

JD Edwards EnterpriseOne with Oracle Cloud Infrastructure Dynamic Hardware Shapes

Leverage the hardware shapes available on Oracle Cloud Infrastructure using the JD Edwards Infrastructure Provisioning to achieve automated provisioning, flexible deployments, optimized performance, and lower costs.

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Purpose statement

This document provides an overview of features and enhancements included in Release 23 of JD Edwards EnterpriseOne that allow customers to select the hardware shape for their deployments on Oracle Cloud Infrastructure. This document is intended solely to help you assess the business benefits of upgrading to Release 23 and to plan your IT projects.

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Executive Summary

Businesses continuously strive to maintain their competitive advantage in the dynamic business environment, and technology has been a key enabler in this journey. IT infrastructure has evolved over years from being a mere process enabler to being a key component of the organization's strategy and defining the way business is done. Adopting Oracle Cloud Infrastructure enables organizations to benefit from the agility, performance, scalability, and reliability to become more dynamic and responsive to a changing business environment.

Hardware technologies are the foundation for Oracle Cloud Infrastructure. Hardware plays a key role in defining the performance and cost of running applications. To cater to changing business requirements, hardware technologies have evolved over the past several years with advancements in processing power and memory as well as provide flexibility and optimization. These advancements enable customers to provision hardware that seamlessly adapts and caters to changing workloads, while optimizing performance and minimizing costs.

Oracle Cloud Infrastructure (OCI) provides a wide range of hardware shapes with varying price-performance choices, enabling customers to take advantage of the latest generation hardware with cost-efficient pricing. OCI hardware shapes are enhanced on an ongoing basis to support the latest advancements in hardware technologies. Oracle Cloud customers have an option to choose the right hardware shapes for their deployments based on their business requirements and budgets. Learn more at: [OCI Compute Shapes](#)

JD Edwards customers can now use the JD Edwards Infrastructure Provisioning with OCI hardware shapes of their choice based on their price-performance and business requirements. This enables customers to leverage the automation of infrastructure provisioning to provision the hardware of their choice for their JD Edwards deployments on OCI, thereby reducing time and effort while easing the process of migrating to OCI.

Introduction

Oracle Cloud Infrastructure is constantly evolving and delivering technologies that provide value to customers. Various components of Oracle Cloud Infrastructure ecosystem have been innovated including hardware, networking, databases, integrations, and security. Oracle as a cloud provider aims at providing the latest and most innovative technology to its customers.

Hardware is a critical component of public cloud. Compute shape is a template that determines the processing power, memory and other resources that are allocated to an instance. During the initial stages of cloud adoption, cloud providers were providing hardware with fixed configuration of processing power and memory for customers to provision and run. Each shape was rigid and came with a predefined fixed processing power and memory that were firmly tied to one another. Customers were unable to increase one without increasing the other, and there was no method for customers to customize the processing power or memory independently based on their requirements.

Customer workloads vary from one to another. Some workloads require higher processing power, while some could be memory intensive. With fixed shapes available on cloud, customers requiring either higher processing power or

Oracle JD Edwards EnterpriseOne with Oracle Cloud Infrastructure dynamic hardware shapes

Customers can now provision and deploy JD Edwards on their preferred hardware shapes on Oracle Cloud Infrastructure using the automation of JD Edwards EnterpriseOne Infrastructure Provisioning.

- Use the hardware shape most suitable for the workload pattern.
- Choose the shape that meets the price-performance requirements.
- Benefit from the flexibility offered by flexible shapes and burstable instances.
- Leverage latest advancements in hardware technologies.
- Minimize costs by using cost-effective shapes for lower environments.

memory for their workload had no option but to choose a higher configuration shape, even though they would only be leveraging the increased processing power or memory. Workloads like batch processing require higher processing power while transaction workloads require more memory. However, because processing power and memory in hardware shapes were strongly connected, customers had to provision hardware with higher shapes which led to unutilized processing power or memory based on the workload. Some environments like preproduction, development, and test, require very low processing power and memory, therefore customers might want to spend less on the hardware for these environments. For lower environments, customers had no choice but to provision with shapes that had higher processing power or memory than what was required. This was suboptimal and led to unutilized capacity and increased costs for the customer.

The ecosystem of hardware providers has evolved over the years with players like Intel and AMD introducing innovation at the hardware layer and each of them providing different configurations and capabilities at different price points. Oracle Cloud Infrastructure supports multiple hardware providers, giving customers the option to choose the hardware that best meets their business requirements and budgets. OCI Compute has always prioritized two tenets for its products: flexibility and performance.

- **Flexibility:** Options to simplify decision making and increase cost effectiveness. OCI offers Flexible shapes and Burstable shapes for additional savings.
- **Performance:** High performance CPU and GPU instances, storage, and non-blocking networks for the most demanding workloads.

Oracle Cloud Infrastructure periodically releases new generations of Compute shapes. The latest shapes enable customers to benefit from newer hardware and better price-performance ratio. When a shape is several years old and newer generation shapes that are suited for the same purposes are available, the old shape transitions to become a previous generation shape.

