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Oracle Software Licensing Basics

January 2020

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Oracle Software Licensing Basics Agenda

1 Oracle Software Licensing Basics

- General Licensing Information
- Oracle Technology Software Licensing Information
 - Licensing Metrics
 - Data Recovery Environments
 - Server Partitioning Environments
 - Shared Storage Environments
 - Authorized Cloud Environments
- Oracle Applications Software Licensing Information
 - General Licensing Information
 - Licensing Models and Metrics

2 Oracle Software Licensing Basics Examples

3 Resources

General Licensing Information Concepts

- **Oracle's Software License gives you a non-exclusive and limited right to use the software and as such:**
 - License Types outline the restrictions on customer's usage
 - Full Use license is without restrictions and allows usage that is full functionality
 - Application Specific Full Use is specific to run only with the defined application and may come with additional restrictions
 - Embedded License is limited to embed Oracle technology with defined application and has further restrictions on install, package, configure and access
 - License Term provides the timeline for customer's usage
 - Perpetual License is the right to use the license perpetually
 - As of September 1, 2020, Oracle has ended the availability of term licenses for all on-premise software with the exception of specific Oracle Technology products; contact your Oracle sales representative for more information. Existing customers paying support on their term licenses will remain supported through the end of their term.
 - License Metrics determine how software usage is measured
 - e.g. Per Named User Plus, Application User, or Processor metric
 - See further information on [Oracle Global Pricing Site](#) at Oracle.com

General Licensing Information Environments

- **Use of Oracle Software requires Customers to license the respective Oracle programs in:**
 - Production Environments
 - Non Production Environments such as:
 - Development
 - Quality Assurance/Testing & Staging
 - Disaster Recovery
 - Customer can obtain development licenses that are limited to development activities per the [Oracle Developer Downloads](#) guidelines
 - See the Oracle Technology Network [OTN](#) License Agreement for further details

Oracle Technology Software Programs Licensing Information

- **Oracle Technology Licensing:**

- Featured Technology Programs include the following:
 - Oracle Database
 - Oracle Middleware
 - Oracle Software Management Packs
 - And Oracle Developer Tools
- Licensing Metrics include primarily Named User Plus or Processor metric
 - See next slides for further information on licensing metrics
- For further information, see the [Price List](#) and the [Database Licensing Documents](#)

Oracle Technology Software Programs

General Licensing Information

▪ Oracle Technology Licensing:

- Add-on products such as the Enterprise Options and Management Packs must match the number of licenses of the associated product
- Functional dependencies may exist among products. Such dependencies must be licensed separately as prerequisite products
- **Minimums** are used in conjunction with license metrics and refer to the minimum number of licenses a customer is required when licensing Oracle software
 - License actual usage or minimum, whichever is greater
- See the Product documentation at [Oracle Help Center](#) or ask your Oracle sales team for further information

Oracle Technology Programs Licensing Metrics

▪ **Named User Plus (NUP) Definition:**

- Named User Plus metric is defined as individuals authorized to use Oracle programs installed on single or multiple servers regardless if individual is actively using the programs at any given time. Licensing considerations include:
 - Human and non-human operated devices are counted towards NUP license
 - Batch processing from computer to computer is permitted and does not require counting users at the front of the batch process
 - If multiplexing hardware or software is used, multiplexing is counted at the front end
 - For further information on batching and multiplexing refer to on the next slide
- Named User Plus Metric Considerations
 - User minimum for products may apply
 - Licensed at the greater of either user minimum (if applicable) or actual users
- See full metric definition in the [Oracle Technology Price List](#)

Oracle Technology Software Programs Licensing Metrics

▪ **Named User Plus (NUP) definition includes Batching and Multiplexing :**

- Batching is an activity that allows a group of tasks occurring at different times to be processed at the same time with little interaction from the user and includes:
 - Automated batching is copying data from computer to computer where the database is running, this is permitted and does not require licensing users in front of batch processing
 - In manual batching or import/export of flat files, the individual users who are performing the transaction needs to be licensed
- Multiplexing is when a large number of end users and/or devices access a system via an interface, such as TP monitor or a web server product, so that the apparent number of users and/or devices accessing the system is much smaller than the actual number of users and/or devices
 - If multiplexing hardware or software used, license at the multiplexing front end

Oracle Technology Software Programs Licensing Metrics

▪ Processor Metric Definition:

