

Progress® Sonic ESB® is a messaging-based enterprise service bus that simplifies the integration and flexible re-use of business applications within a service-oriented architecture (SOA).

## DATA SHEET

### BENEFITS AT A GLANCE

- > Faster integration of new applications into an existing IT environment
- > Faster adaptation of existing systems to new user requirements
- > Elimination of rigid and fragile point-to-point integration
- > High levels of reliability and availability assure business continuity
- > Incremental deployment reduces risk and up-front investment
- > Easy-to-learn and use, standards-based technology
- > Rapid, repeatable best-practice deployment for large distributed environments

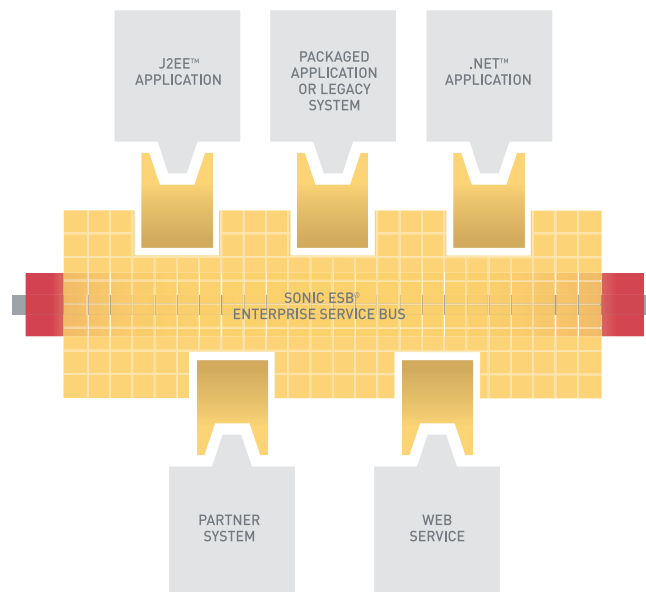
### FEATURES AT A GLANCE

- > Integration with broad range of applications and technologies
- > Distributed architecture scales to manage high-volume, broad-scale deployments
- > Fast, reliable, and fault-tolerant messaging-based communication backbone
- > Integration across organizational boundaries and to remote sites
- > Transactional failover of service interactions
- > Reliable, asynchronous and secure interoperability using advanced Web services standards

The business expects IT to achieve more with less: Respond faster to the changing requirements of new business initiatives, M&A, reorganizations, and regulatory compliance—and cut costs at the same time.

SOA promises dramatically improved alignment of IT with the needs of business, while leveraging the economies of open standards. However, to realize this vision, SOA needs an infrastructure that can integrate any IT resource, wherever it may be deployed. To be flexible, it needs an infrastructure that can easily scale and extend without disruption. And to be dependable, it needs an infrastructure which is robust and secure.

This infrastructure is the enterprise service bus.

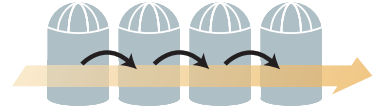


Sonic ESB eliminates the rigidity and fragility of point-to-point integration with a robust, event-driven architecture that can evolve, scale, and extend throughout the enterprise. Across wide-area networks, security domains, and organizational boundaries, Sonic ESB manages the distributed deployment and execution of independently scalable integration services. Through patent-pending Continuous Availability Architecture™ (CAA), only Sonic can guarantee timely and continuous delivery of mission-critical business events.

## SONIC ESB: INTEGRATION SCENARIOS

### Continuous Pipeline Processing: Reduce Business Cycle Times

The drive for operational excellence makes legacy batch and manual processing a target for modernization in every industry today. Sonic ESB reduces both costly and error-prone manual processes and the latency of batch processing. Sonic's non-disruptive leave-and-layer approach avoids the risk of "big-bang" migration: legacy systems can continue to run as they are, and can be integrated with interactive and event-driven systems without re-coding or replacement.

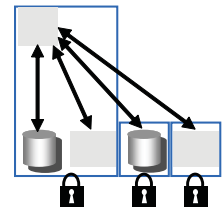


### Leveraging distributed architecture

Across diverse industries, Progress' customers use Sonic ESB to reduce process cycle time, gather and disseminate information, and reliably respond to business conditions as they occur.

