

Break Free **WHITEPAPER**

Oracle to SQL Server. The commercial, contractual and technical considerations.

Thinking of a move away from Oracle? You're not alone.

As much as Oracle has dominated the database platform market in the past, the groundswell away from it is building. But in most cases the Oracle investment has been significant, the solutions in place are complex and – even if the move makes sense – the decision to do so is not an easy one. A smooth transition requires expert knowledge and detailed planning.

The three key areas we've identified that are driving a lot of businesses to this decision are: **commercial**, **contractual** and **technical**. And in each of these areas there is a range of elements to consider when it comes to transitioning.

The following guide is designed to arm you with clear information that can assist with the decision-making process. The how, if, what and when that will best serve your organisation.

COMMERCIAL: STEERING THE COST CONVERSATION

Budgeting for the buzz word

Digital transformation is in danger of becoming just another buzz word. This is a shame because it is about the serious challenges and changes businesses are facing. It's neither a silver bullet nor a dystopian event to fear.

The bottom line is, businesses need to be able to do more with less. Budgets are not increasing. If anything, what is available for tech is contracting. So you need to look with laser focus at your IT spend. Did you know it's common for up to 60% of IT budgets to be spent on licensing fees?

What about research and innovation, customer insights and new solutions that can drive true business change? This is the promise of digital transformation and it is possible if you take the time to analyse and get savvy about where you spend your IT dollars.

Why Microsoft SQL Server is a good choice

- **Running cost** is not the only reason you might be considering the shift from Oracle to SQL Server but it is a significant one. Oracle licence fees are costing you MUCH more than they need to - up to ten times that of Microsoft's SQL Server. [Find out how much you could save with this cost comparison report.](#)
- **Business systems integration** is also much easier with SQL Server. Given how pervasive Microsoft is across all business platforms, it makes sense for your database solution to integrate seamlessly – it can save both time and money.
- **Flexibility** in transitioning to the cloud is the third big picture reason why SQL Server makes more commercial sense. Unlike with Oracle, the licensing for the Microsoft database stays the same regardless of what cloud platform you are using.

Hybrid and cloud solutions – structuring it right

A quick note here about structuring your transition. Your options are either a hybrid solution or a full cloud solution. Most organisations make the transition in a 2-step process and this makes sense. A planned, slower transition carries less risk and enables you to be in control. And Microsoft has kept the licensing options simple - with four, clearly defined, SQL Server 2017 editions available for you to select from.

Timeline, cost and ROI

Every transition is different and the timeline depends on how many workloads are being shifted. However, there is one thing you can generally rely on: the transition costs will be offset by the reduced licensing cost and this – along with other efficiencies gained – is likely to result with a shorter ROI than you may expect. While this varies from migration to migration, we typically see a 12-18 month ROI.

The key to maximising this return is planning, planning and planning. Know up-front what you need to put in place, what obstacles you might face and what things you must consider, particularly from a legal and technical point of view. We'll break some of the essential considerations for both of these areas in the following sections.

The powerful potential of SQL Server

When you free up budget from licensing fees you open up enormous potential for value driven business solutions:

- Improve customer insights, develop customer personas and deliver more personalised solutions including individualised pricing
- Leverage newer technologies such as machine learning and artificial intelligence
- Optimise supply chain logistics with more sophisticated stock level visibility
- Deeper marketing analysis as you collect more data with high impact value (e.g. how are people interacting with your retail environment?).
- Data insights allow you to offer better pricing options (e.g. how smart meters have transformed the competitive landscape of the energy sector)



CONTRACTUAL: EXPERTISE TO HELP WITH CLARITY AND NEGOTIATION

A complex contract playing field

It is common for the issue of Oracle contracts to come up as a sticking point. Businesses may not be sure about what their obligations are within these complex agreements. This acts as a deterrent to making any changes, let alone a decision to move to a new platform all together.

But 'letting sleeping dogs lie' is not your only option.

What is your contractual situation? Two crucial things to remember are:

1. Oracle continuously make changes to contracts so never assume you know it all. You need to examine them with forensic attention; and
2. (to combat the anxiety point one might provoke): everything is negotiable if you do it the right way.

What you can look out for

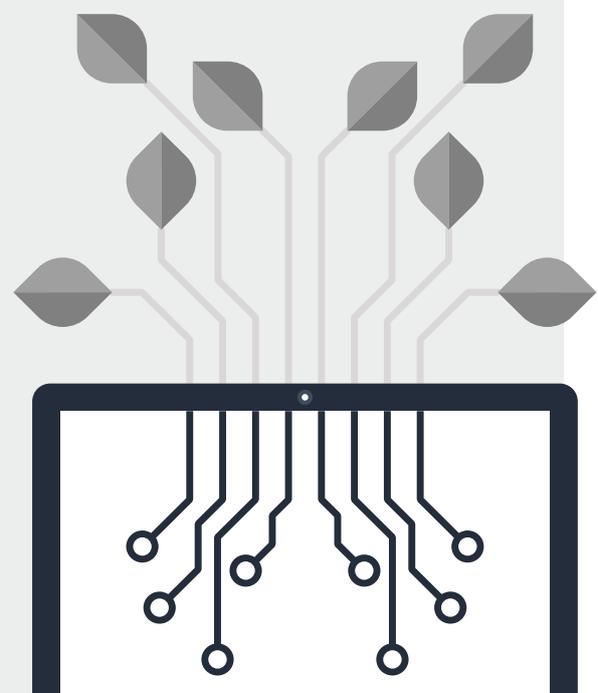
With Oracle, it is rare for any two contracts to be identical. But there are some red flags you can look out for and four of the key ones are:

