SAP Solutions and Services

THE MOVE FROM OPERATION TO INNOVATION

CLEAR TCO MEASURES FOR BEST-RUN IT ORGANIZATIONS

THE BEST-RUN BUSINESSES RUN SAP™

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PREFACE

Dear Reader,

In recent years, the IT department seems to have been relegated once again to a perceived status as a high-cost organization whose sole value is in operating a technical and application infrastructure. While "central" IT costs are very transparent to senior management, the business value provided by IT is often elusive. Focusing only on reducing cost will not succeed in shifting the perception to that of a key influencer of business processes and corporate strategy. Nevertheless, without constantly seeking a more cost-efficient IT operation, any attempt to bring users and management to the table for a dialogue about the business and respective processes will be a nonstarter.

Our ongoing conversation with customers has indicated the importance of total cost of ownership (TCO). In close collaboration with our customers, we have gained more transparency on the key cost drivers to better understand the building blocks of a comprehensive and effective TCO program that can benefit individual businesses.

Now, SAP has started to put a range of comprehensive measures in place that should help customers identify potential improvements, free capacity, promote innovation, and drive business process improvement:

Enhancement packages – Evolving the concept from a "must upgrade" model to a choice, applying technology for a less disruptive, less costly, less risky way to provide new functionality for business innovation

End-to-end support – Providing support not only for operation but throughout the entire application lifecycle, across applications, the full business process, and respective technology stack. Ten best-practice processes to support and manage both projects and solutions throughout the entire application lifecycle are available. With the SAP® Solution Manager application management solution, a comprehensive portfolio of tools for the implementation, operation, and optimization of SAP applications is available, helping minimize risk and reduce TCO.

Consistency – Simplifying consistent integration across the range of SAP products – particularly in terms of the data model, process model, user interface, and technology. This approach can be considered a key lever to reduce TCO by offering fewer interfaces and reducing effort to align applications, leading to better end-to-end business process automation.

Helping our customers apply new technology is an ongoing focus within SAP. Even more so, we strive to help them introduce new functionality to drive process improvement and automation, while ensuring a stable and technologically consistent application. Customer feedback, even very early in the development process, is one of many measures applied to address TCO and subsequently help the IT department move the senior management dialogue from cost to business value. SAP has a strong ongoing commitment to drive TCO reduction and spot new opportunities for cost reduction.

This guide should be useful for improving the ratio between operation and innovation. Our intent is to help you realize productivity gains and savings by reducing TCO, regardless of whether you have already put some measures in place or are contemplating the TCO topic for the first time.

Your feedback is highly appreciated. Please do not hesitate to reach out to us at tco@sap.com with comments, suggestions, and to tell us what you liked and found helpful.

How to Read This Document

This practical guide describes more than 25 measures for reducing TCO, each of which details an area within the business or IT landscape that you can analyze and significantly improve. The guide is structured into four sections, which represent the four key levers driving TCO reduction within an organization.

The executive summary describes these four key levers and aims to give you a high-level understanding of the TCO-reduction measures illustrated more fully in the document. The intent of the executive summary is to show how CIOs in particular can take practical steps to achieve substantially lower TCO across their organization; but of course, all readers will benefit from this chapter.

Chapters 1 to 4 are addressed to IT managers who are interested in exploring these topics in greater detail. The intention is not that users will read this guide from beginning to end, but that you, as an experienced IT manager, will pick the subchapters that are most relevant for your company's specific situation.

Each subchapter within Chapters 1 to 4 is related to one measure to reduce TCO and is structured in three parts:

1. Underlying pain points, issues, and business needs
2. Proposed measures and best practices
3. SAP offering: Links to sources of further information to make the document more helpful

Chapter 5, "Identify Your TCO Potential," helps you with the first practical steps and introduces the "TCO discovery assessment" service.

Chapter 6, "Application Lifecycle Management," shows how application lifecycle management embraces all operations-related TCO measures.

