Accenture Technology Vision for Oracle 2016
People First: The Primacy of People in a Digital Age
Introduction

People First: The Primacy of People in a Digital Age

Leaders in the digital age do much more than tick off a checklist of technology capabilities. They know their success hinges on people. The ability to understand changing customer needs and behaviors is, of course, vital. But the real deciding factor in the era of intelligence will be a company’s ability to evolve its corporate culture to not only take advantage of emerging technologies, but also, critically, embrace the new business strategies that those technologies drive.

In this year’s Accenture Technology Vision, the overarching theme almost feels counter-intuitive. In a digital world, enterprises need to focus on enabling people—consumers, workers and ecosystem partners—to achieve more with technology. Taking advantage of technology to help people constantly adapt and learn, create new solutions, drive and manage relentless change, and disrupt the status quo is critical to compete, not only for the future, but more importantly today.

Building a competitive advantage into the digital world is where we focused our perspectives in this year’s Accenture Technology Vision for Oracle. With Oracle technologies, both on-premise and in the cloud, residing at the heart of so many of the world’s largest organizations, their contribution to achieving this ‘People First’ agenda is growing more important every day.
Succeeding in today’s digital world is a challenge that can’t be solved simply by consuming more and more technology, or, as some fear, replacing humans with technology.

The amount of data our clients shelter today—whether known or unknown—is massive. These huge volumes of data are growing at extremely rapid rates and must be managed, secured, understood and applied to drive business value. The capacity that organizations have to address these requirements will hinge on the platforms that they can build and the capabilities they can develop.

That’s why we are taking a look at the five key trends of this year’s Accenture Technology Vision, and again applying our Oracle lens to these trends, each of which is set to have an enormous influence on how organizations use technology and manage their people in the digital age. It’s our people that empower the technology, and that creates leadership in the race to digital.
Technology Vision 2016 Trends: Reinventing the World Again and Again

Digital is now firmly embedded in every business. But even with technology as an integral part of the organization and its strategy, it is people who will underpin success in a world that continues to reinvent itself at an unprecedented rate.

This year’s Accenture Technology Vision highlights five emerging technology trends shaping this new landscape. Although each trend starts with technology, as you read you’ll see our ‘People First’ theme flows through each of them. Tomorrow’s leaders are taking these trends on board and executing strategies to secure their clear digital advantage.

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**Trend 1: Intelligent Automation**

Intelligent automation is the launching pad for new growth and innovation. Powered by artificial intelligence (AI), the next wave of solutions will gather unprecedented amounts of data from disparate systems and—by weaving systems, data, and people together—create solutions that fundamentally change the organization, as well as what it does and how it does it.

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**Trend 2: Liquid Workforce**

Companies are investing in the tools and technologies they need to keep pace with constant change in the digital era. But there is typically a critical factor that is falling behind: the workforce. Companies need more than the right technology; they need to harness that technology to enable the right people to do the right things in an adaptable, change-ready, and responsive liquid workforce.

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**Trend 3: Platform Economy**

The next wave of disruptive innovation will arise from the technology-enabled, platform-driven ecosystems now taking shape across industries. Having strategically harnessed technology to produce digital businesses, leaders are now creating the adaptable, scalable, and interconnected platform economy that underpins success in an ecosystem-based digital economy.
Trend 4: Predictable Disruption
Every business now understands the transformational power of digital. What few, though, have grasped is quite how dramatic and ongoing the changes arising from new platform-based ecosystems will be. It’s not just business models that will be turned on their heads. As these ecosystems produce powerful, predictable disruption, whole industries and economic segments will be utterly redefined and reinvented.

Trend 5: Digital Trust
Pervasive new technologies raise potent new digital risk issues. Without trust, businesses cannot share and use the data that underpins their operations. That’s why the most advanced security systems today go well beyond establishing perimeter security and incorporate a powerful commitment to the highest ethical standards for data.

Winners will create corporate cultures where technology empowers people to evolve, adapt, and drive change.
The integration of man and machine is a long-running theme in science fiction. Super heroes like Iron Man, Batman and Captain America—all with no power of their own—find their strength in how they meld their human form with technology to create something far greater than the sum of its parts. It’s a compelling story, and testament in the fact that Oracle has chosen Iron Man to convey the power of its software and hardware portfolio.
The symbiotic relationship between technology and humans is also a key theme of this year’s Accenture Technology Vision. Far from being a vision of the future, however, it’s a relationship that’s already enabling some enterprises to overpower the competition.

They’re doing this by using intelligent automation and other breakthrough developments. It’s how this empowers people—first and foremost—that’s the true source of its differentiating potential.

So what do we mean by intelligent automation? It’s the crucial next step in automation, utilizing machine-powered insights internally or externally in combination with people to deliver unparalleled new discoveries and sources of value. Think of it as software that assimilates and analyzes massive amounts of data to arrive at automated decisions. These decisions, in turn, help people to radically improve their performance.

Oracle has a technology stack that can enable intelligent automation. From high performance on-premises infrastructure to software that’s optimally tuned to work with the hardware, it’s a perfectly choreographed tango between hardware and software. Additionally, in the cloud, is Oracle’s recent entry into Infrastructure as a Service (IaaS). This cloud service works cohesively with all levels of Oracle’s software stack, Platform as a Service (PaaS), Software as a Service (SaaS), or traditional Oracle enterprise software available through their marketplace. For example, this cloud-based capability is being leveraged at a financial services client using Oracle SaaS for financials, Oracle PaaS for custom extensions and applications, and Oracle IaaS for development and testing environments with their legacy Oracle E-Business Suite implementation.

Achieving all this is impossible without the right people architecting, building and enabling the technology. The Accenture Technology Vision 2016 takes “People First” as its focus and the Accenture Technology Vision for Oracle is perfectly aligned with this mantra. We know that people, in collaboration with Oracle technology, can create the ideal blend for intelligent automation.
That said, successful enterprises need to embrace intelligent automation; not just to take advantage of the breakneck pace of digital change, but also to build their own digital capabilities to help them compete. There's no better illustration of this digital disruption than the finding that, since 2000, 52 percent of the companies in the Fortune 500 have gone bankrupt, been acquired, or have ceased to exist, due in large part to the disruption of traditional industry models by digital.

Digital disruption is manifesting itself in many different ways in today’s marketplace. For Oracle, their clear focus on driving digital disruption is by way of their advances to cloud—SaaS, PaaS and IaaS. In Oracle’s PaaS Cloud offering, they have introduced new cloud services that help to create intelligent automation, not just for the Oracle stack of products, but also a considerable amount of non-Oracle software and vendor solutions that we discuss here, such as Hadoop, Symantec, Cisco and more.