- The Processor metric is used to license all processors where Oracle programs are installed and/or running. This metric is commonly used for uncountable or hard to manage user/count populations
- Processor Metric Calculations
 - User Minimums per processors may apply
 - Most Standard Edition products are licensed by Processor, which for Standard Edition programs is defined as a socket
 - For multi-chip module processors, each chip on the processor counts as one occupied socket
 - Enterprise Edition and other technology products may be licensed by cores
 - (# of cores x core factor = # of Processor licenses)
 - please see [Oracle Processor Core Factor Table](#)
- See full metric definition in the [Oracle Technology Price List](#)

Oracle Technology Software Licensing Data Recovery Environments

▪ **Licensing Oracle programs that are installed and/or running in Data Recovery:**

- Licensing Requirement: All Copying, synchronization, and mirroring of the data and/or program files requires licensing
 - Data and optional Oracle binaries are copied to another storage device therefore all programs installed and/or running must be licensed
- Testing: A testing allowance (up to four times, not to exceed two days per testing in any given calendar year) is granted for physical copies of backups as follows:
 - For Oracle database program only, test on an unlicensed spare computer
 - Does not allow for any other data recovery methods, such as remote mirroring or synchronization
 - Not applicable in a virtualized environment
- For further information, see the [Licensing Data Recovery Environments Document](#)

Oracle Technology Software Licensing Data Recovery Environments

▪ **Licensing Failover Data Recovery:**

- Failover Data Recovery is an exception which allows for one unlicensed server/node in a clustered environment sharing single storage and requires the following:
 - Allows an exception to run the Oracle programs on one unlicensed node up to ten separate 24-hour periods in any given calendar year
 - If failover periods exceed ten separate 24- hour periods the failover node must be licensed
 - When the primary node fails, the failover node acts as the primary node. Once the primary node is repaired the customer must switch back to the primary node or designate that repaired node as the failover node
 - Same license metric must be used for production and failover nodes and options must match the number of licenses of the associated database
- For further information, see the [Licensing Data Recovery Environments Document](#)

Oracle Technology Software Licensing Server Partitioning Environments

▪ Server Partitioning Environments:

- **Hard Partitioning:** Oracle has determined that the following technologies are permitted as a means to limit the number of Oracle Processor licenses required for a given server:
 - Hard Partitioning technologies as listed in the Partitioning Document
 - Oracle Trusted Partitions for certain Oracle Engineered Systems
 - Oracle Linux for KVM, Oracle OVM Server, Oracle Solaris Zones
- **Soft Partitioning:** Segments the operating system using operating system resource managers and is not approved as a means to determine or limit number of Oracle Processor licenses required on a given server or cluster of servers
- **Capacity on Demand:** Oracle recognizes and allows this practice to license only the number of cores activated when a server is shipped
- For further information, see the [Partitioning Document](#)

Oracle Technology Software Licensing

Virtualized Environments

- **Virtualized Environments are considered a Soft Partitioning technology:**
 - Oracle does not have a separate licensing policy for virtualization deployments of Oracle software for on premise licensing
 - Soft Partitioning technologies are not permitted as a means to determine or limit the number of software licenses required for any given server or cluster or servers
 - Virtualized environments are licensed within the parameters of the metric definition
 - In general, Virtualization technologies are considered soft partitioning methods and some examples are noted in the [Partitioning Document](#)

Oracle Technology Software Licensing Shared Storage (non-virtualized) Environments

- **Shared Storage Environments:**

- Shared Storage is when a storage device is connected to and used by two or more systems
- Oracle licenses all processors where Oracle programs are installed and/or running
 - When shared storage devices with Oracle programs are mounted by multiple servers, the respective Oracle programs are required to be licensed on all the servers
 - Not recognized in soft partition environments for purposes of limiting Oracle's licensing

Oracle Technology Software Licensing Authorized Cloud Computing Environments

▪ Authorized Cloud Providers:

- Customer can deploy their Oracle Technology programs licenses on two Authorized cloud providers:
 - Amazon EC2 and RDS
 - Microsoft Azure Platform
- For the purposes of licensing Oracle Technology programs in the Authorized cloud, customer are required to count as follows:
 - Count 2 virtual CPU (vCPU) to 1 Oracle Processor license if hyper-threading enabled, and 1 virtual CPU (vCPU) to 1 Oracle Processor license if hyper-threading not enabled
 - Please refer to [Licensing Oracle Software in the Cloud Computing Environment Document](#) for further information
- Customer can deploy their Oracle programs on Oracle Cloud Infrastructure:
 - To determine the number of Processor licenses for Oracle Cloud Infrastructure, refer to the [Oracle Core Factor Table](#)

