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JD Edwards on Oracle Cloud:
Path to Digital Transformation

Choice and Control for JD Edwards Customers

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Introduction: On the Road to Digital Transformation

Businesses are experiencing fundamental changes. These changes range from different ways to engage with customers to new business processes and models, changes in culture, and, most importantly, for the purposes of this discussion, the adoption of transformative technologies. Digital business transformation can be defined as the application of technology to build new business models, processes, software, and systems that result in more profitable revenue, greater competitive advantage, and higher efficiency. These benefits present a significant incentive for rethinking how to run your business – and that is exactly what is happening.

From mining and manufacturing to services and retail, business leaders are reimagining the definition of the possible. The right technology can unite and optimize every segment of the value chain, transforming current processes, unveiling new and more efficient ways of doing business, and keeping employees and customers happy. The right technology will make your ERP ready for the digital economy, and the cloud with its various offerings is a significant part of the technology from which you can choose.

Driving digital business transformation in a company is an important part of your strategic business plan. Line of business leaders are looking to transform their business processes and achieve tangible business outcomes. Their businesses need agility and speed. To achieve this outcome, they need to collaborate with IT leaders, who can provide them with a technology platform to create the environment and resources to achieve the agility, connectedness, and real-time information access that are characteristics of digital business. IT's job is to ensure security, scalability, and future-proofing.

Transformative technologies encompass most of the major technology trends of the last few years, including mobility, internet of things (IoT), connected devices, big data, analytic tools and applications, cognitive computing, virtual and augmented reality, as well as social and collaboration tools.

Cloud Enables Digital Transformation

This white paper discusses the different ways in which cloud technologies can provide you with an enabling platform for digital business while maximizing your JD Edwards EnterpriseOne investment. Specifically, this white paper gives you an understanding of the services and benefits of your cloud choices and how to drive business value by:

» Optimizing your JD Edwards EnterpriseOne solution with Oracle's Infrastructure as a Service (IaaS).
» Extending JD Edwards EnterpriseOne functionality with Oracle's Platform as a Service (PaaS) offerings.
» Complementing your JD Edwards EnterpriseOne with Oracle's Software as a Service (SaaS) offerings.

You have many choices when it comes to cloud adoption, and these choices give you control over how to manage digital transformation for your enterprise. These choices may involve both on-premise and cloud options. Oracle Cloud is the deployment platform that enables you to realize the benefits of these cloud services from Oracle. Oracle Cloud is a public cloud that you can use to deploy JD Edwards EnterpriseOne instances. At the same time, you can continue to run some of your applications on-premise. For example, you may choose to deploy your JD Edwards system on Oracle Cloud and use PaaS along with IaaS. It is also possible to use some PaaS services while keeping JD Edwards EnterpriseOne on-premise. This hybrid approach can take many different forms based on your business strategy on the path to digital transformation. Hybrid deployment allows you to manage different cloud solutions while maximizing your current investment in the JD Edwards system.

Building your business on the right foundation of tools, technologies, and services helps you transform your business with minimized risk and cost. Solutions from Oracle Cloud Services and JD Edwards EnterpriseOne can help you build a holistic, scalable platform for your ERP that tightly integrates connectivity, security, automation, and analytics for true digital business transformation.

Digital Transformation Enabled by a Strong ERP Platform: JD Edwards EnterpriseOne

JD Edwards EnterpriseOne is, and continues to be, the core solution for your business. You have invested significant resources into JD Edwards EnterpriseOne to achieve tight integration of business processes and seamless flow of data throughout the system. As one of the key solutions supporting your business, JD Edwards EnterpriseOne consists of the applications that manage your administrative and transaction support processes, such as finance, HR, asset management, or manufacturing. These applications enable you to maintain financial and business control and protect your sensitive information.

JD Edwards EnterpriseOne itself enables you to innovate for digital business by adopting mobility, IoT, and real-time business reporting and analytics over large data volumes. In addition, Cloud adoption expands the platform and application choices that you have at your disposal. All these gains have been accomplished based on the open, extensible architecture of your ERP system, JD Edwards EnterpriseOne.

It is clear that JD Edwards EnterpriseOne remains indispensable to your business. Therefore, any innovation is measured by how well it supports and enhances JD Edwards EnterpriseOne, both in its core functions and its extensions that support digital innovation. The following sections discuss the choices and opportunities that Oracle's cloud offerings provide for customers to facilitate digital business.

Oracle Cloud Choices for JD Edwards Customers – Cloud Service Layers Defined

Oracle's cloud strategy is to bring leading infrastructure, technology, business applications, and information to customers and partners anywhere in the world through Oracle Cloud. This strategy includes offerings in three cloud service layers as well as the ability to choose different cloud implementation types.