Alongside these advancements, Accenture is providing solutions aligned to Oracle's vision and strategy in this space. Before we discuss those, let’s understand what Oracle has built and offers around automation in the cloud. Oracle has embraced popular DevOps tools like Hudson, Maven, Git and others to assist in the build-out of automation. It offers features such as shared version control, one-step build and deploy, code reviews and integration across several Integrated Development Environments. Think of it as “Development as a Service” that helps deliver reusable automation and blueprints for the enterprise to enable agile approaches to IT development.

What’s special about all this is that these components can be treated like building blocks, which can be assembled, disassembled and reassembled in multiple configurations.

It’s the offerings from Oracle that Accenture's Oracle practice—more than 52,000 people strong—are leveraging to find ways to automate repeatable tasks on the Oracle stack. We now have more than 350 artifacts across our library in the Accenture DevOps for Oracle catalog. This allows us to deliver Oracle solutions faster, with less effort and at a lower cost.
Accenture developers build new features for our clients’ Oracle enterprise systems every day and can automatically generate test environments that are a clone of the production environment. New features are added, and the code is reviewed and tested using our automated tools. If any defects are found, intelligent systems automatically create the defect and assign it back to the developer. Accenture’s Rapid Testing for Oracle offering enables enterprises to test only the functionality that is impacted by the new feature, further compressing time to market.

It’s what Accenture Systems Diagnostics for Oracle is already doing by providing intelligent diagnoses and recommending changes to Oracle applications based on analysis of the system and best approaches derived from various Accenture Oracle client configurations.

A powerful example of intelligent automation is our Accenture Foundation Platform for Oracle, which is an accelerator that delivers development environments across more than 50 Oracle products, either on-premises or in the cloud.
Another powerful example of intelligent automation is our Accenture Foundation Platform for Oracle (AFPO), which is an accelerator that delivers development environments across more than 50 Oracle products, either on-premises or in the cloud. In many cases, efforts can be reduced from up to 30 weeks to just one day for the upfront implementation of these products in a pre-integrated and pre-tested fashion. AFPO’s automation was built to help reduce risk across deployments and deliver an architecture that’s now proven at more than 380 of the world’s leading companies.

For instance, a large manufacturing company stood up AFPO with more than 20 Oracle products in less than 20 hours, breaking the company record for the fastest stand-up in its history—which is pretty impressive for a company that’s been around for more than 100 years. AFPO paved the way for this client’s security testing, which is a process in which the developers are given days to prove out technologies in an agile manner. It has changed the decision-making process regarding what products to procure.

It’s clear that intelligent automation is a critical development that is becoming more central to how companies operate and how digital disruption affects their own industry as well as others. As the Accenture Technology Vision report states, artificial intelligence (AI) start-ups in the US alone have increased 20-fold in the past four years. And 70 percent of corporate executives have said they are making significantly more investments in AI-related technologies than they were two years ago.

This is no surprise. By 2020, there will be more than 44 zettabytes of data, 35 percent of which will be considered useful for analysis. And with decreasing storage and virtually unlimited computing power the drive to intelligent automation can only accelerate.

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Looking ahead

Accenture and Oracle are working at the sharp edge of developments in this field. Last year, Accenture developed the “Connected Hotel Worker” solution that uses intelligent automation to improve a company’s ability to deliver quality hospitality services, providing a stream of information via sensors and wearables. It utilizes the complete Oracle platform, combining Oracle Internet of Things Cloud Service, Oracle Mobile Cloud Service, and Oracle Business Intelligence Cloud Service, which is integrated with the Accenture Hospitality Suite. The solution is accelerated by AFPO which acts as an integration hub for the various cloud services. Because of the automation AFPO provided, this solution was powered up in just a few short weeks.

In the spirit of automation, this framework will be expanded to address other industry scenarios. For example, imagine how an “Intelligent Connected Hospital Worker” solution could revolutionize the healthcare industry. It’s a complicated piece of functionality, but as intelligent automation progresses, it will soon be possible to implement these new kinds of solutions much faster, with the agility we’ve come to expect from Internet start-ups.

In much the same way that our smartphones are now seamlessly integrated with our daily lives, our vision is for our customers to enjoy the same seamless experience in how they build and use applications. That makes sense. The new workplace generation of millennials will increasingly see automation as a given, rather than a novelty. Employers will have to be able to meet those expectations. So where does that leave us? Success will hinge on assessing how fast your organization is able to release new products and services, considering that the target is now weeks or even days rather than months. Additionally, organizations should strongly consider making DevOps processes the standard for delivering new IT features. All this will empower the creation of new products and services on a scale that was previously unfeasible. As Iron Man Tony Stark might say...get ready. It’s not coming. It’s here.
The mantra for this year’s Accenture Technology Vision? “People First.” Organizations can no longer rely on technology as a disrupter in its own right. What matters now is how technology can be used to empower people and transform approaches to the workforce, creating new corporate cultures that can continuously adapt and learn, create new solutions and drive relentless change.
It’s clear that people are at the heart of these new corporate cultures. But to harness their potential, organizations need new ways of investing in the development of their workforce, managing it and enabling it to adapt and embrace change.

This new workforce is described as liquid. But let’s be clear. This is not a steady, predictable flow. Instead, it’s a torrent finding its own course, constantly shifting around barriers, creating breakaway streams and eddies, pooling and then moving on again. Once unleashed, the liquid workforce will quickly build its own momentum. The priority for businesses must be to channel this power for competitive advantage.

Accenture and Oracle are working together to help organizations develop their liquid workforce and target its potential by:

1. Using analytics to provide key insights into workforce capabilities and readiness
2. Finding specialized talent by using new sourcing channels and redefining “talent”
3. Creating an agile workforce that’s built to and for change—and is rewarded for that agility
4. Enabling the ability of employees to learn and adapt in a fast-paced, collaborative environment
It's not hard to start the flow

Ask anyone who works outdoors why they chose their career. They'll inevitably say they couldn't bear a job where they had to work in an office all day “pushing paper.” Well here's some news: no one wants to work in an office all day pushing paper. Aside from the obvious benefit of (usually) staying warm and dry, even those of us who work in an office want to be engaged and passionate about what we do.

You certainly don’t have to be a part of the “Millennial” generation to want to work in an environment where you’re rewarded for learning new things; where you’re actively engaged in innovation and where technology enables you to do your job in an efficient and enjoyable way. According to the American Time Use Survey¹, the average person of working age spends 8.9 hours a day working. That’s more than any other activity, including sleeping, (which averages 7.7 hours). Why shouldn’t everyone expect, even demand, some enjoyment at work?

