ORACLE R ENTERPRISE

KEY FEATURES AND BENEFITS

R FOR THE ENTERPRISE

FEATURES
• Component of Oracle Advanced Analytics Option to Oracle Database EE
• Rapidly develop and deploy R scripts that work on DB data
• Comprehensive in-database sampling, statistics, and data mining functionality seamlessly invoked via R
• Execute R scripts in data-parallel and task-parallel with database spawned and managed R engines
• R scripts executable through dynamic SQL invocation
• Database R script repository and R object datastore
• Extend the reach of statistics and advanced analytics within the enterprise through Oracle Business Intelligence (OBIEE) dashboards

BENEFITS
• Seamlessly leverage Oracle Database as an HPC environment for R scripts, providing data parallelism and resource management
• Avoid reinventing code to integrate R results into existing applications
• Operationalize entire R scripts in production applications — eliminate porting R code
• Minimize data movement
• Scalable exploratory data analysis for big data
• Use R packages contributed by the R community
• Automatically leverage database backup and recovery mechanisms
• Reduce application complexity

Oracle R Enterprise provides a comprehensive, database-centric environment for end-to-end analytical processes in R, with immediate deployment to production environments. Users execute R functions on database-resident data while seamlessly leveraging Oracle Database as a high-performance computing (HPC) environment. Develop and operationalize R scripts for analytical applications in one step—SQL knowledge optional!

R for the Enterprise

Oracle R Enterprise, a component of the Oracle Advanced Analytics option to Oracle Database, integrates the advantages of R with the power and scalability of Oracle Database while enabling R functionality on database data as if they were native R objects. Oracle Database serves as an HPC environment usable with open source R packages, where Oracle R Enterprise provides data parallelism and resource management. Transparently move from base R functions written for single core to overloaded functions leveraging database parallelism and scalability. Directly integrate R scripts used in exploratory analysis into application tasks. Develop and operationalize comprehensive scripts for analytical applications in a single step—without leaving the R environment. Immediately invoke R scripts in production to drastically reduce time to market by eliminating porting and enabling instantaneous change updates to application code. Through integration with SQL, existing IT applications can readily leverage R scripts via JDBC/ODBC.

Database Processing

Oracle R Enterprise supports data analysts and application developers in executing R scripts on database-resident data or database server-side R engines — without pulling data to the client while supporting use of familiar and flexible R functions. Oracle R Enterprise overloads base R functions, transparently translating functions to SQL, which eliminates data movement while maintaining security. Users can also leverage open source R packages in combination with database server-side execution. Oracle Database 11g Release 2 and Oracle R Enterprise support a wide range of in-database statistical and data mining techniques while allowing data analysts to use their favorite R GUI for exploratory data analysis and script development.
While analysts interactively analyze data and develop R scripts, data and results can remain inside Oracle Database – dramatically reducing data movement latency. For R users familiar with loading data from file extracts, Oracle R Enterprise facilitates a gradual migration toward a database-centric architecture. R users can push data from their desktops to the database and use R predictive models on database resident data.

Score data using R models in-database for up to 9x faster performance. Build models using in-database techniques for linear scalability and up to 3x faster performance.

**Business Intelligence and Advanced Analytics integrated**

Oracle R Enterprise enables enterprise-wide deployment of graphical, analytical, and statistical results using Oracle Business Intelligence Enterprise Edition (OBIEE). Parameterized dashboards and applications seamlessly invoke corresponding R scripts, providing customized results while accommodating diverse consumption paths.

**Contact Us**

For more information, visit [http://www.oracle.com/technetwork/database/options/advanced-analytics/r-enterprise](http://www.oracle.com/technetwork/database/options/advanced-analytics/r-enterprise) or call +1.800.ORACLE1 to speak to an Oracle representative.

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