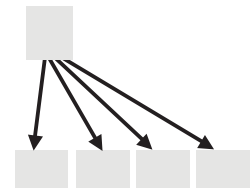
### Remote Information Access: Portal Integration and Multi-channel Initiatives

Today's portals make it easy to connect local databases and Web services, but integrating legacy resources in other data centers is far from simple. Too often, desired information is not accessible or out of date. Sonic ESB integrates multiple customer- and partner-facing front-end systems with multiple backend systems—even when deployed in other sites, departments, or organizations. Sonic ESB preserves the autonomy of connected systems: sensitive information is securely shared on an auditable, "need-to-know" basis.



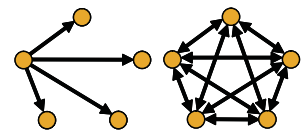
### Remote Information Delivery: Master Data Distribution

When transactions in remote offices fail because master data is out of date business stalls, deals are lost, and manual correction is time-consuming and expensive. Sonic ESB solves this problem through continuous delivery of master data updates. Its enterprise-messaging communication backbone provides fast and reliable delivery of information as easily to a thousand remote sites as it does one. Additional systems—even those running in different security domains—can be added without disruption.



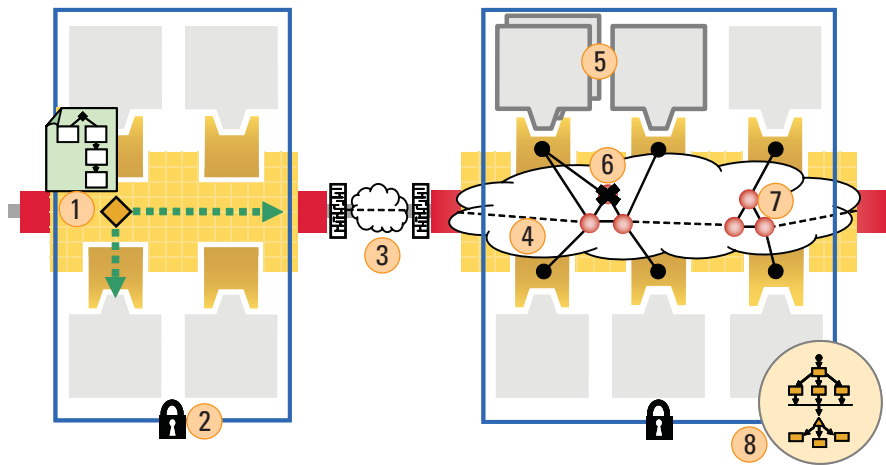
### Respond to Real-time Business Events

Real-time operations depend on fast, reliable, and continuous delivery of business events. Whether a one-to-many or a many-to-many scenario, the challenge of event distribution grows with the number of participants. Sonic ESB's distributed architecture responds to these challenges of scalability and distribution. New systems—even those in different security domains of connected departments or organizations—can subscribe to events without manual overhead or disruption to existing services. This allows additional systems to be quickly integrated in a global environment without performance degradation or administrative overhead.



## DISTRIBUTED ARCHITECTURE

The Sonic ESB distributed architecture combines BPEL service orchestration, independently scalable integration services (such as application adapters and transformation), intelligent routing, and a robust enterprise messaging backbone. The result simplifies the connection of endpoints in a distributed environment, scales to meet high throughput, and provides freedom to change BPEL process, services, intelligent routing, and schema without disrupting running systems. This configuration-driven approach makes it easy not only to change logical flows among services, but also to scale-up the underlying infrastructure to accommodate increased communication traffic.



1. Intelligent routing: provides highly-scalable, end-to-end control of event flow across distributed environments.
2. Integrate across security domains: Sonic ESB spans security domains to form a federated environment in which each domain preserves autonomy to manage authentication locally.
3. Across the firewall: Provides secure, reliable communications even over high-latency Internet, satellite, or dial-up connections.
4. Dynamic Routing Architecture™ (DRA) automatically routes cross-cluster messages, allowing extension of network to additional LAN segments and remote sites without manual gateway reconfiguration.
5. Scale services: Services may be dynamically added within one or many service containers—supporting cost-efficient, fine-grained scaling to meet changing throughput demands.
6. Sonic Continuous Availability Architecture (CAA) provides rapid communications broker failover that is transparent to services and ensures that in-flight transactions are not rolled back.
7. Clustered communication brokers: Communication backbone throughput can be dynamically scaled by adding brokers at runtime; no service re-configuration is required.
8. Sonic BPEL Server: Improves developer productivity by enabling service composition and event correlation with minimal programming.

### Distributed execution, centralized management

Sonic ESB allows integration services, service orchestration, and intelligent routes to be defined and deployed to any location, from any location. As a result, organizations can work more reliably and flexibly across Internet, satellite, or other WAN links, and manage service orchestration that spans network segments, business units, and even partner organizations.