So your workforce wants more. It’s pushing against the floodgates. How do you release it? The first step is to understand your current workforce, using analytics to deliver key insights into its capabilities and readiness. Your HR and Talent Management system already has some or all of the data you need: hires, promotions, terminations, lengths of service, performance ratings, certifications, education levels. But are you using it to understand your workforce and identify resource and skills gaps? In many cases, probably not. According to a recent Chartered Institute of Personnel Development survey, only half of senior HR leaders believe that they link their HR analytical data to key business and financial data.²

Oracle’s Human Resources Analytics is an effective tool for pulling that data together from different data sources to generate actionable insights. Using the application’s predictive analytics capabilities, organizations can examine both current and historical data to identify current skills, areas for concern in workforce performance, and attrition data. “What if” modelling helps to determine effective corrective actions. More accurate evaluations of both team and individual performance provide the information needed to work proactively to retain top employees and fill any gaps.

Big data is transforming talent analytics and propelling it center-stage, with reports in Forbes magazine pointing to talent analytics as one of the hottest new spaces in HR.

¹ Technology Vision for Oracle 2016
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³ Big data is transforming talent analytics and propelling it center-stage, with reports in Forbes magazine pointing to talent analytics as one of the hottest new spaces in HR. Heavily focused on this area, Oracle offers one of the most widely-used business intelligence systems, Oracle Business Intelligence Enterprise Edition (OBIEE), along with a rich set of analytics middleware.
Xerox is one company that has used analytics technologies in its global HR management, and with powerful results. With data gleaned from its call centers, Xerox was able to uncover insights about which employees were most likely to stay at a call center long term. Some of the findings showed that:

- Employees with creative personalities were more likely than those with inquisitive personalities to stay long term
- Employees that excelled had at least one social media profile but not more than four

These insights proved hugely valuable for Xerox. It used them to significantly reduce employee churn. That meant real money saved, as the cost to train a call center employee was up to around US$5,000.5
Filling the talent gaps

Once predictive analytics has helped identify talent gaps, filling those gaps is the next critical step. It is also where organizations are running into trouble. A recent survey reports that approximately 38 percent of businesses globally are struggling to find the right talent.6

This calls for a rethink. Organizations need to find new ways to source talent and may even need to change how they define it.

Social media is an obvious but still under-utilized tool for sourcing talent. According to a Jobvite survey, 92 percent of recruiters use social media to support their work7 and 73 percent of 18- to 34- year-old US job seekers found their last job via a social network, according to an Aberdeen Group study.8 Compare this to the 39 percent of all employers who are using social media for recruiting and hiring according to a CareerBuilder survey.9 Organizations need to close the gap.

The talent you want is using social networks to find jobs. Shouldn’t you be using those same social networks to find the talent?

Oracle’s Taleo Social Sourcing Cloud Service helps organizations tap into the power of social networks and media by automating talent sourcing across multiple social channels. Social Sourcing uses social networks as a source of talent. Accenture is in the process of helping many of our cloud customers deploy Oracle Taleo Social Sourcing. It’s a big step for companies who are just getting used to sourcing their talent from internet job boards. But the effort is worth it. Oracle’s research shows that, on average, companies that use Oracle Taleo Social Sourcing Cloud Service hire only 1 out of 250 Monster.com applicants versus 1 out of 20 referrals from a social network such as Facebook.10 This translates into real savings. Hires sourced through third-party recruiters can have an expense up to 10 times as much as referral hires.11

The definition of talent also needs a refresh. Rigid definitions can obscure new sources of valuable talent. For example, the Italian Ministry of Labor and Social Policy launched “Growing Up Digital” in collaboration with Google and Unione camere in September 2015. This initiative brought together young NEETs (not in employment, education or training) and companies. To date 1,300 companies have joined the initiative and offered paid internships to participants and almost 35,000 eligible young people have enrolled. In other words, 35,000 individuals previously considered “unemployable” have now joined the digital talent pool.13

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Now loosen them up

Agile, flexible, fluid. These adjectives all describe the liquid workforce.
The question is, how can you transform your workforce so that it embodies
these characteristics? The answer is to enable and then reward collaboration
and new ideas.

Consider a typical software implementation program. The standard approach engages senior business stakeholders who possess extensive skills and knowledge of their subject matter. Unfortunately, they also tend to be set in their ways. To overcome that reluctance to change, Oracle Cloud implementations can stimulate new ways of looking at delivery teams. They should prompt the search for people who are passionate about the project, including junior resources who know the processes but are fresh enough to challenge the status quo.

Accenture’s project staffing model for cloud delivery projects supports this approach. In the United Kingdom, we’ve introduced a Junior Analyst program for Human Capital Management (HCM) Cloud projects. Accenture puts junior resources through a cloud “boot camp” where they learn the basics of cloud implementation. They are then placed in project delivery roles, where they’re encouraged to experience as many aspects of the project as possible.

Interaction in client workshops starts from day one. These individuals have no preconceptions about how to deliver an implementation project. They follow the Accenture methodology but are encouraged to challenge it. Their ability to influence both the senior Accenture team and their client boosts their confidence and knowledge to the extent that they commonly become critical members of the delivery team within a matter of weeks.

Or take another example with sports clothing and accessories company Under Armour. Their focus on innovation and change is so engrained in its culture that employees report that the only words they could be fired for saying are: “That’s the way we’ve always done it.” Why not adopt that same approach for your delivery team and make it a banned phrase for them too? Reward people instead each time they come up with a different way of doing something that leads to a new HR process or a new way of configuring the system to avoid costly extensions.

Truly engaged and committed team members transfer that passion into delivery and become agents for change. They will influence user adoption by talking to their friends and colleagues about the system weeks or months before it goes live, spreading the word on its usability, its key features, and its superiority to the current system. Change agents like these can play a crucial role in your overall change management strategy. You can enable them to transmit their excitement through new lines of communication including social media, video, and internal collaboration sites.
And keep them moving

Once you’ve got your workforce moving, you need to maintain its momentum. You can do this by building channels and tools for continual engagement. You must help the passion generated in one role carry over into subsequent roles during that employee’s career. IT and business executives surveyed for the Accenture Technology Vision 2016 reported that “deep expertise for the specialized task at hand” was only the fifth most important characteristic they required for employees to perform well in a digital work environment. Other qualities, such as “the ability to quickly learn” or “shift gears,” ranked higher. In fact, 37 percent of business and IT executives reported that it’s significantly more important to train their workforce today than it was three years ago. Organizations must therefore provide the opportunities to learn quickly and shift gears, and reward employees who display these valued qualities.

So what’s the best way forward? Develop a structure that can allow workers to move freely throughout the organization, pursuing roles where their innate skills are amplified by digital technology. Employees who learn new skills and regularly shift their focus in pursuit of their personal goals benefit any organization. That’s because those goals align to a common outcome for the business: inventing the new.

One of Oracle’s new cloud offerings is the Oracle Learning Cloud, a module that’s integrated into the HCM application. Unlike most traditional learning management systems, that often lack integration with HR, are plagued with outdated content, and have poor user interfaces, Oracle Learning Cloud is designed to be social, contextual, and intelligent. As part of the Oracle HCM Cloud core offering, it is also scalable and secure. Accenture is currently helping key clients around the world to deploy this new and exciting offering.