Legend:
→ = Link to another section within the document
(S) = SAP service

EXECUTIVE SUMMARY

The new reality following the economic downturn in 2008 and 2009 has put pressure on CEOs and CIOs to reduce costs more than ever. Executives must strike a balance between reducing costs and making the right investments to ensure their companies' success, now and in the future. Many CIOs are currently facing the challenge of reducing actual IT spending as well as planning future IT activities with ever more limited IT budgets. While budgets are under pressure, IT is still expected to enable new business and accelerate innovation by delivering increasing value. CIOs want to know how to free up capacities and funds for investments in new projects and innovation.

Successful organizations do not just cut costs (which weakens business capabilities) but also make judicious investments (such as in IT). According to a McKinsey & Company survey, "Investments in IT-enabled business processes can deliver up to 10 times the impact of traditional IT cost reduction efforts."[1] IT can help corporations drive immediate business value and streamline operational costs. Investing in the right IT solutions and end-to-end business processes enables companies to simplify their IT landscape and reduce total IT cost. These investments also allow businesses to run more efficiently and improve customer experience.

Despite the fact that IT supports business productivity, there is increasing pressure on the productivity of IT itself. However, realizing productivity gains and finding significant saving opportunities is not an easy task. Many CIOs have already spent years optimizing IT and reducing costs. Using lessons learned from thousands of customer engagements and numerous projects, SAP has identified four key levers and more than 25 concrete measures to reduce TCO with today's capabilities: complexity reduction, execution excellence, sourcing optimization, and business–IT alignment.

SAP is also investigating methods to reduce complexity in future developments (see "Technology Innovation" in Figure 1). But this guide is intended to describe options you can realize now with no need to wait for future SAP solutions.