### Runs in a JVM—No application server required

Sonic ESB runtime components require only a standard Java Virtual Machine (JVM) and use much less memory than application server-based integration approaches: only 20-25Mb is required for a Sonic ESB service container, depending on the number of services deployed.



### **Event-driven architecture**

Through Sonic ESB's event-driven architecture, services asynchronously place messages on and draw messages off the enterprise messaging communications backbone. Integration services and communication brokers scale independently, allowing efficient allocation of resources for computing and communication-intensive processing, when and where they are needed.

### **Enterprise messaging communications backbone**

Built-in JMS and advanced Web services communications provide reliable, secure, high-throughput and low-latency performance as well as configurable qualities of service and rich messaging semantics. Communication brokers dynamically deploy and cluster to scale throughput. Sonic Continuous Availability Architecture (CAA) ensures that communications broker failover is transparent to services and that in-flight transactions are not rolled back. Furthermore, CAA provides these benefits without specialized third-party hardware or software. Fast-Forward mode eliminates reliable messaging bottlenecks created by disk writes, offering more than an order-of-magnitude greater performance than any other reliable messaging system.

### **Intelligent routing**

Sonic ESB intelligent routing provides highly-scalable, end-to-end control of event flow across distributed environments. Routing-slip state (the "ESB itinerary") travels with business-data as they flow across network for distributed processing across multiple servers, cluster, and security domains. Free of hub-and-spoke performance bottleneck and single point of failure, intelligent routing scales with the underlying communications infrastructure, and delivers highly reliable and continuously available processing of large numbers of concurrent active routes. Through Sonic Workbench, even the most complex ESB intelligent routes may be deployed and debugged from anywhere on the network.

### **Management domain spans firewall, security domains**

Sonic ESB management uniquely spans security domains and firewalls to deliver seamless integration across organizational boundaries and to remote sites. Underlying these capabilities is Sonic's patented Dynamic Routing Architecture™ (DRA), which automatically routes information across multiple security domains, transparently spanning clusters and security domains to support a unified namespace and federated environment. This allows extension of the ESB to incorporate and connect resources in additional security domains without any reconfiguration or disruption of running systems.

### **Repository supports global service namespace**

Sonic ESB's logical service naming provides location transparency of deployed services: physical deployment changes do not disrupt logical service relationships. The globally-accessible ESB repository stores metadata and ensures a consistent view across Sonic Workbench and the ESB runtime components. High-availability and local caching assure fast and continuous access to metadata, even during periods of network outage.

### **Staged, distributed deployment**

Graphical deployment tools simplify the distributed promotion of ESB metadata from development to test to production environments, ensuring the referential integrity and consistency of the deployed configurations. Impact and dependency analyses assure that a new deployment does not affect existing operations.

### **Sonic Deployment Manager**

For large distributed environments, Sonic Deployment Manager automates the installation of Sonic software and tailors configurations to suit each stage of the project lifecycle. Sonic Deployment Manager reduces the time and cost of project development and delivery.



## **RICH INTEGRATION CAPABILITIES, GLOBAL VISIBILITY AND CONTROL**

### **BPEL service orchestration**

Sonic BPEL Server™ (sold separately) adds standards-based service orchestration to the intelligent routing capabilities of Sonic ESB. Through a drag-and-drop GUI in Sonic's Eclipse-based Workbench, Sonic BPEL Server improves developer productivity by enabling service composition and event correlation with minimal programming.

### **XML message transformation, splitting, aggregation and enrichment**

Distributed XSLT and XPath services mediate XML message format and granularity. Sonic XML Server™ (sold separately) provides fast processing and storage of in-flight XML data and serves as an operational data cache and aggregation service for data warehousing, business event management, auditing, and non-repudiation applications.

### **Content-based routing**

Configurable XPath subject and content-based routing of messages to services allows flexible definition and modification of routing rules without coding. Sonic ESB supports optional override of content-based routing service with custom services.

### **Connectivity: On-ramps to the ESB**

Sonic ESB simplifies connection of new applications, Web services, and hundreds of other technologies, including batch files, JEE, .NET, Progress OpenEdge application servers, mainframe applications, relational data sources, legacy middleware products and packaged applications. Advanced Web services support (WS-ReliableMessaging, WS-Security, WS-Policy, and WS-Addressing) provides interoperability with secure, robust, asynchronous communications.