- **Territories.** Are all of your users covered? For example, if you buy your licence in Australia it only covers use by people in Australia. You are not permitted to provide access to users in other countries. If you don't have a clause that extends the region or includes a worldwide clause you may be in breach.
- **Mergers and Acquisitions.** Things get very confusing if you merge with another entity, who may or may not also have an Oracle contract. A merger clause was most likely not covered in your original contract so you may end up in a situation where your 'unlimited' licence does not actually cover your new users – an 'over-licensing' situation which Oracle comes down very hard on.
- **Custom matrix.** Your contract may have been closed by an Oracle sales rep who devised a custom matrix with a lot of non-standard terms that are not fully explained and therefore impossible to fully understand. If you were under pressure to sign before Oracle's end of Financial Year, this is highly likely.
- **Possible 'under-licensing'.** This is a big one. Inadvertently not paying for features Oracle thinks you are using is a big problem for many organisations. This can get out of hand by instances of simply not unticking check boxes when you apply a patch, something unexpected gets installed and you end up running features you're not using, totally unaware.

Don't attempt to decipher the contracts alone

Even if you have a brilliant legal team it can pay to work with a partner that has specific expertise in Oracle contracts. If you have queries about any of the above red flags – or others that are unique just to you - we can look at your contract and provide sound advice.

We recently had a customer contact us in advance of some changes they were considering that they – and their legal team - thought they were on top of. Following our consultation, this was their feedback: "[When] we brought you guys in it was for due diligence, we thought we knew our business, but boy have we missed things."



Our commercial and legal team – many of which are ex-Oracle – know exactly what to look for. We will review your contract in detail and – using our proprietary software - analyse your usage to give you a clear picture of what you think you are using versus what you are actually using – exactly how Oracle would do during an audit.

Your Oracle contract is likely to contain a multitude of tiny changes and clauses that it's tricky to keep a track of. Unfortunately, once your contract is signed the onus is on YOU to know what you've signed on for and, unless you are very familiar with these contracts, it is easy to get caught out.

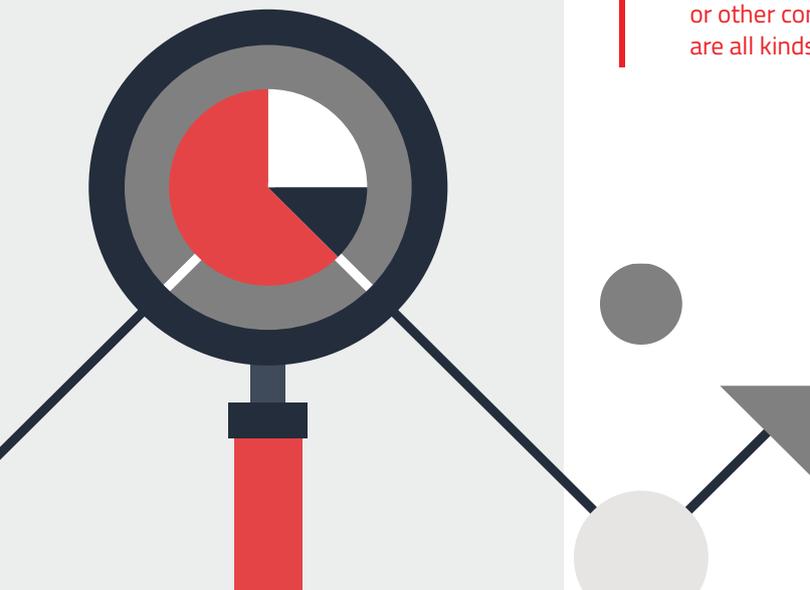
The most valuable thing we can offer you is our years of expertise in analysing Oracle contracts. We empower you with information. And we can stand by you while you negotiate or re-negotiate where necessary.

Key risk points to be aware of

- Never choose discounts as a primary driver. It's better to pay more and afford yourself better clauses (e.g. to be covered for events such as M&A)
- Auto-renewals can lead to accepting changes you don't even know about (Oracle is continuously making changes to their standard terms)
- Oracle may audit you at any time and if you are in breach in any way they will act on this.
- Issues arise due to lack of knowledge. It's nobody's 'fault' but lack of specific expertise, staff turnover and other factors all impact how exposed you are in regard to your contract. It is better to work with an expert partner than risk what you don't know.

