

BEST PRACTICE

ProData Consult magazine about IT, projects and the people behind them. 5, 2015

2015

according to

Preben Mejer

Gartner

IBM

Oracle

&

Microsoft

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Welcome to 2015.

2014 was the best year ever for ProData Consult: More than 750 different ProData consultants were engaged in projects for over 240 different ProData customers in six different countries. Our revenue grew by more than 30%, and we retained our position as the largest in Denmark in our segment, measured by the number of IT consultants placed with customers.

This increased volume gives us opportunities to create an even better service platform, for the benefit of our customers. We are

readier than ever to serve both new and existing customers with expert IT consultants within virtually any IT technology and area.

In this New Year edition of Best Practice we have mixed a (we think) exciting cocktail of what the key movers and shakers in the consultant and IT industry believe 2015 will bring for our industry. We hope that the magazine will be a source of inspiration and reflection, giving varied and nuanced views on which technologies, trends and gadgets to follow.

On behalf of everyone at ProData Consult, I would like to thank all of our customers for your good and loyal cooperation in 2014 and wish you a successful 2015.

Søren Rode
CEO



THE TREND GURU'S FIVE FUTURE TECHNOLOGIES

Preben Mejer is accustomed to taking a look at the IT landscape of the future from new angles. Here, he presents his personal Top Five technology areas that he finds most exciting to watch.

For anyone interested in new technology, Preben Mejer will not need much introduction. For many years he has commented on future technical innovations, and their potential impacts for people and society. Best Practice asked Preben Mejer to weed out some of the many global IT trends and narrow the field to the five IT areas he expects most of, in both the immediate and more distant future.

1. COGNITIVE COMPUTING

"First and foremost, I believe that cognitive computing will be the next big era in IT," Preben Mejer begins. "While today we ourselves define the purpose of using a computer, in future computers will increasingly be able to act for themselves. A good example of this development is a case involving IBM's supercomputer, Watson, from the summer of 2014. Watson was invited to a Board meeting in a large company, where it was set up to read the company's business plans. Based on this input, Watson was able to recommend which other companies the company in question should acquire, to support the overall strategy," says Preben Mejer. Is this a dangerous or exciting trend? "A little of both. In just five years, cognitive computing is estimated to achieve financial potential of 50 billion dollars in the USA alone, making it a huge future business area. But I've also seen surveys showing that, in time, cognitive computing will affect 47% of all current jobs. Some will disappear, while others will change character."

2. (I)IOT

Several estimates show that by 2020 the world will have approximately 30 billion devices connected to the network. This is a crazy number, compared to the Earth's population.

"The exciting aspect of Machine-to-Machine technology is that all these devices move from being relatively unintelligent today

13-YEAR-OLD UKRAINIAN BOY PASSES THE TURING TEST

Preben Mejer relates how a group of researchers at Reading University in the UK recently succeeded in getting a chat robot to pass the Turing test, which is when a panel of judges chats with the computer, as well as two human beings. If the panel erroneously believes that the computer is one of the human chatters more than 30% of the time, the computer will have passed the test. Rumour has it that a chat robot has passed the Turing test before, but nonetheless Preben Mejer finds that cognitive computing has come far if a bot in the year 2014 can get people to believe that it is human. In the specific scenario from Reading University, the chat robot had the identity of a 13-year-old Ukrainian boy. The chat robot's nationality and age were intended to mask any linguistic and spelling errors.

– most of them can only perform simple functions such as registering switch on/off, temperature, etc. – to being connected to the Cloud, where a lot of intelligence is added to them. This brings us over to the Internet of Things era. Or you could almost say the Intelligent Internet of Things era," says Preben Mejer.

"I recently saw an experiment in Texas with Google's Nest thermostats. As will be known, they can keep an eye on the household's habits, and adjust the temperature accordingly. The experiment was that the local energy utility offered free Nest thermostats for customers' homes. They did this because it's a massive problem that 50% of energy consumption in Texas today is spent on fans during heatwaves. This can cripple electricity supplies. Under the Nest project, a household allows the power company to turn off the air conditioning when there are problems and brownouts in the supply system."

3. APPS

As IT becomes more intelligent, the use of apps will also develop, is Preben Mejer's prediction.

