actian®

Versant Object Database 9.1

Transforming Disruptive Technologies into Powerful Applications

Key Benefits

- Agile Development with Object Persistence

- High Performance Transaction Handling

- Multi-Threaded and Dual Cache Server Architecture

- Big Data Management with Distributed Databases

- Mission Critical Deployments with Enterprise Toolset

- Guaranteed Business Continuity

- Full Disaster Recovery Functionality

Managing Maximum Complexity in the Database Tier

Telecommunications infrastructure, transportation networks, financial service fraud detection and online gaming all share one of the most challenging aspects for application developers – domain complexity.

These type of application models are complex, often hierarchical, and continue to evolve together with the business. It is difficult and time consuming during development and expensive at run time to map application objects into a relational database and performance suffers. Using the Versant Object Database brings powerful advantages to application developers that use complex C++ or Java object models, have high concurrency requirements, or large data sets.
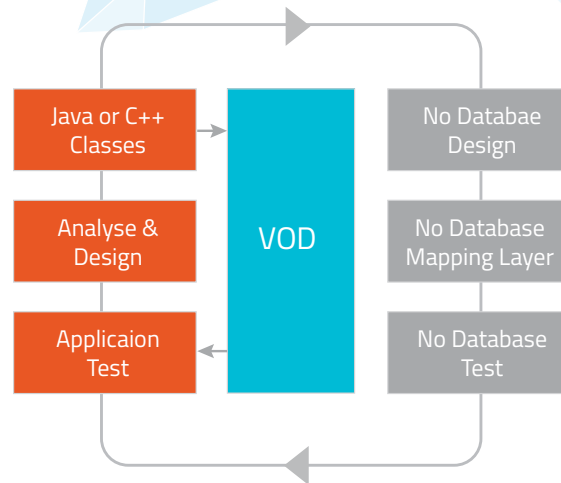
Agile Development w/ Native Object Persistence

The impedance mismatch between object oriented programming languages and traditional relational databases is well known. There is a good reason why object to relational mapping (orm) frameworks, tools and technologies have emerged to "cover up" this problem. And it is also well known that these ORM frameworks have their limitations, e.g., adding a significant performance overhead, requiring constant tweaking and a fair amount of manual coding, and not offering support to evolve the database schema.

For true agile software development, only native object persistence services, offered by Versant's C++ and Java APIs, will work and save up to 40% in development and maintenance costs.

High Performance Transaction Handling with Multi-Threaded and Dual Cache Server Architecture

Versant offers all transactional capabilities of a robust Enterprise database, including the support of ACID transactions, distributed two phase commit, interfaces to third party transaction monitoring systems such as Tivoli, optimistic and pessimistic locking schemes. Versant's two level cache and multi-session/multi-threaded architecture is optimized for today's high performance multi-socket/multi-core server hardware and scales linearly.

- Transparent Object Persistence
- High Performance Transaction Handling
- Support for Standards (JD)
- Faster Development / Shorter Sprints
- Fine-Grain Concurrency Control
- More Concurrent Users
- Faster Data Access

Java or C++ Classes		No Databae Design
Analyse & Design	VOD	No Database Mapping Layer
Applicaion Test		No Database Test

Big Data Management w/ Distributed Databases

Partitioning and replicating databases is important to horizontally scale out Big Data applications. The Versant distributed server architecture allows the developer to design database and server architectures that expand over time as the data volume and the data access grows.

Mission Critical Deployments w/ Enterprise Toolset

Ensuring 99.99% availability of the Versant databases is accomplished with a number of data center tools and technologies that can be deployed in addition to the Versant Object Database. Versant supports rigid Service Level Agreements (SLAs) in mission critical industries such as telecommunication, transportation and financial services.

Business Continuity

Versant Fault Tolerant Server (FTS) is a hot stand by back up server that continuously maintains the identical state of the primary server via a coordinated distributed two phase transaction protocol. Therefore FTS can take over database operations within a configurable timeout measured in seconds.

In addition, all database maintenance tasks such as backup and reorg can be performed while the database server stays online.

Disaster Recovery

In the unlikely event of a database server failure or a natural disaster that may shut down the data center, Versant provides additional backup and stand by options to support off premise operations (e.g., operated in a different geographic location) as well as tools to restart an aborted database server in as little time as possible.
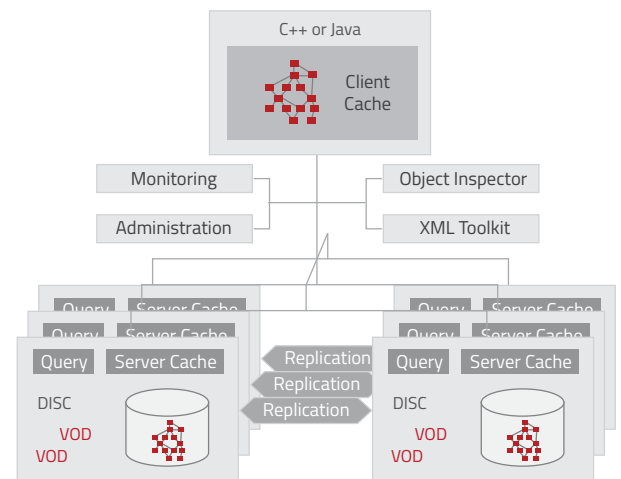
- High Availability
- Fault Tolerant Server
- Asynchronous Replication
- Multi-Threading, Multi-Session
- Improved Multi-Core Scalability
- Improved Admin Tools (Monitoring, DBcheck, DBreorg)
- Black Box Recorder and Analysis

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