Market Requirements Document

Feature Name: Partial Backup and Restore

Version: 1   **Date Submitted:** 01/26/05

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Description of the Problem

The oobackup tool performs referentially correct full or incremental backups of a federated database. It will not work properly if it is unable to reach all of the databases, e.g. if an autonomous partition is unavailable.

Description of the Requested Feature

The oobackup tool, associated APIs and Assist plug-ins should provide the current facilities plus:

* The ability to backup a list of autonomous partitions.
* The ability to backup a list of databases.

The oorestore tool, associated APIs and Assist plug-ins should be able to restore a self-consistent group of partitions and databases from a partial backup.

It is probably impossible to guarantee the logical and semantic integrity of the federation if partial backups are allowed. For instance, a restored database might contain an object with an association to an object that has re-used an OID that existed at the time of the partial backup. Or, an application might scan a list of objects in one database and then update a count in an object in another database that doesn't get backed up. So, the documentation for the partial backup facility should highlight the implications and oobackup should warn the user about obvious pitfalls. It may be useful to have a "check" mode.

Part of an existing feature or does it require another feature, if so, which one?

This is an addition to (at least) the oobackup and oorestore tools and their associated APIs and plug-ins.

How is this problem being solved now, and why isn't that acceptable?

Customers are probably using unsafe external backup mechanisms.

What languages must support this capability?

- The tool should be language independent, but the APIs need to be available in C++ and Java..

Which platforms must be supported?

- All platforms.

Do any competitors already have this feature?

- Sybase.

Customers who require this feature

- Customers with large numbers of databases or federations with databases at multiple sites.

Revenue at risk, or which could be won

- This feature will enhance the performance and reliability of our product.

When is this required?

- Release 10.

Additional Notes

1. We will also need:

- Marketing collateral.

- Updated Technical Publications.

- New QA material.

2. It may be worth keeping a list of associated (by OID, reference or index) databases in each database catalog, to make it easier to warn a user of potential loss of referential integrity.