Common misconceptions about Oracle

- **Oracle contracts are set in stone.** They're not. There is a lot you can negotiate if you know how to do it.
- **I can get a handle on my environment via spreadsheets.** You can't. You need an audit (and we have proprietary system that runs one the way that Oracle would if they did an audit on you).
- **Oracle makes the rules.** You can be in control. It's complicated but possible. If you know your contracts and licences you can be in the driver's seat.
- **I know I'm not in breach of my contract.** You probably are. Whether it's using licences you're not aware of, using licences outside your region or other contract complications after events such as an M&A, there are all kinds of ways you might be in breach without knowing it.



TECHNICAL: BEDDING DOWN PRIORITIES

Planning for transition

The thought of transitioning can be overwhelming, particularly from a technical perspective. For many companies, their Oracle system was developed in-house and represents a huge financial and time investment. So it is natural to be nervous about making a shift away. But if you plan well there is no reason it can't go smoothly. A transition may take anywhere from a month to 18 months, depending on the scale of your organisation. With good support from an expert partner this doesn't need to be overly stressful. And keep in mind, your Oracle support staff will easily be able to learn SQL Server (for all its powerful features it is essentially a relational database).

Technical reasons to make the shift:

- **Security** - Microsoft SQL Server has been rated the most secure database platform by the National Institute of Standards and Technology for the last 7 years.
- **Data Analytics** - Microsoft SQL Server is the only database platform that has built-in artificial intelligence. No additional hardware or servers required.
- **Fast and Powerful** - Microsoft SQL Server is currently rated number 1 as judged against the international TPC-E and TPC-H standards.
- **Advanced Database System** - Gartner positioned the Microsoft DBMS furthest in completeness of vision and highest for ability to execute.
- **Cost Effectiveness** - SQL Server is a feature complete data platform which – unlike Oracle - does not require you to pay for each additional feature and has the same pricing structure no matter what cloud platform you choose.

A stepped approach

Decide which databases and workloads you want to move first. It's wise to run a proof of concept with the less critical environments. We often recommend moving the 'low hanging fruit' first, workloads and databases that can be 'lifted and shifted' without too much risk.

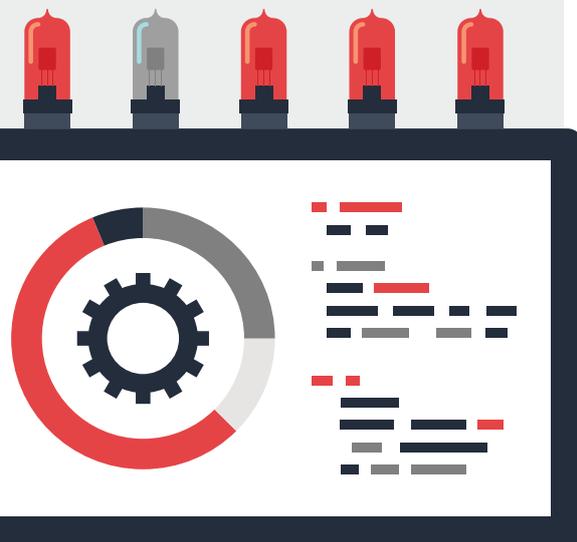
Know your landscape and data

You need a thorough understanding of how much data you have to shift and how long this will take. The SQL Server Migration Assistant can help determine the amount of migration effort required.

In most cases it's a good idea to optimise the query code before doing the transition. This takes a bit longer up front but saves time and complications down the track.

Tools for migration

When determining what tools to use for data migration you need to consider volume of data, datatype conversions and the amount of downtime and parallel testing that is required. Creating custom scripts (as above) can take a bit longer but might be the best way to ensure your needs are all covered.



When it comes to transferring data there are three main options:

- 1. One-off Transfer** - shut down the front-end system and migrate data over.
- 2. Replication** - replicate the data from Oracle in near-real time to SQL Server
- 3. Dual Feed** - develop your APIs for SQL and dual feed (to Oracle and SQL) so you can do dual testing, this can be superior to replication as it is being fed in real time.

Allow for thorough testing

- **Migration testing.** This should be a holistic approach which includes testing the application once the data has been migrated, as well as validating the data to ensure all configurations have been correctly migrated.
- **Automated test cases.** These run several times a day and are important to find and fix any problems. Build up to regression testing and then bring in a Potential Shipping Increment (PSI) and put it in front of users (UAT) or consumers.
- **Integration and UAT testing.** Start this straight away. If possible, run your initial test before you transfer any data. There are various types of testing you can do (hashing algorithm is a common way of doing it). The key is to not just test at an atomic scale (e.g. a row of data). Ensure that the row made it to the other side and that the individual pieces of data that make up that row have also copied over. Also look at it in aggregation form: aggregation test in Oracle to match the aggregation test on the other side.
- **Unit test.** Remember to test each procedure and each function that you move across. This can be automated in Visual Studio.

SUMMARY

The Break Free Alliance is an initiative created by WARDY IT Solutions and Palisade Compliance. Our goal is to provide comprehensive information and support for organisations wishing to transition away from an Oracle database environment. After many years combined experience in this area we have a lot of knowledge to share and we'll work closely with you to provide whatever level of information, planning, guidance and implementation assistance is right for you.

Take the first step today, request your free contract consultation and migration workshop.

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