Flexible Shapes

While performance is critical, one area where OCI innovates to provide significantly greater efficiency is with Flexible Instances. A flexible shape is a shape that enables customers to customize the number of OCPUs and the amount of memory when launching or resizing their virtual machine (VM). When customers create a VM instance using a flexible shape, they select the number of OCPUs and the amount of memory required for the workloads that run on the instance. The network bandwidth and number of VNICs scale proportionately with the number of OCPUs.

This flexibility allows customers to build VMs that match their workload, enabling them to optimize performance and minimize cost. This innovative approach of allocating compute and memory gives the customer control over processing and memory to meet their requirements today, at the beginning of a project, and throughout the lifecycle of a workload. The resources are billed at per-second granularity with a one-minute minimum. Customers can optimize their costs by choosing the shape that matches their workload and by

changing the shape when their workload changes. For more information on flexible shapes, refer to [OCI Compute Shapes](#)

Burstable Instances

Not all workloads are same and there are some workloads that need a small amount of CPU most of the time but occasionally need a higher amount of CPU. Burstable instances are most suited for such workloads as it is a virtual machine (VM) instance that provides a baseline level of CPU performance with the ability to burst to a higher level to support occasional spikes in usage.

Burstable instances are great for small workloads, such as web servers, development, and test environments, microservices, continuous integration-continuous deployment (CI/CD) pipelines. Traditionally, these types of workloads are deployed on regular virtual machines (VMs) that are provisioned with more CPU resources than needed. These workloads typically have low CPU utilization and occasionally need to use more CPU when incoming traffic or application requests spike. Burstable VMs enable your workloads to use a fraction of the CPU with the ability to burst to 100% of the CPU for short periods of time, at a lower cost than regular VMs.

Burstable instances can sustain workloads running at a fraction of CPUs most of the time and can burst up to the full CPUs for a limited amount of time. When you create a burstable instance, you specify the total OCPU count (or CPU cores) and the baseline CPU utilization. The baseline utilization is a fraction of each CPU core, either 12.5% or 50%. The baseline provides the minimum CPUs that can be used constantly. When needed, the instance can use more than the baseline CPU, all the way up the total OCPUs that you provision. This usage above the baseline is called bursting because it happens automatically and for short periods of time. There is no guarantee that an instance will be able to burst exactly when needed because burstable instances are oversubscribed compute resources. To know more about Burstable Instances, refer: [OCI Burstable Instances](#)

Oracle JD Edwards EnterpriseOne Infrastructure Provisioning with Oracle Cloud Infrastructure Dynamic Hardware Shapes

Oracle JD Edwards EnterpriseOne Infrastructure Provisioning provides complete automation of the provisioning of infrastructure components required for deploying JD Edwards on Oracle Cloud Infrastructure using JD Edwards One-Click Provisioning. It eases and automates the process for customers, which significantly reduces the time and effort taken to provision and deploy JD Edwards on OCI.

In previous releases, customers could provision their infrastructure only with one hardware shape, which limits the usage of the infrastructure automation that is provided. Starting with Release 23, the Oracle JD Edwards Infrastructure Provisioning has been enhanced to enable customers to provision their infrastructure for JD Edwards deployments with the hardware shape of their choice. Customers can now provision any of the hardware shapes available on Oracle Cloud Infrastructure using the Oracle JD Edwards Infrastructure Provisioning. For the current list of hardware shapes provided on Oracle Cloud Infrastructure, refer: [OCI Compute Shapes](#). This provides customers with flexibility and control over the hardware shapes, as they can now choose the

hardware shape for each JD Edwards component based on their workload, business, and price-performance requirements.

JD Edwards customers can now leverage the automation provided by JD Edwards Infrastructure Provisioning to provision any hardware shape of their choice for JD Edwards deployments. This saves a significant amount of time and effort for migrating to the cloud. JD Edwards customers can leverage the latest advancements in hardware technologies as and when they are made available on Oracle Cloud Infrastructure. They can choose the hardware that best suits their price-performance requirements and move to a better hardware, whenever necessary, to cater to their changing business needs. JD Edwards customers can benefit from the flexibility and cost savings provided by flexible shapes and burstable instances. For processing intensive workloads like batch processing, customers can configure an instance with low core-to-memory ratio and for memory intensive workloads like transaction processing, customers can configure an instance with high core-to-memory ratio. For details related to the provisioning process, refer: [Deploying JD Edwards EnterpriseOne on Oracle Cloud Infrastructure](#)

Conclusion

Oracle JD Edwards customers can benefit from the flexibility of provisioning their JD Edwards EnterpriseOne on Oracle Cloud Infrastructure with their choice of hardware shapes, including flexible shapes and burstable instances. This enables customers to meet their price-performance requirements and save on infrastructure costs, while choosing the hardware that is optimal for their workloads. Oracle JD Edwards customers can run their JD Edwards on the latest hardware technologies on Oracle Cloud Infrastructure to achieve better efficiency, lower costs, and higher innovation.

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