"Apps will fundamentally be able to predict your next needs, before you do so yourself. It's not very practical that today we have to call up the apps we need. We're moving away from a toolbox philosophy, where we fumble around in the toolbox to find the right tool for the right situation. In future, the tools

will run discreetly in the background, popping up automatically when the device registers that you need them, and disappearing again, once you are done. This development will also affect the business model for apps, as we will move from reactive IT to ambient IT. In the future, apps will be delivered as a service, to a greater extent."

4. PHABLETS AND HYBRID PCS

Just as we thought there were no limits to sales of smartphones and tablets, both devices suddenly ran into difficulties and are no longer sold in the same volumes as before.

"The name of the game now is phablets," says Preben Mejer. "This is the hybrid between a smartphone and a tablet, with a screen size of between 5" and 7". This development is driven by how, with today's Internet speeds, we are more and more visually oriented."

"Another surprising development within devices is that even though we thought we had buried the PC, it has been reincarnated as a hybrid device to which a keyboard can be connected, so we do not have to carry both a tablet and laptop, but can use just one device. So the PC is not dead at all."

5. CLOUD WARS

Finally, Preben Mejer outlines the coming years' Cloud power battle, which he assesses will be between Amazon, Google and Microsoft.

"Many consider Amazon to be primarily an E-commerce company, but Amazon is actually an advanced technology enterprise with E-commerce at the top. They are incredibly good at Cloud and the clear leader in this area."

"Google is waking up after sitting at the top of the Cloud development for eight years, without doing anything to expand this position and move forward. Their big strength, and weakness, is their advertising business. Everything they do is aimed at supporting this. But now Google is beginning to offer Cloud services and is so big that they will get back into the game again," says Preben Mejer, before concluding with a look at Microsoft's Cloud potential:

"Microsoft has managed to put together some good Cloud solutions, with a decent customer base that is very loyal to their products. They recently took the sound strategic decision to separate Windows from Office, and they have also shown the way forward with good updates of their products and the Azure platform. Microsoft seems to be well prepared for the future."



GARTNER: SEIZE THE DIGITAL BUSINESS MOMENTS

According to Gartner, 2015 will be characterised by the digital business moments that arise in the borderland between well-known business models and new technology. Spot these business moments and create some business from them, is the recommendation.

Interview with Peter Suhr, Managing Partner, Gartner

A few months ago, Senior Managing Partner at Gartner, Peter Suhr, was in dialogue with a major filling station customer. They were discussing opportunities to combine online supermarket shopping with physical collection at the filling station. Both parties saw this as an obvious opportunity. Online supermarkets find it difficult to reach the more sparsely populated areas of the country, and the filling stations would have more people stopping by, who might buy more than the usual petrol and a hotdog.

"Fourteen days after our chat I could see that nemlig.com and Q8 had launched their joint Click & Collect concept, which was exactly what I was talking to the competing filling station about. This shows just how fast we need to move today. Previously, you could have a chat like that and it would then take two to three years for someone to put the good idea into practice. Today, it takes two weeks," says Peter Suhr. He explains how in terms of Click & Collect, Internet-based funeral directors and other online concepts, Gartner's major headline for 2015 – and thereafter – is a radical rethink of well-known business models in favour of a more digitally integrated company practice.

CHECKING YOUR PLACE IN THE ECOSYSTEM

One of the things that shocks Peter Suhr the most is how there seem to be many well-established companies today that have not yet drawn up a clear strategy for how they will implement new technology in their business model. Without naming names, many still rely on yesterday's, rather than tomorrow's, way of selling products.

"If you sell pumps, you look at the others selling pumps in the market. If you sell oil,

you look at the others selling oil in the market. The point is that you should start to look elsewhere to spot your competition, since it could just as well come from your sub-supplier, or from a garage in Singapore where two young guys have invented a whole new way of selling the same product," says Peter Suhr.

"It's a question of checking your place in the new ecosystem, and where your products are. You have to ask yourself whether anything in the ecosystem can be digitised? Whether a digital business moment can be wedged in between the customer and the purchase?"

DOESN'T BELIEVE IN E-BUSINESS

Peter Suhr recently read how a CFO at the Lidl supermarket chain had said that he would not invest in e-business models. For how would he be able to pay the rent for the many physical shops?

"This CFO should perhaps instead consider whether Lidl has the right business model. Today's supermarket chains need to take into account that in the future more and more goods flows will bypass the physical shops. How will they handle this? Will they

PREMIUM PRODUCT ON THE WAY OUT

For many years, you commanded a privileged and lucrative position if you held the premium product in a particular industry. But according to Peter Suhr, that position is no longer guaranteed.