1. J. M. Kaplan, R. P. Roberts, and J. Sikes, *Managing IT in a Downturn*, McKinsey & Company, 2008.

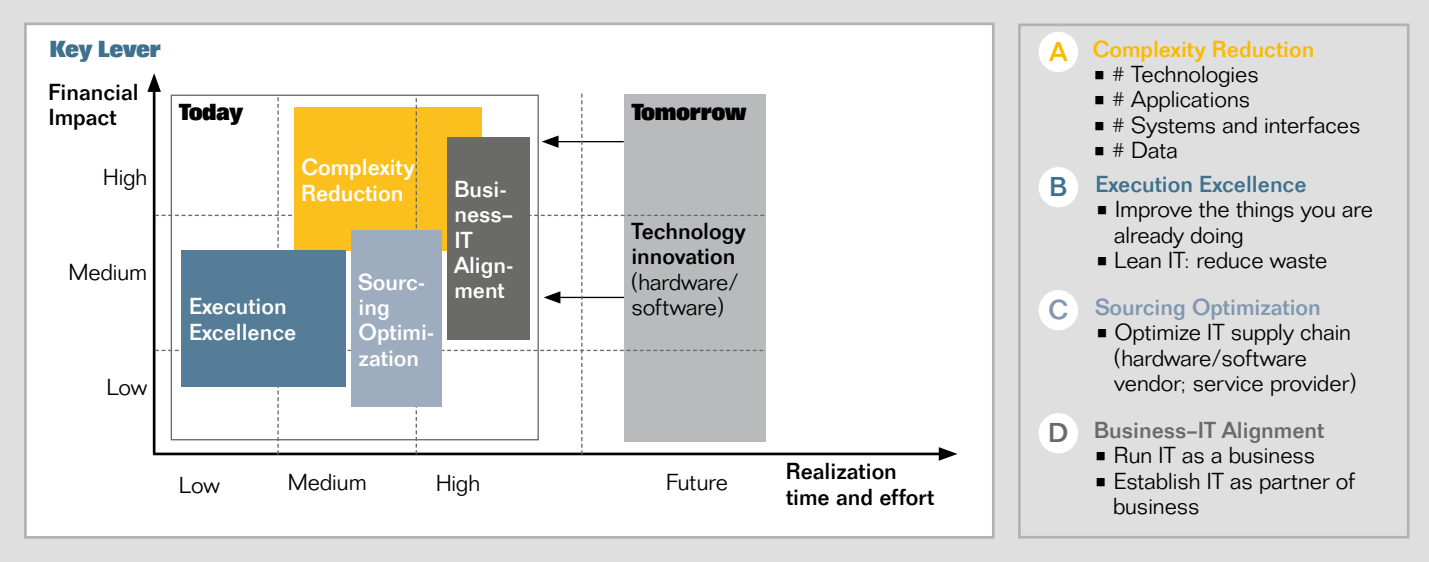

Figure 1: Key Lever for IT Cost Saving and Optimization

Complexity Reduction

IT complexity has grown enormously over the past decades and has caused a significant increase in TCO. Many organizations operate within the context of heterogeneous technologies; large numbers of applications, systems, and interfaces; and fast-growing volumes of data, as well as the overall increase of IT penetration of the business. While assuming there was a good rationale behind any step that led to a company's current IT situation, IT complexity may be considered as a hidden tax on IT value. Reducing complexity not only helps CIOs reduce TCO but also to lower risk and regain agility. The following measures help manage complexity:

- System landscape consolidation – reducing the number of operated systems, including productive, test, and development systems, in order to better operate and maintain these systems with less effort
- Consolidation of data centers
- Decommissioning of legacy systems
- Reducing the number of applications
- Return to standard – modification clearing and custom development reduction
- Master data harmonization – consolidating master data and managing it consistently across your enterprise

Execution Excellence – Doing Things Right

Continuously striving for execution excellence is a prerequisite for moving from good to great, and a key success factor of the best-run IT organizations. The winning formula is really simple: optimize IT execution by improving IT processes, apply lean thinking, maintain best practices, train IT staff, leverage new technologies and innovation, and benchmark to learn from others. The following measures help achieve execution excellence:

- Accelerated and lean implementation – for example, with ASAP methodology and a global template approach
- Accelerated and lean upgrades
- Enhancement packages
- Minimized downtime for maintenance and upgrades
- Infrastructure virtualization: application instances can be spread across available server resources to maximize infrastructure utilization
- Archiving optimization
- Storage optimization and data volume management
- Performance optimization
- Optimized printing landscape
- Automated job scheduling
- Standardized and automated testing
- Implementation of best-practice IT service management (ITSM) processes (ITIL)

- Customer Center of Expertise team – an organizational structure that drives integrated quality management, enabling transparency across business and IT units when faced with critical challenges in SAP solution operations
- Establish the super user concept: a super user is a talented user within an organization who is brought into a position of leadership of one or more IT systems, supporting and instructing users, answering how-to questions, and making acceptance of the technology less challenging
- IT service "productization": a clearly defined service – for example, on price and deliverables – where the content is standardized and reused (ideally scaled to mass volume adoption)
- Virtual training and e-learning

Sourcing Optimization

It is a fact that IT departments heavily rely on external providers to run IT and deliver IT services to the business. In addition, IT outsourcing continues to be a trend and an important factor in enabling and delivering IT services to the business. Most IT organizations of big companies manage dozens of IT suppliers, representing a significant share of the IT budget. Thus, optimizing the IT supply chain is a major factor in reducing TCO. The following measures help optimize sourcing:

- Integrated service delivery – Offering and delivering IT services which combine different options for different dimensions: local versus remote service delivery; local, regional, or global staffing; bill of services versus bill of resources
- Outsourcing or out-tasking
- IT shared-service center
- IT co-sourcing: outsourcing IT functions into an independent organization within the boundaries of a concern (captive outsourcing), or together with partners (partnering), in order to realize synergies while still keeping control of the IT-providing company
- Business process outsourcing – Contracting out the operations and responsibilities of specific business functions, including the related information technology, to a third-party service provider

Business–IT Alignment – Doing the Right Things

In the TCO game, forward-thinking CIOs not only concentrate on measures to reduce TCO, but aim to avoid or minimize costs before they actually occur. These CIOs not only manage IT supply but also IT demand. This requires running IT as a business, and also running IT with the business, helping the business achieve its objectives efficiently and cost-effectively. The best-run IT organizations establish IT as a partner of the business. Actively managing the demand for IT and setting the right priorities based on business needs is a major force in reducing TCO and requires tight business–IT alignment. These measures enable better business–IT alignment:

- Joint business–IT planning – Plan and determine investments in the application landscape, operations, maintenance, infrastructure, and other IT services, in strong alignment with the business
- Joint IT–business project portfolio – Plan and manage the project portfolio jointly
- Transparent, activity managed IT – Eliminate shadow or hidden IT operations
- Service-level rightsizing and optimization of service-level agreements (SLAs) – Assess an organization's SLAs, checking to see if they reflect current business needs and if they balance the benefit and the effort required to ensure the defined service level

According to a McKinsey & Company survey, "Investments in IT-enabled business processes can deliver up to 10 times the impact of traditional IT cost reduction efforts."

J. M. Kaplan, R. P. Roberts, and J. Sikes, *Managing IT in a Downturn,* McKinsey & Company, 2008.

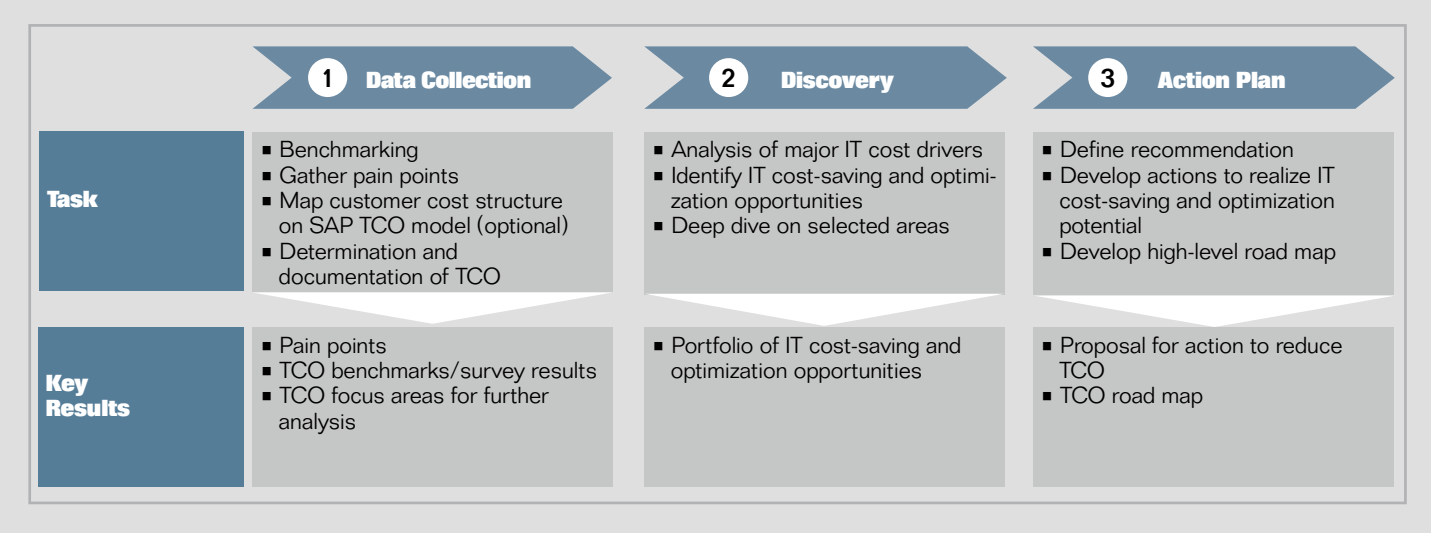

Figure 2: TCO Discovery Assessment

CIO's Challenge: Taking the Right Measures at the Right Time

During the past two years we have recognized an increasing demand from our customers for guidance and on-site support to identify potential for TCO reduction and set up programs accordingly. Together with selected customers we have worked on these projects and evolved a successful approach and methodology. Based on these experiences SAP has developed the "TCO discovery assessment" (see Figure 2).

However, there is no one-size-fits-all solution. Designing a best-fit action plan to reduce TCO requires the CIO to take into account influencing factors such as business priorities, level of competition, maturity of the IT organization, TCO measures already taken, and so forth. But our findings revealed a set of common patterns, and a number of measures and best practices, that the best-run IT organizations have successfully undertaken in recent years.

