Delivering transformation: A proven way to modernize your Oracle database technology platform

Smart organizations are accelerating their digital transformations and minimizing risk by following proven delivery approaches. Discover how you can too.

Simon Rice,
VP Enterprise Services

Rice leads a global team of Cintra consultants covering Oracle Enterprise Architecture, Database, Data Integration, Middleware, Business Intelligence and Cloud technologies. He has over 20 years' Oracle experience, gained working at a number of blue-chip organizations including Centrica, Telefónica/O2 and Pfizer.

Transforming and modernizing the platform that powers your organization's critical Oracle databases and the associated applications can deliver numerous benefits for your business, customers, staff and shareholders.

As we discussed previously, this process will typically form part of a wider business transformation program that puts your organization on a path towards the use of hybrid cloud infrastructure to underpin operations. This will see you minimizing the number of vendors in your enterprise architecture by consolidating workloads onto shared platforms.

For your Oracle databases and associated applications, the best platform will almost always be one using Oracle Engineered Systems, for reasons we've talked about.

In this final piece, we'll reveal what you need to know about delivering a technology transformation project. And while we'll frame it around Oracle, the overall approach can be applied to any technology, meaning you can use it for other parts of your enterprise architecture as well.

Delivering benefits fast

Delivering this type of technology transformation needn't take years: when gone about in the right way, it's possible to design, build and deliver a new Oracle Engineered Systems platform for your Oracle databases in as little as six months.

More than technology alone

A mistake many organizations make when attempting to modernize their critical platforms is failing to appreciate there's more to it than technology. The people and business process sides are equally important if you're to realize the benefits you forecast in your business case.

New roles and responsibilities

Major technology transformations require roles to change. Traditionally, you'll have had dedicated teams looking after database, operating system, storage and networking. On a hyper-converged platform, one team can look after all areas. This means expanding the responsibilities of your database administrators (DBAs) to become database architects, with responsibility for the full technology stack. Make sure you arrange appropriate training, and, particularly in the early days, have external expertise available to call on for additional support when you need it.

Allaying job security fears in the technology team

Role changes can unsettle technology teams, who fear for their jobs because existing skills don't translate to the new technology, and because the hyper-converged platform can be managed by fewer people.

In reality, these changes represent an exciting opportunity for technology teams. For those who remain on the platform management side, there's the chance to learn new, modern skills and take greater responsibility. Others can be redeployed to take on roles that deliver significantly higher value to the business, including in data analysis and creating insights that drive better decisions.

And by moving to a modern platform, your technology function will be able to offer a step-change improvement in the service it provides your organization. For everyone involved, this dramatically increases the value of the technology team to the organization, thereby improving job security for all involved.

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Delivering your database technology modernization

Transforming your technology platform can seem like a complex and daunting task. But by following a proven approach, such as the one below, you can minimize risk and accelerate delivery times.

Stage 1: Assess your existing database technology architecture

The first step is to understand where you're coming from. Assess your existing technology architecture to establish what it's made up of, what's running on it and how well it supports these workloads. A good method is to use a scorecard that looks at security, availability, data protection, agility, cloud-readiness, customer experience, license optimization and other areas. This will show up key strengths and weaknesses.

Stage 2: Define your modernization strategy

By understanding your existing architecture and the workloads it supports, you can set out your high-level strategy for a hyper-converged technology architecture.

Part of the strategy should be an approach for categorizing database workloads, based on business-criticality. A three-level gold/silver/bronze method usually works well. This enables you to procure the right technology to support each workload, and to prioritize investment, service level requirements and provisioning strategies. It will also help you deliver a responsive and robust Database as a Service (DBaaS) capability, because you'll have a defined framework within which to set up any new environment that's required.

Stage 3: Design your modernized platform and plan the transition

Using the categories you've defined, tier your database workloads. Then you can design the new hyper-converged technology platform, using the most appropriate products for each tier.

For your Oracle databases, the best platform will almost invariably be one made up of Oracle Engineered Systems.

For most Oracle database workloads and the associated applications (even non-Oracle ones), your first consideration should be the Oracle Database Appliance (ODA), unless extreme performance is required, in which case, consider an Exadata Database Machine. Alongside these primary server/storage combination appliances, it's best practice to include dedicated storage, such as ZFS Storage Appliance.

This will enable you to grow your database platform sustainably by implementing tiered storage architecture, where you strategically (and automatically) move lower-value data off your ODA or Exadata to lower-cost storage. It will also provide a low-cost, reliable and production-like test and development platform. Lastly, think about the use of Oracle cloud in appropriate places, such as for long-term offsite backup and archiving. By opting for Oracle Engineered Systems on premise, you can easily increase your cloud footprint over time.

You'll need to define the roles required to build and then support the new technology platform. This will include technologists, architects (to align the business needs with the technology team), governance and security specialists.