"Take the pharmaceutical industry, for instance. Before, if a competitor had a poorer product than yours, there was no risk. You would always win the contest, because you had the premium product. But imagine that your competitor launches a new package in the market where, besides the product itself, the customer is called up twice a week to check whether he has remembered to take his medicine, get a little exercise, and eat healthily.

The premium product will suddenly no longer be the premium choice. Smart companies are thinking up new delivery models, which leaves no time to sit back and enjoy your position in the market. Instead, you have to fight to retain it."



deliver people's shopping themselves? Get others to do it? If they get others to do it, can this delivery opportunity be used in new ways? It's more and more important to ask ourselves these questions," says Peter Suhr.

FROM BACK OFFICE TO FRONT OFFICE

Finance systems, payroll systems, stock inventory systems, logistics systems and customer databases. Companies have had lots of IT in their organisations, for a long time, but usually hidden away in the "back office".

"If you take a look at Danish companies you will see that many still use old legacy systems that do not provide very good IT support to the company. Their IT keeps track of the underlying systems, but this is not a parameter of today's competition. Today's competition takes place in the front office, where customers meet the company. Take Amazon. They have been very sharp at understanding the customer-first philosophy. An example is the famous Amazon moment, when you get the hint, as you are making a purchase, that other buyers have also

bought a related product. This function pops up automatically," says Peter Suhr, comparing this with the "1864" historical series screened by DR (the Danish Broadcasting Corporation).

"After the series had been televised, DR advertised how, up to a certain date, you could see the entire series on DR's website. Why only up to a certain date? Why can't you see it when you want to? The reason is that DR is still clinging to some old models for how digital TV is transmitted."

BIMODAL IT

In 2014, at their annual conference Gartner introduced the concept of "Bimodal IT". Bimodal IT signifies IT at two speeds, based on how most companies and organisations today have a need for both classical operational competences and more development-oriented IT competences. The same resources should probably not be deployed to handle both types of IT.

"Solid IT can be compared with a marathon runner, as sound, reliable IT that will get to the finishing line, at its own pace. The

second, more agile type of IT is more of a sprinter. It must be able to support the digital business moments that can suddenly arise, and that require a rapid response," says Peter Suhr. "One half of IT operates with month- and year-long horizons, while the other half must be able to operate with horizons of just days or weeks."

SCOPE FOR DEVELOPMENT

Peter Suhr concludes by describing how he recently spoke to an American who, during a visit to Denmark, had been surprised by the way that our radiator thermostats work.

"They reminded him of the thermostats they used in the USA in the 1950s, he said. We Danes go round turning the knob on each radiator, and if the valve has got stuck we have to bang on the radiator to get it moving again. I'd been boasting about Denmark's long and proud engineering tradition, but I had to admit that we were behind the times in that respect. This shows how we still have plenty of scope for technological development in this country, even in major industries and large companies."

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Selection of IT consultant roles:

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Program and project manager	management consulting	Test manager
Business developer	Interim management	Test coordinator
Process consultant	Trainer/Coach	Project assistant
IT strategy	Change manager	Analyst
	Enterprise architect	Functional consultant (SAP)

Development/technical

Technical project management	Developer	System designer
Scrum master	Web developer	Technical consultant (SAP)
Architect	Mobile developer	Tester
System architect	APP developer	Technical tester
Business intelligence	Database specialist	
Solution architect	Visual designer/UX	

Infrastructure

Infrastructure project manager	Operations consultant	Processes & methods
Infrastructure architect	Network consultant	Support consultant
Infrastructure consultant	Security consultant	Technical writer
	Database administrator	System administrator

Examples of core IT competences:

Technologies/languages

.NET	Clojure	jQuery, Node.js, etc.)	PL/SQL	SQL / T-SQL
ActionScript	Cobol / Cobol II	JSON	Powershell	Swing
Active Directory	Cognos	LINQ	Python	UML
Ajax	CSS/CSS3	Lucene	QML	VB/VB.NET
ASP	Dart	Matlab	Qt	WCF
ASP.NET	Delphi	Natural	RPG	Web Services
ASP.NET MVC	Flasha	Nhibernate	Ruby	Winforms
Assembler	Groovy	NoSQL	SAP ABAP	WPF
C	HTML/HTML5	Objective-C	SAS	X++
C#	Informix 4GL	Perl	Scala	XCode
C/AL	Java/J2EE	PHP	Solr	XMaL
C++	JavaScript (AngularJS,	PL/1	Spring	XSLT