### **Security**

Provides comprehensive, pluggable authentication, authorization, and encryption capabilities across the ESB. Encryption support from RSA built-in. Progress® Actional® (sold separately) provides support for multiple forms of credentials, including username/password and SAML 1.1 with identity propagation and credential mapping.

### **Global management and administration**

Centralized configuration and monitoring enables management of a large deployment of ESB infrastructure and integration services from a single console. JMX-based framework collects and aggregates notifications and metrics, providing instantaneous and full operational visibility of distributed deployment on Sonic Management Console as well as integration with a broad range of enterprise management environments (e.g., HP OpenView, CA Unicenter, BMC Patrol, IBM Tivoli). Centralized auditing and logging service supports log4j plug-in architecture.

### **SLA management**

Progress Actional (sold separately) automatically detects service-level violations and instantly traces their root causes through visual display to quickly provide countermeasures. Provides visibility and control of activities across the Sonic ESB as well as the entire SOA infrastructure with which it connects.

### **Eclipse-based SOA development environment**

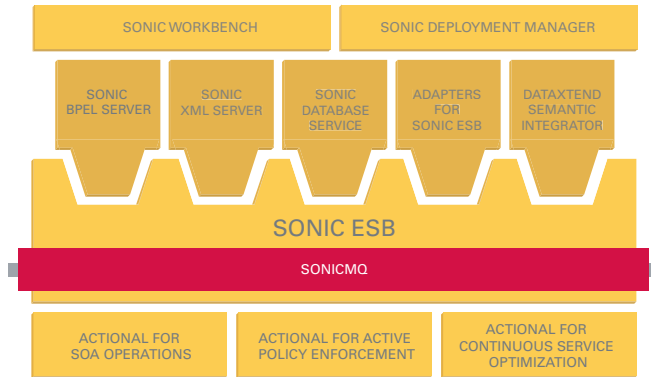
The Eclipse-based Sonic Workbench makes it easy to develop, test, debug, and deploy any combination of BPEL, intelligent routing, and integration services—whether deployed on a single workstation or across a distributed environment.

### **Faster, more flexible integration**

Sonic ESB easily integrates services representing diverse technologies, without modifying underlying applications or introducing inflexible, hard-coded dependencies. Sonic ESB's configurable control of service interactions allows modification of data and process flow without re-coding or shutdown of running services.

## THE FOUNDATION OF THE SONIC ESB PRODUCT FAMILY

Sonic ESB is the foundation of the Sonic ESB Product Family, a comprehensive set of compatible products that simplify application integration using a service-oriented architecture (SOA). Together they extend Sonic ESB with standards-based service orchestration, operational data management, and integration of third-party relational data sources, packaged applications, and technologies.



### End-to-end SOA Management

Sonic ESB integrates with Progress® Actional® for SOA management, enhancing visibility into and control of activities across the Sonic ESB as well as the entire SOA infrastructure with which it connects. Users can automatically detect service-level violations and instantly trace their root causes through visual display to quickly provide countermeasures. Through this integration, Sonic ESB gains capabilities only Actional can provide, with immeasurably low overhead and the capacity to scale with a broadly-deployed ESB.

### Common Data Model Management

Sonic ESB development and runtime integration with Progress® DataXtend™ Semantic Integrator (SI) dramatically simplifies the problem of common data model lifecycle management, transformation, and validation. DataXtend SI leverages common Eclipse-based tooling and the ability to deploy semantic services in ESB containers. Just as Sonic ESB helps organizations eliminate rigid architectures of point-to-point connections, DataXtend SI solves the problem of point-to-point transformations, making it much easier to integrate data and evolve an SOA with diverse connected systems.

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## PLATFORMS

Microsoft Windows  
SUN Solaris  
Red Hat Enterprise Linux  
SuSE Enterprise Linux  
IBM AIX  
HP-UX

## PACKAGING

Sonic ESB Enterprise Edition–  
Per-CPU deployment license  
Sonic ESB Continuous  
Availability Edition–  
Per-primary CPU deployment license  
Sonic ESB Remote Site Edition–  
Per-CPU deployment license  
Sonic Workbench–  
Named-user development license  
Sonic Deployment Manager

## ABOUT PROGRESS SOFTWARE

Progress Software Corporation (Nasdaq: PRGS) provides application infrastructure software for the development, deployment, integration and management of business applications. Our goal is to maximize the benefits of information technology while minimizing its complexity and total cost of ownership. Progress can be reached at +1-781-280-4000.

[www.progress.com](http://www.progress.com)

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