In the following chapters we share with you proven practical measures to reduce complexity and drive execution excellence, optimizing the IT supply chain and better aligning business and IT. Using these measures, organizations reduced total cost of ownership significantly, while enhancing IT productivity and maintaining and even improving business agility, innovation, and business continuity.

During the past two years we have recognized an increasing demand from our customers for guidance and on-site support to identify potential for TCO reduction and set up programs accordingly. Together with selected customers we have worked on these projects and evolved a successful approach and methodology.

CHAPTER 1
COMPLEXITY REDUCTION

System Landscape Consolidation

System landscape consolidation is aimed at reducing the number of operated systems, including productive, test, and development systems, in order to better operate and maintain these systems with less effort.

There are several causes that can make system landscape consolidation desirable or necessary. For example, after acquiring a company, the customer may have to deal with much higher complexity in the IT landscape, and can then face the challenge of centralizing and simplifying it. Alternatively, the operating costs for the system landscape may appear high, and the customer could see potential in reducing the total cost of ownership by simplifying a complex IT landscape, or by unifying business processes and using fewer systems as the standardized platform.

Proposed Measures and Best Practices

Different approaches can lead to a unified central solution:

- **Setting up a multi-client system –** Clients from various source systems are transferred into a central target system. This approach allows quick cost reduction ("TCO to go") and simplification of system complexity.
- **Creation of a single-client system –** Merging several source systems into a harmonized single-client system environment to enable unified master data and company-wide harmonized business processes.

SAP Offering

SAP offers several products and services to support a unified central solution:

- SAP System Landscape Consolidation and Harmonization services (S) – Facilitates the planning and realizing of system consolidation projects by creating flexible and simplified IT landscapes that reduce system redundancies, lower total cost of ownership, and decrease administrative and maintenance efforts.
  - SAP System Landscape Consolidation and Harmonization services
  - Optimization service for SAP ERP Human Capital Management solution
  - Implementation service for SAP Test Data Migration Server software
  - Implementation service for SAP NetWeaver® Information Lifecycle Management component
- SAP Organizational Structure Change services (S) – These services support the realization of mergers, acquisitions, divestitures, and internal reorganization by fully aligning system landscapes, and as a result, gaining more transparency for end users and enable customers to improve reporting.
  - Business unit reorganization service
  - Realization service for mergers and acquisitions
- SAP Data Harmonization services (S) – These services involve using accurate data as a crucial factor in helping customers successfully operate a business; analyzing and harmonizing data on products, customers, and partners; and with this, unifying financial and controlling processes. The customer can then introduce a corporate currency or replace an existing local currency.
  - Unification service for SAP ERP Financials solution
  - Unification service for logistics and operations management in the SAP ERP application
  - SAP Currency Conversion services
- SAP BusinessObjects™ enterprise information management solutions – These solutions can help you deliver integrated, accurate, and timely data – both structured and unstructured – across your enterprise.

Consolidation of Data Center

The data center is the main strategic focus of an organization's computing environment. As such, the data center is a prime starting point when considering lowering TCO by reducing its complexity, simplifying its operation, and improving its manageability.

Consolidation may be desirable where, for example, costs are high when operating several infrastructure facilities at several local sites. Or there may be pressure from the business (the CFO) to meet market prices and benchmarks, when compared to the leading outsourcing provider.

There may be underutilized infrastructure at local sites or, conversely, a high number of data centers causing unnecessary downtime by overly intensive efforts to ensure continuity between them. Too many, or overly complex, data centers can also result in difficulty controlling cost and in designing and implementing IT architectures and services.

Local operations processes can hinder a streamlined handover from project and program management to operations, delaying plans to go live, and possibly leading to unstable operations. Similarly, a local operations team with an incomplete skill set can cause costs to rise at project implementation.