Platforms/Middleware

.NET	Citrix	Java/J2EE/J2SE	Microsoft System Center	Sitecore
Adobe CQ	COM/COM+	Linux	Suite	SunOS
AIX	Hadoop	Lotus	Microsoft Windows	Unix
Android	HP Quality Center	MacOS	Oracle E-Business Suite	VMWare
Apache	Hybris	Microsoft Azure	Oracle WebCenter	Weblogic
BizTalk	IBM AS/400	Microsoft BI (SSIS, SSRS, SSAS)	Ruby on Rails	Windows Phone
BlackBerry OS	IBM Mainframe	Microsoft Dynamics	SAP NetWeaver	Xamarin
Calypso	IBM WebSphere	Microsoft Exchange Server	SAP Portal	
Calypso	Informatica PowerCenter	Microsoft SharePoint	SAS	
CICS	iPhone OS (iOS)		Silverlight	

Methods

Agile	Extreme Programming (XP)	ITIL	RUP	Structured testing
ASAP	IPMA	KANBAN	Scrum	TOGAF
Automated testing	ISEB	Lean	Six Sigma	Unit test
BigData	ISTQB	PMI	SOA	Usecases
CMMI	ISO standards	PRINCE2	SPICE	V-Model

Databases

Access	Firebird	Lotus Domino	Oracle	Siebel
Adabas	Informix	Microsoft SQL Server	Paradox	Sybase
Cassandra	Ingres	Mongo DB	PostgreSQL	Unisys
DB2	Interbase	MySQL	Progress	Wonderware

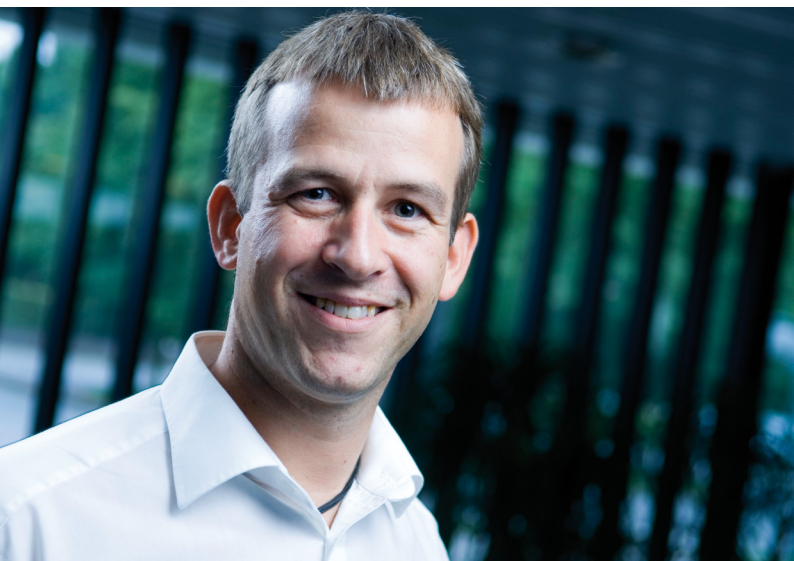
SAP

SAP	SAP SCM	SAP ABAP/4	SAP SD	SAP QM
SAP CRM	SAP NetWeaver (XI/PI, BI,	SAP Basis	SAP MM	SAP BW
SAP SRM	MI, EP, MDM, KW, IdM,	SAP CO	SAP PM	SAP WF
SAP SEM	CE, WebAS)	SAP FI	SAP PP	SAP IS
SAP PLM	SAP Portal	SAP HR	SAP PS	

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2015 also in Germany



IBM focuses on systems of insight

IBM'S STRATEGIC FOCUS FOR DENMARK IN 2015 CAN BE BROKEN DOWN INTO TWO OLD IT CHEST-NUTS AND A COMPLETELY NEW CONCEPT. THE THREE AREAS ALL SHARE IN COMMON THAT THEY HAVE THE POTENTIAL TO SPEED UP BUSINESS DEVELOPMENT ACROSS INDUSTRIES.

Interview with Hans Peter Vibe, CTO, IBM.

