



Oracle JD Edwards EnterpriseOne with Oracle Autonomous Database



Leverage the capabilities of **Oracle Autonomous Database** with Oracle JD Edwards EnterpriseOne to achieve better efficiency, lower costs and drive higher levels of innovation through complete automation of database management lifecycle

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PURPOSE STATEMENT

This document provides an overview of features and enhancements included in Oracle JD Edwards EnterpriseOne Release 9.2. It is intended solely to help you assess the business benefits of upgrading to Oracle JD Edwards EnterpriseOne 9.2 and Oracle Autonomous Database 19c Dedicated or Shared and to plan your I.T. projects.

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Due to the nature of the product architecture, it may not be possible to safely include all features described in this document without risking significant destabilization of the code.

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EXECUTIVE SUMMARY

Businesses across industries are embarking on a journey of transformation with the primary goal of achieving better efficiency and higher levels of innovation. The transformation of IT management is a key factor in achieving this goal. Traditional IT management gives the complete onus to businesses to build, test, secure, and operate their IT systems, including database management. This approach to IT management is labor-intensive and prone to errors, reducing the economies of scale and increasing runtime costs.

Oracle Autonomous Database uses groundbreaking machine learning and automation to eliminate human labor, human error, and manual tuning of rapidly increasing data by automating the entire database management lifecycle. This automation provides unprecedented cost savings, security, availability, and increased productivity. It empowers Oracle JD Edwards customers to accelerate innovation, reduce costs, and reduce risks. Learn more at: [Oracle Autonomous Database](#)

Oracle JD Edwards customers can benefit from the self-driving, self-securing, and self-repairing capabilities of Oracle Autonomous Database. It helps customers to eliminate human labor for database maintenance activities including tuning, and ensures that the database is secure with the latest operating system and having database patches applied without any downtime. Additionally, customers can benefit from the ability of the database to recover itself from any database glitches or failures without human intervention. The high availability and scalability of Oracle Autonomous Database ensure that there is no downtime for Oracle JD Edwards customers and provides the flexibility to adjust the database resources based on the requirements of changing business cycles.

The complete automation of database and infrastructure management activities leads to significant reduction in administrative costs and frees up time of IT professionals to focus on innovation, transforming the core areas of business for Oracle JD Edwards customers. Oracle Autonomous Database will make database management more efficient and induce higher levels of innovation with the saved time and costs for Oracle JD Edwards customers.

INTRODUCTION

Oracle Autonomous Database is the world's first autonomous data management system in the cloud to deliver automated patching, upgrades, and tuning. As part of these processes, all routine database maintenance tasks are also performed without any human intervention while the system is running. Autonomous Database on Oracle Cloud Infrastructure is self-driving, self-securing, and self-repairing, thereby eliminating manual database management and human errors. Oracle Autonomous Database is fully elastic; you simply specify the number of OCPUs and the storage capacity in TB for the database. At any time, you may scale up or scale down either the OCPUs or the storage capacity. Oracle Autonomous Database is available on Oracle Cloud Infrastructure and Exadata Cloud@Customer and runs the latest Oracle Database on Oracle Exadata hardware.

Oracle Autonomous Database provides a level of performance and reliability that manually managed databases cannot deliver. Compared to a manually managed database, the Autonomous Database costs less to run and maintain, provides higher availability, reduces human error, and is more secure—all contributing to increased performance. Oracle JD Edwards customers can leverage the capabilities of the Oracle Autonomous Database and reap significant benefits from it.

- **Eliminate Human Labor:** The Oracle Autonomous Database eliminates human labor for database administration activities like provisioning, securing, monitoring, tuning and troubleshooting databases. This results in reduced costs and saved human labor, which JD Edwards customers can leverage for accelerating innovation in their core business areas.
- **Increased system availability:** The Autonomous Database automatically recovers itself from any physical failure either at the data center or server level. It updates the database, operating system, virtual machine, clusterware, hypervisor, or firmware in a rolling fashion without any application downtime. With zero application downtime, Autonomous Database provides JD Edwards customers with increased system availability and business continuity, eliminating any impact on business operations.
- **Reduced Risk:** The Autonomous Database protects itself from vulnerabilities by applying database, operating system and security patches. The patches are applied on a rolling fashion across the nodes of the database cluster with zero application downtime. This ensures that JD Edwards customers are secure from any kind of vulnerabilities.
- **Leveraging future Oracle innovation:** The Autonomous Database with its advanced capabilities is a perfect stepping-stone for JD Edwards customers to leverage and benefit from future Oracle innovation. This would catalyze the long-term process of redefining and reimagining IT management at an organizational level. By adopting the Oracle Autonomous Database, JD Edwards customers set a solid foundation for leveraging any future value-driven innovation from Oracle that provides them significant business benefits.

