The Return of Data
Oracle Next Generation Data Centre Index III:
January 2013

Based on research by Quocirca
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Methodology: Quocirca conducted 952 telephone interviews through October 2012 across 10 different geographies: UK; France; Italy; DCH (Germany/ Switzerland); Iberia (Spain/ Portugal); Benelux (Belgium/ Netherlands); Middle East (Saudi Arabia/ UAE); Nordics (Denmark/ Finland/ Norway/ Sweden); Ireland; Russia. Interviews were held across a range of different industry verticals.
Foreword

By Luigi Freguia, Senior Vice President, Oracle Systems EMEA

At the centre of almost any engagement we have with technology there is a data centre, whether in our consumer lives or at work. From downloading music or apps to our mobile phones to using online government services or accessing a host of business applications run in the cloud, the data centre is powering our experiences.

These temples to big data have become the centre of innovation and the beating heart of the cloud computing revolution as well as our daily transactions and communications.

Little wonder then that the data centre has remained a focus of investment despite challenging economic times. It may seem counter-intuitive to invest in any expensive technology in straitened times, but the reality is that the data centre is linked to long term cost benefits and improved business processes which make a strong case for investment.

Even with a requirement for upfront capital expenditure, reducing IT management overheads, making staff and business processes more efficient and reducing energy costs remain attractive – especially in challenging economic times.

This is the third time Oracle has produced a Next Generation Data Centre Index. The intention of the report is to offer further insights around EMEA-wide trends in the data centre arena, supported by in-depth research by analyst house Quocirca who have partnered with Oracle on each of the reports to date.

For the third year running we have seen considerable differences between EMEA regions. We have also seen the rapid development of major trends, reflecting the speed at which industries are embracing new data centre strategies and are changing their businesses to better exploit the potential of data centre investments.

Last year we found some businesses had been caught out by the rapid growth in big data. The response was an immediate focus on third party data services. In the cloud age, buying additional capacity from third parties is quicker than building it yourself, but that trend now looks to be a short term measure which has reversed dramatically in 12 months.

This time we have seen a fascinating trend towards data coming back in-house. The panic-buying of capacity has settled down and businesses appear to be ramping up plans to build owned data centres while planning in a more measured way for any further changes in requirements. The short term has priority, but businesses have not ignored the longer term.

In this report we will explore those themes more closely as well as looking at other trends across the EMEA region.

While previous reports have looked very closely at their own data, with three cycles of this research now complete we can now look at the trends which are emerging. I hope you find the information on the following pages as interesting as I do.
Last year, Oracle’s Next Generation Data Centre Index identified a trend of increased third party data centre use, inspired by the need to get on top of a ‘big data explosion’ in a timely fashion.

Organisations were looking at external data centre providers to help them make sense of high volumes of data and to act quickly upon a pressing desire to extract value from it, or to develop and pilot cloud computing projects. Such third party deals allowed businesses to respond more quickly than building facilities themselves.

However, this year there has been a marked falling off in the number of respondents citing an external third party data centre as any part of their IT estate. It would appear, perhaps unsurprisingly, some of those instances were stop gaps; also that as cloud computing deployments go mainstream, they are being brought back behind the firewall.

Supporting this, there has also been a dramatic increase in the use of single-in-house data centres, with no external, third party facility use at all.

There is no reason to believe the volumes of data being collected and processed have done anything but increase considerably year-on-year, but there is a clear trend towards bringing data back in house, into owned datacentres, and reducing external support. The short term support sought last year was clearly invaluable and allowed businesses to get their heads around an escalating issue and stabilise their data handling, but it does seem to have been short term.

Current data facility use

![Current data facility use chart](image)

Fig 1: Cycle three has seen a marked increase in single in-house data centre use. This move has had a clear impact on the use of external, third party facility use.

Overall index scores

![Overall index scores chart](image)

Fig 2: The overall index scores show continued investment in data centre advancement. Sustainability is scoring highest. However, over the past year supportability has plateaued.
New Data Centre Needed

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<th>&lt; 2 years</th>
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Fig.3: Those who foresee no need for data centre investment have fallen again and there is a continued uptick in the number of people rolling out, or intending to roll out new data centre facilities in the coming year.

On-going investment

Now businesses are tending to consolidate to an in-house data centre or data centres, their operating expenditure will focus on optimising and servicing those facilities rather than paying the subscriptions of third party ‘as-a-service’ IT providers. In the year between Cycle II and Cycle III of this research there has been a clear but steady investment in data centre facilities, as seen with overall progress in three of the four key measures of data centre sophistication.