When, in 2013, a top IBM executive was to tell the world what IBM would be focusing on in the future, he said Big Data, cloud computing and systems of engagement. When Best Practice around two years later asked Hans Peter Vibe, CTO/Technical Leader at IBM Denmark, what his headlines are for 2015, he repeated the message from 2013, adding that since then IBM has continued to build on the concept of systems of engagement, expanding it with systems of record, to arrive at systems of insight. Confusing? No worries, because later in this article we let Hans Peter Vibe explain what lies behind the various system concepts, and why IBM is staking so much on them.

ANALYTICS HAS ENORMOUS VALUE

First of all, he explains why Big Data is and remains one of the hottest concepts, not just in the IT industry in general, but also for IBM. "Big Data is very much about analytics," he begins. "We focus on how we can transform companies and entire industries with the help of greater insights into their data. This might, for instance, be an analysis tool for a haulage contractor. With a good analysis tool, he

will suddenly be able to see, for example, which of his drivers cover the most and the least distance to the litre. He can optimise the drivers' routes and be notified automatically when an engine needs servicing – before it breaks down. This analytics philosophy can be applied to the wind power industry, the aviation industry, etc. Anything that can be foreseen, to prevent production disruptions, has enormous value," says Hans Peter Vibe.

WATSON

Hans Peter Vibe explains how IBM has various analytics platforms that are all expected to have more users in 2015. They include SPSS Predictive Analytics, which is software to help companies predict what is likely to happen, so they can take better decisions, resolve problems and improve results. IBM also has more traditional Business Intelligence software in Cognos. "And then we have Watson," says Hans Peter Vibe.

Watson belongs in the cognitive analytics category, he explains. The Watson system can understand linguistic relations, and what language means in various different contexts. It can be used in research environments, for example, that operate with various different hypotheses, with a wish to match the hypotheses with all the literature available in a given area. No human brain can read all this, but Watson can.

"In some cases, research processes can be reduced from half-years to a few months," says Hans Peter Vibe. "Analytics will continue to grow at IBM in 2015. For instance in the financial sector, so that banks can make their investments on a more informed basis."

APPLE AND IBM IN APP COLLABORATION

As most of you will know, in the summer of 2014 IBM and Apple set up a partnership agreement to deliver a whole new type of business app. The first apps are now in the market, within the following areas:

- **Aircraft industry** – The Passenger app enables airline staff to quickly re-book passengers who are already on a flight, but are certain to miss their connecting flight. The app transforms anxious moments into new opportunities for the airline to win customers' loyalty.

FASTER TIME TO MARKET

The second major focus area for IBM in 2015 is cloud computing. Hans Peter Vibe explains how IBM is focusing strongly on the PaaS product, Bluemix.

"IBM Bluemix should be seen as a very large toolbox to build, handle and operate apps for web, mobile devices and Big Data, for instance. The solution's functionality includes Java, mobile backend development and application monitoring, as well as open source. The point is that a lot of time is saved in the development phase compared to a traditional process, and this time saving helps to speed up the time to market. It's no exaggeration to say that the infrastructure and middleware for a fairly complex system can be built up in the course of a few hours. In a typical large company this can take half a year," says Hans Peter Vibe, mentioning how for a developer it can also be good to be familiar with the Software Defined Environment (SDE) concept, if you do not already know it.

"In an SDE, you can provision a complete environment; not just the infrastructure, but also database servers, application servers, message-tool servers, push-servers for mobile, etc. – as a fully automated process."

IBM DEVOPS

Another key Cloud concept in the IBM world is IBM DevOps. This is a platform that integrates and eliminates the classical divide between development and operation by automating infrastructure and workflows.

"The principle of the DevOps concept is that you get feedback on everything, i.e. from test-loops, physical servers, etc. All this

feedback is gathered, so that you can quickly make the necessary changes and get the code into the market," says Hans Peter Vibe.

He explains how one derived effect of automating the installation of infrastructure and platform components is that many of the current operations teams in the data centre gain a new role.

"Often, the consultant has to help companies through the transition phase by developing applications in new, more agile ways. This is an advisory role that the consultants need to play, in order for them to continue to add value. They also need to be really on top of the new technologies in the market. Automated testing is one of the things we will be focusing on in 2015. The more you can automate your development loop and test systems, the faster the time to market."

SYSTEMS OF INSIGHT

This brings us to the last of the three overall focus areas for IBM in 2015: the many system concepts.

