DIGITAL TRANSFORMATION
DISRUPT OR BE DISRUPTED

As people, business, and “things” increasingly interconnect in the digital economy, existing business models are being disrupted radically. Be prepared for this disruption or get disrupted.
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Digital Transformation: The Journey Begins Now

Making changes that are transformational—and not just incremental—is what that will differentiate the leaders from the laggards.

When
Digital transformation has shifted from “nice to have” to “must have” for organisations across industries and geographies. While challenges are abound—from how to digitise IT and digitally interact with customers to how to integrate new digital services with existing products and solutions—the time to act is now.

Why
Companies that fail to get beyond an incremental mindset—and view technology as a tool rather than an integrated part of a vastly different business future—risk their very survival. And they need to understand and prepare for the impact digital disruption will have on their people, business, and IT department—and then turn digital into a competitive advantage.

How
Digital transformation is built on new computing infrastructure—the pillars of mobile, cloud, big data, and analytics—accelerated by the Internet of Things (IoT), advances in machine learning, artificial intelligence, and innovations like blockchain. These disruptive technologies are giving companies the ability to radically change business models, and create new products and services.

A large majority of companies understand the importance of digital transformation to their survival. But just 3% of them have completed digital transformation.

Only 3% Are Leaders
Completed digital transformation projects across the organization

22% Planning stage
55% Piloting programs
19% Completed digital transformation projects in some areas of the business but not others
1% Not yet begun Planning

Source: SAP and Oxford Economics

To learn more, please visit www.thinksolution.asia
Key Pain Points | Banking

Banks are no longer competing merely against other banks, but everyone offering financial services. Fintechs, social media platforms, technology companies, telcos, retailers, and other non-traditional players are entering the banking space. To compete in the digital world, they need to:

**Improve customer experience:** Banks need to engage customers with a real-time, omni-channel digital experience. They need to leverage technologies that drive customer-centric business models with real-time execution capabilities that deliver a seamless, consistent, channel-optimized experience. However, they are hindered by the use of legacy technologies which hampers multi-channel integration.

**Predict customer needs:** Technologies like big data and sophisticated predictive analytics can provide 360-degree customer insight enabling banks to anticipate the behavior of their customers, respond to their needs, and rapidly engage them in real time. For this they need to adopt cutting-edge computing infrastructure to power these disruptive technologies.

**Reduce operating costs:** Decreasing costs to combat reduced margins and increased competition requires banks to simplify and automate their processes. While machine learning can automate knowledge work and cloud solutions can standardize processes, banks are saddled with legacy processes which makes this transition difficult.

**Meet regulatory and compliance norms:** The unprecedented volume of global regulation is placing considerable demands on banks from a compliance perspective. The best defence against this relentless change is a holistic and open system architecture that supports an integrated approach to finance, risk, and compliance that enables new business processes and unanticipated future regulatory demands.

40% of mobile interactions will be facilitated by smart agents by 2020
(Source: Gartner)
Key Pain Points | Manufacturing

Embracing the fourth industrial revolution is essential for manufacturing companies to survive in the future. However, they need to redefine their core processes and rebuild their business strategies around digital technologies. Successfully embracing opportunities from new disruptive technologies will allow them to differentiate themselves and create:

**Digital supply chains and smart factories:** In a digital world, manufacturers need to organise their production lines and supply chains differently with intelligent interaction between products, machines, processes, and people. This can fundamentally alter cost structures, increase customer intimacy, and improve margins. To achieve this, they need an IT architecture that provides stability, scalability, and long-term reliability.

**Customer centricity and mass customisation:** With digitised products, manufacturers will increasingly be able to target the “segment of one”. In addition, they will be able to enhance customer relationships through smart digital products and servitisation with information such as machine data being resold to digital networks. However, they are hindered by a lack of open platforms to share information with customers and business partners.

**Servitisation:** In the future, manufacturers will find opportunities to enhance customer experience through servitisation of smart digital products. By doing this, they will move from selling products to selling performance and services based on consumption. In order to adopt this new model, they will need digital collaboration platforms that includes business partners.

**Digital smart products:** By adding sensors, computing, and communication capabilities to their products, manufacturers can make their products smart which can self-solve problems and connect and collaborate with other machines to increase efficiency and reliability. However, they will need real-time and predictive analytics to leverage the data that is continuously generated by these smart products.

10% of the data in the digital universe will be coming from embedded systems by 2020 (Source: IDC)
Key Pain Points | Healthcare

Digital healthcare networks will be the foundation for a new, consumer-centric healthcare ecosystem which connects patients, professionals, and providers in real time for more responsive, patient-centric age. This transition to digital healthcare offers many opportunities, and will allow them to:

**Improve patient experience:** Digital technologies are enabling patients to make better informed choices regarding their health and this is fundamentally altering their expectations. Healthcare providers need to play digital catch-up and ensure they are aligned to these higher expectations. Unfortunately, many are still stuck in an analogue world.

