

ADVANCED MESSAGING DATABASE

AMPS Keeps the Beat: HA and Replication

AMPS Doesn't Stop Cranking

At 60East, we know that your messages are your business. They're the data that keeps your business alive. You can't afford to lose messages, even in the event of hardware failure or a network outage. You can't afford to have a client fail to publish a critical message. You can't afford for different sites to have different versions of the truth, but you also can't afford to have messaging slow down when you publish over a WAN.

AMPS, the Advanced Message Processing System from 60East, is designed to keep cranking under your most demanding workloads. AMPS includes high-availability (HA) features and replication to help your application keep cranking. These features are built into the AMPS engine. AMPS replication requires no shared storage, specific networking equipment, complicated management solutions, or operating system support.

Preserve and Protect Messages

AMPS provides replication to ensure that messages are efficiently distributed between instances without message loss. AMPS replication is peer-to-peer, which means that you can create the replication network that works for your application needs and network topology.

High performance design means that replication adds almost no detectable latency to message delivery to subscribers. AMPS replication occurs out of the main code path for message publication.

Transaction logging keeps a record of the unique messages that AMPS processes. The AMPS transaction log is fully queryable and provides the ability to replay messages, starting at a specific message or a specific point in time.

Replication filtering allows AMPS to filter messages by topic, or by the content within a message. You can use the same filter for multiple destinations, or provide unique filters for each destination. This additional selectivity preserves bandwidth on expensive network connections. Your application replicates only messages that each destination needs.

Synchronous replication, where AMPS does not acknowledge a message to the publisher until all synchronous destinations have written the message to disk. This allows you to easily build an up-to-date hot-hot replica.

Asynchronous replication, where AMPS acknowledges the message as soon as the initial AMPS instance has written the message to disk. This is particularly useful for creating AMPS instances across a WAN, or for writing to slower offsite storage for disaster recovery.

The features work together. For example, you could use the same content filter for synchronous replication to a hot standby, asynchronous replication to a regional office, and asynchronous replication to a disaster recovery site.

Stay Connected

Your applications have to stay connected. The AMPS client libraries help ensure that your applications can keep going, including:

Heartbeat monitoring, so you can determine if a server is unreachable. The heartbeat is fully configurable, so you can decide how long to wait before failover, and even set the heartbeat interval differently if your application detects that it is on a slow connection versus a local network.

Easy disconnect handling so that network issues don't stop your application. The AMPS client libraries automatically handle disconnection and reconnect to AMPS.

Automatic failover ensures that your client connects to an active server if the server you are connected to is unreachable. Automatic failover works with the following features to protect against message loss and eliminate the need to reconcile state after failover.

Local message stores, so your application knows which messages have been processed. These stores can be persistent, so your application will pick up where it left off even in cases where the application restarts.

Message replay and bookmark subscriptions. The high availability clients track the messages received, and on failover they can automatically use message replay from the transaction log to ensure that they never miss a message.

To learn more about how AMPS high availability makes it easy to create highly-available low-latency messaging solutions, contact us at info@crankuptheamps.com. Or visit our website today to download an evaluation copy and CRANK UP THE AMPS!