Once you've drawn up your modernized hyper-converged Oracle technology platform, define the order in which you'll undertake the transition. Start with areas where your business is experiencing particular pain, or where new initiatives are already planned. For each stage of the transformation journey, weigh up the complexity of the transition against the potential benefits, to build your business case.

As you produce this business case and then more detailed migration plans, you'll need to define how you'll move specific elements from your existing architecture to the new platform. Oracle's GoldenGate replication software can be an enormous help with this process.

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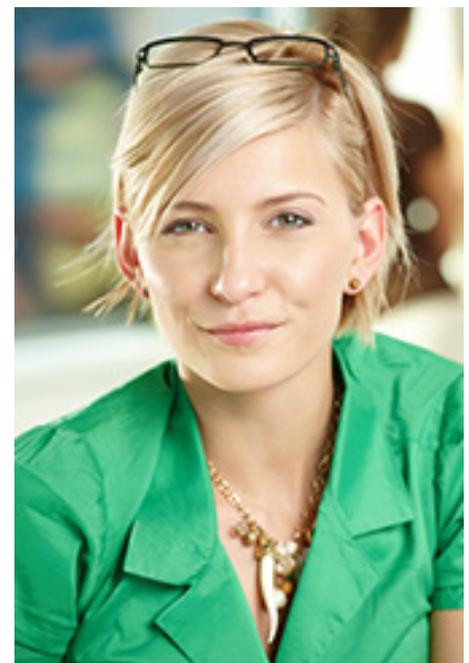
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Stage 4: Deliver

Delivering a new technology platform for your Oracle databases is a big deal with lots of moving parts that can affect timescales and costs. While it's possible to migrate to a new Oracle Database Appliance in a month or an Exadata in two, it's common to wrap in other projects, such as updating application or database versions. If you do, take this into account and be realistic when you're setting timelines.

Similarly, you'll need the right people available at the right times during the process: if you don't, demands from other projects could affect your timescales.

Regardless of these external factors, you can accelerate and de-risk your project by using proven configurations for the new architecture, and following delivery approaches that have been shown to work on similar transformations.

As you progress, set up appropriate automation capabilities. This will significantly reduce the manual effort required to operate the platform, thereby helping enable the business agility and cost reductions you desire. Oracle's management utilities, including Oracle Enterprise Manager, have evolved to offer comprehensive capabilities in this area, including configuration management, patching and provisioning. These tools will play a crucial role in your transformation.

At the end of every phase of delivery, look at what went well and what could be improved, feeding these learnings into the next iteration.

Stage 5: Manage and continually improve

Once your Oracle Engineered Systems environment is up and running, regular and proactive housekeeping will keep it pristine. This will ensure it continues to deliver benefits long into the future, even as you add more data and applications. Make sure your databases are appropriately partitioned and less critical data is moved to lower-cost storage and/or the cloud. Ensure you've got sufficient CPU cores enabled to support your workload, and that there's enough capacity in your storage architecture. Track your license position on a monthly basis so you know exactly where you stand and are always confident you're compliant.

Longer-term, have a strategic plan for how you'll grow the platform. Smart organizations compile monthly reports to show usage trends and performance indicators over time. This ensures they always have their finger on the pulse and can easily anticipate necessary improvements and plan ahead to ensure they maintain (or even enhance) performance in key areas.

Your pathway to success

Cintra is a multi-award winning Global Oracle Platinum partner and Enterprise Architecture specialist operating in the Americas, Europe and Asia. Cintra focuses on enterprises undergoing digital transformation strategies in Retail, Financial Services, Gaming and other verticals; becoming a trusted partner for organizations investing in Oracle Business Technology – delivering value by helping architect the digital enterprise.

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Architecting your success

Further reading:

Best Practice Guide: Unleash transformational business change by modernizing your Oracle Database technology platform

Opinion: Why smart organizations are transforming their Oracle technology platforms and why you need to as well

Opinion: Discover and quantify the benefits of transforming your Oracle technology platform

Contact us today...

Americas

New York
3 Park Avenue
32nd Floor
New York, NY
10016
T: +1 212-481-6501

Texas
13355 Noel Road
11th Floor
Dallas
TX 75240
T: +1 469-289-1760

EMEA

United Kingdom
Columbia Centre
Station Road
Bracknell
Berkshire
RG12 1LP
T: +44 (0)845 1213 242

Ireland
Ormond Building
31-36 Ormond Quay Upper
Dublin
Dublin 7

Scotland
The Caledonian Suite
70 West Regent Street
Glasgow
G2 2QZ

Asia-Pac

India
Unit-5 Ground Floor Plot No-14,
Rajiv Gandhi Chandigarh Technology
Park
Chandigarh-160103

General information

info@cintra.com

Sales enquiry

sales@cintra.com

Careers

careers@cintra.com