With traditional learning applications, the organization creates content and tracks training. In contrast, Oracle Learning Cloud places control for learning directly in employees’ and managers’ hands. Anyone can create and share learning modules, including linking to both internal and external sources (i.e., YouTube). It encourages the social aspect of training, including providing the ability to “like” or comment on content, make peer-to-peer recommendations, and follow contributors. Planned for the next release is a recommendation engine that can deliver personalized learning recommendations based on more than 100 person, job, and enterprise attributes, all made possible through integration with the Core HR modules.

A learning system like this, which facilitates rapid and collaborative learning, is critical to supporting an agile workforce. That is one that can shift gears with everyone following their own personal growth strategy.

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Trend 2: Liquid Workforce
Bringing it all together

Creating a liquid workforce is all about putting people first. Cutting-edge technology alone will not affect your bottom line; people using it in an effective way will. To transform those people you must harness and channel their power. Start the flow by understanding your workforce. Are they ready for change? Are they equipped to execute their roles? Where are the gaps?

Find the gaps and fill them by identifying the right talent. Explore new talent-sourcing channels and expand or rethink how you define your talent pool. Focus on creating an agile workforce, built to and for change that is project-driven and collaborative, with a passion for new ideas and a desire for continual learning. Then let the river flow by rewarding your people accordingly.

Accenture believes that Oracle’s HCM suite of products supports workforce transformation by focusing technology on people’s skills, social networks and knowledge. This can change a workforce of “paper pushers” into an adaptable, change-ready, and passionate liquid workforce.
The Platform Economy is considered one of the biggest transformations for business since the Industrial Revolution. It's a bold claim, but the speed and scale with which today’s platform businesses have developed really only hint at the profound economic shifts that lie ahead.

Trend 3

Platform Economy: Technology-driven business model innovation from the outside in

By Samia Tarraf
For most businesses—whether they are “born-digital” or have an industrial heritage stretching back over many decades—the opportunities for new growth and development are unprecedented. To capture these opportunities requires a capacity for change and the recognition that you must have a platform strategy not just to protect the profitability of your core business, but to grow.

So what do we mean by the platform economy? It’s a new paradigm of value creation. Instead of looking to new products and services to drive growth, businesses understand that it’s the digital platforms on which those same products and services are built that are the new engines of business performance. It’s why Google, Amazon and Alibaba, to name just a few household brands, have fundamentally changed how companies can do business.

With digital collaboration at their heart, platforms support broad communities of customers, providers and innovators to come together and create, launch and run new business and revenue streams. It’s what Uber has done. It’s what Airbnb has done. And many others will follow.
Operating competitively in the platform economy requires rethinking not only the platform that your customers, stakeholders and others experience. Crucially, it means having a strategy to transform the internal technology infrastructures, services and tools—your technology platform—that power your operations. For businesses born digital, native to the platform world, the key task is to mature their business systems and processes to manage operations at scale. For more traditional businesses, the challenge is how to build a digital technology ecosystem that cohesively leverages existing enterprise applications and new digital technologies to drive business performance.

These respective challenges and goals are critically important to the performance of each type of organization. Oracle technologies address both. More and more of the “born-digital” platform businesses have now adopted Oracle technologies. They are implementing Oracle solutions to run their organizations as they mature from a start-up to an enterprise. On the flip-side, Oracle technologies facilitate the transition from traditional to digital platform-based business models.

In parallel, Accenture has not only embraced this rapid platform growth, but is a leader in driving digital transformation across our clients seeking a competitive advantage in the market.

What we know is that businesses today are facing the need to integrate a number of conflicting demands. They're working out how to create and drive outcome-based business models, help reduce the cost of running their businesses and find ways to focus their energies on growing core competencies, as well as developing new ones. In doing so, they have to consider how to create and drive consistency in business processes alongside broad requirements for scalability and globalization. This must also achieve a balance between local characteristics without sacrificing the efficiency that's provided by a common operating model spanning business units and geographies.

What's more, to flourish enterprises must move at speed from idea to execution, remain connected to a broader ecosystem, both inside and outside of the company, and be able to scale and flex with changing business requirements.

Oracle technologies facilitate the transition from traditional to digital platform-based business models. In parallel, Accenture has not only embraced this rapid platform growth, but is a leader in digital transformation.

The winners in this crucial competition are finding ways to:

- **Take advantage of digital technologies**, with an emphasis on mastering analytics and making use of various channels, including social and mobile, to engage with their stakeholders
- **Leverage agile and liquid technologies** and ways of working that can scale, connect and support the speed of a digital business
- **Drive cost out of running their businesses** by moving to the cloud to consolidate systems and reduce IT spend
- **Focus on data security** as an integral element of what they do, from the ground up
- Rethink and **reconfigure talent strategies** for the digital age
The Accenture Oracle Business Group: supporting the platform business

The first of its kind, the Accenture Oracle Business Group was formed with Oracle in 2015 to bring to life our vision for an agile, connected and digital platform for our clients. Its primary objective is to provide clients with the pieces of the technology platform to become digital businesses and leaders in the platform economy—all offered in an "as a Service" model. To do that, we leverage the suite of Oracle Cloud technologies—SaaS, PaaS and IaaS—combined with Accenture’s extensive industry, technology and delivery experience.

Oracle’s corporate strategy is increasingly focused on accelerating client journeys to the public cloud. Their objective is simple: to be the single provider of cloud services spanning the entire application, platform and infrastructure stack.

The five tenets of the Accenture Oracle Business Group

Industry solutions: Industry-specific business processes configured into Oracle Public Cloud applications, with pre-built integrations back into the enterprise are supporting our clients’ ability to quickly move to the cloud. Initial solutions are focused on government, hospitality and financial services, with health and higher education in development, and additional solutions planned for launch during 2016.

Accenture Foundation Platform for Oracle (AFPO): Provides the digital glue for the Accenture Oracle Business Group. AFPO is a reference architecture, reference implementation and a set of associated assets that close the common implementation gaps in delivering Oracle products. AFPO has become an integration hub for cloud-to-cloud, cloud to on-premises and cloud to custom applications. AFPO is offered at no cost with Accenture services and is used by more than 380 of our clients. Currently in R11, AFPO forms the base by which we can expand our enterprise offerings to include Internet of Things, enterprise mobility and Infrastructure as a Service.

Accelerators: Built around Accenture Cloud Connect for Oracle, the Accenture Oracle Business Group accelerators house more than 80 migration and integration services to move existing Oracle E-Business Suite, Oracle PeopleSoft and Oracle Siebel customers into the cloud.

Managed services: Leveraging the Accenture Global Delivery Network, the Accenture Oracle Business Group offers one set of managed services to maintain the entire platform, including integration, industry solutions, and the ability to assess and implement new capabilities several times a year. Our clients can make use of our ‘digital treasure chest’ of more than 40 cloud-enabled delivery centers, and take advantage of new ways to implement and run cloud.