"We apply a concept called systems of record," says Hans Peter Vibe. "Systems of record are basically all of the traditional transaction data stored in a data centre. Then there are systems of engagement, which are all of the data gathered concerning the individual users and their shared network interaction. In 2015, we will be linking up systems of record with systems of engagement to find new relations in the meeting between the historical data and the more dynamic behavioural data. We call this overlap systems of insight," Hans Peter Vibe concludes.

"Systems of insight will revolutionise the industry."

-
- **Insurance industry** – The Retention app helps insurance professionals to keep track of their busy working days – prioritising and completing tasks on time and handling routine assignments on the most effective basis – to improve the service that customers experience and also attract new customers.
 - **Telecom industry** – The Expert Tech app enables technical personnel to be better prepared for meetings, while also giving a more accurate analysis of any problems arising, thereby reducing technicians' superfluous time spent at the customer.



Oracle preaches simplification in 2015

Make sure that your IT strategy reduces, rather than increasing, the complexity of your business. In rough terms, this is Oracle's simple recipe for success for the next many years ahead. Best Practice had a chat with the Danish Consulting Director, asking him to amplify the simplification agenda.

Interview with Simon Mørup-Petersen, Consulting Director, Oracle.

Like everyone else in the IT world, Oracle predicts that the future will be marked by upheavals in digital business models. This means that well-known industries and companies will increasingly be obliged to convert their current practice into completely new business models – often using new technologies – or others will do this before them, thereby stealing the market.

In this brave new world, speed is a key parameter. This is speed measured as the time it takes to develop an idea, the time it takes for product development, and the time it takes to get the products into the market. Time to market has always been vital to a company's competitiveness, but when technology trends such as Big Data, mobility, social computing, cloud computing and Internet of Things are added to the matrix, you more or less have the state of play in many companies today: confusion due to a massive increase in complexity.

From the smallest elements to the major issues, Oracle therefore focuses on making the business and IT world simpler, according to Consulting Director at Oracle Denmark, Simon Mørup-Petersen.

"Right now, everyone is preaching simplification. You will be in high demand if you can eliminate complexity from your company's business processes, since this will free up time, resources and money for innovation. IT can be a business enabler if it facilitates simplification, yet it can also be a business disabler if it leads to confusion and reduces transparency," he says.

ENGINEERED SYSTEMS

Simon Mørup-Petersen explains how many IT departments currently face a situation where the crippling financial crisis has meant that budgets have stagnated, or even shrunk, year-on-year.

"A rule of thumb is that 60-70% of a company's IT budget is devoted to systems maintenance. This expenditure does not lead to any development: it's money spent on keeping the lights on, and nothing more. We can see a massive focus on driving down this 60-70%, so that a larger share of the budget can be channelled into IT projects that can help to grow the company," says Simon Mørup-Petersen, linking in Oracle's acquisition of Sun Microsystems in 2010.

"There was a bit of uncertainty about how Sun's hardware focus and Oracle's software focus could team up together? However, the acquisition proved to be the first step towards greater simplification, since today, our hardware and software are born together. This fusing of hardware and software is what we call Engineered Systems."

Oracle Engineered Systems are based on chips from Intel, but otherwise consist exclusively of Oracle components, containing, for instance, their Big Data Appliance, Exadata Database Machine, Exalogic Elastic Cloud, Exalytics In-Memory Machine and ZFS Storage Appliance technology.

"The first simplification stage for us was the design of Engineered Systems and a more standardised infrastructure. The next step is to pull the Engineered Systems platform up into the Cloud, which will make the system even simpler to work with," says Simon Mørup-Petersen. "Oracle's Cloud solutions are based on Engineered Systems, so that the technology is exactly the same as in the customers' data centres."

INTEGRATION TASKS IN THE PIPELINE

Oracle is well-known as a supplier of many of the building bricks for companies' IT solutions. Despite the popularity of Engineered Systems, a lot of classical software and hardware is still sold, and therefore companies' internal and external consultants have the task of assembling the overall IT environment.

Do you have any good advice for Danish IT consultants who are keen to stay abreast of future trends?

"They should first and foremost stay on top of the latest technological developments. Customers will not be satisfied with the software they buy from Oracle unless they use the software correctly. A version 10 of a product is not the same as a version 12. The sheer amount of functionality makes it necessary to stay tuned for the latest upgrades," says Simon Mørup-Petersen.

