

migrating Oracle databases without downtime

Atos Operational Live Migration tool (OLM)

Migrating Oracle databases frequently gives organizations opportunities to benefit from a more powerful and secure environment while reducing costs. Switching to Escala POWER8 servers give you outstanding performance with extreme security and reliability.

Databases are mission-critical for business. Downtime is not an option. As a consequence, platform migration is often perceived as risky, complex and labor intensive. Moreover, migration projects often overrun in terms of time and budget.

In order to help customers overcome these issues, Atos experts have put all their knowledge into a database migration solution with an automated tool at its core: Operational Live Migration (OLM).

Your benefits

- ▶ No downtime of business critical applications
- ▶ Short migration duration
- ▶ Risk-free migration process
- ▶ Short test cycles
- ▶ No budget and project duration overruns
- ▶ Significant TCO savings by switching to Escala

Escala, leading platform for Oracle databases

With a scalability of up to 192 POWER8 cores and leading IO and memory bandwidth, Escala has earned the reputation for being the most powerful and scalable database server.

The key advantage for Oracle customers is the outstanding performance per core delivered by POWER8. With its 2-4x per core performance advantage over competing architectures, Escala provides leading TCO advantages for customers, as Oracle licenses are most often based on a per core licensing model.

Our solution

Operational Live Migration (OLM) is a unique easy-to-use migration tool, designed and developed by Atos, which allows automated migration of Oracle databases from HP-UX, Solaris or AIX platforms to Escala/AIX without impacting application uptime.

OLM is the cornerstone of a global, structured and proven three-step approach:

- ▶ **Analysis**
An audit of the current infrastructure is performed with identification of your operational needs, constraints and key success factors. Atos experts will provide you a detailed report with the recommended migration strategy, as well as duration and cost estimation.
- ▶ **Migration**
The migration starts with the extraction of the data and their copy onto the new Escala server. In case of "no-downtime" migration, OLM will synchronize the source and target databases.

Implementation and tests

Once the data migration is completed, the new environment is validated and tested with the customer's applications before switching the production database to the new Escala server.

As an Oracle Platinum Partner, Atos experts can then provide you additional services tailored to your specific needs.

Key characteristics

Using a structured, efficient and well documented process, OLM offers the following advantages:

- ▶ **No or minimal downtime:** OLM has been designed with no disruption of production in mind. If zero downtime is not feasible, consistency between the source and target databases is maintained as long as necessary.
- ▶ **Risk-free:** using Oracle native tools, OLM ensures reliability and data integrity. Moreover, a fallback facility is available in case unexpected issues arise.
- ▶ **Painless migration:** with OLM, qualified Atos engineers ensure a safe and automated migration without fastidious and risky manual tasks.
- ▶ **Optimized duration:** OLM uses Escala and Oracle parallel processing techniques. In addition, only data that are needed are moved on the new server.
- ▶ **Short test cycle:** automation eliminates unpredictable migration issues during the validation phase of the database migration.

Seamless migration of Oracle databases with Operational Live Migration (OLM)

Migration without downtime

OLM is the ideal solution for customers seeking to migrate their databases with no application downtime - providing continuous or near-continuous operations to users. This OLM capability is available for servers running Oracle Database Enterprise Edition version 10g or above.

For the initial load of the data from the source to the target, OLM uses Oracle Data Pump, Oracle Export/Import or Oracle DBlink utilities.

To maintain synchronization between the source and target databases, OLM uses Oracle Streams. Any data change in the source database is automatically detected and reflected over the network to the target database.

During the entire process, the source database is running and can be fully utilized by users. The only downtime that users will experience is during the final users and application switch from the original server to the new server.

OLM offers “no-downtime” Oracle migrations to the Atos Escala AIX server range and allows reducing Oracle TCO through risk-free consolidation of your legacy UNIX platforms.

OLM toolkit

The OLM toolkit used by Atos qualified engineers guarantees a successful migration. It includes two separate components:

- ▶ **A qualification tool** which aims to define a migration scenario suited to the infrastructure and database characteristics. It highlights, in particular, criteria that can prevent a “no-downtime” migration. The qualification tool also verifies if enough space and resources are available on both servers in order to support the migration process.
- ▶ **The migration tool** which automates the database migration according to the previously defined scenario. OLM offers an intuitive GUI to help Atos qualified engineers in the migration process with step-by-step guidance. It also monitors the migration progress showing the status of each step. Moreover it offers the ability to generate comprehensive migration reports and log files.

Atos and Oracle

Atos and Oracle have a long term partnership with over 1,500 Oracle certified Atos business technologists.

Atos is one of the top Oracle database hosting providers managing over 4,200 hosted databases.

Escala is the leading platform for running business critical Oracle databases, due to their outstanding core and system performance, security, and mainframe level RAS (reliability, availability and serviceability) capabilities. Today, more than 90% of our Escala servers are running Oracle databases.

Certified Atos experts provide customers with leading competence in terms of consulting and managed services while providing the best TCO/ROI for mission-critical environments.

OPERATIONAL LIVE MIGRATION (OLM)

Source server	Oracle/Sun Solaris, HP/HP-UX or AIX
Target server	Bull Escala/AIX POWER8 & POWER7
Oracle database edition	Standard and Enterprise editions
Source database version	Oracle 9i, 10g, 11g or 12c
Target database version	Oracle 10g, 11g or 12c
LAN network	At least 100Mb/s for databases less than 500 Gbytes, 1Gb/s for databases greater than 500 Gbytes
Supported storage	Any bay supported by the server

For more information: atos.net/escala

atos.net

All trademarks are the property of their respective owners. Atos, the Atos logo, Atos Consulting, Atos Worldgrid, Worldline, BlueKiwi, Bull, Canopy the Open Cloud Company, Yunano, Zero Email, Zero Email Certified and The Zero Email Company are registered trademarks of the Atos group. Atos reserves the right to modify this document at any time without notice. Some offerings or parts of offerings described in this document may not be available locally. Please contact your local Atos office for information regarding the offerings available in your country. This document does not represent a contractual commitment - June 2015. © 2015 Atos

This brochure is printed on paper combining 40% eco-certified fibers from sustainable forests management and 60% recycled fibers in line with current environment standards (ISO 14001).



Atos