Oracle Applications Software Licensing

General Information

▪ Oracle Applications Licensing:

- Featured Application Product Lines include the following:
 - Oracle E-Business Suite, PeopleSoft, Siebel, JD Edwards
- Licensing Models offer flexibility for purchasing programs in different pricing models such as Component, Custom Application Bundle (CAS) or Enterprise
- Licensing Metrics allow customers to purchase based on user or usage based counts for Component pricing, bundle users across select programs for CAS pricing or company wide type of usage for Enterprise pricing
 - See next slides for further information on licensing models and metrics
- For further information, see respective [Price List](#)
- For other Applications including Global Business Unit, contact Oracle Sales for further assistance

Oracle Applications Software Licensing Models and Metrics

- **Oracle Applications Licensing Models are offered as follows:**

- Component Model is an a la carte type of pricing for an individual product. Metrics available are:
 - User-based metrics such as Application User, Employee, Subscriber, etc
 - Usage-based metrics such as Electronic Order Lines, Expense Reports and \$M Costs Of Goods Sold, etc
- Custom Application Suite Model allows to create custom bundles across select product lines based on needs for specific user populations
 - Custom Suite User is the only metric available and refers to the individual authorized to use any of the products included in the bundle and assembled across different application product lines
- Enterprise Model is ideal for large companies to license an individual product for their entire organization without the need to keep track of specific users, servers or deployment locations
 - Metrics refers to company wide values, e.g. Enterprise \$M in Revenue
- Contact your Oracle sales team for further assistance

Oracle Applications Software Licensing Additional Information

- **For Oracle Applications Licensing:**

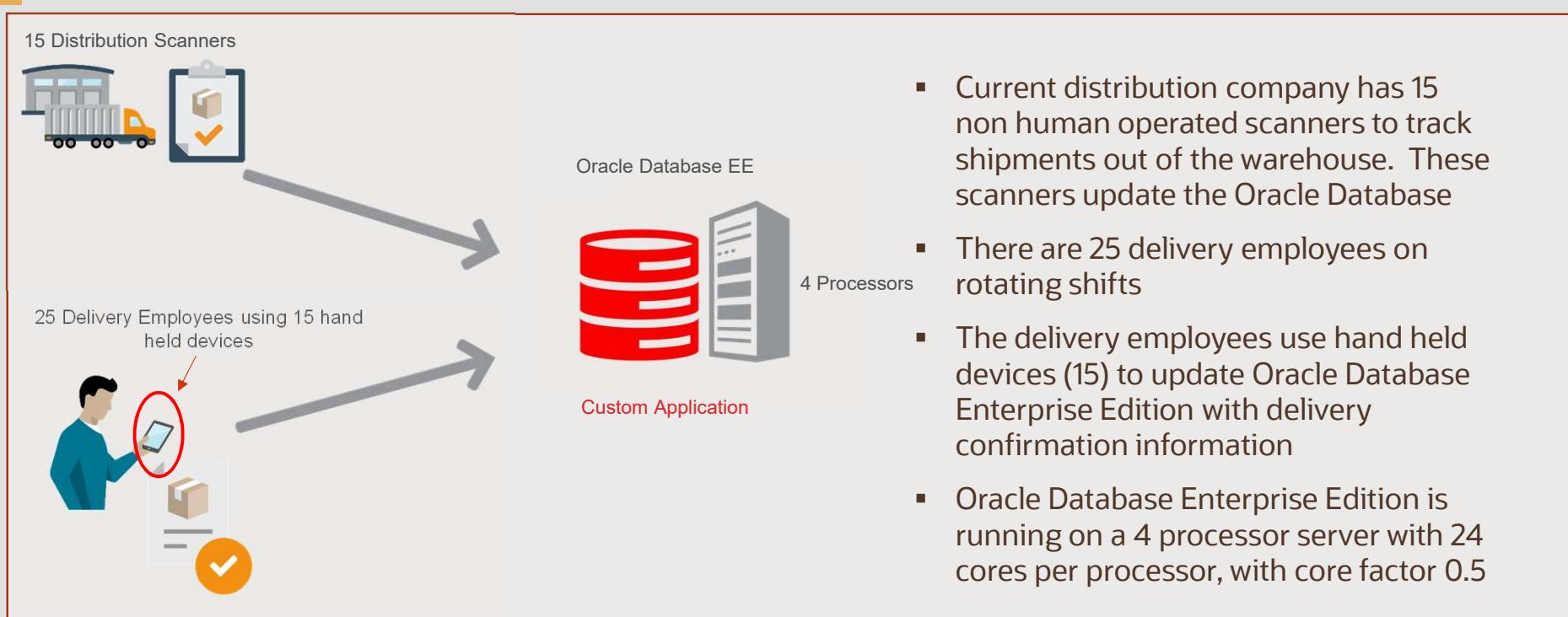
- In most cases, add-on products must match both the number of licenses and metric of the associated product (parent). These products are noted as **Options** in the Price List
- **Minimums** are used in conjunction with license metrics and refer to the minimum number of licenses a customer is required to purchase when licensing Oracle programs for the first time
- Oracle Applications product lines are supported to run on top of Oracle Technology products
 - For certain Oracle Application product lines, Oracle Technology products are included as restricted use or separately licensed
 - See the [Application Licensing Table](#) Document for further information
- See the Product documentation at [Oracle Help Center](#) or contact your Oracle sales team for further information



