CATALOGIC
SOFTWARE

SHEET segment:

Catalogic ECX: Copy Data Management for Oracle Databases

Catalog. Automate. Transform.

ECX for Oracle Highlights

- Automate the creation and use of Oracle copy data—snapshots, vaults, clones, and replicas – on existing enterprise storage infrastructure.

- Agentless model simplifies management while still providing application awareness.

- Integrated data masking keeps information secure.

- APIs allow integration with popular DevOps tools.

- Supports cataloging to RMAN.

- Automate Oracle test and development infrastructure provisioning, reducing management time as much as 99%.

- Oracle log capture provides point-in-time recovery.

- Simple licensing based on storage controllers.

- Supports a multi-vendor selection of storage arrays, including systems from DellEMC, IBM, NetApp and Pure Storage.

Oracle databases are a fundamental component of many organization's most critical business processes. As such, copies of Oracle data are needed for many IT functions, including local and remote recovery, development and test, reporting, compliance and so on. According to IDC, over 80% of organizations maintain more than ten copies of every Oracle database instance at any given time. Not only does this create a massive infrastructure cost penalty, but the ongoing demand for copies also consumes valuable IT staff time and effort.

For this reason, Copy Data Management (CDM) is fast-becoming a must-have solution for any enterprise Oracle environment. ECX integrates storage array copy processes (snapshots, replication, clones) with Oracle, allowing customers to leverage their existing storage infrastructure to eliminate copy sprawl, while dramatically improving their capabilities to deliver fresh copies of key databases to those functions and business units that demand them.

The First Step: Automating the Copy Process

Because of the unique characteristics of most Oracle environments (high I/O, need for continuous uptime, strict protection SLAs, etc.), performing copy creation and management requires knowledge of the database management system and specific points of integration to ensure that the copy process has minimal impact, completes successfully, and results in application consistent copies every time. The bi-product of proper CDM is the end of copy data sprawl, as the ad-hoc and unmanaged processes for creating copies quickly are eliminated in favor of a centralized, holistic approach.

With ECX, users create copy policies that define key copy metrics: how often to make copies, where the copies will reside (local, remote or both), how long copies are retained and so on. Once a policy is created, it can easily be applied to any Oracle workload. No more complex scripting or working with multiple tools; just click-and-apply ease of use.

The ECX copy process is agentless. Rather than having to deploy and maintain agents across all Oracle hosts, ECX uses a run-time code injection method that gives you the benefits of an agent – true application awareness – without the maintenance headaches.

The meta-data catalog at the core of ECX tracks all copies, making them searchable and reportable. ECX also handles the deletion of copies, ensuring that you only retain the data you really need.

Using Data Copies: Automation and Self-Service

While copy creation is the starting function of ECX, the true value shows itself in using Oracle data copies. It is not uncommon for IT organizations to spend significant staff time and effort creating, moving and delivering copies of Oracle data. In many cases, each copy requires coordinating multiple teams, seeking layers of approvals, and then finally waiting for a slow copy process to

complete. End to end this process can take several days (considered fast!) to several weeks (more typical). The result is often data that is stale when it arrives with subsequent impacts to project quality and timeliness.

Imagine if you could automate the entire process, or hand it off via a user self-service portal, all while being able to deliver fresh copies of data in only minutes? With ECX you can! Application consistent copies of Oracle can be automatically mapped to host servers every day, ready to go when the work day begins. Ad hoc requests can be satisfied with a few clicks. Self-service access means that IT can relieve itself of the daily grind of copy provisioning while still retaining ultimate control and not giving direct access to storage systems.

For example, using the ECX self-service portal, a developer could spin up their own Oracle copies whenever they needed them, but they would be restricted to a set number of copies coming from a pre-defined set of storage volumes. This prevents abuse of infrastructure and maintains security.

The benefits of ECX copy delivery are even more pronounced when used in conjunction with all-flash storage arrays. The high I/O of these systems allows zero-footprint snapshot copies to run at production speeds, even when servicing multiple workloads from the same copy.

Data Protection and Disaster Recovery

Through its template-based management and orchestration of application-aware Oracle copies, ECX becomes a powerful solution for next generation data protection and recovery. You can skip traditional backup completely and move to a snap-and-replicate model that provides near instant protection and rapid recovery. Compared to the slow restores of traditional backup, ECX allows IT to mount and instantly access copies that are already in the production storage environment. ECX catalogs all snapshots and replicas and alerts you if a snap

or replication job was missed or failed. Disaster recovery can be fully automated and tested non-disruptively.

Efficient, Reusable Data Masking

Most organizations use data masking to some degree in order to obfuscate sensitive Oracle data. But the data masking process can add significant overhead to copy creation and can limit the number of copies made available. With ECX, masked copies of Oracle can be created which can then be distributed to any number of users. In this way, a single masking operation can serve the needs of multiple data consumers.

Complete Dev-Test Automation

With ECX, fully masked data copies can be delivered automatically to Dev-Test teams, allowing them to work with true production data sets that contain fresh data. Experience shows that using fresh production data leads to fewer bugs and faster development cycles.

Dev-Ops Tool Support via APIs

All ECX features can be controlled via the ECX RESTful API. This means that ECX offers true "infrastructure as code" to agile, DevOps environments that require copies of Oracle data. With a single line of code from a DevOps tool, developers can bring up Oracle data copies or even full working systems (storage, networking and compute, defined as needed). Catalogic supports popular DevOps tools such as Chef, Puppet, Ansible, IBM Bluemix, IBM UrbanCode and more. In addition, Catalogic offers pre-built scripts to help with DevOps integration, as well as plug-in tools.

RMAN Integration

Oracle users are deeply committed to RMAN (Oracle Recovery Manager) and use it every day. ECX works with RMAN by feeding information about ECX generated copies into the RMAN catalog. This provides visibility via RMAN, and in addition users can drive Oracle data recoveries using RMAN scripts in conjunction with ECX provided copies.

Oracle Log Management

Array snapshots are an excellent way to capture large data sets quickly, but Oracle transactions will continue to take place in-between snapshots. For this reason, ECX includes Oracle log capturing. By keeping track of logs, ECX can provide point-in-time recovery to transactional points that fall between snapshot captures. This also allows rolling forward to a point more recent than the last snapshot.

Simple Licensing

Unlike other solutions that require complex licensing based on data size, CPU cores, Oracle instances or other metrics subject to continual change and increase, Catalogic uses a simple storage controller-based licensing system. License the storage controllers you wish to use with Catalogic copy data management, and there are no concerns about data size, number of Oracle instances, etc.