All of Oracle's cloud service layers can provide value to JD Edwards customers depending on their business and technology goals. You can choose different cloud service layers individually or in combination with others. These are IaaS (Infrastructure as a Service), PaaS (Platform as a Service), and SaaS (Software as a Service).

IaaS consists of a comprehensive set of integrated, subscription-based infrastructure services that enable businesses to run any workload in an enterprise-grade cloud. These infrastructure services are comprised of compute services (hardware), storage services, and network services.

PaaS is a comprehensive portfolio of integrated platform services on which you can run and extend your JD Edwards EnterpriseOne system. It includes, for example, database cloud services as well as middleware services, and enables developers, IT professionals, and business users to develop, test, and deploy applications.

Oracle also offers an expanding set of SaaS applications that work in conjunction with JD Edwards EnterpriseOne to complement your JD Edwards EnterpriseOne business processes. Users can subscribe to these enterprise applications that are deployed on Oracle Cloud. Details and benefits of each layer are discussed in the following section.
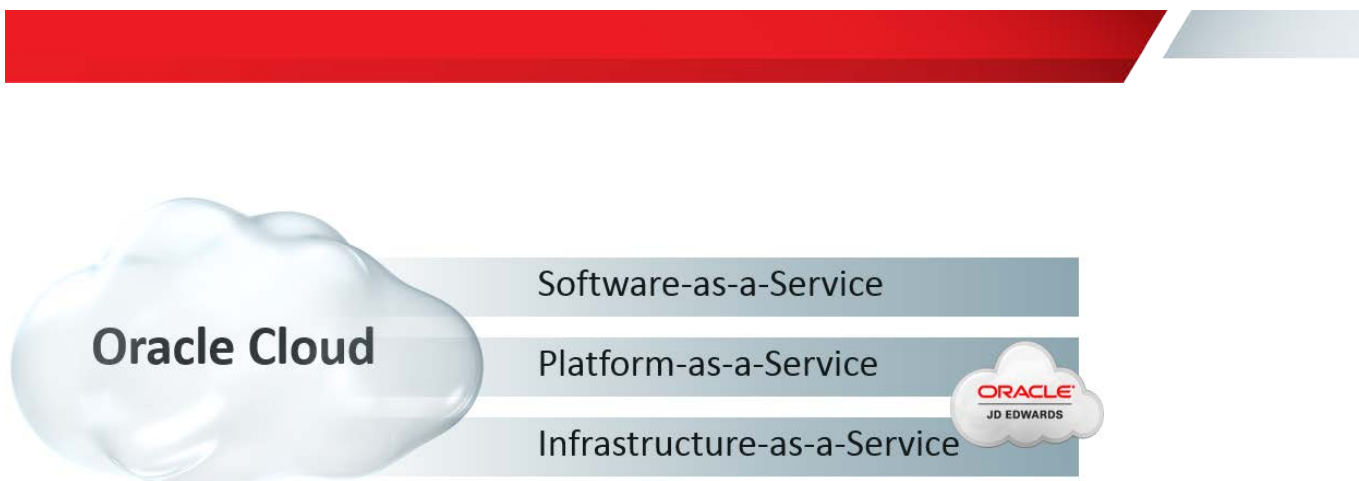
Figure 1. JD Edwards and Oracle's Cloud Service Layers

Oracle Cloud Service Layers – Choices and Benefits

Before considering in more detail the choices and benefits of Oracle cloud services, it is important to state that JD Edwards EnterpriseOne customers can take advantage of cloud capabilities at any of the cloud service layers discussed in this paper and also continue to reap the return on investment on their existing product license, customizations, configurations, processes, training, and data. In other words, you can combine your existing on-premise solution with cloud services at every layer. This approach can have many permutations based on your requirements. You have choice and control over how to use cloud services at any layer to enable your digital business.

Optimizing JD Edwards EnterpriseOne with Oracle IaaS

You can choose Oracle IaaS as the only cloud service layer to support your JD Edwards solution. In this case, you run JD Edwards on Oracle's IaaS, but continue to manage your JD Edwards EnterpriseOne database and applications. Oracle Cloud provides compute services, storage, and network services. Compute services (hardware) have elastic capacity to accommodate changes in business needs and can be provisioned on dedicated or on multi-tenant resources. Storage services provide secure and scalable storage capacity, as well as storage archive, and shared file storage. Network services provide secure and fast connections from your data center to Oracle Cloud.