Proposed Measures and Best Practices

The following approach can help with data center consolidation:

- Reduce the number of data centers to maximize resource utilization (infrastructure, workforce) and minimize cost
- Merge data centers, aligning their geographical distribution with business requirements (for instance, a follow-the-sun approach)
- Use disaster and recovery sites as capacity pool for nonproduction environments
- Employ central or common data-center governance
- Introduce harmonization and standardization of operations processes
- Employ → virtualization – sharing computer resources between applications on an as-needed, dynamic basis, as demand fluctuates during the day
- Employ → outsourcing or out-tasking
- Leverage cloud computing (internal or external) to cover load peaks
- See also → system landscape consolidation

Under the supervision of the Global Competence Center Information Services, BASF Group finalized in 2008 an IT project with the aim of reducing the IT costs for operations and application support by consolidating the group's SAP® applications. Besides system cleanups, release upgrades, functional and process enhancements, and a Unicode upgrade, BASF migrated over 30 companies within the given time frame.

"With the harmonization of processes and data, we saved BASF significant costs in business operations and through merged and replaced systems, including third-party systems. This reduced the overall IT costs for the group and user support by a two-digit figure of millions of euros annually."

Thomas Rudolph-Gary
Vice President, Enterprise Systems
BASF Group

SAP Offering

SAP offers several products and services to support a data center consolidation:

- SAP Quality Center application by HP – Provides activities essential to quality management, including managing requirements and defects as well as running tests and reports, in a single, Web-based application
- Run SAP methodology (S) – Helps maintain process and organizational governance through consolidation
- Hosting provider certification, if external business is being addressed

Decommissioning of Legacy Systems

Most organizations have legacy systems associated with high costs of operation and support. This can include systems that are no longer used in a productive way but contain data that needs to be available on demand from a business or legal point of view. As the database grows and the system increases in complexity, data retention management costs can rise.

These systems can consume resources unnecessarily and, in addition, they can have an increasing impact on the performance of core systems. The answer is decommissioning.

Proposed Measures and Best Practices

The following approach can help with decommissioning of legacy systems:

- Retire business applications that have rarely or not been used over the past year
- Explore different approaches, depending on usage and need. Systems that are no longer required in a productive mode may be shut down. Other systems may be replaced by newer applications, phased out gradually, or shifted into a central retention warehouse.
- Make available data systems that are still needed (that is, those with active retention time or with legal requirements) in a central retention warehouse, with data retention managed automatically
- Archive systems no longer needed in a productive mode

SAP Offering

SAP offers several products and services to aid in decommissioning legacy systems:

- SAP NetWeaver Information Lifecycle Management – Enables companies to decommission redundant SAP systems while preserving full auditing and reporting capabilities for stored data, and allows you to set information retention rules
- Implementation services for SAP NetWeaver Information Lifecycle Management (S) – Helps automate the management of your data so that you comply with internal, external, and legal requirements for its retention and destruction
  - Implementation workshop for SAP NetWeaver Information Lifecycle Management
  - Analysis service for accelerated system decommissioning
  - Implementation service for accelerated system decommissioning

Reduce the Number of Applications

Many organizations have heterogeneous and complex IT system landscapes with up to several thousand different applications that have grown over time, many of them rarely used or with only a few users. This situation often occurs as a consequence of mergers and acquisitions, and can lead to a complicated picture of redundant business logic, inconsistent data, and complex interfaces across multiple applications, with several different technologies underlying it all.

The cost of operations is high in such circumstances, with multiple unique skill sets required for the maintenance and support of the different operating systems and hardware and software technologies. In addition, the cost of implementing new functionality is also significantly higher under these conditions.

Reducing the number of applications simplifies the system landscape and lowers the cost and effort of IT operation.

