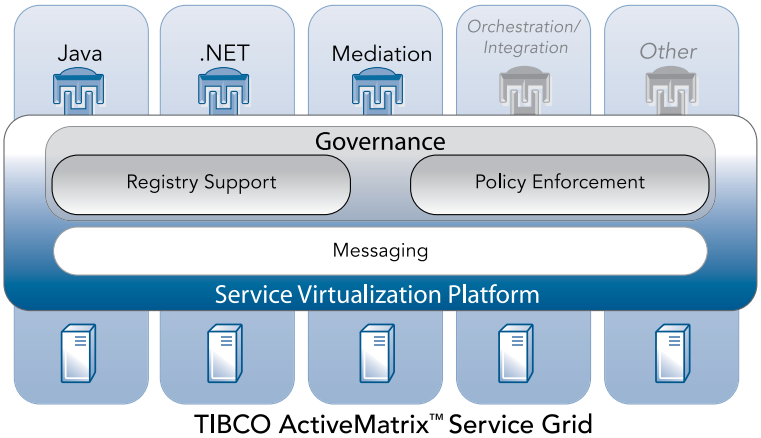
TIBCO ActiveMatrix Service Grid

As IT organizations embrace and realize the value of service-oriented architecture (SOA), they are also running into its unique challenges. Unlike previous application architectures, SOA is inherently heterogeneous and distributed. It involves using a variety of different service technologies such as Java, .NET, and service orchestration distributed across different machines and platforms.

This heterogeneity can make service development and operations more complex. Typically twenty to forty percent of the service code is not the business logic. Developers also write code to add transports such as SOAP/HTTP and JMS, security, policies, even code to improve manageability. This code makes the service less flexible and reusable, because it's this technical code that might need to change each time a service is reused. Administrators use different consoles for deploying Java and .NET services, orchestration, and other components of their applications. And when something goes wrong, they often have to piece together multiple alerts, log files, and other information across these multiple consoles to find the root cause.

TIBCO ActiveMatrix™ Service Grid reduces the complexity of heterogeneous SOA by enabling IT organizations to develop just the business logic with Java and .NET, and to assemble, deploy, host, and manage heterogeneous services as composite applications on a unified foundation.



TIBCO ActiveMatrix Service Grid enables IT organizations to develop, deploy, and manage distributed, heterogeneous services as composite applications on a common runtime platform.

AT A GLANCE

TIBCO ActiveMatrix Service Grid simplifies heterogeneous SOA by enabling IT organizations to turn Java or .NET business logic into services, and graphically assemble, deploy, host, and manage these services together as composite applications on a single runtime foundation.

BENEFITS

- Increases developer productivity and service reuse, and allows developers to focus on the business logic by replacing twenty to forty percent of the technical code in a service with centralized configuration.
- Simplifies development and operations by providing a common Eclipse-based environment for service development, assembly, composition, and testing, and a common web-based console for monitoring and management.
- Reduces architectural complexity by providing a grid- and standards-based, technology-neutral platform with service containers for .NET, Java, and other service technologies.
- Simplifies management of composite applications by making heterogeneous services location-, technology-, and protocol-independent through service virtualization.
- Enables horizontal scaling at runtime with no disruption to service.
- Increases operational control and security through built-in, standards-based policy and service management.
- Improves responsiveness and adaptability with full support for the real-time, event-driven invocation of services and initiation of processes.

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TIBCO ActiveMatrix Service Grid

ATTRIBUTES & CAPABILITIES

Unified Foundation
ActiveMatrix Service Grid provides a unified design-time and runtime service container framework that is based on the SCA specification. This framework eliminates the need for technology-dependent "wrapper code" for service enablement and enables uniform and consistent operational and administrative management across Java, .NET, and other service infrastructures. It includes managed service containers for leading third-party technologies including Java and .NET. Developers can also expose external services – from existing EJBs on WebSphere, WebLogic, and other Java EE-compliant servers – as managed services. IT organizations can add other ActiveMatrix products as needed. They can also add their own service containers, communication protocols, or adapters using a standards-based software development kit.

Containers extend the hosted runtime environment by adding configurable functionality such as policy management, service mediation, service deployment, and service management. This lets developers more easily reuse services by reconfiguring the same service for use in multiple scenarios. ActiveMatrix Service Grid also captures implementation details and dependencies across services, which enables impact analysis and dependency tracking.

Distributed Grid Infrastructure
Provides scalability by leveraging the proven foundation of TIBCO's messaging and ESB technology in a grid-based architecture. Companies can dynamically deploy services across machines or co-locate them within an OS process, move services to different machines, and add distributed load balancing and fault tolerance.

Federated Service Governance
Provides federated governance built on WS-Policy and other standards. Each service container, as well as the underlying grid-based architecture, provides distributed and rules-driven policy management that enables service governance with fewer moving parts and greater security management.

ActiveMatrix Service Grid also lets administrators configure, deploy, start, and stop service containers, services, and composite applications, and monitor composite applications top-down to quickly determine the root cause of failures.

The attributes of services and composite applications are stored in a common design-time and runtime repository; service definitions can be stored and shared through an integrated UDDI v3 registry. Administrators can leverage federated security and identity management using WS-Security.

Unified Development and Management
TIBCO Business Studio™, the common design-time environment for TIBCO products, provides unified development, assembly, composition, and testing in an Eclipse environment.

ActiveMatrix plug-ins provide extensive support for developing Java services, then wiring them together with .NET services, service mediation, and TIBCO ActiveMatrix™ BusinessWorks orchestration or integration to build composite applications. TIBCO also provides plug-ins for Visual Studio .NET to support .NET service development.

Monitoring and management is done through TIBCO ActiveMatrix™ Administrator, TIBCO's common web-based administrator console for TIBCO products. Users can take advantage of a grid-based environment for scalability and load balancing, maintain system health and performance, and troubleshoot issues with the same user interface.

STANDARDS

- Service Component Architecture (SCA)
- Web services (SOAP, UDDI, WSDL, JMS)
- JMX
- Eclipse platform

TIBCO Software Inc. (NASDAQ: TIBX) digitized Wall Street in the '80s with its event-driven "Information Bus" software, which helped make real-time business a strategic differentiator in the '90s. Today, TIBCO's infrastructure software gives customers the ability to constantly innovate by connecting applications and data in a service-oriented architecture, streamlining activities through business process management, and giving people the information and intelligence tools they need to make faster and smarter decisions, what we call The Power of Now®. TIBCO serves more than 3,000 customers around the world with offices in 40 countries and an ecosystem of over 200 partners. Learn more at www.tibco.com.

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