Oracle JD Edwards has a long-term roadmap to support the key capabilities of Oracle Autonomous Database that provide significant benefit to our customers. This begins with the initial support for adopting Oracle Autonomous Database with JD Edwards with a few manual steps and achieving planned database maintenance with zero downtime. Oracle JD Edwards plans to improve the adoption process and support additional capabilities of the Oracle Autonomous Database in subsequent levels of support planned in the future.

Oracle Autonomous Database is available through two deployment options: Dedicated Exadata Infrastructure and Shared Exadata Infrastructure.

- **Dedicated Exadata Infrastructure:** The Dedicated Exadata Infrastructure provides a private database cloud in the public cloud. It is ideal for achieving the highest degree of security and governance and provides a complete self-service database experience. It provides complete isolation for a single tenant and the ability to customize operational policies to align autonomous operations with application lifecycles.
- **Shared Exadata Infrastructure:** The Shared Exadata Infrastructure option provides a simple and elastic database with the capacity placement and management operations completely handled by Oracle. The Exadata infrastructure is shared with other cloud tenants in a Shared Exadata Infrastructure deployment.

Oracle JD Edwards supports Oracle Autonomous Database on both Dedicated Exadata Infrastructure and Shared Exadata Infrastructure on Oracle Cloud Infrastructure. Oracle Autonomous Database Dedicated is also available on Exadata Cloud@Customer for customers who want to deploy Autonomous Database in their data center.

Oracle JD Edwards with Oracle Autonomous Database on Dedicated Exadata Infrastructure

Oracle JD Edwards supports Oracle Autonomous Database on Dedicated Exadata Infrastructure starting from tools release 9.2.4.3. Oracle recommends customers should always adopt the latest tools release and the latest certified versions of Oracle Database, Oracle Linux and Oracle Weblogic server to leverage Oracle Autonomous Database on Dedicated Exadata Infrastructure. For information about latest certified platforms, please refer [My Oracle Support Certifications](#).

The capabilities supported currently with Oracle Autonomous Database on Dedicated Exadata Infrastructure are:

- **Manual deployment of Oracle JD Edwards with Oracle Autonomous Database on Dedicated Exadata Infrastructure:** With this support, customers can integrate their existing Oracle JD Edwards installation on Oracle Cloud Infrastructure to Oracle Autonomous Database on Dedicated Exadata Infrastructure by manually migrating their data to an automatically provisioned Oracle Autonomous Database and performing manual configuration of Oracle JD Edwards.
- **Planned database maintenance with zero downtime:** Oracle Autonomous Database on Dedicated Exadata Infrastructure enables planned database maintenance with zero downtime for Oracle JD Edwards through extended application continuity service drain time for database connections. This capability enables automatic patching of the database with the latest patches and fixes without any application downtime, manual intervention, and impact on business.
- **Automatic deployment and configuration of Oracle JD Edwards with Oracle Autonomous Database on Dedicated Exadata Infrastructure through One-Click Provisioning:** The JD Edwards One-Click Provisioning supports Autonomous Database on Dedicated Exadata Infrastructure to deploy JD Edwards' database schema on Autonomous Database. This capability automates the process of provisioning new JD Edwards instances on Oracle Cloud infrastructure (OCI) with Autonomous Database and thus reduces the time and effort required.

The details of the supported capabilities with Oracle Autonomous Database on Dedicated Exadata Infrastructure are available in the later sections of this document.

