PROGRESS® CORTICON® BUSINESS RULES SERVER

EXECUTE MORE DECISIONS FASTER AND MORE RELIABLY

The Progress® Corticon® Business Rules Server has the performance, scalability and robustness required to support mission-critical applications. Because Corticon Server executes decision services with inferencing optimized prior to deployment, Corticon Server executes rules more efficiently and more reliably than traditional rule engines. And with its effortless linear scaling profile, capacity is limited only by the hardware and number of machines on which it is executing.

MINIMIZE INTEGRATION EFFORT, MAXIMIZE INTEGRATION FLEXIBILITY

Corticon Server makes the most of standards to provide flexible options for integration with applications running on Java or .NET platforms. You can embed Corticon Server in any layer of an application's architecture, from the presentation layer on the desktop to the shared-service layer distributed across a back-end server farm. Embedding in composite or packaged applications through

HIGHLIGHTS

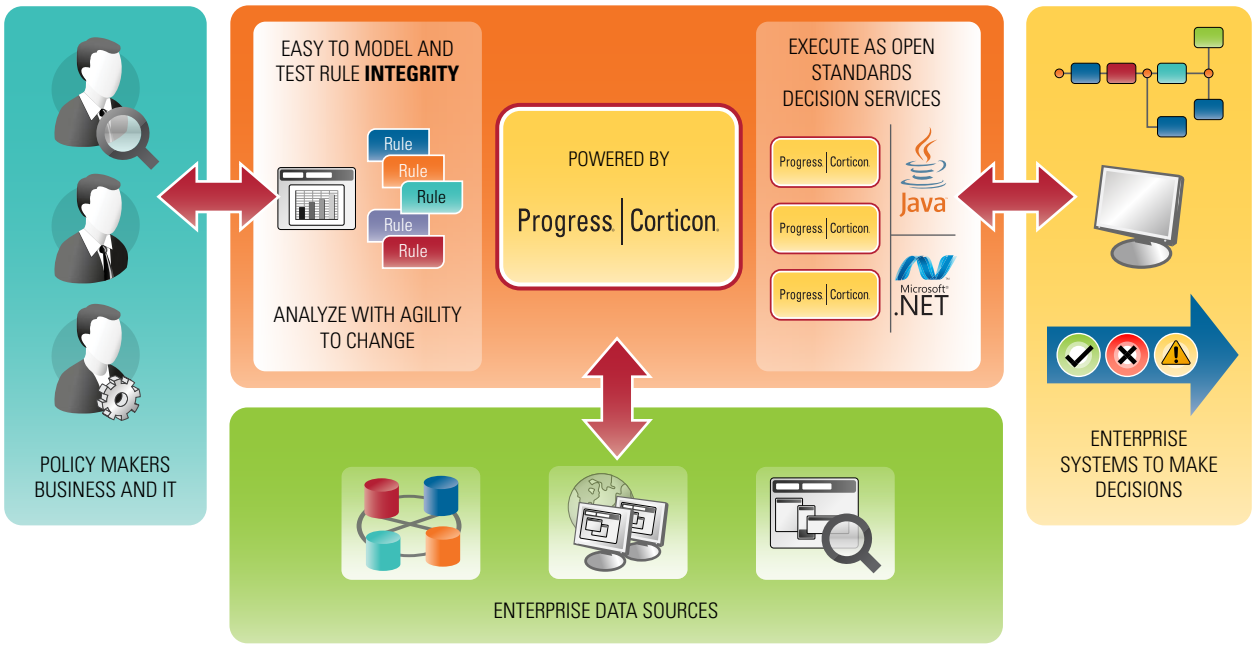
The powerful, flexible, and scalable Progress® Corticon® Business Rules Server manages all runtime aspects of Corticon decision services. It is the essential resource for managing deployment, integration and execution of decision services created with Progress® Corticon® Business Rules Modeling Studio. It provides unmatched runtime performance and scalability, auditable execution control and reporting, and flexible integration with any application.

service-oriented architectures (SOA) or Business Process Management (BPM) systems is straightforward because Corticon Server was designed for it.

COMPLY WITH DECISION-RELATED REGULATIONS EFFICIENTLY AND CONSISTENTLY

In today's heated regulatory climate, organizations must be able to explain the reasoning behind each business decision and transaction. The need to provide explanations for outcomes is equally true for automated decision-making. Corticon Business Rules Server provides the "what", "why" and "when" for every outcome of every decision service it executes, eliminating the need for tedious and error-prone manual reconstruction or auditing. Sophisticated runtime filters further improve decision-making consistency by automatically matching the right decision service to a request.