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Oracle Software Licensing Basics Examples

Licensing Human Operated and Non-Human Operated Device Example 1



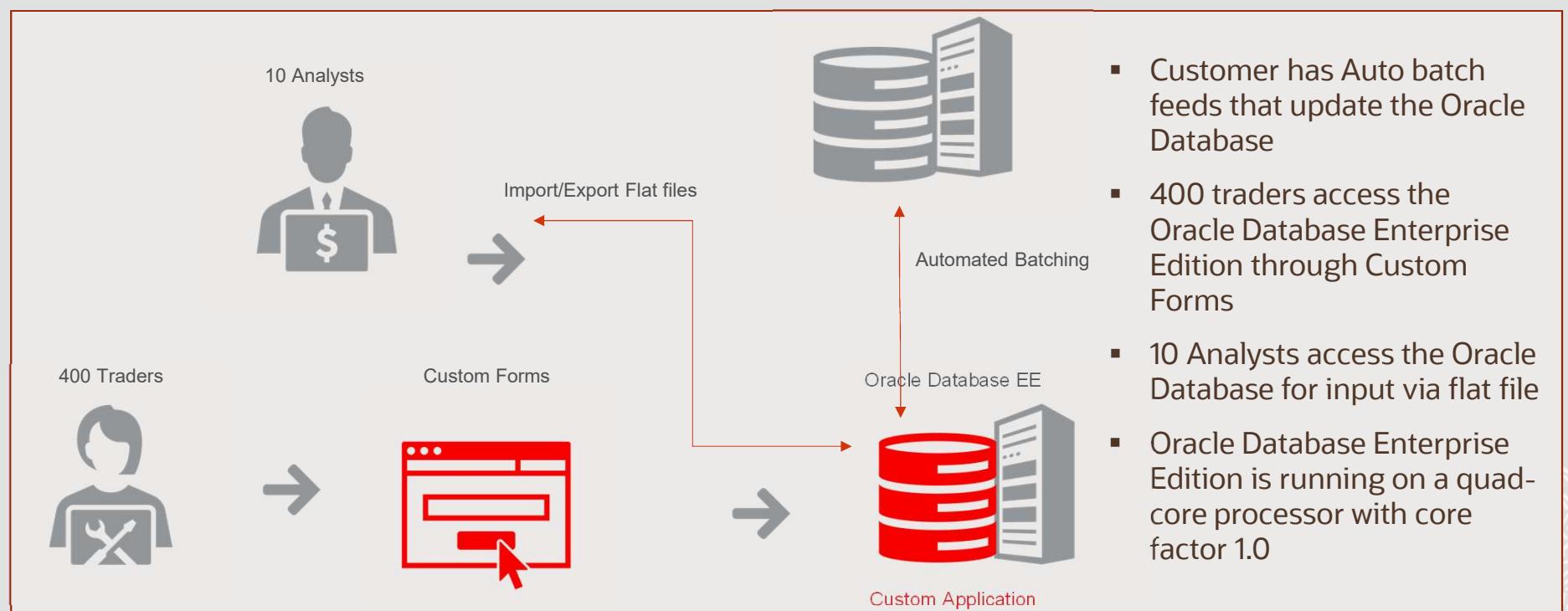
Licensing Human Operated and Non-Human Operated Devices

