Enable Your Digital Value Chain and Run Simple with SAP S/4HANA

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Executive Summary

The future of business in the digital information age is now. A network of networks – across social, business, and devices – is creating revolutionary conditions that can potentially double the current size of the economy to $90 trillion\(^1\) by the year 2020. This networked economy is creating new opportunities for business that touch every aspect of the value chain.

The Current Reality
Five years ago, there was only a handful of data sources, each with limited granularity. Now, every two days, we create as much data as we did from the dawn of civilization up until 2003. Information has exploded, and businesses need to figure out how to harness and take advantage of this shift.

Customers now have even more control of their purchasing decisions, and businesses struggle to understand customers’ digital footprint to cater to their requirements. Talent strategies need to align with what the digital information age offers – more collaboration plus transparency. Resources need to be managed more efficiently to optimize the impact to the P/L, and businesses need to shift from traditional supplier interactions to leveraging the unconstrained access to global networks.

Relevancy and impact of the digital information age will vary for every organization and industry, but it is clear that business complexities must be reduced to drive the future as they can lead to lost sales and profits.

In addition, the prevalence of these complexities across the value chain results from the fact that today’s systems are not able to support current requirements, they do not allow for real-time information, inter-connections between processes, or a holistic view of information internally and externally across all key stakeholders.

The Future of Business Requires Simplicity
Businesses can focus on simplicity by reshaping how they interact and make decisions. By leveraging a digital business platform, the following capabilities will be enabled:

- **Innovate for the future**: Focus on driving new business models and revenue streams instead of keeping the lights on and maintaining the “status quo”
- **Run your business in real-time**: Enable real-time decisions and processes from information anywhere, anytime, on any device, at any level of granularity
- **Simplified, connected, and open architecture**: Integrate enterprise processes around a simplified core data model with best practice, pre-built innovations as well as the ability to include customer innovation and partner solutions
- **Empower your users**: Provide users with a simple and intuitive way to create value through the digital value chain

How Can SAP Help?
SAP is the only partner that can power your entire value chain and turn complexity into simplicity. By leveraging SAP S/4HANA as the digital business platform, the value chain will truly be digitized. This means that processes are redesigned by interconnecting the back office and front office, connecting with internal and external networks, and taking advantage of the Internet of Things. This Point of View document will help you take the next step in simplifying everything within the digital value chain across all lines of business and driving your innovation platform for the future.

Next Steps
The proposed next step is to partner with SAP Industry Value Engineering to articulate the business case and value-based road map to chart your journey.

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Today’s Reality: Value Chains Supported by Yesterday’s Systems, Disconnected Processes, and Siloed Information

Businesses today struggle with too much complexity inhibiting them from addressing vital business requirements – meeting stakeholder expectations in real time. Current processes have been intrinsically designed inefficiently as the available technologies have forced organizations to use outdated capabilities such as batch jobs and multiple data sources. Systems are built to support yesterday’s business and not what the future requires. Siloed information makes decision compounds the delays when decisions need to be made across end-to-end processes spanning multiple business areas. Ultimately, even the processes themselves are not integrated, leading to even more delays. The transition to the digital economy, the Internet of Things, social media, and other external, structured and unstructured data flows adds to the complexities that must be addressed across the entire value chain before running simple can become a reality.
Time for a New Mandate: Run Simple
Business and IT simplicity at the core of the digital value chain

Running simple requires a fully optimized end-to-end digital value chain. Outlined below are key attributes required to address this new reality:

- **Connected processes**: Interconnected customers, resources, people, and suppliers to make immediate business impact from planning to execution
- **Real-time insights**: Analyze information immediately across internal and external channels (e.g., network, IoT, social) to drive business insights without the need for aggregates
- **Modern technology platform**: A digital platform that supports business today and in the future and also provides stakeholders with the ability to interact with each other with ease

With the digital value chain enabled by the digital business platform, opportunities are available to drive value and optimize your customers’ experience. This platform provides the foundation required to support real-time decisions across all areas that are part of a digital value chain so that businesses can focus on strategic priorities versus spending their time keeping the lights on.

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**The Digital Value Chain**

- **Omnicommerce**: To deliver exceptional experiences to your customers across every channel of interaction
- **People**: To enable the workforce of the future – employees + contingent labor
- **Resources**: Manage materials, assets, money, and other resources better
- **Suppliers**: Enable frictionless commerce by managing suppliers better

All LoBs running in real time on a digital business platform

The digital value chain
Introducing the SAP S/4HANA Digital Business Foundation

Over the years, growth in transactional databases and other data sources as well as their associated systems have complicated enterprise applications and infrastructure. This, in turn, has complicated and stymied many organizations' ability to meet the needs of the business, whether that be timely access to analytics, the ability to absorb new business models, or to create new, streamlined business processes.

