

Catalogic ECX

Intelligent Copy Data Management

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Overview

CDM platform

Challenges - growth, manageability, business agility

Drowning in a deluge of copy data

Most of these copies sit completely idle

Correlation with location and application

Take your storage (NTAP in this example) + CDM platform (downloadable VM, agentless)

Copy data leverage - orchestration and automation

Next Gen Data protection - instant recovery and DR leveraging snap data

Killer App for Hybrid Cloud - leverage cloud "scale and economics"

Copy Data Analytics - snapshots, file analytics, protection compliance. Search, report and analyse.

Not in-line, using public APIs to orchestrate

Tape's not dead, it's just not used for operational recovery. Use it for archive.

Deployments

Clustered ONTAP - orchestrate and automate, mgmt by exception

Flexpod - new use cases based on orchestration

Flash - leverage flash for multi use cases, differentiate

Infrastructure Optimisation - snapshot, file analytics and RPO / RTO compliance

CDM policy - catalog data, copy data, use data, analyse data

Simple deployment

Copy Data Mgmt - what? simple process for snaps, steps audited, exception reporting compliance lets you know when something stops working

data access - instant access - mount clones of backup data and run from a clone, promote the clone to prod if desired

instant virtualisation - multiple app environments, auto create a new VM with proper container, instant VM in sandbox, Small footprint - leverages Flexclone

Test - bought up in a fenced environment

Clone - create separate running copies of the original VMs within a fenced environment for an extended period of time

Production - restore the prod VMs to the state contained within the selected snapshots. Restore overwrites the original VMs with the restored images

Report and analyse - understand where your data is and its copies

Priced per controller (S / M / L) - perpetual license

Savings depend on how you're overprotected and under-protected

ECX Architecture

Downloadable VM or vApp

Scalable and extensible

providers, policy and services drive CLAW (Close-loop Automated Workflow)

robust REST APIs for MSP integration

Additional providers coming soon

Market Place

"Data Copy" Landscape

We're not gonna build out what you already have. Visibility and catalog of what you already have

Open Systems only solution

Live Demo

Configure - uses a provider model (one-time registration process for the NTAP controller or VMware)

ECX as an abstraction layer - workflow, notification, submit

Site-based model

VMs and Templates or datastore view

[photo]

VM snapshots are quiesced sequentially

Creating trees of snapshots via workflow

Everything is driven via REST API

Is it a replacement for backup? No. But businesses are struggling with traditional backup and recovery methods. Combination of snapshots and tapes is appealing for some people.

"Doesn't replace it, but reduces the dependency on backups"

Searching the catalogue is pretty cool. They don't crack open the VMDK to catalogue, but it's been requested by a lot of people and is on their radar.

File analytics

Protection Compliance

Storage Protection

Storage Utilisation

System Management - list VMs based on power state, can be used for test / DR VM sprawl

Setup scheduled, e-mail reports, role-based views for read-only viewing

Architecture and Roadmap

Kamlesh Lad

Architecture

Layer 0 - OS Services (Linux)

Layer 1 - Core Services - NoSQL (MongoDB) amongst them, scheduler, reporting, dir, lic mgmt, index search, web, java / REST, DBMS (PostgreSQL), Messaging ECX MGMT REST APIs

Layer 2 - Management Services - account, policy, job, catalog, report, resource, event, alert, provision, search

Layer 3 - Policy-based Services - NTAP catalog, VMware catalog, NTAP CDM, VMware CDM

HTTPS

Layer 4 - Presentation Services

[photo]

Storage Provider

Compute Provider

Identity Provider

Roadmap

RBAC

Allow granular access to infrastructure and workflows

Working to provide different access methods - GUI, REST API

Storage Admin

Application Owners

Developers, DevOps, REST API

Operators

VMware CDM Overview

CDM from any source

VMs stored as storage snapshots

Leverage copy data services on storage system

Any storage -> Snapshots or ECX data mover -> Advanced storage system

VMware - Copy Data Workflow

Agentless

Automated workflow - capture VMs, app consistent, replication, auto provision target storage

Storage snapshots

CBT - VMware change block tracking

VMware - Use Data Workflow

Reuse - from any replica, from primary snapshots, instant!

Reuse - instant virtualisation, RRP (?)

App Consistent
VSS - Microsoft Apps, Oracle (Windows only)

App Consistent (ECX App Helper)
Agentless code injection into VM
Transaction log management and backup - Exchange, Sharepoint, MSSQL, Oracle
Multi-node - SharePoint Farms, Oracle RAC, Exchange DAG

Oracle RAC - Copy data workflow
put database in backup mode
VMware and hardware snapshot or data movement
archive and backup t logs
capture ORA configuration files
catalog all artefacts in ECX
Sync with RMAN Catalogue

Multi-Vendor (MV) Storage Provider
MV SP modelled after SMI-S - if not functional in SMI-S, call native API
Provides abstraction for app services (VMware, Hyper-V, etc)
App Services will call MV Storage Provider

ECX Service Worker -> ECX MV SP -> Use Native or SMI-S -> Native API or -> SMI-S

Use Cases

Steve Kenniston

Copy data leverage
Businesses make multiple copies of their data, why?
- easy to turn on
- in hopes of using them in recovery
- in hopes of using them for other business solutions

Reality

...

Present - DR is a long and involved process

With ECX - Scalable, Repeatable, test and verify daily, auditable, automated,
happens every day

CDM solves the data management deluge