Example 1 Continued

Products to be licensed	Number of licenses required
Oracle Database Enterprise Edition (ODBEE)	<p>This product can be licensed by Processor or by Named User Plus metric</p> <ul style="list-style-type: none">• By Processor licenses with 0.5 factor: All processors where the database is installed and/or running must be licensed Calculation is (4 processors x 24 cores = 96 cores) $96 \text{ cores} \times 0.5 \text{ core factor} = 48 \text{ Processor licenses required}$• By Named User Plus: the number of licenses required is: The Named User Plus user minimum (25 Named Users Plus per Processor) or the total number of actual users accessing the Database, whichever is greater<ol style="list-style-type: none">1) $48 \text{ Processor licenses} \times 25 \text{ user minimum} = 1200 \text{ Named User Plus user minimum}$ or2) $15 \text{ non human operated distribution scanners} + 25 \text{ delivery employees using hand held devices} = 40 \text{ Named User Plus}$<p>The Number of Named User Plus licenses required: 1200 user min required</p>



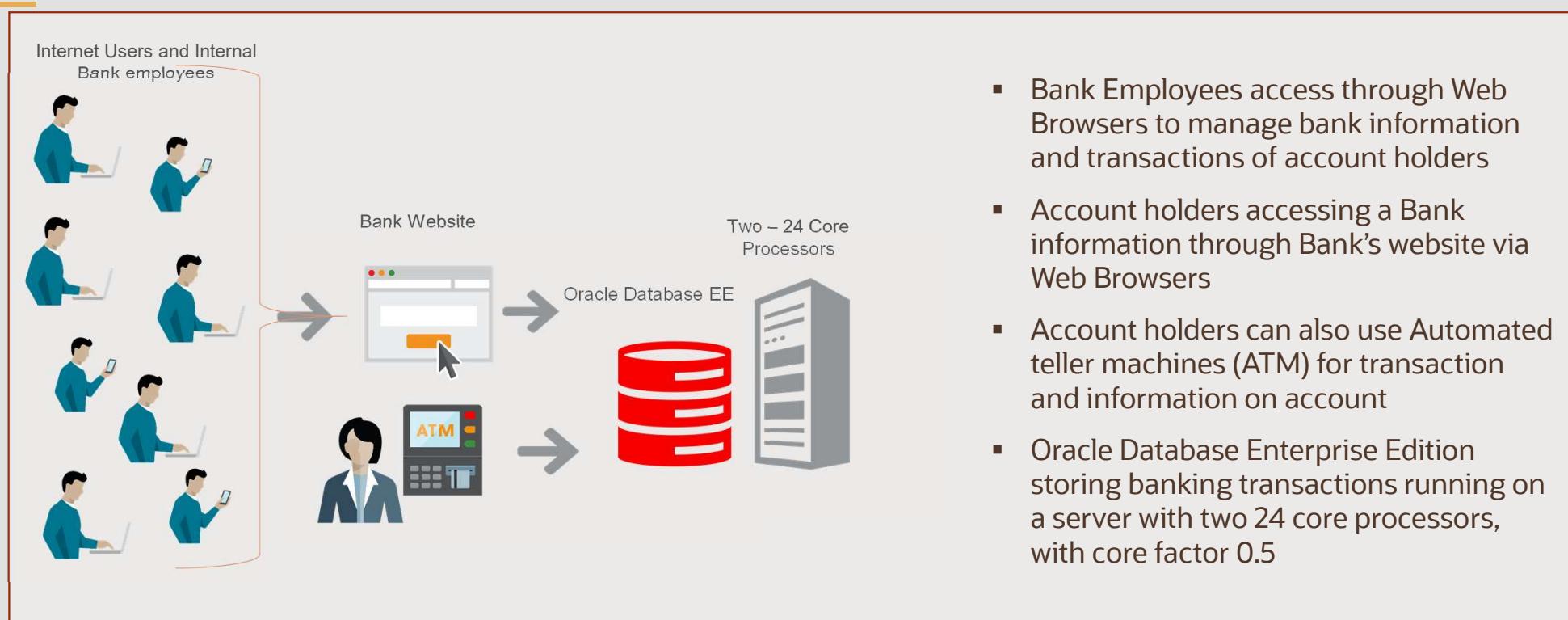
Licensing Batch Processing Example 2



Licensing Batch Processing Example 2 Continued

Products to be licensed	Number of licenses required
Oracle Database Enterprise Edition	<p>This product can be licensed by Processor or by Named User Plus metric</p> <ul style="list-style-type: none">• By Processor licenses with 1.0 core factor: All processors where the database is installed and/or running must be licensed $4 \text{ cores} \times 1.0 \text{ core factor} = 4 \text{ Processors}$ licenses required• By Named User Plus: the number of licenses required is: The Named User Plus user minimum (25 Named Users Plus per Processor) OR The total number of actual users accessing the Database (# of traders), whichever is greater<ul style="list-style-type: none">1) $4 \text{ Processor licenses} \times 25 \text{ user minimum} = 100 \text{ Named User Plus user minimum}$2) $400 \text{ Traders} + 10 \text{ Analysts} = 410 \text{ Named User Plus}$The Number of Named User Plus licenses required: 410

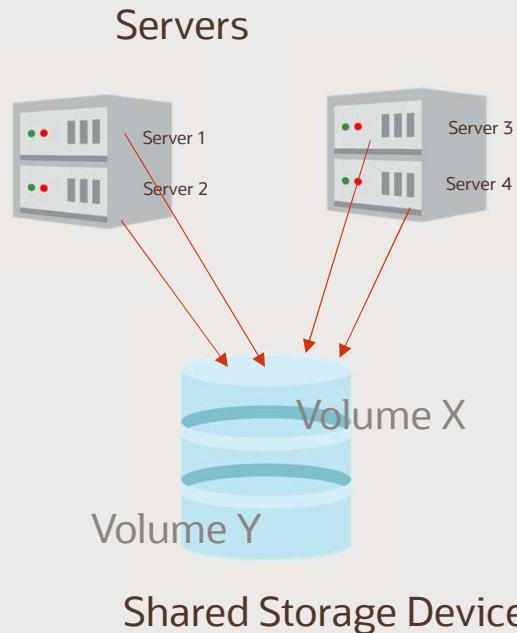
Licensing Multiplexing Environments Example 3



Licensing Multiplexing Environments Example 3 Continued

Products to be licensed	Number of licenses required
Oracle Database Enterprise Edition	<p>This product can be licensed by Processor or by Named User Plus metric</p> <ul style="list-style-type: none">• By Processor licenses with 0.5 factor: All processors where the database is installed and/or running must be licensed Calculation is (2 processors x 24 cores = 48 cores) $48 \text{ cores} \times 0.5 \text{ core factor} = 24 \text{ Processors}$ licenses required• By Named User Plus: the number of licenses required is: The Named User Plus user minimum (25 Named Users Plus per Processor) OR The total number of actual users accessing the Database, whichever is greater 1) $24 \text{ Processor licenses} \times 25 \text{ user minimum} = 600 \text{ Named User Plus user minimum}$ or 2) Uncountable population, default is Processor as economical choice The Number of Processor licenses required: 24 Processors

