



# IC Manage Perforce Infrastructure Solutions

## Application Infrastructure Scalability

IC Manage's Perforce Infrastructure Solutions deliver the infrastructure needed to support large build environments, large verification efforts, large regression tests, and broadly distributed development teams. They provide proper integration with existing IT infrastructure, such as backup systems and SAN storage systems, while maintaining high performance. The Infrastructure Solutions provide increased Perforce performance, data replication, hot-backup, data distribution, disaster recovery, data push, and automatic workspace synchronization. There are 3 Infrastructure Solutions available:

**IC Manage Replication Engine - for Non-stop Perforce.** Replicate data in real time to another server or another location. Obtain high availability, offsite replication, and hot backups.

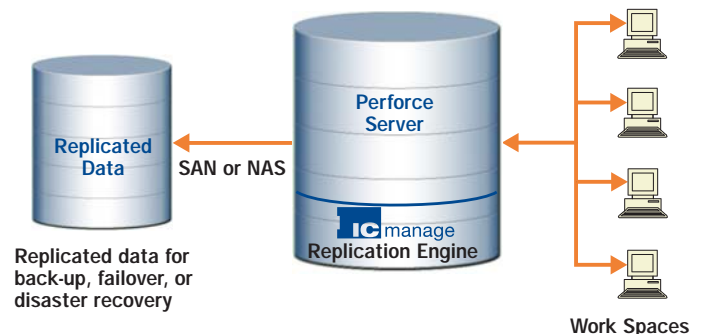
**IC Manage Sync Engine.** Automatically and quickly push data to multiple workspaces. Reduce the Perforce server load. Keep workspaces up to date.

**IC Manage Super Proxy.** Control which commands go to the Perforce server or route requests to a read-only server copy. Avoid Perforce server overload.

## IC Manage Replication Engine - for Non-Stop Perforce

The IC Manage Replication Engine provides automatic failover capabilities for non-stop enterprise availability, as well as load balancing read-only servers for regression, build and verification environments. The replication is performed continuously, making it effectively real time. Data transfer occurs in a transactionally consistent manner and a complete delta protocol is used to minimize bandwidth and optimize replication time.

- **Disaster recovery.** The IC Manage Replication Engine supports redundant configurations with multiple peers in different regions across the WAN. In the event of a total loss scenario in the local data center, the remote data center can immediately take over operation without the need for recovery from tape or backup.
- **High availability.** The Replication Engine delivers high availability through automatic failover. A pair of servers can be configured to replicate to each other in real time and provide Perforce service via a virtual IP address. In the event of a failure, one server can automatically take over from the other, in a manner that is completely transparent to the end user.
- **Back-up integration.** With the IC Manage Replication Engine's hot backup, the Perforce database does not need to be in a quiescent state to perform backup. This provides non-stop availability of the depot across multiple time zones without purchasing special hardware or software.
- **Load balancing read-only servers.** The IC Manage Replication Engine can be configured to perform database only or complete database and depot replication to scale query and sync operations. Read-only servers can be placed on the LAN or



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WAN and provide increased performance by removing throttling database locks from the main server and providing maximum performance on the replica itself. For WAN users, locally installed read-only servers can provide a massive performance improvement.

- **High performance accelerators.** When Perforce runs on a SAN or NAS storage system, the performance can be heavily impacted. The increased latency for lock operations and limited read/write performance can significantly reduce overall Perforce throughput.

The Replication Engine running on a high performance DAS I/O subsystem can provide high performance without sacrificing the advanced storage management and reliability of corporate IT systems. By copying both database and depot files in real time onto the global IT infrastructure, it delivers both performance and reliability.

