

TIBCO ActiveSpaces

Features

In Memory Data Caching:

Speed access for demanding customer-facing applications to slow systems of record that are based on traditional data-storage technologies.

Shared Nothing Persistence:

Gain a fast system of record for tens of terabytes of operational data on inexpensive commodity or virtualized hardware.

Filtered and Indexed Continuous Queries:

Distribute rapidly changing incoming data to a number of receiving applications each interested in a subset of the data.

Remote Invocation:

Run a MapReduce-style compute grid in parallel across nodes, each processing locally stored data.

TIBCO ActiveSpaces® is a state-of-the-art, low-latency, secure, distributed, in-memory data storage technology that can also function as a system of record for terabytes of operational data.

As the volume, variety, and velocity of data grows exponentially, applications designed using traditional data storage technologies such as relational databases are not able to scale. Two technologies have come forward to address this need, in-memory data grids and NoSQL databases. TIBCO ActiveSpaces takes an approach that is the best of both. On the one hand, it stores data in memory on a cluster of machines for fast read access, and on the other hand, it provides distributed persistence on local file systems for very fast write performance.

21st Century Enterprise Data Storage Technology

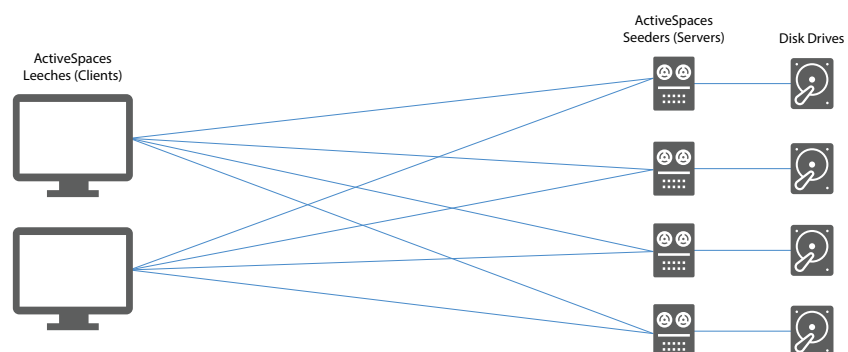
TIBCO ActiveSpaces provides a data storage solution for tens of terabytes of operational data and supports very fast operations on that data, without compromising quality, accuracy, or timely availability.

Low Investment

The system can scale on a cluster of inexpensive commodity or virtualized hardware. It is very easy to configure and maintain and has a very low TCO. With very easy-to-master APIs in Java, C, and .NET, and plugins for TIBCO BusinessWorks™ integration platform, TIBCO BusinessEvents® event processing solution, and TIBCO StreamBase® high-performance event processing platform, applications can be quickly developed and deployed into production.

Event-Enabled Enterprise

TIBCO ActiveSpaces can be the backbone on which your organization transforms itself into an Event-Enabled Enterprise. Any changes to the data stored in the TIBCO ActiveSpaces data grid can be pushed in real time to a number of receiving applications, filtered in a SQL-like language.



Features At A Glance

- The Best of Both—In-Memory Data Grids and NoSQL Databases
- Language and Platform Independence
- Active-Active Fault-Tolerance
- Persistence—Distributed on Local Disks or Centralized on a Database
- Comprehensive Security—Transport and Data Encryption, Member Authentication and Authorization
- ACID Compliant Transactions—Across Multiple Spaces
- Concurrency Control—Optimistic or Pessimistic
- Filtered and Indexed Snapshot and Continuous Queries
- Full Eventing Support—Callback Notifications or Iterator Continuous Queries
- Administration and Monitoring—Command-Line and Web-Browser Based
- Remote Clients—For Applications Outside the Firewall
- Built-in Transaction-Aware Routing—For Cross-Datacenter Replication
- TIBCO ActiveMatrix BusinessWorks™ Plugin—Integration with TIBCO Enterprise Service Bus

Attributes and Capabilities

Distributed In-Memory System of Record

Stores platform/language independent key-value data structures in memory with the option to persist data in parallel on local disks on a cluster of elastic, horizontally scalable commodity hardware.

Querying

Data can be queried using an SQL-like language and queries can be accelerated through full indexing capabilities including composite indexes and tree or hash index types. Indexes can be added or dropped on the fly.

High Performance ACID Compliant NoSQL Data Grid

Offers all the benefits of NoSQL databases while at the same time providing immediate consistency with full ACID compliance through support for transactions and concurrency control. Active-active in-memory fault tolerance and distributed persistence ensure durability.

Event Grid and Compute Grid

TIBCO ActiveSpaces provides real-time “push” eventing over the network to servers and client applications in two different manners: callback notifications or iterator continuous queries. MapReduce style processing with data affinity is available using the remote invocation feature.

NoSQL System of Record

With its unique shared nothing persistence, TIBCO ActiveSpaces provides very high write performance through distributed persistence to local disks.

Minimal Configuration and Easy-To-Use APIs

TIBCO ActiveSpaces uses a proprietary state-of-the-art consistent hashing algorithm that ensures a single network hop for fetching data. It does not need any partitioning or sharding configuration. No complex XML configuration files are involved, and APIs are very easy to learn and use.

Eventing and Compute Grid

TIBCO ActiveSpaces supports callback notifications for changes to the data grid. It also supports queries that are iterator based and can be either snapshot or continuous. Queries can be filtered using a SQL-like language and can also be indexed using hash or tree indexes. The remote invocation capability allows computation jobs to run in parallel and on local data.

Built-In Transactional Multi-Site Routing

The system allows for multi-site active/active deployment where changes happening on one site are automatically replicated to the other sites, including with transactional routing. (Either all or none of the writes included in a transaction are routed and replicated.)

TIBCO Software Inc. (NASDAQ: TIBX) is a global leader in infrastructure and business intelligence software. Whether it's optimizing inventory, cross-selling products, or averting crisis before it happens, TIBCO uniquely delivers the *Two-Second Advantage*®—the ability to capture the right information at the right time and act on it preemptively for a competitive advantage. With a broad mix of innovative products and services, customers around the world trust TIBCO as their strategic technology partner. Learn more about TIBCO at www.tibco.com.



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