Licensing Shared Storage (non-virtualized) Example 4

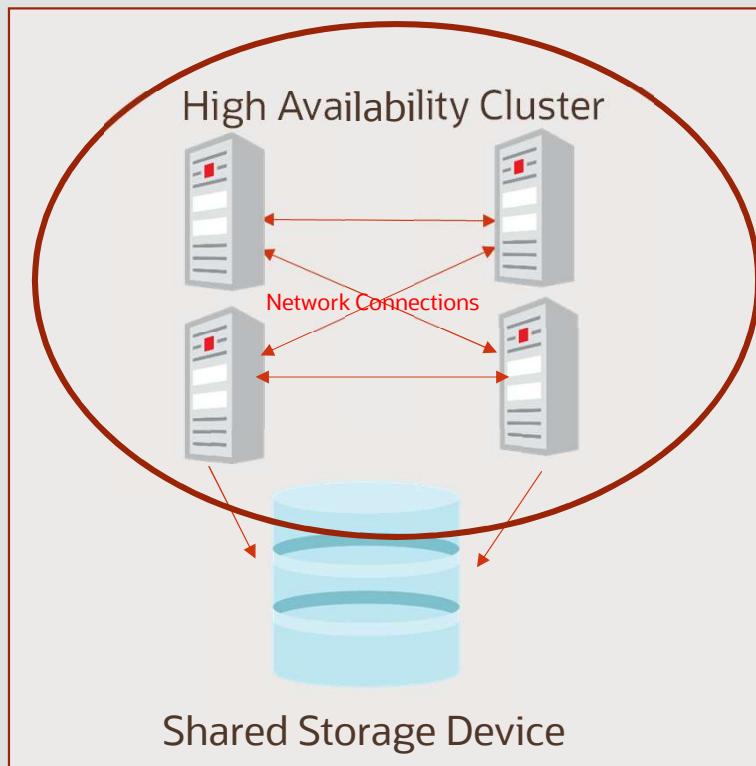


- Customer has 4 Server Nodes (nodes) that are arranged in a shared storage environment that is non virtualized.
- There are 4 Server Nodes, each with two 24-core processors with core factor 0.5.
- Customer is running WebLogic Suite and Oracle Database Enterprise Edition.
- There are 2 licensing scenarios as examples:
 - Scenario A: Oracle Database Enterprise Edition & WebLogic Suite are installed on Volume X and all servers mount Volume X.
 - Scenario B: WebLogic Suite is installed on Volume X and Oracle Database Enterprise Edition is installed on Volume Y. Servers 1 & 2 mount Volume X & Servers 3 & 4 mount Volume Y.

Licensing Shared Storage (non-virtualized) Example 4 continued

Products to be licensed	Scenario and Number of licenses required
Oracle Database Enterprise Edition & WebLogic Suite	<p>Scenario A: Oracle Database Enterprise Edition & WebLogic Suite are installed on Volume X and all servers mount Volume X</p> <ul style="list-style-type: none">• By Processor licenses with 0.5 factor: Calculation is four server nodes each with two 24 core processors = 192 Cores $192 \text{ cores} \times 0.5 \text{ core factor} = 96 \text{ Processor licenses required}$ <p>For WebLogic Suite and Oracle Database EE Processor</p>
WebLogic Suite	<p>Scenario B: WebLogic Suite is installed on Volume X and Oracle Database Enterprise Edition is installed on Volume Y. Servers 1 & 2 mount Volume X & Servers 3 & 4 mount Volume Y</p> <ul style="list-style-type: none">• By Processor licenses calculation with 0.5 factor: • For Volume X is two server nodes each with two 24 core processors = 96 Cores $96 \text{ cores} \times 0.5 \text{ core factor} = 48 \text{ WebLogic Suite Processor licenses required}$
Oracle Database Enterprise Edition	<ul style="list-style-type: none">• For Volume Y is two server nodes each with two 24 core processors = 96 Cores $96 \text{ cores} \times 0.5 \text{ core factor} = 48 \text{ Oracle Database Enterprise Edition Processor licenses required}$