PROGRESS® CORTICON® BUSINESS RULES MANAGEMENT SYSTEM



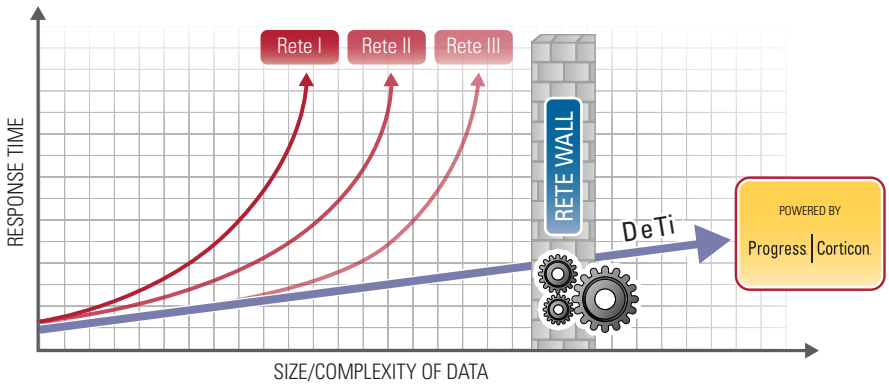
KEY FEATURES OF THE CORTICON BUSINESS RULES SERVER

DECISION SERVICE EXECUTION AND CONTROL

Executing decision services is the core competency of the Corticon Business Rules Server. Corticon's unique approach to inference-based business rules execution forms the basis for exceptional performance, precision and consistency:

> **Design-time Inferencing (DeTI) Engine:** The patented Corticon rules engine shifts the inferencing workload from runtime to design time, producing more efficient and reliable decisions. Unlike most rules engines, Corticon Server processes pre-optimized decision services, eliminating the need to determine which rules are relevant to the decision, or in which order to execute those rules during execution in performance-sensitive production environments.

ENGINE PERFORMANCE



> **Scales Linearly with Increasing Payload:** This allows for much higher throughput and minimizes the need for round-trip calls to the server.

> **Eliminates Runtime Performance Tuning:** Design-time determination of optimal rule execution order means that 99% of incoming requests complete with a single pass through the rules.

"Corticon Business Rules Server is the execution engine for the Progress® Corticon® Business Rules Management System. It integrates naturally within modern service-oriented architectures, deploying decisions as services, and leveraging the enterpriseclass performance, scalability and availability of leading application servers."

- **Application Server Support:** When Corticon Business Rules Server is installed within an application server, it knows how to invoke the clustering, pooling, transaction-handling and replication services provided by the application server when horizontal scaling is needed. Also, it can be configured for multiple concurrent rule sessions executing multiple individual instances of decision services on a single server or for multiple concurrent rule sessions executing on multiple servers. When application server services combine with the linear scaling profile of the DeTI engine, the Corticon Business Rules Server will scale horizontally, across multiple servers all running the same decision service.
- **Hot, Warm and Cold Deployment Scenarios:** Hot deployment overwrites a currently deployed decision service with a newer rule set directly on the Corticon Server without shutting down either the server or the decision service being replaced. Warm deployment brings down the decision service being replaced until the overwrite is completed. Cold deployment brings down the server itself until the overwrite is completed, at which point the server is restarted.
- **Version Control and Effective Dating:** The Corticon Business Rules Server provides complete control over versions, timing and availability of decision services. It binds a specific version of a decision service to a business process or process instance. It establishes effective dates and times for decisions to execute in anticipation of time-sensitive programs or processes. And it back-dates requests to execute versions of decisions relevant to a specific date.

RUNTIME REPORTING AND MONITORING

Effective runtime reporting and monitoring are must-have features when decision services are integrated with core business applications because the outcomes of these integrated decision services are often subject to internal or regulatory compliance. Corticon supports this requirement with:

- **Execution Logging:** Corticon produces an historical transaction log for each request processed by a decision service. The log captures every rule that fires during execution, all comments associated with

the rules, and the outcome generated by the decision service. Log granularity (including the option to turn off logging altogether) can be customized to match performance and audit/compliance requirements.

SUPPORT FOR SERVICE-ORIENTED ARCHITECTURES (SOA) AND BUSINESS PROCESS MANAGEMENT (BPM) SYSTEMS

Corticon Business Rules Server was designed for painless integration into service-oriented architectures (SOA) and Business Process Management (BPM) systems:

- **SOA Integration:** The default deployment of a decision service is as a standard web service. Its associated WSDL file is automatically generated by Corticon Business Rules Server during deployment and integration, facilitating registration and discovery of decision services through third-party SOA governance tools.
- **BPM Integration:** Progress® Corticon® enjoys close partnerships and tight product integration with leading BPM and workflow companies, including but not limited to IBM, BEA, EMC, Global360, TIBCO, IDS Scheer, and Adobe.