The capabilities not supported currently with Oracle Autonomous Database on Dedicated Exadata Infrastructure are:

- Autonomous Database features not currently supported are:
 - JD Edwards availability during unplanned maintenance or failures through the self-repairing capabilities of Autonomous Database
 - Scaling up or scaling down databases including both manual and automatic scaling
 - Optimization of the database through automatic indexing

Oracle JD Edwards with Oracle Autonomous Database on Shared Exadata Infrastructure

Oracle JD Edwards supports Oracle Autonomous Database on Shared Exadata Infrastructure starting from tools release 9.2.6. Oracle recommends customers should always adopt the latest tools release and the latest certified versions of Oracle Database, Oracle Linux and Oracle WebLogic server to leverage Oracle Autonomous Database on Shared Exadata Infrastructure. For information about latest certified platforms, please refer [My Oracle Support Certifications](#).

The capabilities supported currently with Oracle Autonomous Database on Shared Exadata Infrastructure are:

- **Manual deployment of Oracle JD Edwards with Oracle Autonomous Database on Shared Exadata Infrastructure:** With this support, customers can integrate their existing Oracle JD Edwards installation on Oracle Cloud Infrastructure to Oracle Autonomous Database on Shared Exadata Infrastructure by manually migrating their data to an automatically provisioned Oracle Autonomous Database and performing manual configuration of Oracle JD Edwards.
- **Planned database maintenance with zero downtime:** Oracle JD Edwards enables planned database maintenance with zero downtime on Oracle Autonomous Database running on Shared Exadata Infrastructure through automatic kernel reconnection for database connections. This capability enables automatic patching of the

database with the latest patches and fixes without any application downtime, manual intervention, and minimal impact on business with improved system availability.

The capabilities not supported currently with Oracle Autonomous Database on Shared Exadata Infrastructure are:

- Automatic deployment and configuration of Oracle JD Edwards with Oracle Autonomous Database on Shared Exadata Infrastructure through One-Click Provisioning
- Autonomous Database features not currently supported are:
 - JD Edwards availability during unplanned maintenance or failures through the self-repairing capabilities of Autonomous Database
 - Scaling up or scaling down databases including both manual and automatic scaling
 - Optimization of the database through automatic indexing

ORACLE JD EDWARDS ENTERPRISEONE WITH ORACLE AUTONOMOUS DATABASE ON DEDICATED EXADATA INFRASTRUCTURE

Deployment

Oracle JD Edwards customers currently on Oracle Cloud Infrastructure using a supported Oracle Database version will be able to migrate their data to Oracle Autonomous Database on Dedicated Exadata Infrastructure and integrate it with their Oracle JD Edwards installation. Customers need to be on the supported release levels of Oracle JD Edwards for this migration.

Oracle JD Edwards customers who are currently using an on-premise solution with a supported Oracle Database version will have to lift and shift to Oracle Cloud Infrastructure to be able to integrate with Oracle Autonomous Database. On-premise customers will be able to use Oracle JD Edwards One-Click Provisioning to provision Oracle JD Edwards with Oracle Autonomous Database on Dedicated Exadata Infrastructure. For the details of the steps involved in this process, refer to [Deploying JD Edwards EnterpriseOne on Oracle Cloud Infrastructure on Linux with Autonomous Database](#). You must migrate data manually from your existing database to the Autonomous Database using the steps described in [Manual Deployment of Oracle JD Edwards EnterpriseOne with Oracle Autonomous Database](#)

Oracle JD Edwards customers who are currently on-premise with a supported Oracle Database version but not looking to move to public cloud can leverage the benefits of a subscription-based pay-per-use Oracle Autonomous Database by migrating to Oracle Autonomous Database Dedicated on Exadata Cloud@Customer.

Planned Database Maintenance

Planned maintenance of a manually managed database requires application downtime for applying database patches and upgrades. Downtime ensures that there are no in-flight transactions or operations during maintenance as they may be aborted resulting in data integrity issues, data corruption, partial completion of transactions, and additional time and effort to manually correct and resubmit the transactions.

With Oracle Autonomous Database, JD Edwards customers can overcome this challenge and have zero downtime while staying current on database patches and security. Oracle Autonomous Database on Dedicated Exadata Infrastructure enables JD Edwards customers to set their maintenance window and define the application continuity service drain time to ensure system and transaction continuity. Application continuity service drain time is the time taken for active connections on one database node to drain to another active database node. During drain time, new database connections are not permitted to the node that is draining the connections and all new connection requests are redirected to the other active nodes that are not draining connections. When the drain time finishes and all the active connections are drained, the node will be shut down for planned maintenance.