Licensing Failover Environments Example 5

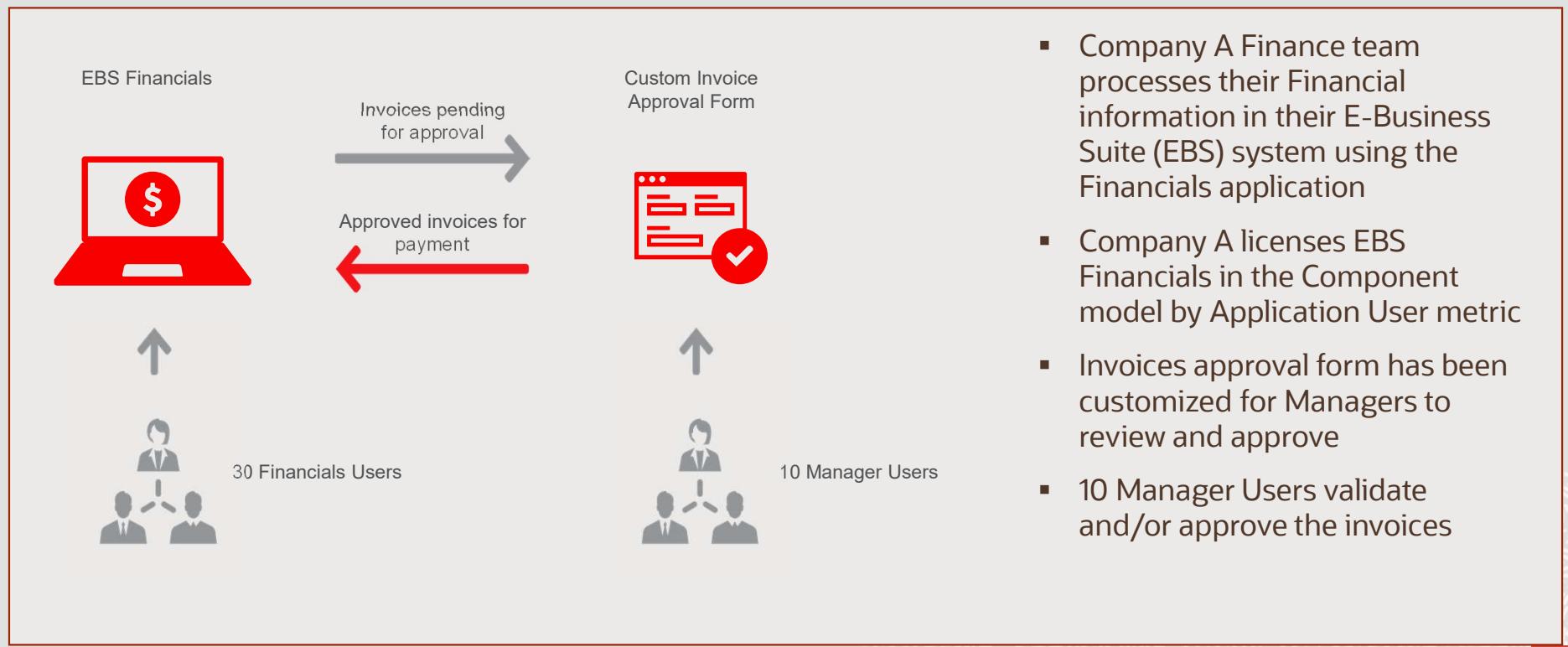


- Customer has a data recovery environment in a Failover High Availability cluster configuration
- 4 Server Nodes (node) in a cluster having one single Storage/Storage Area Network (SAN)
- Customer has two 24-core processors per node with core factor 0.5
- All Server Nodes are connected to the same shared storage running Oracle Database Enterprise Edition
- Customer is licensing by Processor metric

Licensing Failover Environments Example 5 Continued

Products to be licensed	Number of licenses required
Oracle Database Enterprise Edition	<p>This product is licensed by Processor metric</p> <ul style="list-style-type: none">• By Processor licenses with 0.5 factor: All processors where the database is installed and/or running must be licensed. Calculation is for three server nodes each with two 24 core processors = 144 Cores $144 \text{ cores} \times 0.5 \text{ core factor} = 72 \text{ Processors}$ licenses required• Only 1 Failover node is granted free in this 4 server node cluster• Customer needs to license 3 server nodes• Number of Processor licenses required: 72 Processor

Applications Licensing Environments Example 6



Applications Licensing Environment Example 6 Continued

Products to be licensed	Number of licenses required
<p>Oracle E-Business Suite (EBS) Financials</p> <p>Application User is defined as an individual authorized by you to use the applicable licensed programs which are installed on a single or multiple servers regardless of whether the individual is actively using the programs at any given time.</p>	<p>This product is licensed by Application User metric</p> <p>Number of Application User licenses required: 40</p> <ul style="list-style-type: none">• Users of EBS Financial application would need to be licensed and Manager Users who validate and/or approve the invoices in EBS would need to be counted for licensing in addition to the Finance Department Users• Due to modifications made, Full Use licensing will be required for the underlying EBS restricted use technology set of products. See Application Licensing Table for further information on modifications

Resource Links

- [Oracle Contracts](#)
- [Oracle Global Pricing](#)
 - [Technology Price List](#)
 - [Applications Price List](#)
- **Available on Oracle.com as Documents to download or view**
 - [Oracle Database Licensing](#)
 - [Partitioning Policy](#)
 - [Data Recovery Environments](#)
 - [Licensing Oracle Software in Cloud Computing Environment](#)
 - [Application Licensing Table](#)
 - [Oracle Processor Core Factor Table](#)