APPLICATION INTEGRATION—CONSUMING CORTICON DECISION SERVICES

Corticon Business Rules Server supports several integration options for custom or composite enterprise applications:

- **Web Applet:** Deploy the Corticon runtime engine as an applet directly on a client for as little as 800KB. This option allows rules to run seamlessly within a browser environment, enabling a highly interactive user experience.
- **Web Services:** Deploy decision services as web services and integrate with architectures that can invoke and consume web services via SOAP documents.
- **Microsoft .NET Framework:** Deploy decision services as a Microsoft .NET assembly or as a service on Microsoft IIS.

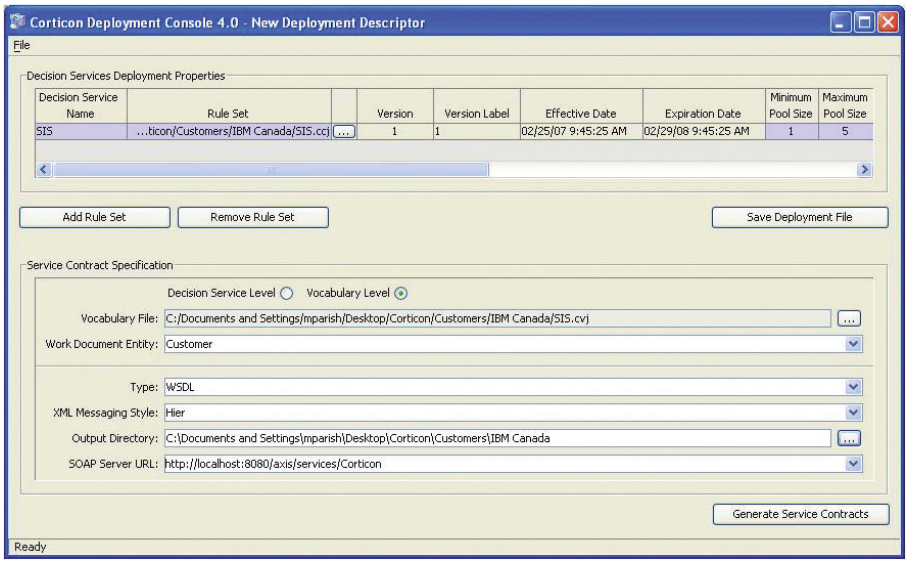


Figure 1

Automatic WSDL file generation

> **Java Service with XML Payload:** Deploy decision services as Java services (using a J2EE servlet or EJB interface) and integrate with architectures that can make Java method calls and transfer XML payloads.

> **Java Service with Java Object Payload:** Deploy decision services as Java services and integrate with architectures that can make Java method calls and transfer Java objects.

SUMMARY OF BENEFITS

> Execute more decisions faster and more reliably

> Minimize integration effort, maximize integration flexibility

> Comply with decision-related regulations more efficiently and consistently

SUMMARY OF FEATURES

> Decision service execution and control

> Runtime reporting and monitoring

> Support for service-oriented architectures (SOA) and Business Process Management (BPM) systems

> Application integration—consuming Corticon decision services

SUPPORTED APPLICATION SERVERS

- Compatible with any J2EE-compliant application server
- Certified on IBM WebSphere and BEA Web Logic

INTEGRAL PART OF THE PROGRESS CORTICON BUSINESS RULES MANAGEMENT SYSTEM

Corticon Business Rules Server is part of the Progress Corticon Business Rules Management System (BRMS) product suite. It works hand in hand with Corticon Business Rules Modeling Studio by sharing common deployment file formats and metadata. It uses the Corticon Business Rule Collaborator deployment staging directories as launch points for new or revised decision services. And it knows how to execute data access requests built into decision services with Corticon Enterprise Data Connector. When used together, these products provide a complete platform for managing the lifecycle of decisions across the enterprise.

SYSTEM REQUIREMENTS

CORTICON 5 SERVER

- A Java-supported CPU
- Java Runtime Engine (JRE) v1.5.0 or higher (1.6 preferred)
- 512 MB RAM allocated to the JVM
- 10 MB disk space (core libraries)
- 150 MB disk space (Full default installation)
- Deploying as a service requires a J2EE web or application server (full list of compatible middleware available on request)

CORTICON 4.3 SERVER

Operating Systems	All Java-supported Operating Systems
Processor	Pentium 233 MHz-class or compatible CPU
Hard Disk Space	106 MB minimum (without JRE), 173 MB maximum (with JRE)

>	Memory	512 MB minimum
>	Runtime	Java Runtime Engine 1.4.2 or higher

PROGRESS SOFTWARE

Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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Rev. 01/12 | 120103-0117