In response, SAP is rewriting and simplifying its applications to take advantage of its in-memory business platform. This new and unique enterprise application is called SAP Business Suite 4 SAP HANA (SAP S/4HANA). It removes previous technological barriers and helps companies manage complexity and run simple across the digital value chain.

### Reimagine business

With the enterprise running in real time and Big Data at the core, new business models can easily be configured and opportunities to grow revenue and market share can be realized.

### Reimagine IT

The IT landscape is dramatically simplified by the consolidation of transactional and analytical data into one common in-memory structure. The application code is streamlined to leverage real-time processing. TCO is reduced, and performance is improved.

### Reimagine user experience

People-centric interfaces simplify the user experience. Business users can interact in real time and access all data, of all types, on any device.
What the Digital Business Foundation Means

To envision the possibilities provided by a real-time, digital, simplified, and modern business platform, the following strategic areas articulate the business and IT capabilities that are enabled as a result of the digitization of the value chain.
By 2020, there will be as many as 50 billion devices connected to the Internet. Research also shows that there is over $14.4 trillion at stake from a combination of increased revenues and lower costs for organizations that harness the Internet of Things and mandate that businesses focus their strategies on taking advantage of the technology’s inherent business opportunities.

- **Customers/consumer-driven demand across value chains:** Increasing customer/consumer-generated data offers new insights into behavior, and businesses must harness this information to drive meaningful insight.
- **Asset optimization and utilization:** Real-time asset usage, transparency, and the ability to optimize utilization will lead to increased revenues. Vital integration between assets and business processes will set the stage for the next level of value delivery across supply chain and logistics.
- **Emerging business models based on usage and metering:** New business models seek to ask less of value chain stakeholders and deliver more based on sophisticated usage models, meter data, and data science.

The SAP S/4HANA digital business platform serves as the only holistic foundation to enable businesses to innovate for the future and address these complexities. As 74% of the world’s GDP runs through SAP system, it is our responsibly to ensure that this platform monitors, analyzes, and automates digital business in real time while continuously generating data-driven intelligence from all connected things, core business processes, and lines of business.
Innovate for the Future

SAP S/4HANA enables all assets, structured and unstructured data, and business processes across the digital value chain to be connected through a common digital business platform. As a result, organizations can truly explore new business models never before imagined. Outlined below are specific, representative use cases that will be enabled through the complete integration to real-time information and process optimization. You will gain the ability to turn insight into action at the speed required. These use cases, while specific to select industries, can be adopted on a broader scale as more and more industries are breaking down the barriers to expand beyond their traditional business functions.

### Connected customer intelligence

**Retail**
Expand beyond traditional boundaries by leveraging wearable technology to understand not just what customers buy, but how they use products ultimately driving increased sales.

**Utilities**
Deliver targeted demand programs to increase energy adoption and revenue, reduce costs via more accurate forecasts, and achieve energy savings with the ability to take energy profitability, forecasts, etc. and turn them into instant insight.

**Insurance**
Align telematics data from cars and driver performance with customer and financial data to provide a personalized experience, including offers tailored to each policy holder.

### Connected manufacturing and logistics

**Industrial machinery**
Proactively schedule maintenance events based on customer profitability so that work orders are aligned with high-value customers based on scarce resource availability.

**Transportation**
Gain real-time transparency into transportation progress, optimize inbound and hub-internal traffic, shrink wait times and the need for manual monitoring with the goal of exceeding customer expectations by providing the end product on time.
Run Your Business in Real-Time

In today’s business environment, functional areas often are working in silos and/or are dependent on information from multiple areas of the value chain to drive business decisions. This results in latency and significant loss when it comes to top- and bottom-line impact. With SAP S/4HANA as the digital business foundation supporting your end-to-end value chain, this scenario is eliminated as information required from multiple functional areas can be accesses in real time to drive decisions immediately. Outlined below are the strategic capabilities that are simplified with the SAP S/4HANA digital business foundation.