This report also looks at what these trends mean for business’s intentions to invest further in new data centre facilities. The number of respondents with no intention to invest in the foreseeable future has certainly fallen markedly over the past cycles of the Next Generation Data Centre Index and around a quarter remain committed to the idea that it will happen within a five year time frame. However, the only increase seen in this cycle is in those doing so within 12 months – their certainty no doubt born out of the fact the planning at least must already be underway.
Data is coming back in house

The clear trend towards data coming back in-house is unlikely to be allied to just one issue and it is worth considering the drivers behind data centre investment.

Given the move back towards a strategy based on in-house data centres it is unsurprising to see consolidation given as the major motivator. Consolidation allows for greater economies of scale and improved efficiency.

Limitations of existing technology and age of existing facilities featuring so prominently also suggest the intention to modernise was there before the short term need for external support struck organisations last year. It just couldn’t happen overnight while creaking infrastructure needed to be supplemented before being replaced.

This may suggest the preference will always remain for proprietary technology where possible but organisations will see external and third party providers as strategic short-term capacity.

Oracle is making it easy to switch between public and private cloud offerings and infrastructure-as-a-service, meaning organisations can make these kinds of changes in line with their business need rather than the 12 to 24 month timelines once dictated by complex integration headaches.

Software and hardware which are designed to integrate more effectively and to run in-house, in the cloud or on leased infrastructure-as-a-service makes future-proofing a business, or taking advantage of short term support far easier.
standardisation also mitigates the costly and time-consuming process of having to integrate cumbersome bespoke applications (as seen in Fig.2 flexibility continues to increase).

However, given the trend towards consolidation in one data centre which has taken place it is likely businesses, having seen the big data explosion last year which caught so many off guard, will have built greater scalability into their plans this time around.

The degree of server utilisation uncovered by this cycle of research certainly suggests scalability is a focus. There has been a steady increase in servers running at 21% to 50% utilisation but a levelling off in those servers consistently running at greater than 51%.

External third party providers offered that short term support. But culturally, organisations may be more naturally disposed to wanting their data closer to their business, both geographically – actually moving it onto owned premises – but also procedurally, ensuring it is integrated throughout all they do in order to more easily plan for those actionable insights.

With supporting business growth a clear focus (Fig.5) and the value of a smarter use of data well proven as a means to this end, it is perhaps unsurprising that businesses are getting closer to their data.

It is interesting to observe a strong correlation between the alignment of IT with business and their overall Index scores:

When server utilisation above 51% was peaking at a 27% response rate in Cycle II businesses were also dramatically increasing their use of external and third party capacity. To have made that trend plateau and even dip slightly (to 26%) suggests businesses are planning ahead for crunch times and have utilisation under greater control.

The response to big data last year was almost certainly a reaction to the value organisations are starting to mine within their data and a shortage of capability to process it in the short term. Organisations realised they could no longer afford not to collect, analyse and derive actionable insights from their data. But they did not have the infrastructure internally to do everything they needed.
Indications are that bringing the IT function closer to business will have long-term benefits as IT becomes more and more critical to the success of any organisation.

Supporting business growth isn’t just about looking to improve margins and profitability. It is also about the need to reduce costs and improve efficiency. IT management overheads can certainly be mitigated by running applications from a central data centre. Similarly, energy efficiencies can be found.

There is no disguising the fact the data centre consumes vast amounts of energy but the data centre can also be a model of economies of scale and the potential for efficiencies is considerable. As energy costs continue to increase, savings needs to be sought and they can be found, as revealed by this research, through an investment in more energy efficient data centre management. As such it is unsurprising to see within the results a continued push towards greater sustainability. More respondents than ever before either have a full sustainability statement and plan in place or a basic sustainability statement and plan.

Clive Longbottom at Quocirca, who conducted the research, certainly believes it is cost-saving rather than a desire for improved global citizenship that is driving this push. Longbottom stated: “On sustainability, it’s about energy usage, as far as I am concerned. The focus is not on sustainability per se, but on managing energy usage against a fluctuating, but trending upwards, energy cost. When money is tight, organisations focus on the big costs. Organisations are aware that the data centre is an energy hog, and the shout from on high has been “control the power.”

**CASE STUDY:** SITA upgrades servers for baggage-routing-messaging, achieves unbeatable performance and scalability

SITA is a specialist in air transport communications and information technology. The company innovates, develops, and manages business solutions over its extensive network that forms the communication backbone of the global air transport industry. SITA implemented four SPARC T4-1 servers to ensure continued reliability and enhance performance for BagMessage, its global message distribution solution that 530 airlines use to communicate with automated baggage systems.

**CASE STUDY:** OTP Bank boosts e-banking performance by 1,200% and reduces operating costs with upgraded, consolidated server systems

OTP Bank Plc is the largest commercial bank in Hungary with assets totaling $28 billion. A leader in all financial services sectors, OTP Bank offers more than 1,000 loan, mortgage, saving, credit and debit card, and investment products. OTP Bank Plc needed to improve system performance for a relaunch of its e-banking solutions portfolio, which provides an interactive user interface with dashboard views of each customer’s accounts, personalized screen views, and short-cuts to favourite applications.
However, sustainability does not receive the same focus across EMEA. Some countries are more progressive than others in their approach.