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Proposed Measures and Best Practices

The following approach can help with reducing the number of applications:

- Decommission applications that have rarely or not been used over the past year
- Consolidate systems, applications, and instances, and replace legacy and individual one-off software installations through the implementation of standard software
- Harmonize operating systems, interfaces, and master data, leading to reduced procurement, implementation, rollout, maintenance, and support costs
- Introduce standardization of architecture, frameworks, technology, and development across the organization, leading to reduced procurement, rollout, maintenance, and support costs
- Introduce and strengthen central governance of IT strategy, processes, and support structures

SAP Offering

SAP offers several products and services to help simplify the system landscape:

- SAP NetWeaver Information Lifecycle Management – Enables companies to decommission redundant SAP systems while preserving full auditing and reporting capabilities for stored data, and allows you to set information retention rules
- Implementation services for SAP NetWeaver Information Lifecycle Management (S) – Helps automate the management of your data so that you comply with internal, external, and legal requirements for its retention and destruction
  - Implementation workshop for SAP NetWeaver Information Lifecycle Management
  - Analysis service for accelerated system decommissioning
  - Implementation service for accelerated system decommissioning
- SAP BusinessObjects enterprise information management solutions – Can help you deliver integrated, accurate, and timely data – both structured and unstructured – across your enterprise
- SAP NetWeaver Master Data Management component – Supports customer data integration, global spend analysis, global data synchronization, product content management, mergers, and acquisitions
- SAP NetWeaver Identity Management component – Addresses access and provisioning issues facing a typical enterprise, creates a new opportunity for integrating business processes, and helps you integrate systems in a heterogeneous IT environment

Return to Standard

Most customers modify or enhance their standard software in some way to tailor solutions to their individual requirements. This can lead to high operational costs because it can be difficult to identify custom development objects that your system no longer uses. Upgrades to an organization's existing applications, including support packages and patches, can require expensive manual modification effort, with high ongoing development, support, and maintenance costs. Modifications are

sometimes difficult to understand and manage, and can lead to inefficient business processes and subpar performance.

Modification clearing and custom development reduction is the way back to standard: it reduces operation costs significantly.

Proposed Measures and Best Practices

The following approach can help with returning to standard:

Modification clearing:

- Phase 1: Undertake technical analysis of the modifications
- Phase 2: Undertake detailed analysis of business processes with reference to modifications, to leverage functionality and technology available in an actual (or future) SAP release
- Phase 3: Adjust modifications according to results in Phase 2

Custom development adjustments:

- Replacement of custom developments or "downports" from intermediate releases by standard functionality
- Code modernization for custom code
- Implementation of latest technologies to manage custom code more efficiently

"What's more, we've reduced the number of in-house modifications of our SAP applications and are using standard functionality wherever possible. This – and the easy adoption of SAP enhancement packages for SAP ERP – will contribute significantly to reducing total cost of ownership of the company's SAP software."

Bruno Dannapel
Head of Organization and Information for Global Product Supply, Bayer HealthCare

SAP Offering

SAP offers several products and services to aid in returning to standard:

- Custom development management cockpit (part of SAP Solution Manager) – Supports the handling and organization of custom development objects in SAP systems using ABAP™ programming language, identifying obsolete developments in your SAP system, and identifying the effect an upgrade can have on custom developments
- Code review service for custom code (S)
- Unused custom code service (S)

"With the harmonization of processes and data, … we reduced the overall IT costs for the group and user support by a two-digit figure of millions of euros annually."

Thomas Rudolph-Gary
Vice President, Enterprise Systems, BASF Group

Master Data Harmonization

In most organizations, master data lives in multiple systems and applications. In circumstances where each set of data evolves independently and conflicts with data in other silos, harmonization is needed.

Master data may be unmanaged. Unmanaged master data is notoriously inaccurate, inconsistent, and incomplete, and leads to poor business decisions, or even business disruptions. Access to master data may be poor and inflexible during organizational changes (for example, mergers and acquisitions and carve-outs). And, when running the business with partners, there may be inefficiencies and unexploited cost-savings potential (for example, demand aggregation for similar parts across several businesses).

Data quality may not be monitored continuously across the system landscape, and manual effort may be required for ad hoc reporting and incident and problem management. The result is inefficient business processing and dissatisfied customers. The answer is to consolidate your master data and manage it consistently across your enterprise.