Oracle JD Edwards customers can configure the application continuity service drain time to last up to 8 hours, enabling long-running transactions to complete and ensure data integrity before the node is brought down for maintenance. This enables Oracle JD Edwards customers to carry out planned maintenance activities on their Oracle Autonomous Database without disrupting their ongoing transactions or operations. For information on how to identify the ideal drain time and configure it in Oracle Autonomous Database, refer to [Planned Database Maintenance of Oracle Autonomous Database with JD Edwards EnterpriseOne](#)

ORACLE JD EDWARDS ENTERPRISEONE WITH ORACLE AUTONOMOUS DATABASE ON SHARED EXADATA INFRASTRUCTURE

Deployment

Oracle JD Edwards customers currently on Oracle Cloud Infrastructure using a supported Oracle Database version will be able to migrate their data to Oracle Autonomous Database on Shared Exadata Infrastructure and integrate it with their Oracle JD Edwards installation. Customers need to be on the supported release levels of Oracle JD Edwards for this migration. Oracle JD Edwards customers are required to work with an automatically provisioned Oracle Autonomous Database on Shared Exadata Infrastructure, perform manual migration of data and manually edit the configuration settings in their Oracle JD Edwards setup to integrate with Oracle Autonomous Database on Shared Exadata Infrastructure. For the details of the steps involved in this process, refer to [Manual deployment of Oracle JD Edwards EnterpriseOne with Oracle Autonomous Database on Shared Exadata Infrastructure](#)

Oracle JD Edwards customers who are currently using an on-premise solution with a supported Oracle Database version will have to lift and shift to Oracle Cloud Infrastructure to be able to integrate with Oracle Autonomous Database on Shared Exadata Infrastructure. On-premise customers will be able to use Oracle JD Edwards One-Click Provisioning to provision Oracle JD Edwards with a non-autonomous Compute Database or a non-autonomous database service on Oracle Cloud Infrastructure. They will have to manually provision the Oracle Autonomous Database instance on Shared Exadata Infrastructure and perform manual migration of data and configuration to integrate the instance with their Oracle JD Edwards. The steps are detailed in the Manual Deployment Technical Brief mentioned above.

Planned Database Maintenance

Planned maintenance of a manually managed database requires application downtime for applying database patches and upgrades. Downtime ensures that there are no in-flight transactions or operations during maintenance as they may be aborted resulting in data integrity issues, data corruption, partial completion of transactions, and additional time and effort to manually correct and resubmit the transactions.

With Oracle Autonomous Database, JD Edwards customers can overcome this challenge and have zero downtime while staying current on database patches and security. Oracle Autonomous Database on Shared Exadata Infrastructure has a planned database maintenance window every weekend and customers have no control on the timing of the maintenance window. The application continuity service drain time is default of five mins and customers cannot configure the drain time. Application continuity service drain time is the time taken for active connections on one database node to drain to another active database node. During drain time, new database connections are not permitted to the node that is draining the connections and all new connection requests are redirected to the other active nodes that are not draining connections. When the drain time finishes and all the active connections are drained, the node will be shut down for planned maintenance.

Oracle JD Edwards customers can leverage the automatic kernel reconnection capability of JD Edwards to ensure active database connectivity of JD Edwards kernels during planned maintenance windows. This enables Oracle JD Edwards customers to carry out planned maintenance activities on their Oracle Autonomous Database on Shared Exadata Infrastructure without disrupting their ongoing transactions or operations. For more details on leveraging automatic kernel reconnection with Oracle JD Edwards, refer to: [Planned Database Maintenance of Oracle Autonomous Database on Shared Exadata Infrastructure with JD Edwards EnterpriseOne](#)

CONCLUSION

Oracle JD Edwards customers can achieve better efficiency and higher innovation, by adopting Oracle Autonomous Database. Oracle Autonomous Database provides the most secure, available, proven solution with a high-performance standard at lowest cost with complete automation of all operational tasks. Oracle Autonomous Database provides high availability, disaster recovery, and data security to Oracle JD Edwards customers along with the ability to apply the latest security patches without any downtime. Oracle JD Edwards customers can redefine and reimagine IT management and focus more on value-driven innovation using Oracle Autonomous Database.

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