Commercial: The Accenture Oracle Business Group has created contracting vehicles that will help our clients take advantage of commercial constructs for new business models. These bundle Accenture services and Oracle subscriptions together, at one price per month making it easier for our joint clients.
Oracle has developed a core set of cloud applications stemming from their full suite of on-premises applications. Their acquisition strategy has complemented their development of products and services. By bringing in cloud companies like Eloqua, RightNow TOA, Taleo, Corente, Micros and Ravello to name a few, Oracle continues to strengthen its ability to meet the growing cloud market demands for clients. As the provider of a broad suite of cloud products, Oracle is one of the only vendors that can support an end-to-end, integrated cloud platform for the clients that the Accenture Oracle Business Group supports. In other words, the Accenture Oracle Business Group is itself a platform facilitating our clients’ ability to embrace digital disruption and effectively starts to build their own platform-based businesses.

Accenture Oracle Business Group

Industry Vertical Solutions

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Oracle Platform as a Service (PaaS)
Oracle Infrastructure as a Service (IaaS)

Accenture Foundation Platform for Oracle (AFPO) Cloud

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Oracle

ERP
HCM
CX
Fusion Middleware/SOA Suite
Database and Infrastructure

On Premise Adapters
Business Service Starter Kit
Digital Accelerators

Delivery Capability

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Oracle Support

Platform vision made real

Businesses know they must embrace a digital future and that means becoming a platform business. The opportunities that this creates for collaboration, new thinking and new value are too big to ignore. In order to make the journey, they need an approach to technology that can bring together the essential components of their business today with the core building blocks of tomorrow’s digital enterprise.

And in Accenture Oracle Business Group, that’s exactly what they have. A platform that enables a digital business.
Businesses today face a common dilemma. They must maintain industry-specific capabilities core to their customized on-premises technologies. That means they are managing a legacy landscape while plotting a course to the new digital world and streamlining their global businesses.

To do that, they need to find a path to a hybrid business that integrates cloud, existing legacy and new technologies. They want to take advantage of streamlined commercial options and keep pace with the rest of the market. They’re seeking to drive transformation, supported through a simple model. That means having industry standards, alongside out-of-the-box business processes. And of course, they are required to meticulously manage and scrupulously secure their data.

How does this all play out in practice? The Accenture Oracle Business Group has already made a significant impact at over 15 enterprise clients globally. Let’s take a look at a few of the more powerful examples:

A **global financial services business** was burdened with expensive legacy systems. The Accenture Oracle Business Group is helping them to move to consumption-based models for using the technologies they need to run their businesses more cost-effectively, without compromising any of their high standards for security and governance.

A **North America telecommunications provider** used Oracle to transform its customer service with the help of the Accenture Oracle Business Group. Deploying Oracle Customer Experience technologies, the company now has a comprehensive view of its customer accounts, available on demand across multiple locations and via mobile devices, which has improved operational efficiency.

A leading **North American energy company** wanted to help its HR professionals improve the efficiency and effectiveness of their HR operations. By using the Accenture Oracle Business Group platform and its accelerators, the company embarked on a program to aggressively move their HR business processes and capabilities from on-premise applications to the cloud. In doing so, they will lower their total cost of ownership and meet emerging employee expectations around self-service and more frequent functionality enhancements. We discussed this topic deeper in the previous Liquid Workforce trend.

A **global semiconductor company** needed to bring its segmented international operations into a single system for accounting and financial control. The Accenture Oracle Business Group answer: A single Oracle cloud-based application consolidated the accounting records worldwide and integrates cohesively with legacy systems.

And finally, **West Midlands Police**, a UK policing body, is leading the charge in leveraging the AOBG’s ability to provide a robust technology platform. Its Next Generation Enabling Services (NGES) program is reshaping its internal service model to move toward a more mission-focused and demand-driven culture, requiring fewer resources and assets than were previously needed. Its ambition is to be a national leader in delivering enabling services.

The NGES program will consist of the wholesale modernization of systems, processes and technology that sit behind support service functions. West Midlands Police has, at time of writing, launched 12 core projects targeted on revolutionizing service delivery with:
- A strong focus on enabling functions working together
- A first-class customer experience
- The introduction of innovative technology
- Modernized working practices

Accenture and Oracle teams are at the very heart of this transformation program, along with all the other examples we’ve provided of AOBG’s pivotal role in enabling and supporting platform-based business models.
As more companies build or partner with industry platforms, new digital ecosystems are springing up all around them. Whereas digital technologies themselves have largely driven enterprise disruption, ecosystems are now becoming the foundation for the next wave.
Unlike previous technology disruptions, which were often unpredictable, enterprises now have access to technologies that can help them capitalize on emerging ecosystems more quickly, even if they are not yet a player in the platform game. These technologies also help enterprises understand more clearly how they can contribute to the ecosystem to add value and drive growth. As a result, forward-thinking leaders can get ahead of the game, develop their ecosystem strategies, and ride the results into new markets. But they must start now.

Oracle has spent years building up its ecosystem of tools and capabilities to provide better solutions that address the technology needs across industries. Accenture has been at the helm of taking these technologies and using them to help clients perform in this new digital world. And now, the emergence of Oracle’s cloud capabilities points towards future platform integration and growth at truly disruptive scales.

How can companies benefit from these platforms? The answer lies in quickly scaling up their abilities so they can use more of their own data, as well as data from outside the organization, to derive insights, improve decision-making, and capture competitive edge. Companies that leverage the power of big data in this way, conquer the challenges of data proliferation, and make strides toward becoming fully data-driven are well-positioned to gain the upper hand.
In particular, disruptive potential comes from the ability to deal with vast quantities of data in raw form. This is where Oracle’s technologies are increasingly on target. Oracle Internet of Things Cloud Service empowers organizations to collect, route, and analyze data from sensor-based and other IoT devices. This equips organizations to prepare themselves for the onslaught of data coming their way as the industrial internet takes hold. Oracle’s capabilities here include the Oracle Big Data Preparation Cloud Service, which takes advantage of Hadoop and Spark to delve into the world of unstructured and semi-structured data.

Openness is a key platform characteristic and Oracle has responded by providing integration with open-platform tools. It has taken steps so that its Oracle Big Data products support Hortonworks in addition to Cloudera’s Hadoop distribution, along with their respective ecosystems, rather than strengthen its relationship with a single vendor.

This makes sense. Many of Accenture’s clients are now choosing to standardize on a single Hadoop distribution and Oracle is likely to prosper by broadening its appeal in this space. Moreover, with Oracle Big Data Cloud Service, Oracle now offers its Big Data Appliance capabilities via a virtualized service for rapid provisioning in its public cloud. Oracle NoSQL Database Cloud Service equivalently leverages Oracle NoSQL Database for low-latency needs. This provides its customers the choice to go into the cloud with big data, while still retaining the familiar feel of its engineered systems and products.

