM LinuxONE and IBM Z

Cloud infrastructure on IBM Z and IBM LinuxONE

In the era of hybrid and multicloud, everything is connected and workload patterns constantly change. Managing demand for IT services can be a major challenge in this environment.

With hybrid and multicloud, companies can more effectively manage speed and security, innovation with latency and performance. Every application and service can be deployed and managed where it makes sense, depending on criteria such as security, compliance, performance.

Smoothly handling business-critical data requires a robust infrastructure, designed specifically for high security and disaster recovery capabilities. Linux on Z and Linux on LinuxONE provide impressive Linux platforms for a private, on-premises cloud infrastructure, not only for workloads that require high levels of resilience, availability and security.

Both platforms, Z and LinuxONE, are able to provide a highly virtualized cloud environment, building on either IBM® z/VM®, KVM or LPAR virtualization, and the ability to deploy IBM Cloud Paks™² on the Red Hat OpenShift Container Platform².

Also, IBM Z enables the tight integration of the cloud workloads with Linux, IBM z/OS®, IBM z/VM, IBM z/VSE®, or IBM z/TPF workloads on the same server, thus providing co-location advantages such as high performance and operational efficiency.

Cloud Infrastructure Center efficiency

Cloud Infrastructure Center provides foundational, scalable IaaS cloud management for IBM Z and LinuxONE servers. This includes the integration to higher-level cloud automation tools, such as IBM Cloud Automation Manager and VMware vRA/vRO.

With its built-in OpenStack core component, Cloud Infrastructure Center is based on the industry standard for vendor-agnostic IaaS management. VMware vRA/vRO can consume Cloud Infrastructure Center via OpenStack compatible RESTful APIs to connect, provision, orchestrate Linux-based virtual machine instances for Z and LinuxONE. Together, the integration between VMware vRA/vRO and Cloud Infrastructure Center increases flexibility, improves efficiency via common VMware skills, and simplifies VM lifecycle management providing a unified hybrid multicloud environment via a single glass pane for Z and LinuxONE.

Cloud Infrastructure Center provides the same usage and skill requirements as IaaS offerings on other platforms.

Cloud Infrastructure Center enables infrastructure managers to capture and maintain a library of virtual machine images to quickly deploy a virtual machine environment by launching a stored image from the library, instead of manually recreating a virtual machine image.

Cloud Infrastructure Center delivers:

- Easy provisioning of virtual machine instances into an on-premises cloud via a self-service portal that include network and storage bindings, and optionally also image deployment
- Fast provisioning of virtual infrastructure to be consumed by OpenShift
- Infrastructure provisioning that can be confined by workflow-driven policies, such as approval flows, expiration dates, or resources quotas
- Automated configuration of I/O and network resources
- Image management that includes virtual machine image capture, catalog and deployment
- Multi-tenancy support
- Easy integration into higher-level cloud automation and orchestration tools
- Federation of an on-premises cloud with other OpenStack clouds via standard OpenStack APIs establishing a multi-region cloud

- It is built to require no specific platform skills from the end user and minimal platform skills from the administrator to accelerate cloud deployments

Cloud Infrastructure Center is designed to improve administrator productivity, providing IaaS cloud management for your private, on-premises cloud environment on IBM Z and LinuxONE. IBM Cloud Infrastructure Center fits perfectly in your hybrid and multicloud strategy.

Why IBM?

As you transform your business in a trust economy, IBM remains your partner. We have the total expertise in cloud, systems, software, delivery and financing to help you create a secure, open and intelligent foundation for the future. Our experts can help you configure, design and implement the IBM Cloud Infrastructure Center optimized for your needs.

For more information

To learn more about IBM Cloud Infrastructure Center, please contact your IBM representative or IBM Business Partner, or visit:
ibm.com/us-en/marketplace/cloud-infrastructure-center

¹ Supported Z servers are IBM z15™, IBM z14® (all models), IBM z13®, and IBM z13s®. All LinuxONE servers are supported. Refer to the individual IBM hardware announcements for the certified Linux distributions.

² Please see: <https://ibm.co/2Nq6RBG>. Statements by IBM regarding its plans, directions, and intent are subject to change or withdrawal without notice at the sole discretion of IBM. Information regarding potential future products is intended to outline general product direction and should not be relied on in making a purchasing decision.

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