In terms of business development, he predicts a host of new opportunities, as IT moves closer and closer to the core of companies' activities and related business processes.

"We often see how companies take a best-of-breed approach whereby they, for instance, have Salesforce CRM, SAP for their finances, and Oracle HCM Solution for HR. This generates a lot of integration tasks, which are a market niche in themselves. Once again, it's a question of staying updated. The technological landscape is changing constantly, and I don't even know the details of our new solutions yet. But I'm quite certain that there will be many new integration opportunities, going forward."

FINANCIAL RESTRICTIONS ARE HERE TO STAY

Besides simplification, Oracle's main headline for 2015 is Cloud. Cloud computing was always bound, sooner or later, to make its mark as a more flexible and cost-effective way of buying and using IT services, but this technology accelerated during the financial crisis, because Cloud carries an inherent automatic savings agenda.

"During the crisis, travel budgets have shrunk, there are procurement restrictions, and the replacement cycle for corporate PCs is longer. When we at some point get back to a growth scenario again, it would be wrong to think that companies' financial restrictions will be rolled back. They've found out that they can save good money from cuts across the board. Cloud is a perfect match for this rationalisation philosophy, yet also has the potential to change a company's work processes and business model," Simon Mørup-Petersen concludes. "So Cloud will continue to be a strong driver for Oracle in 2015."

INTO THE CLOUD

Three Oracle focus areas in 2015

1. Oracle SaaS. Various Cloud applications (for instance within marketing, service and sales) include social computing, mobile and analytics functionality, and help companies to speed up their time to market and engage in more valuable customer dialogues.
2. Engineered Systems and PaaS. With Oracle PaaS, at the click of a button you can, for instance, make an existing Oracle ERP application mobile for iOS og Android – without writing a single line of code.
3. Big Data and real-time data analysis. Technology that both qualifies and supports business decisions in real time, but which also helps to identify new business opportunities with the help of Oracle's Big Data technologies.



Cloud & Mobility dominate Microsoft's 2015 agenda

CLOUD FIRST AND MOBILE FIRST ARE TOP OF MICROSOFT'S AGENDA FOR 2015, ACCORDING TO ITS DANISH TECHNOLOGY DIRECTOR. ALL OF THE PRODUCTS AND SERVICES THAT ARE SENT INTO THE MARKET SUPPORT THE CLOUD'S VAST COMPUTING POWER, COMBINED WITH AGILE MOBILE DATA COLLECTION.

*Interview with Ole Kjeldsen,
Technology Director, Microsoft.*

"The two dominating focus areas for Microsoft in 2015 are Cloud and Mobility," says Ole Kjeldsen, Technology Director, Microsoft Denmark. "We naturally also focus on such trends as Big Data, social computing and Internet of Things, but everything is driven by Cloud and Mobility."

Ole Kjeldsen explains that Internet of Things can, for example, provide for interesting analyses that can generate knowledge we did not think possible.

"Yet much of Internet of Things is only possible because we can load data from mobile devices and sensors. In the same way, we can only crunch the vast amounts of data from Internet of Things in the Cloud, since the computing power needed will only rarely be available in a traditional data centre. So Cloud and Mobility are the be-all and end-all."

ELEVATOR-IoT

On the subject of Cloud and Mobility, Ole Kjeldsen describes how Microsoft has

helped the elevator conglomerate ThyssenKrupp with a major global Internet of Things installation. ThyssenKrupp have connected sensors to most of the components in their elevators, so that they can register basic functionality such as the number of times a cable is extended, or a button is pressed. This function data is stored in the Cloud using Microsoft Azure Intelligent Systems Service, from where algorithms can be used to generate an analysis of the relevant component's lifetime, and whether the elevator needs servicing.

"A core demand for ThyssenKrupp is to optimize their servicing operation. This is partly because service represents their biggest expense and there are huge savings to be made by optimising the processes and partly because elevators which do not work create customer dissatisfaction. Today, they can replace a component before the elevator breaks down. They can automatically order the component in good time, since a notification is transmitted from the system to the component supplier, and the component can be distributed automatically out into the support network well in advance, to avoid waiting for the replacement," says Ole Kjeldsen.

"We have five to six similar IoT cases ongoing in Denmark within production and supply chain management and we also notice the public sector beginning to show an interest in this area. Analyses of this type would be a natural in the roads and traffic area."