<table>
<thead>
<tr>
<th>Strategic capability</th>
<th>Future state with SAP S/4HANA digital business foundation</th>
<th>Customers articulate the value</th>
</tr>
</thead>
</table>
| Process optimization | • Automation of tasks across the digital value chain through integration between SAP S/4HANA, the business network, and the cloud  
• 800 core processes optimized to reduce inefficiencies  
• Elimination of redundant or non-essential tasks as key processes are simplified | “We have run SAP ERP since 2002, and will now change our platform to SAP HANA, to enable us to take advantage of SAP’s continuing innovations such as SAP Simple Finance, to meet our goal of being a technology leader both in our own business, as well as in our internal support processes.”  
Christian Helfrich, CFO, Bundesdruckerei (Germany) |
| Instant insight | • Customer, supplier, resources, and talent information available at your fingertips at all levels of granularity so decisions can be made in real time  
• Transactional and analytical processing now together to enable simplified, accelerated, and predictive insights in real time | “As an example, with SAP Simple Finance, our finance organization will be able to focus on the most essential tasks and get the job done in real time.”  
John Dewar, President & Vice Chancellor  
La Trobe University (Australia) |
Run Your Business in Real-Time

With SAP S/4HANA, you will find it much more easier to run your business in real time. The software enables process optimization coupled with instant access to insight. Outlined below are high-value use cases which require SAP S/4HANA as the platform to enable the digital value chain with integration across all business processes.

<table>
<thead>
<tr>
<th>Integrated front- and back-office processes</th>
<th>Business use case enabled by SAP S/4HANA</th>
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</table>
| **HR and SAP S/4HANA**                     | • Integrate strategic plans with workforce planning, including training  
• Drive comprehensive workforce analytics (internal employees + contingent labor), including spend analysis at all levels of granularity – country, region, category, and at the individual level |
| **Procurement and SAP S/4HANA**            | • Eliminate the need for AP and AR reconciliations with immediate alignment between suppliers and purchasing organizations  
• Offer discounts based on real-time understanding of liquidity and cash flow |
| **Customer and SAP S/4HANA**               | • Match high-value inventory with customers that are willing to pay a premium if certain conditions are met  
• Enable a real-time demand-driven supply chain by leveraging customer order history, forecasts, social data, and product sensor data  
• Base promotions on truly understanding in-stock levels, purchase trends, and customer preferences in real time  
• Enable flexible fulfillment across all channels by matching customer orders with total landed cost associated with products, inventory availability in each channel, and other granular details |
| **Resources and SAP S/4HANA**              | • Ensure availability of necessary technical resources and materials in the required quantity and quality by immediate sourcing through the network and understanding where and when materials are needed  
• Real-time business operations monitoring of resources to reduce bottlenecks |
Simplified, Connected, and Open Architecture

SAP S/4HANA forms the backbone and central nervous system that integrates, simplifies, and evolves the digital value chain. This orchestration is critical to supporting boundless business processes, reducing complexity, and maximizing return on data.

SAP S/4HANA enables the digital value chain in three major ways:
- Simplified, real-time data foundation
- Interconnected and flexible architecture
- Open platform for innovation on any device
Simplified, Connected and Open Architecture

Simplified real-time data foundation
SAP S/4HANA brings transactions and analytics together into a single in-memory, column-based platform.
- Single source of the truth
- No aggregation of data
- Real-time calculations, no batch jobs
- Transaction-level granularity
- Vast simplification of data model/architecture
- Reduced infrastructure and maintenance
- Simplified functionality enhancements

Interconnected and flexible
With SAP S/4HANA, achieve real-time integration across on-premise, cloud, and hybrid applications.
- Native on-premise/cloud and cloud/cloud integration
- SAP HANA Cloud Integration across domains:
  - SuccessFactors
  - Ariba
  - SAP Cloud for Customer
  - Fieldglass
  - Concur

Open platform for innovation on any device
SAP HANA Cloud Platform provides the data and tools to rapidly extend, build, deploy, and manage cloud-based enterprise applications to complement SAP and non-SAP solutions.
- All enterprise data available in the same SAP S/4HANA platform (e.g., IOT, ERP, social media)
- Build new or extend existing business processes in the cloud or on premise
- Quick and simple application build with native SAP HANA Cloud Platform application and database services
- Applications enabled on any device with SAP HANA Cloud Platform mobile services

SAP S/4 HANA Cloud Platform application services

<table>
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<th>Analytics</th>
<th>API mgmt.</th>
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<td>Identity mgmt.</td>
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SAP S/4 HANA Cloud Platform database services

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<th>Planning</th>
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<tr>
<td>Tiering</td>
<td>Graph</td>
<td>Other DBs, Hadoop integration</td>
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</table>
Empower your Users

The SAP S/4HANA user experience is centered around people and their goals or tasks rather than transactions. It’s important that the user experience be role-based, personalized, responsive, intuitive, and work seamlessly across devices and deployment options. The user experience must unleash the true power of the digital value chain.

