

Recovery Appliance Results Dialog Semiconductor

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Agenda

- Dialog Semiconductor
- Why Recovery Appliance?
- Current system setup at Dialog
- Recovery Appliance results we achieved
- Other positive side effects
- Recovery Appliance as part of our future strategy

Dialog at a Glance

HQ: London, UK | Founded: 1981 | Listing: Frankfurt (DLG)

Dialog Semiconductor is a leading provider of custom and highly-integrated Configurable Mixed-signal ICs, including power management, power conversion, and connectivity technologies, backed by world-class manufacturing partners.



Increased focus on fast-growing segments of mobile, IoT, automotive and computing & storage applications



Global design centers, broad direct sales and distribution channels, including excellence in customer support



A fabless manufacturing model, with production, assembly and packaging fully outsourced



Leading innovator in Bluetooth® low energy technology



#1 supplier of PMICs, sub-PMICs and Configurable Mixed-signal ICs (CMICs)

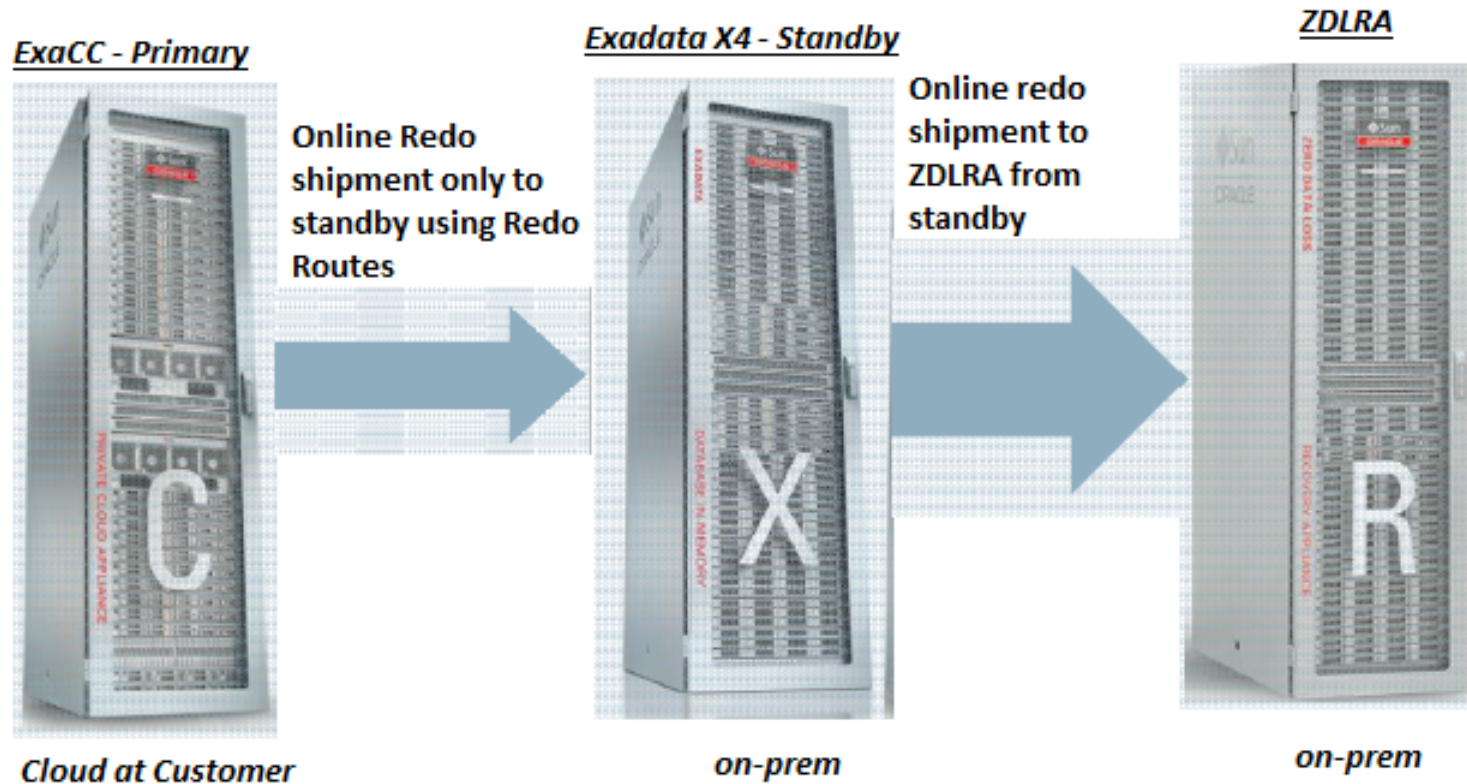


Track record of revenue growth and a strong cash generative business model

Why Dialog Chose Recovery Appliance?

- **Requirement to modernize backup/recovery solution for SLAs:**
 - Could no longer meet Recovery Time Objective (RTO) with existing solution
 - Too much overhead on production servers due to backup operations
 - Address current data growth challenges and longer-term expectations
 - Product roadmap align with strategic direction of moving to Oracle Public Cloud
- **Recovery Appliance delivered key advantages:**
 - Incremental forever backup strategy –
 - Faster backups, less overhead on network and DB server
 - Reduced RPO an important business objective
 - Very beneficial feature during decision phase
 - Operational efficiencies managing Oracle Database backup/recovery
 - Oracle wall-to-wall responsibility instead of multiple different vendors

Our current setup



- No backup load on primary
- Real time redo log shipping is enabled from Standby using redo routes
- In addition we run an OCC for application servers – close to the database

Recovery Appliance Results We Achieved

Results Achieved	Recovery Appliance	Previous Solution
4x Better RTO	12 hours	48 hours
NO More Full Backups	Incremental forever (Initial L0 – 10 hours*)	Weekly L0 – 38 hours
2x Faster daily backups	1.5 hours (L1)	3+ hours (L1)
Eliminated periodic archived log backups	Real-time redo enabled, RPO <1 second	archived logs backed up every 4hrs (data loss exposure)
100% of Backups Now Validated	Automatically validates backups – No overhead on database server	Never validated

*Incremental forever after initial full backup

Two positive side effects of the low RTO with Recovery Appliance

- Simplified migration of databases to our new environment in 2018:
 - Prod databases backup to Recovery Appliance
 - Restore virtual full backup from Recovery Appliance to the new environment
 - Add the restored DB as a standby
 - Data Guard switchover to new environment in <5 minutes

→ *No load on primary database during migration and higher restore speed compared to standard backup process*

- Simplified database cloning using backups on Recovery Appliance:
 - Restore virtual full backup of production DB into staging system

→ *Nice way to get test/dev refreshed with exact copy of production without overhead on primary database and satisfies compliance requirement to periodically restore backups*

How Recovery Appliance Fits in Our Strategic Data Center Plans

- Dialog is on a journey into the public cloud:
 - Consolidating all Oracle Databases and selected application servers onto ExaCC, OCC and on-premise Recovery Appliance
 - Intermediate step to Oracle Public Cloud (OPC)
 - Plan to then migrate in future to OPC
 - Waiting for a Recovery Appliance Cloud Service (public cloud) and completion of consolidation project to Cloud at Customer environment
 - If not available we've to use standard RMAN backup into object storage within OPC
- Validation of database consolidation achieving operational consistency with public cloud next steps
 - Leverage same, validated infrastructure in public cloud
 - Achieve same RTO and RPO in public cloud as of today on premise



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