Aside from the wide array of public cloud offerings that Oracle has brought to market over the past couple of years, it’s important not to overlook existing platforms and ecosystems inherent in their substantial ERP applications such as Oracle PeopleSoft and Oracle E-Business Suite. These will likely only expand their capabilities in a cloud-based world. Despite various tools used for operational reporting with traditional ERP, organizations would do well to look further. Connecting their data with external systems, as well as performing deeper analysis using transactional data for predictive modeling, can provide tremendous value. Adding the cloud services mentioned above can also add value.
Oracle Global Business Units (GBUs) also provide industry-specific solutions based on Oracle core technology. These have become ecosystems in their own right. For instance, the Oracle Financial Services GBU offers advanced fraud detection, while the Health Sciences GBU has its Translational Research Center, which brings together clinical and genomic data based on a common data model that can be leveraged by other tools. Companies that take these platforms and build on them with their own unique developments will emerge as leaders.

To that end, Accenture offers the talent and accelerators that can help. We understand Oracle’s current platforms, how to integrate them and their future trajectory. The recently formed Accenture Oracle Business Group is focused on Oracle’s many new cloud offerings, and our Accenture Foundation Platform for Oracle is constantly creating new capabilities. Meanwhile, the Accenture Enkitec Group has nurtured strong relationships with Oracle core-technology product management, and is widely considered to be one of the world’s top leaders in Oracle Engineered Systems and data technologies. To sum up, we see where Oracle platforms are heading and are ready to help our clients take advantage of them, especially where data—all types—are concerned.

The Accenture Enkitec Group has nurtured strong relationships with Oracle core-technology product management, and is widely considered to be one of the world’s top leaders in Oracle Engineered Systems and data technologies.
Over the past few years, we have seen industries “going horizontal.” We see clear signs of industry boundaries blurring and subsequent shifts of market power to new entrants. Entirely new market segments have been born.

Early adapters to the “go horizontal” trend have prospered. Take Amazon, which went beyond simply retaining its place as the premier retailer of the twenty-first century. Rather than rest on its laurels, the company chose to expand its horizons based on its assets and market data to enter the world of cloud computing, further strengthening its long-term potential and overall value.

Oracle, too, has been smart. Its shift to an increasingly cloud-driven world means it now competes with the likes of Amazon and Google. All industries should begin considering the comparable developments they need to enact to remain viable for the future. As their workforces and data assets allow them to do so, companies will begin to hybridize into different markets. These shifts will also bring hybridization along many technological lines, including cloud hybridized with on-premises solutions, and traditional relational database technology hybridized with newer data storage technology.

Follow our line of thinking from the Amazon example, and consider the “Customer 360” use case, which has now become “Customer 720.” The new name indicates the burgeoning importance not simply to learn about your customers from data gathered from internal source systems, but from a variety of external data sources as well.

Accenture helps clients with customer-driven requirements like these, showing them how to leverage tools like Oracle GoldenGate for immediate delivery of data from transactional source systems to a common data lake. We have particularly seen recent interest from both utility and automotive clients wanting to leverage newly supported GoldenGate into Hadoop features for “smart” metering and monitoring IoT use cases. Accenture also helps navigate the wealth of Oracle visualization tools, such as Oracle Big Data Discovery and Oracle Visual Analyzer, which can bring answers to questions business users never even thought to ask.

Instances like this could potentially result in hybridization that keeps internal data closer to traditional infrastructure, while externally collected data enters cloud-based big data storage. Moving between these worlds is made possible by leveraging Oracle Engineered Systems, such as Oracle Exadata and Oracle Big Data Appliance, on-site, in combination with Oracle public cloud offerings. A major insurance company is even utilizing Oracle public cloud offerings as a test bed to gauge their exact requirements before moving to a larger on-premises Oracle Engineered Systems solution.
It is this combination of internal and external data that significantly enhances the knowledge of the customer and fuels discovery of value well beyond the organization and its traditional limits. This creates a number of opportunities such as expanding into complementary markets, or working in tandem with other organizations to provide a combined offering. If using the same industry-standard Oracle infrastructure, this will enhance overall integration and support capabilities.

An element of the blurring between a modern organization’s movement toward tangential industries, and unexpected business partnerships that bridge worlds is the hybridization of technology platforms. For years, businesses have run on traditional vendor-based data platforms like Oracle Database. The Ubers and Googles of this world have run on large-scale home-grown and open-source data platforms such as Hadoop. These worlds are now mixing in new ways. Many of Accenture’s Fortune 500 clients that understand the need to go beyond traditional relational storage are getting ahead by embracing the platforms that these leading household-name technology companies have already used to powerful effect.

For instance, Oracle Big Data SQL, now also available as a cloud offering, can query in a unified way across data in Oracle Database, Hadoop Cluster, and low-latency NoSQL stores. There’s a strong trend toward reducing the burden of large data sets in traditional relational systems by moving them to Hadoop, but leaving them on-line for query via the traditional infrastructure. Tools like Oracle Database 12c Multitenant allow multiple databases to come together and be managed as one. The Accenture Innovation Center for Oracle Engineered Systems has helped numerous clients generate successful proofs of concept with Oracle technology running on Oracle Engineered Systems—both in the cloud and on-premises.
Industry analysts at IDC have projected that our world will have 40 trillion gigabytes of data by 2020, a fifty-fold increase since 2010. Though fear not. The future of the world will not lie solely in the hands of data-built leviathans like Apple and Google. All organizations have the potential to stand on the shoulders of giants like these to see a clear path to their own future. Leveraging the inherent knowledge of existing platforms and intelligently assessing industry trajectories will help businesses understand how their organization can be positioned for competition with the leading technologies.

If not already there, companies should consider taking advantage of the Hadoop ecosystem for big data storage and technologies like Kafka for fast data and Spark for overall data processing. Those that are not moving in this direction are unlikely to get out in front. Many of our clients are looking at warehouse modernization initiatives, where they bring Hadoop and streaming technologies into play to supplement existing relational data warehouses. Accenture Enkitec Group can help lay the groundwork by demonstrating the potential of these solutions using our in-house hardware, while addressing each client’s requirements.

In the quest to become data-driven, organizations have begun to embrace both fast data and big data capabilities. The term “lambda architecture,” coined by Nathan Marz has become increasingly referenced by programmers and data management consultants. It defines a split between input data that will both head for immediate processing and long-term storage. At the root of this split are two simple concepts: finding the model and applying the model. The more an organization stores data with big data technologies, the more data will be available for discovery, analysis, and to enhance predictive models. These models can then be used with fast data technologies to make rapid decisions, raise alerts, and even alter and fine-tune models “in-flight.”