**Free up healthcare workers:** Many healthcare professionals are bogged down with coordination and back-office processes, which drives up costs and leads to poor patient experience. New digital tools can enable them to focus on patient care by freeing them up from paperwork and routine tasks. To achieve this, healthcare providers need to redesign their applications and enrich them with machine learning and embedded analytics.

**Empower doctors:** Advances in digital healthcare now include the use of IoT, machine learning, and embedded analytics to provide faster and more accurate diagnoses. However, healthcare providers will have to adopt the necessary infrastructure and processes to leverage these technologies.

**Leverage data-driven innovations:** With a digital healthcare network, driven by hyperconnectivity and big data science, the ability to remotely monitor patients, collect health data, and react early to—and even predict—medical conditions will massively change the healthcare value chain. For this, healthcare providers need to reimagine their processes and adopt new digital technologies that can enable patient data portability and transmissibility.

(Source: The clinic 4.0 is coming, Ärzte Zeitung, Germany)
SAP: The Fast Track to the Future

While organisations have unique industry-specific challenges, many of their objectives—improving operational efficiency, enhancing customer experience, and innovating with data-driven products and services—remain the same. In this, SAP is uniquely positioned to help organisations, across industries, reach their goals.

Achieve Operational Excellence With SAP HANA

By bringing transaction and analytics layers together, SAP HANA—an in-memory data platform that allows the processing of massive quantities of data to provide extremely fast results from analysis and transactions—significantly increases the performance of applications. It also handles structured and unstructured data and improves business processes and operational efficiency.

Integrate Future-Facing Technologies With SAP Leonardo

By delivering software and microservices that enable customers to leverage future-facing technologies like the IoT, machine learning, blockchain, analytics, and big data, SAP Leonardo helps organisations speed up their digital transformation journey. In addition, by providing design thinking methodologies and data intelligence tools, SAP Leonardo’s holistic approach can support organisations in every aspect of their digital innovation strategies.

Innovate Using Data With SAP Data Hub

A data sharing, pipelining, and orchestration solution that helps companies accelerate and expand the flow of data across their modern, diverse data landscapes, SAP Data Hub provides visibility and access to a broad range of data systems and assets. It allows enterprises to unearth new opportunities from data, resolve emerging data issues, and ensure that data is flowing to where it needs to go, thus helping enterprises in their digital transformation journey.

Worldwide generation of data will grow from 16 billion zettabytes in 2016 to 163 billion zettabytes by 2025, according to IDC. SAP helps organisations realise the value of this data by enabling them to transform data into insights, empowering them to act in the moment, and innovate without constraints.
The Infrastructure Equation

While software and applications will enable organisations reap the benefits of digital transformation, these need to be powered by robust, high-performance hardware that can scale rapidly, manage huge data volumes efficiently, and operate reliably. While choosing underlying hardware infrastructure, decision makers must ensure:

**Reliability, Availability, and Scalability**
For a successful digital transformation initiative, it is critical that the infrastructure powering software and applications is highly reliably and available because even brief interruptions of service can impair decision-making processes throughout the organisation. Underlying infrastructure also has to be scalable to meet the future demands.

**High Performance**
Since the technologies powering digital organisations will require to run massive transactional and analytical workloads from the same underlying hardware infrastructure, performance of systems is critical. If the performance of hardware driving new-age digital applications is not up to the desired level, it could put an enterprise’s entire digital transformation journey in jeopardy.

**Low TCO**
Organisations need to keep their hardware’s TCO as low as possible while implementing digital transformation initiatives. While hardware infrastructure and software account for a major portion of costs, firms should also take into account costs associated with the facilities used to host infrastructure, the energy consumption of IT equipment, and cooling costs.

**Implementation and Support**
Implementing reliable and scalable infrastructure for new-age technologies is key to the success of a digital transformation initiative as it can have a direct impact on cost and performance. Also, infrastructure needs to be supported throughout its lifecycle—from planning to end-of-life—to drive maximum value.

Accurately sizing infrastructure requirements for digital transformation projects is critical as it has a direct impact on both cost and performance.
Lenovo: Powering Digital Transformation

Choosing the right hardware partner is key to a successful digital transformation initiative. For years, Lenovo has provided differentiated advantages for diverse SAP application workloads driving the digital economy. In addition, SAP and Lenovo have enabled several innovative solution offerings, and Lenovo leads SAP HANA deployments with more than 10,000 systems shipped worldwide. Some key advantages offered by Lenovo are:

**Unparalleled Performance**

In partnership with SAP, Lenovo has broken multiple world records demonstrating that it can bring customers the best in server performance. SAP-certified benchmark results have shown as much as a 33 percent boost in performance and I/O throughput for the new generation of Lenovo ThinkSystem servers.