The UK, Middle East, Nordics and Russia are among those countries and regions which have made among the greatest strides. Ireland too is a rare example among Eurozone countries of a country making great progress in sustainability during challenging economic times.

France, Germany, Italy, Iberia and Benelux, all embroiled in the current Eurozone difficulties have either stalled slightly or even slipped back in their planning.

In terms of other country level comparisons it is interesting to look at the overall index scores across all three cycles. Again the Nordics are markedly more progressive than the other regions, building upon a very strong position from Cycle II of the report.

The UK has also progressed at a greater rate than many other regions and countries. The DCH region (Germany and Switzerland) enjoys a more advanced position but has plateaued over the course of the past year.
Industry analysis

Country-level generalisations should be viewed with caution. There also remain dramatic differences between the industries across the EMEA region. Telcos, for example, wherever they may be, remain the most progressive. This of course is hardly surprising given the move towards service provision in this space – including the rolling out of cloud services and their own infrastructure-as-a-service offerings. Telcos used to be focussed on wires but now the data centre is essential if they are to compete with ‘over the top’ providers of content and services and increase their revenues.

CASE STUDY: Turkcell uses engineered system to analyze 10 billion daily, call-data records and service logs and to generate 100,000 monthly reports

Turkcell needed to process up to 10 billion daily, call-data records (CDRs) and value-added service logs for billing and to ensure continuously accelerated development of 4,000 distinct reports containing critical business data. The company combined two Oracle Exadata Database Machine X2-2 Full Racks to reduce the size of the company’s data warehouse from 600 TB compressed to 60 TB and enable more than 500 data warehouse users to generate more than 100,000 reports per month - twice as many reports as with the deployment on its previous, single Exadata machine.

CASE STUDY: Sonuma ensures its digital archive with more than 120,000 hours of multimedia content is easily accessible and downloadable for journalists

Sonuma, the Society for the Digitalization and Commercialization of Audiovisual Archives, was created in 2009 by the French Community of Belgium and the Radio Télévision Belge Francophone (RTBF) - the national television broadcasting company. Sonuma was looking for a robust storage solution that would enable it to store its digital archive that includes 120,000 hours of content from a variety of media, as well as support future digital archive growth. The solution also needed to support the organisation’s goal of preserving, managing, and commercializing this content. With Oracle’s StorageTek SL3000, Sonuma has digitised thousands of hours of content while providing additional storage space for future additions to the library.

The public sector, trailing other areas in past cycles has now picked up considerably. This is likely due to increased provisioning of government services online and a move to put data and processes into a private cloud for improved efficiencies across the widely distributed estate of public sector technology, departments and offices, while increasing citizen engagement.

Financial services has regressed slightly. Normally it is a sector which embraces technology very effectively, but its declining result may reflect the effect of having been ahead of the curve initially. Similarly it is an industry where spend is heavily scrutinised and has been reined in over the past year.

Utilities has also raised its data centre game notably, within a business where big data and analysis of huge volumes of customer, network and pipeline data are becoming increasingly important.
Conclusion: The eye of the data storm

This research report has highlighted what we believe is a significant trend in data centre use and management. The speed at which we have witnessed this transition of data back in-house also speaks volumes of the increased flexibility businesses have in place and the value they are putting on their data.

Data centre investments are not made lightly. They will be for discussion by the most senior members of the board. Not just the CIO or CTO but the entire C-suite.

To see such change in a year tells us these discussions are not only on the agenda, they are near the top. Data holds within its numbers the answers to almost any business question and holds the key to new opportunities. Handling that data effectively and understanding the insights it can provide is crucial.

Last year, the need to get a handle on escalating data loads was clearly the reason many organisations turned to third party providers. Aged in-house infrastructure or infrastructure which simply wasn't up to the task was being supplemented by that stop gap. But since then, and perhaps uncomfortable with on-going subscription costs, organisations have been planning and implementing in-house data centre strategies.

Those strategies appear to be in action now.

Within that planning stage it appears organisations have included a clear focus on future proofing. Perhaps scarred by the sudden need to react last year, or motivated by the realisation there will be future crunches coming faster and closer together as businesses increase the usability of data, they have planned for the future. As such this year may, on reflection and in the analysis of future cycles, prove to be the eye of the data storm – the year future proof defences and strategies were put in place, after organisations were rocked by an initial barrage of data.
If you would like more information on the Oracle Next Generation Data Centre Index, or would like to speak to a member of Oracle’s team, then please get in touch using the following contact details:

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