The benefits of deploying JD Edwards on Oracle Cloud include:

» Rapid deployment: Get a fully functional system deployed in hours, rather than weeks.
» Greater business agility: Speed up your time to market and decrease the time required to develop new lines of business and integrate new acquisitions into your company.
» Better use of resources: Free up your limited IT resources to focus on improving your business, rather than managing the hardware or other infrastructure on a day-to-day basis.
» Lower capital expenses: Purchase subscription services to flexibly meet your expected demand and pay as you go and for what you use (measured service).

As you evaluate what type of cloud deployment makes sense for your business, you can use these expected benefits as your decision criteria with the understanding that in your specific situation some of these criteria may be more important than others. For example, you can realize benefits by modernizing your data center through an Oracle Cloud deployment with Database Cloud Service.

A key point to note for JD Edwards customers is that whether you deploy JD Edwards EnterpriseOne on-premise or on Oracle Cloud, the licensing model is the same. If you already own a JD Edwards license, you do not incur any additional costs for your applications. The only additional service you pay for is the Oracle Cloud subscription for IaaS services: compute, storage, and network.

Oracle Cloud Marketplace enables you to deploy a JD Edwards instance on Oracle Cloud using IaaS. The two available cloud deployments address various use cases.

Use Case: New JD Edwards Functionality/Technology Evaluation

The JD Edwards EnterpriseOne Trial Edition offering gives you the option to evaluate current JD Edwards EnterpriseOne releases with the latest Application and Tools/Technology starting with Applications and Tools release 9.2. For example, you can see how some of the newer modules work, for example, Advanced Job Forecasting and Outbound Inventory Management. You can also explore transformative technologies, such as mobile applications, UX One role-based content and foundation, IoT, and One View Reporting, that are preconfigured, thus allowing you to immediately focus on how these technologies could benefit your business. You can do so by quickly deploying the JD Edwards EnterpriseOne Trial Edition as an all-in-one demo environment from Oracle Cloud Marketplace when you are ready for evaluation activities, such as gap analysis and proof of concept. You can use the Trial Edition environment to run executive demos, train users, and generally achieve cultural buy-in with very little cost to your business. Deploying the Trial Edition eliminates the need to build your own sandbox environment.

Use Case: Rapid Provisioning of New Environments

You can deploy JD Edwards EnterpriseOne to Oracle IaaS not only as a demo environment, as described above but also as patch-current development, test, and production environments for application releases 9.1 and 9.2. Whether you are in the process of upgrading or working on a net new implementation, you get fully functional and upgradeable environments that you can manage and control. Cloud deployment is an opportunity for data center modernization. By migrating your JD Edwards EnterpriseOne environments to Oracle Cloud, you inherit the best and latest hardware, operating system, database, and web middleware infrastructure, while at the same time shedding the need to procure, install, and manage these resources in your own datacenter.

Starting with release 9.2, JD Edwards provides a streamlined, efficient, automated deployment methodology and process using JD Edwards One-Click Provisioning.
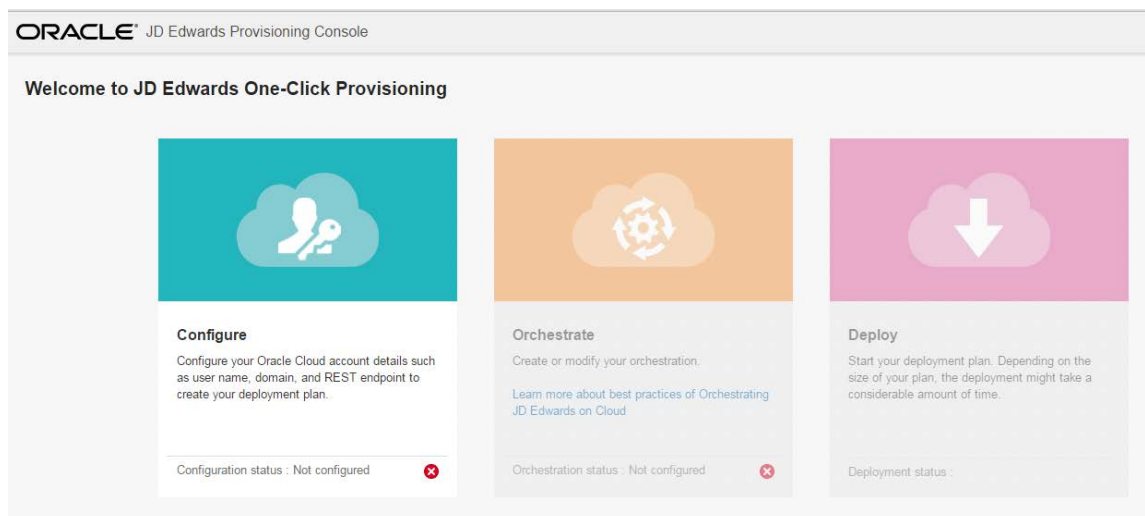

Figure 2. JD Edwards Provisioning Console

The deployment methodology comprises the following five steps:

» Plan: Collecting and storing decisions about topology, server sizes and names, IP addresses, IDs/passwords and more.