CLOUD, CLOUD & CLOUD

Like everyone else in the market, Ole Kjeldsen and Microsoft can also see how Cloud is the business area that currently shows the fastest development. "Our customers tell us that it's not a question of whether they will

use the Cloud or not, but solely a matter of what they will use the Cloud for, how much they will move up, and how quickly. Today, many only use the Cloud for disaster recovery, yet more and more would like to use it more actively, because the potential savings are enormous. They need a lot of help with this process, to analyse which elements of their infrastructure and application layer should be placed in the Cloud, and also to ensure that all statutory provisions are observed during this process. It also has to be determined whether there is any sensitive data requiring special handling. Assignments like these are set to explode in 2015."

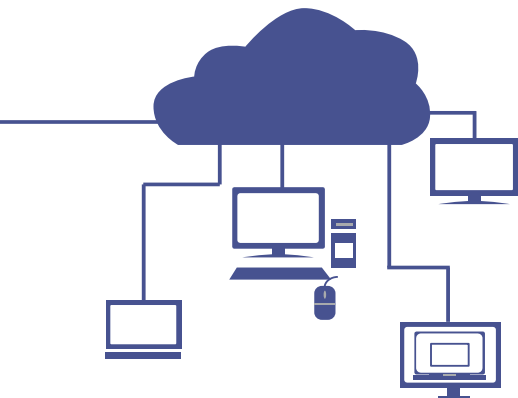
MANAGEMENT AND IT GOVERNANCE

Ole Kjeldsen explains how he can also see the platform handling area increase in scope and importance during 2015. Very few companies base their entire IT environment on just one provider, so they have a wide range of products from many different producers.

"There are challenges in terms of, for example, device management and IT governance across the many platforms. It is vital to master this discipline," says Ole Kjeldsen, going on to mention Microsoft Intune, which

provides Cloud functions for the administration of PCs and mobile devices. Companies can use Microsoft Intune for the administration of all client computers in the organisation from one and the same cockpit, including Windows, Windows RT, Windows Phone 8, Apple iOS and Android devices. Software packs can be transferred and published, and administration and security policies, as well as hardware and software, can be configured and implemented without a local infrastructure.

"You can even handle your application



portfolio in the Cloud in the same way as you handle your on-premise application portfolio," says Ole Kjeldsen.

FINE TUNING AND TWEAKING

Ole Kjeldsen concludes by naming two new IT roles that he tips will see a breakthrough in 2015. The first area is within IT security, where a coming new EU regulation, for example, will probably have the consequence that all companies over a certain size must have a person responsible for data privacy.

"Understanding data classification and privacy impact, and generally being in control of how data is processed, classified and handled – internally within the company and by subsuppliers – will be really big in the future."

"I also think that data analysts will increasingly be in the limelight. It isn't just a matter of being able to analyse the company's own data, but just as much of being able to analyse external data sources and compare them with the company's own data sets, in order to get new knowledge from the correlated data," says Ole Kjeldsen, before concluding:

"In the old days, the database administrator played the lead role, since he knew how to fine tune and tweak the systems, to achieve performance optimisation. Today, IT is more about creating value. Value is created on the basis of analysis. This role is relatively new, and therefore undefined. If you can fill this space, it will be a real eldorado for any data analyst."

AZURE MACHINE LEARNING

Microsoft recently released a beta version of Azure Machine Learning, which is a portal to create what are called predictive analyses. Azure Machine Learning makes more than 100 statistical models available, allows users to add their own models, and also includes free computing power and storage. The end-result is that companies of every size and in every industry can start to work with their data in a new way.

"We can see more and more players in the market that are not only beginning to gather data from their own production, but also collecting transactions from customer and partner dialogues. Naturally in accordance with current legislation," says Ole Kjeldsen. "Some of them may not yet be quite certain what they will use the data for, but they do have an idea that the data will be of value at some point. The hunt for this business opportunity is supported by Azure Machine Learning."

WINDOWS 10: CROSS-PROVIDER CONSISTENCY

"A fitting description of Windows 10 would be cross-provider consistency," says Ole Kjeldsen prior to the launch of Microsoft's coming new operating system.

"The majority of our customers implement a range of different servers in our Azure platform. The ambition for Windows 10 is for the user experience to be as consistent as possible across providers."

"Within Microsoft's own portfolio of devices, the Windows 10 user experience must also be as consistent as possible. Naturally there are screen difference issues when working from a smartphone and a PC, but we do get closer to a uniform experience."

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