Typically, the competitor with informed, fast, and responsive operational models will win out. So, how can companies make sure they have the leading models? Though it may be more difficult to end up on top by directly leveraging competitors’ models, companies can still stand on the shoulders of giants by at least leveraging the same technology.
At Accenture, it often surprises us to see the dichotomy between organizations that are ready for the next move, and those that remain content to endure a long journey increasingly diverging from high performance by relying only on traditional platforms. To address this, companies should look hard at their existing infrastructure to make sure they are taking advantage of new technology to make predictions.

Oracle has made a significant investment in making sure they take advantage of industry-standard technology such as R for machine learning and Hadoop for big data storage. Companies should maintain their investment in R-based solutions, while getting a boost from Oracle's performance-enhanced features of its R solutions, which are compatible with industry-standard tools such as R Studio.

By analyzing big data with Oracle R Enterprise, companies can benefit from years of development of an industry-standard platform, geared to perform intelligently on top of the Oracle database for a common open-source interface to a high-performance back-end. They can operationalize their models by using the database executable code produced by the tool.

Additionally, Oracle Data Miner provides a GUI-based front-end tool that will help companies quickly run R algorithms in tandem to help them find their preferred model with their data. The tool does the heavy lifting of producing the model from big data storage, and also creates the code for deployment to the fast data layer for processing incoming streams. Oracle R Advanced Analytics for Hadoop augments these assets by running against data at scale on a distributed storage platform.

For finding these models, Oracle Big Data Discovery now brings two added enhancements: mixing both relational and Hadoop data, as well as availability for direct deployment on Oracle Big Data Appliance. For example, one Accenture client uses this offering to derive insights from massive urban sensor data and related records to enhance municipal services. Its intelligent data sampling and enrichment algorithms help to make searching for trends to influence models and render decision-making much more manageable. It will be available in a cloud-based version as well, to complement the visualization capabilities of new Oracle Visual Analyzer, now a part of the Oracle BI Cloud Service.

Oracle Stream Explorer provides a mechanism for fast-data processing, and can now take advantage of Predictive Model Markup Language, a standard platform for defining machine learning models. Oracle Big Data Spatial and Graph is a new product that allows inferencing and analysis on data in graph form, now ported and enhanced from the features already available for the Oracle Database.

Since companies can no longer make predictions simply by looking at competitors in their industry, it pays to look at ways to meld existing traditional infrastructures with those that match data-driven leaders in any industry. Oracle plays a preeminent role in this space by maintaining a sure footing between its technological roots and a new world of larger-scale systems and open-source tools that drive business decision-making with vast amounts of data.

Accenture helps companies navigate this increasingly complex ecosystem, to support decision-making on their path to becoming data-driven. We can help our clients to connect data, bringing a larger picture into focus from the more myopic tendencies of aging data platforms. With resources like Accenture Oracle Business Group and Accenture Enkitec Group, we deliver performance with the leading Oracle products. We add business value to companies and their customers by illuminating the patterns in predictable disruption.
Read any book about relationships and you’ll find trust defined as the foundation on which everything rests. And that goes for business too. A company’s relationship with its customers, business partners, and broader ecosystem all hinge on trust. Once, establishing that trust depended on a firm handshake and a steady gaze. But in the digital age, things are more complicated. Most relationships are sight unseen. The distances between entities are greater. And the interactions between business partners are infinitely more complex. Yet, establishing trust remains paramount.

Trend 5

Digital Trust: Strengthening customer relationships through ethics and security

By Nish Patel
Digital raises the security stakes

So how do you create and sustain digital trust? It’s through a combination of security and ethics at every stage of each digital journey.

As more and more companies become digital enterprises, they’re placing entire topographies of customer interaction online. They are transforming from traditional products to platforms. In the process, critical revenue channels become driven by a value chain of data, integration, infrastructure, and technical interactions—most of which the end user never sees. Instead they implicitly trust that the information they provide will be safe and protected. If security is breached, it won’t matter where it happens. As far as the customer is concerned, only one thing matters: their trust has been broken. And with that, an entire revenue channel is put at risk.

In the digital age, companies can lose a customer in a few mouse clicks. An unhappy customer has always been able to take their business elsewhere. But now, with the proliferation of social media, they can also take hundreds, or even thousands, of other customers with them. A violation of trust from a security breach can impact heavily on top and bottom lines. It can even cost C-level executives their jobs—a phenomenon that we’ve witnessed in the aftermath of various recent high-profile data breaches.¹

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Accenture’s Technology Vision 2016 defines digital trust as a combination of digital ethics and security. Although consideration of ethics should be a key part of digital transformations, it’s still a new concept for most businesses. Pressure to act is not just coming from customers. Knowledge workers are demanding that their employers put in place stronger ethical controls on data.

Currently, most companies’ strategies align to a single vector: privacy. But that’s just one component of data ethics. Digital ethics is broader, encompassing the operational processes where data is applied to affect real-world outcomes.

**Figure 1: Digital Trust Wheel**

- **Digital Trust**
  - Security
    - Identity management
    - Tracking and compliance
    - Behavior alignment
    - Business alignment
    - User engagement
    - Infrastructure security
    - Application security
    - Device security
  - Competencies
    - Governance
    - Identity management
  - Confidentiality
    - Cyber defense management
    - Specific technologies and practices
  - Data integrity
    - Establish a code of data ethics
    - Taxonomies for impact along the data supply chain
    - Ethical decisions throughout the customer journey
  - Ethical algorithms
    - Responsible systems
    - Privacy and the implications of doing no harm
  - Transparency
    - Data sharing and practice are governed by informed consent
    - What anonymity in data sharing really means
  - Digital Ethics
    - Fairness and justice in data sharing
    - Ethics in algorithmic decision-making
    - Ethical implications of emerging technology
To achieve the security aspect of digital trust, various components must be addressed in a complex web of interconnecting layers. These consist of executive directives, policies and procedures, preventive and detective security tools, security analytics, and timely threat recognition and response. The "Digital Trust Wheel" in Figure 1 shows all these components. Oracle products and Accenture’s services address the core segments of data integrity, device security, application security, infrastructure security, business alignment, governance and compliance, identity management, and cyber defense management. As most of Accenture’s clients, many in the Fortune 500, run on Oracle, either Applications or Database, in some form, leveraging Oracle’s security products to protect the data makes perfect sense.

Customers invest their trust right from the start of any interaction, which normally means the user interface and functionality of a website or application. They trust that only authorized and authenticated users have access to their bank information, their order history, or their personal information. Accenture uses Oracle Identity and Access Management to deliver a scalable and secure solution for user authentication and authorization. For example, Accenture has supported several large US state governments’ migrations to platforms that provide millions of customers with covered care and health information exchanges. Applications like these are full of customers’ personal data.