**Best RAS**

For over four years, Lenovo’s x86 servers have held the top spot in reliability. In fact, SAP itself uses Lenovo servers to run its business and develop the next version of SAP HANA. With 99.998% hardware availability achieved by mission-critical servers, Lenovo’s modular design ensures seamless upgrades, resulting in operational savings.

**Lowest TCO**

The three-year total cost of ownership of Lenovo systems for SAP HANA are the lowest in the industry for both scale-up and scale-out solutions. Lenovo’s scale-up 8-socket, 12 TB solution is estimated to cost 31 percent less than comparable systems from Cisco and HPE. Lenovo offers the lowest TCO in the market compared to any SAP-certified hardware vendor.

Running **SAP HANA on Lenovo Systems gives us a strong competitive edge in both domestic and foreign markets.**

David Bevc, Head of Cloud Services, Unistar PRO
Robust Infrastructure Certified by SAP

Lenovo holds the largest portfolio of SAP-certified solutions. In addition, the Lenovo ThinkSystem platform is a reference architecture for SAP itself. Lenovo’s ThinkSystem servers are the only SAP-certified hardware available that have been built around the IBM Spectrum Scale file system, which gives them a unique edge in both cost and performance.

Largest Scale-out SAP Certified Configuration

Lenovo is a market leader for hardware systems certified by SAP offering the highest performance and reliability. In fact, Lenovo has the largest scale out configuration of 564TB for BW4HANA that is certified by SAP. The Lenovo ThinkSystem SR950 mission-critical servers have a scale-out configuration that can support up to 94 nodes.

Hyperconverged Infrastructure

The Lenovo Converged HX Series appliances are designed to simplify IT infrastructure management, reduce costs, and accelerate time-to-value. These appliances combine hyperconvergence software from Nutanix with Lenovo enterprise platforms and deliver the most feature-rich hyperconverged infrastructure by bringing the benefits of web-scale technologies to enterprise applications.

“Lenovo offered deep expertise in designing and supporting systems based on SAP HANA, which helped us to complete a successful migration from Oracle database to SAP HANA.”

Hamza Al Bakri, IT Manager, Gulf Ocean Trading Co.
Lenovo Solutions: Pre-configured for Success

Whether your business runs a high-performance data center or manages terabytes of transaction or streaming data, the Lenovo portfolio of x86 servers, storage, and software can help your organisation achieve high performance and scalability, low TCO, swift time-to-value. With its track record of spurring new product or service innovation, Lenovo products can truly help organisations in their digital transformation journey.

- Lenovo Solution for SAP HANA
  Pre-configured systems designed to help firms instantly access, model, and analyse all of their SAP transactional and analytical data in real time.

- Lenovo Solution for SAP Data Hub
  An integrated end-to-end solution built on selected, proven-to-work components, with a flexible building block approach for high scalability.

- Lenovo Solution for SAP Business Suite

- Lenovo HX Series Solution for SAP Applications
  Delivering the benefits of hyperconverged systems to SAP Business Suite applications running on Lenovo ThinkAgile HX Series and Nutanix platform.

- Lenovo Workload Optimised Solution for SAP HANA
  These are tailored configurations for SAP HANA based on SAP’s latest TDI Phase 5 release, which focus on lowest TCO, highest ROI, and better investment protection.

- Lenovo Converged Analytic Platform for SAP Leonardo
  Use Lenovo Converged Analytic platform & SAP’s AI platform (Leonardo), to create, run, consume, & maintain machine self-learning apps by using algorithms that require no data-science skills.
Lenovo Leadership

160+ countries served by Lenovo.

#1 in reliability among mainstream server hardware platforms, with 99.999% uptime.
(Source: ITIC 2017-2018 Global Server Hardware/OS Reliability Survey.)

33% increase in performance and I/O throughput for the new generation of Lenovo System x servers, according to SAP-certified benchmark tests.

#1 in SAP performance and HANA installations. Lenovo is SAP's largest partner with over 50 percent of SAP HANA installations on Lenovo hardware.

#2 top500 HPC vendor and is the fastest growing TOP500 HPC vendor worldwide.

Easy IT administration with Lenovo's advanced management tools.
(Source: ITIC 2017 Global Server Hardware/OS Reliability Survey.)

88 world record benchmarks held by Lenovo for x86 server performance.
(Source: As of November 8, 2017 on benchmarks including STAC-M3 and SPEC benchmarks.)

Lowest TCO in the market compared to any SAP-certified hardware vendor.

99.998% hardware availability achieved by mission-critical Lenovo servers, when combined with Lenovo committed repair service offerings.
(Source: Internal Study according to Lenovo internal repair action statistics.)

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Easy IT administration with Lenovo's advanced management tools.

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