- » Provision: Establishing the target topology of virtual resources, such as compute, storage, and network cloud services, Database Cloud Services and other platform services as needed.
- » Deploy: Installation of the JD Edwards EnterpriseOne servers, such as HTML server, Enterprise Server, and database server into the Cloud resources.
- » Configure: Ensuring that all the servers work together and updating the post-deployment settings on the servers.
- » Healthcheck: Validation of servers, network and JD Edwards EnterpriseOne functionality.

You use the JD Edwards One-Click Provisioning console to configure your Oracle Cloud account details and create a deployment plan for JD Edwards on Oracle Cloud. This process is highly automated allowing you deploy a complete JD Edwards EnterpriseOne instance quickly by filling in forms, clicking a button, and signing in.

It is important to note that depending on your cloud deployment choice, you can use JD Edwards EnterpriseOne on Oracle Cloud for custom development. Customizations enable you to tailor business processes to your industry, geography, and company. If you have built customizations in the past to support your specific business processes, you are able to continue building and maintaining customizations in a cloud deployment. Oracle provides tools for migrating your data and business configurations to your cloud instances.

When you deploy a JD Edwards EnterpriseOne instance on Oracle Cloud with One-Click Provisioning, you continue to maintain control of your JD Edwards database and application management.

Use Case: Rapid Replication of Existing Environments

You can use the One-Click Provisioning process to rapidly provision JD Edwards EnterpriseOne instances that are similar to instances you have provisioned before. After you have planned and deployed a JD Edwards EnterpriseOne system using One-Click Provisioning, you can save that system definition and use it to replicate that environment when you need to get an acquired company, new lines of business, or new regions operational quickly. Cloud deployment thus enables you to focus on the business aspects of your acquisitions or expansions.

You can also use this feature to easily create test environments with an exact replica of your production setup saving time that would previously have been consumed by manual setup and error correction. In this situation, cloud deployment enables you to focus on testing rather than system configuration.

Extending JD Edwards EnterpriseOne with Oracle PaaS

Oracle PaaS comprises a large number of integrated cloud services supporting application management, data management, IT operations management, integrations, mobility, visual analytics, and content and process. PaaS services can be used to extend JD Edwards EnterpriseOne functionality. Quick provisioning of PaaS components allows you to rapidly implement transformative technologies, such as mobility and IoT.

You can use many of these Oracle PaaS solutions whether you run your JD Edwards system on-premise or in the cloud. As an example, if you use JD Edwards EnterpriseOne Internet of Things (IoT) Orchestrator to capture and process device data for JD Edwards EnterpriseOne transactions, you can use Oracle's IoT Cloud Service for device management, event processing, protocol translation, streaming data analysis, and more.

Other PaaS options include Mobile Cloud Service that delivers a comprehensive mobile platform to manage, monitor, and secure your mobile applications. Or you can use Integration Cloud Service to integrate cloud and on-premise applications. The bottom line is that you can use these and other cloud services whether you deploy your JD Edwards system on Oracle Cloud or whether you choose to keep your JD Edwards EnterpriseOne instance on-premise.

When you deploy a JD Edwards EnterpriseOne production or development/test environment on Oracle Cloud, you have the option to use Oracle's Database Cloud Service (DBCS) as the database server. Cloud technologies make

it very easy to "lift and shift" your on-premise data to the cloud. Even when you move your data to Oracle DBCS, you continue to maintain control over your application management.

If you choose to subscribe to cloud platform services, you reap similar benefits as you would with an IaaS deployment including the advantage of reduced operational issues, increased agility, and faster time to market. You retain control over the management of your JD Edwards EnterpriseOne system while using Oracle PaaS. Adopting platform cloud services, such as Mobile Cloud Service, IoT Cloud Service supports business functionality modernization by powering the digital transformation of your business processes to enable you to stay competitive.

Complementing JD Edwards EnterpriseOne with Oracle SaaS

You can also choose to complement your JD Edwards EnterpriseOne solution with Oracle SaaS applications to provide additional application functionality where it provides value to your business. Oracle SaaS applications offer best-in-class functional capabilities to extend your core JD Edwards ERP system, and embrace innovation through rapid deployment of Oracle Cloud solutions while maximizing your investment in JD Edwards.