**Today**
Functional-based applications

- One transaction for multiple roles, exposing all data and functions to all users
- Multiple entry points for the user and inconsistent user experience (e.g. ERP vs. CRM)

**SAP S/4HANA**
Role-based applications

- Decomposed apps for each role, exposing only relevant data and functions
- One entry point for the user and UX following common design directions

Transaction
Analytical
Search

SAP proprietary | 15
The Enterprise Value of the Digital Value Chain

The digital value chain redefines how business will be able to achieve enterprise value. Outlined below are representative value drivers that are potentially available through a partnership with SAP based on third-party benchmarks and SAP proof points.

**Innovate for the future**
- 84% of C-suite executives believe their organizations have the ability to create new service-based income streams with IoT
- 61% of C-suite executives emphasized revenue streams presented by digital investments

**Simplified, connected, and open architecture**
- 10x smaller data footprint
- 7x throughput, massive parallelization
- 50-70% improvement in operational reporting productivity

**Run your business in real time**
- 30-40% less time for closing books
- 2-5% manufacturing cycle time reduction
- 1-2% increased sales
- 0.5-0.75% maverick spend reduction
- 0.1-0.2% direct spend reduction
- 0.25-0.5% margin increase

**Risk and compliance**
- 0.5-1% fewer penalties
- 10% fewer fraud cases with real-time anomalies screening

“With an integrated solution built on the SAP HANA in-memory platform, New York Life is reimagining how we use data to make decisions — internally and externally — and ultimately make things less complicated for us and our customers.”

Randy Gonzalez, Vice President and Head of Finance Transformation, **New York Life**

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1 Accenture, CEO Briefing 2015: From Productivity to Outcomes, Using IoT to drive future business strategies
Businesses have stated that they will adopt new technologies (e.g., cloud) at their own pace. The SAP S/4HANA digital business platform will enable customers to adopt innovation in alignment with their business strategy, system complexity, change management, and risk profile. Throughout the journey, businesses will be able to:

- Reduce unnecessary steps with a common process mode, resulting in reduced workload
- Increase throughput to enable faster consumption and reaction to growing demand
- Complete analysis “on the fly” without aggregates, so questions can be answered flexibly

Ultimately, SAP S/4HANA enables innovation without disruption to your business with the goal of creating an end-to-end digital value chain to support digital business. Each individual business will measure success differently, but ultimately it’s about aligning where you see yourself in the maturity curve in relation to your short-, mid-, and long-term business strategy.
The Road to the Digital Enterprise
Customer journey to the innovation end state

Below are three customer options for SAP S/4HANA. For each option, the customer has a full choice of deployment between cloud, on premise, and hybrid.

- **Starting point A: New customer.** This is a net new implementation of SAP S/4HANA with simple adoption – ex. guided configuration, easy onboarding from solution discovery via cloud trials to the deployment with pre-configured best practices
- **Starting point B: SAP Business Suite on any database customer.** Moving to SAP S/4HANA from SAP ERP 6.0 requires a move to the latest enhancement package, a database migration to SAP HANA, and current code replacement
- **Starting point C: SAP Business Suite powered by SAP HANA customer:** Moving to SAP S/4HANA for an existing SAP Business Suite powered by SAP HANA customer is faster as only the current code to the new code deployment is required

Partners and SAP will provide an easy path for customers to move to SAP S/4HANA with pre-defined migration and deployment packages for quick time to value in order to enable the digital value chain and help you run simple.

**Choice of deployment**

**Starting point A**
- **On Premise**: Deploy new installation
- **Cloud**: Up and running with best practices in two days
- **Hybrid**

**Starting point B**
- **On Premise**: Upgrade to the latest EHP, migrate database to SANA S/4 HANA, Deploy exchange innovation
- **Cloud**: Transfer data to the cloud
- **Hybrid**

**Starting point C**
- **On Premise**: Deploy exchange innovation
- **Cloud**: Transfer data to the cloud
- **Hybrid**

**Innovation without disruption**
Next Steps
Enabling the digital value chain

Every company has an opportunity to leverage expanded data on customers, people, resources, and suppliers to create new, innovative business models, greatly optimize business processes, and significantly improve agility. The fully integrated digital value chain is the way to enable the future and reduce complexity. SAP would like to partner with you on your transformation.

This framework will help to jointly discover the business and technical scenarios that will form your digital value chain and propel your organization forward.
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