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Managing identity and access

Another aspect of identity and access management that we must consider is human behavior. Unfortunately, people are typically the weakest link in any technology chain. Risk-based access management has matured. It’s now a critical checkpoint to combat compromised credentials. At a large State entity, for example, Accenture integrated Oracle Identity and Access Management with adaptive access that would present additional challenge questions if an unrecognized pattern was detected (i.e., unknown location, device, or atypical login time).

Accenture has also now created an IAM-as-a-Service (IAMaaS) solution based on Oracle Identity and Access Management to provide the capabilities of an on-premises solution in the cloud. This helps enable customers to rapidly deploy an IAM solution—with extensive functionality—without worrying about technical expertise or maintenance of the application.

It can be an integral component of companies’ moves toward an agile development framework, helping them to establish the first step in digital trust.

Once a customer has finished an interaction with a company, their minimum expectation is that their data will be kept secure. In response, an identity and access solution controls the majority of authorized access vectors. But privileged access management also requires close attention. The 2015 Verizon Data Breach Investigations Report states that “60 percent of incidents were attributed to errors made by system administrators—prime actors responsible for a significant volume of breaches and records.” To address this, Oracle Privileged Account Manager allows companies to manage, monitor, report, and audit those critical accounts that have access to sensitive data.

Risk-based access management has matured. It’s now a critical checkpoint to combat compromised credentials.
Security must follow the data

Taking the right steps internally to gain customer trust is only half the battle. Making sure outsiders don’t gain unauthorized access to data and exploit hard-won trust is also crucial. The amount of data by 2020 is expected to exceed 44 zettabytes \((10^{21})\). And that’s why next-generation security mechanisms are ‘following the data’, taking user behavior into account and extending security well beyond the perimeter. Wherever data goes, security must follow. New products are addressing this challenge by integrating security solutions, such as security-aware application design, integrated database security, dynamic access controls, and runtime application protection.

A data-centric philosophy is also revolutionizing the layers and methods with which data is secured. For example, traditional security methods focused on perimeter security via firewalls and intrusion detection systems (IDS). However, threat modeling and vector-based approaches highlight why it’s paramount to add a layer of security directly to where the data is stored. Accenture is one of the only providers that currently delivers Oracle Audit Vault and Oracle Database Firewall as an appliance solution to protect that storage layer. While traditional IDS look at payload, Oracle can profile threats down to the SQL statement to identify security violations. This appliance works with traditional databases and also big data solutions such as Hadoop and MySQL.

Encryption is a well-known defense measure for securing stored data at rest. It should be a key component of every security strategy. But all too often, it’s missing or not being used. Companies often cite overhead and performance as barriers to its adoption. Even when encryption is in place, several aspects of data security are frequently overlooked. How is data secured when backed up? What about the secured state of data coming on and off the disk? This is despite the fact that memory-based attacks are on the rise and evolving fast, according to Mandiant’s 2015 trend report.²

All of the barriers to adopting encryption can be solved by using Oracle Engineered Systems. Using cryptographic acceleration, Oracle’s Supercluster M7 helps provide protection from attacks against data in-memory, on media, or transmitted over the network with limited overhead. By using Accenture Technology Labs and the Accenture Innovation Center for Oracle Engineered Systems, customers can ‘try before they buy’, validating the speed, performance, and security of their systems and customer data. It’s an essential next step. Securing all states of data, at the data, is vital for digital trust.

Even when encryption is in place, several aspects of data security are frequently overlooked. How is data secured when backed-up? What about the secured state of data coming on and off the disk?
Securing the legacy

In their rapid move to the digital economy, companies will most likely deploy new applications that still rely heavily on the integration of several unseen back-end applications (running legacy code and legacy security architectures). When it comes to security, this often gets overlooked. In the rush to the new, it's often assumed that existing IT systems create no new threats. This could be a very costly oversight. To address it, companies can deploy Solaris zones, a method of virtualization to isolate applications and limit their exposure.

Insider risk can be mitigated by UNIX control and role-based access controls (RBAC) to fine-tune granular access. These applications can be managed with delegated administration, RBAC and process privileges. These help establish application root privileges and restrict access to the processes an application needs, removing the responsibility for security from the application developer and obviating the need to update or modify an application’s legacy code.

Connecting security with devices

Securing trust in the digital economy means establishing that trust directly with the customer and increasingly with their connected devices. The Internet of Things (IoT) is expected to embrace more than 50 billion such devices by 2020. In many cases, customers can be unaware of all the data that’s being captured, stored, and shared. However, their awareness (or lack of it) is beside the point. Companies are expected to act as responsible stewards of data, regardless of its source. The security points described above—identity and access management, data security, insider threats, and so on—apply equally to IoT. But there’s another dimension: the security of the device as an endpoint.

The security of a device versus that of a human is similar, yet also quite different. That’s why Oracle addresses security at both the data and device levels. For example, Oracle Internet of Things Cloud Service manages device endpoint metadata and lifecycle states. It also helps provide the registration and activation mechanisms needed to make all devices part of a secure IoT solution and it authenticates network communications and data streaming to help verify that all the components using data are part of the organization’s IoT network. Meanwhile, Java provides embedded security that facilitates reliable and secure messaging, and Oracle’s Database Security, Advanced Security, and Identity and Access Management products provide end-to-end security capabilities for allowing access, controlling access, and securing stored data at the network’s edge and in central data stores.
Reaping the rewards

Success in tomorrow’s digital business will largely depend on security decisions made today. Organizations should manage data and digital ethics as core strategies for mitigating business risks, just as they do with cybersecurity. Their reward? Unprecedented growth in an interconnected platform economy, with minimal downside risks.

Those who master this transformation can move beyond the first level of customer trust, namely that products will meet or exceed expectations, to a higher level where empowered individuals trust a company to lead them into the digital future. The road is not easy, but Accenture has the tools, such as Accenture Foundation Platform for Oracle, which can help kick-start the journey to a well-structured security landscape.

Success in tomorrow’s digital business will largely depend on security decisions made today. Organizations should manage data and digital ethics as core strategies for mitigating business risks, just as they do with cybersecurity.
Conclusion

The New Mantra for the Digital Business: People First

Leveraging the power of a digital business is no longer simply about incorporating new technologies into the organization. It’s about reinventing the organization—and the culture within it—to drive innovation, to drive change, and to drive the business into the next generation. These digital strategies and disruptions are still emerging, but the proactive enterprises that take the next few years to carve out their places in these newly forming digital ecosystems will be those that define their own destiny.

The technologies and solutions available today will enable reinvention, and as we’ve seen here, Oracle technologies are at the forefront of this digital revolution. The question for every enterprise is this: Can you lead your people to get there? Every enterprise has the opportunity to become leaders or further their position. While technology continues to be the foundation of innovation, it's how companies empower their people to use these technologies that will ultimately decide their digital fate.
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Trend 1


Trend 2

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Trend 5

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