Some opportunities for extending JD Edwards applications with Oracle SaaS solutions are provided by Oracle Transportation Management Cloud, Global Trade Management Cloud, Procurement Cloud, Project Portfolio Management Cloud, Product Lifecycle Management Cloud, as well as CX Cloud and HCM Cloud. These Oracle SaaS applications all offer functionality that complement and extend JD Edwards EnterpriseOne applications without overlap.

Cloud Deployment Choices

When considering cloud deployment, you can choose from different types of clouds in different combinations. Your business requirements are what drive your cloud deployment decisions. In addition to the cloud service layers that comprise the Oracle Cloud portfolio, you can choose from and combine the following types of cloud on which to deploy your JD Edwards system:

» Public cloud
» Oracle Cloud Machine
» Private cloud

A combination of cloud deployments in a hybrid approach is a common option. Regardless of which cloud type you choose from Oracle's portfolio, each can include all three cloud layer choices of IaaS, PaaS, and SaaS.

Some key factors to evaluate your cloud deployment requirements are:

» Data residency and sovereignty requirements
» Regulatory compliance
» Security
» Storage needs
» Computing capacity needs and fluctuation

Oracle Cloud is Oracle's public cloud providing a virtualized environment with shared physical resources accessible over a public network such as the internet. On a subscription basis, you get a unified environment providing flexible cloud infrastructure, a powerful standards-based platform, and a series of business applications. Oracle Cloud is highly scalable, which enables you to be responsive to fluctuation in usage. It is reliable due to the redundancies built into the system. Oracle Cloud offers data security and integration across all layers. You can choose to have Oracle Managed Cloud Services or a partner manage your cloud deployment, or you can manage it yourself.

Oracle Cloud Machine is an Oracle offering that enables you to bring a complete public cloud instance into your data center while meeting the business and regulatory requirements behind your corporate firewall.

Oracle also offers a private cloud choice for companies that have stringent requirements for data security and compliance that do not allow transactions outside the corporate firewall. It is also a way to leverage existing IT investments and keep cloud applications in-house. A private cloud offers similar benefits as the public cloud, such as scalability, elasticity, integration, and a platform for innovation.

With all these choices, you have the option to deploy your systems to different cloud types or to deploy them both on-premise and to the cloud in a hybrid approach. Again, the specific deployment combination depends on your business requirements and your decision on how to best utilize the benefits of on-premise and cloud deployment. As an example, you may choose to deploy your production environment on-premise, but run your development/test environment on Oracle Cloud.

You can leverage Oracle Managed Cloud Services or an Oracle partner's service to manage your applications. Either way, the choice is yours depending on what technology and deployment model best fits your business strategy.

Call to Action

The future of your business largely depends on how you address the opportunities offered by digital transformation technologies. Cloud is the technology that enables digital transformation by making the implementation of technologies, such as mobility and IoT, easier and faster.

There is no right or wrong answer when it comes to cloud adoption. Oracle provides you with a large array of choices of cloud service layers as well as cloud deployment options. The choices you make hinge on how you want to control the systems and technology that enable your business objectives. For example, if you need to maintain your business data in a specific location, you can keep your data center on-premise or in a private cloud. If your need for computing capacity fluctuates significantly throughout your business cycle, a subscription to cloud computing services will help you pay only for the capacity you need instead of having to maintain unused capacity on your own hardware. If you want to maintain control over the mobile applications used in your business, you can use mobile cloud service to manage and secure these applications.

By considering these and other factors, you can develop your own cloud strategy with the right balance of cloud and on-premise deployments that enables you to protect your assets and shed your liabilities. Each deployment model has its benefits, but these should always align with your business objectives. Nobody can make that decision for you, but the power to make these choices is, in fact, your competitive advantage. Oracle and JD Edwards offer you many cloud choices and the resources to discern where the technology and deployment models best fit your strategy.

Next Steps

Explore your cloud options with JD Edwards on these sites:

» JD Edwards EnterpriseOne on Oracle.com
» JD Edwards and Oracle Cloud (JD Edwards Resource Library)
» Oracle Cloud Marketplace
» Oracle Cloud Solutions

Download the JD Edwards EnterpriseOne Trial Edition from Oracle Cloud Marketplace and explore current JD Edwards EnterpriseOne features: **bit.ly/JDE92Trial**

Integrated Cloud Applications & Platform Services

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Authors: Barbara Verble, David Scott, AJ Schifano

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