

TIBCO ACTIVEMATRIX SERVICE GRID

AT A GLANCE

TIBCO ActiveMatrix Service Grid simplifies heterogeneous SOA by enabling IT organizations to turn Java or .NET/C#/VB/WCF, C++, Ruby, Spring business logic into services without writing the wrapper code, and graphically assemble, deploy, host, and manage these services together as composite applications on a unified runtime foundation.

BENEFITS

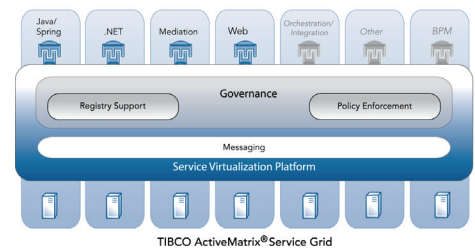
- **Grid-Based SCA:**
Reduces architectural complexity by providing a grid- and standards-based, technology-neutral platform with service containers for BPM, .NET/C#/WCF, C++, Ruby, Spring, Java, and other service technologies.
- **Highly Configurable:**
Allows developers to focus on business logic by replacing 20 to 40% of the technical code in a service with centralized configuration of transport and security. Built entirely on OSGI standards, the platform is extremely lightweight and modular. Administrators only deploy what is needed.
- **Unified GUI:**
Simplifies development and operations by providing a common Eclipse-based environment for service development, assembly, composition, governance, and testing, and a common web-based console for monitoring and management.
- **Service Virtualization:**
Simplifies management of composite apps by making heterogeneous services location, technology, and protocol independent through service virtualization.
- **Elastic Demand:**
Enables horizontal and vertical scaling at runtime with no disruption to service.
- **Built-In Governance:**
Increases operational control and security through built-in, standards-based policy and service management.
- **SLA Adherence:**
Improves responsiveness and adaptability with full support for the real-time, event-driven invocation of services and initiation of processes.

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, service orchestration, and even business processes 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 heavy memory footprint platforms for deploying and monitoring Java and .NET services, orchestration, BPM, 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, built on the SCA/OSGI standards, reduces the complexity and cost of heterogeneous SOA by enabling IT organizations to develop just the business logic with Java, .NET/C#/VB/WCF, C++, Ruby and Spring and to assemble, deploy, host, and manage heterogeneous services as composite applications on a unified low memory footprint foundation.



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

ATTRIBUTES & CAPABILITIES

Unified Foundation

ActiveMatrix Service Grid provides a unified design-time and runtime service framework based on the SCA/OSGI specification.

This eliminates the need for technology dependent "wrapper code" for service enablement and enables uniform and consistent operational and administrative management across BPM, Java, .NET/C#/VB/WCF, C++, Ruby, Spring, and other service infrastructures. It includes managed service execution environments for leading third-party technologies including Java and .NET. Developers can 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.

Containers extend the hosted runtime environment by adding configurable functionality such as BPM, 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. By providing support for both BPM and SOA on the same platform, developers and administrators can actively create and manage workflows and services on a unified platform while providing support for governance throughout the entire environment.

Distributed Grid Infrastructure

Provides scalability by leveraging 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.

Built-In Governance

Provides centralized policy management with distributed enforcement 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. Policy plug-in agents ensure that last mile security is fully addressed.

ActiveMatrix Service Grid also lets administrators configure, deploy, start, and stop service containers, BPM workflows, services, and composite applications, and monitor composite applications 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. Integrations with third party registries are also provided.

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 to TIBCO Business Studio provide extensive support for developing Java services and BPM workflows, 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.

PLATFORM

- Service Component Architecture (SCA)
- Open Services Gateway Initiative – (OSGI)
- Web services (SOAP, UDDI, WSDL, JMS, HTTP(S))
- Across the board SSL support
- JMX
- Eclipse platform
- Numerous WS-*:
 - WS-Addressing
 - WS-Eventing
 - WS-Enumeration
 - WS-Reliable Messaging
 - WS-Transfer
 - WS-I Basic Profile
 - WS-Security
 - WS-Policy
 - ... and others

About TIBCO

TIBCO Software Inc. (NASDAQ: TIBX) is a provider of infrastructure software for companies to use on-premise or as part of cloud computing environments. Whether it's efficient claims or trade processing, cross-selling products based on real-time customer behavior, or averting a crisis before it happens, TIBCO provides companies the two-second advantage™ - the ability to capture the right information, at the right time and act on it preemptively for a competitive advantage. More than 4,000 customers worldwide rely on TIBCO to manage information, decisions, processes and applications in real-time. Learn more at www.tibco.com.

Global Headquarters
3303 Hillview Avenue
Palo Alto, CA 94304

Tel: +1 650-846-1000
+1 800-420-8450
Fax: +1 650-846-1005

www.tibco.com