Proposed Measures and Best Practices

The following approach can help with harmonizing master data:

- Establish a master-data governance strategy
- Define a standardized and harmonized (common) data model that comprises globally relevant data by identifying master data attributes

- Improve data quality by setting up periodic monitoring based on predefined metrics
- Reconcile the identified master-data quality issues in the dimensions of:
  - Completeness
  - Correctness
  - Consistency
  - Currency
  - Compliance
  - Uniqueness

SAP Offering

SAP offers several products and services to support master data harmonization:

- SAP NetWeaver Master Data Management component – Supports customer data integration, global spend analysis, global data synchronization, product content management, mergers, and acquisitions
- SAP NetWeaver Identity Management component – Helps companies manage users' access to applications securely and efficiently, while meeting audit and compliance requirements. With SAP NetWeaver Identity Management you can increase efficiency and reduce operational costs with central management of user identities across multiple heterogeneous applications, and employ user self-service features and a rules-driven workflow and approvals process.
- Evaluation of master data governance (S) – Aids customers who want help defining, building, and applying a governance framework for data quality
- SAP BusinessObjects Data Services software – Provides one development, runtime, and management environment that allows you to integrate, transform, improve, and deliver data anywhere, at any frequency
- Data quality health assessment (S)
- Data quality monitoring (S)

CHAPTER 2
EXECUTION EXCELLENCE

There is a drive to simplify IT environments and ensure tangible ROI for lines of business. ASAP methodology and templates can all play a part in producing faster, leaner solutions that are fit for purpose and offer value for the money.

Accelerated and Lean Implementation

More than ever in today's tough and uncertain economy, companies expect shorter project implementation times and transparent, explicit implementation processes to help achieve a lower TCO. Getting a rapid return on investment is more critical than ever. One solution is to enable more efficient implementation.

Some of the issues that can be solved with more efficient implementation include, for example, failure to achieve the business goals of line-of-business (LOB) owners, loss of focus, and budget and schedule overruns. Heightened efficiency can also address other concerns such as the process of aligning business requirements with corresponding areas in SAP software, or to identify the required installation and configuration activities. Or it may simply be that implementation projects do not result in a return on investment.

Proposed Measures, Best Practices, and SAP Innovations

Easy-to-implement solutions are increasingly becoming a top priority. Solutions must be appropriate and economical, both in terms of size and complexity. A critical factor for companies making decisions on IT spending is time to value. There is a drive to simplify IT environments and ensure tangible ROI for lines of business. ASAP methodology and templates can all play a part in producing faster, leaner solutions that are fit for purpose and offer value for the money.

ASAP Methodology for Implementation

The ASAP methodology for implementation is the SAP road map for the implementation of SAP solutions, and promotes phased, cost-effective, and speedy implementation. It provides a proven, comprehensive, repeatable, and rich implementation methodology to streamline projects and lower costs.

ASAP methodology supports project teams with templates, questionnaires,

checklists, and tools, including guidebooks and accelerators. It empowers companies to exploit the power of SAP solutions by providing efficient guidance for service-oriented architecture (SOA), business process management, and traditional implementation projects, as follows:

- Shorten the blueprinting process with clear guidelines for structuring the blueprint workshops, including acceleration techniques and design work through use of preconfigured content or a show-and-tell approach, for example
- Receive efficient guidance for business process management projects covering to-be design and solution transformation as well as build, run, and landscape development operations for SOA projects
- Establish more effective project governance, risk management, and quality management through consistent application of structured quality gates and management processes aligned with PMI standards to keep the project on track
- Conduct workshops to agree on a clear definition of value and establish exact business goals; perform continuous measurement against this benchmark throughout the implementation lifecycle
- Use agile techniques in your implementation project for an iterative approach and early validation cycles

Global Template Approach

A template is a standardized, reusable solution encompassing process, data, and IT, which takes into account global and local requirements. A "master" environment is preconfigured by a central organization where the predefined settings serve in other parts of the company as a template for the implementation. A template has these features:

- Common processes and master data – for example, business processes, corporate reporting, customer and vendor master, and so forth
- Common system design – for example, organizational structure, configuration, and so forth
- Common deployment architecture – for example, development, quality and productive system landscape, and software lifecycle management
- Common governance, guidelines, and procedures – for example, solution governance on a global and local level, standardized training and documentation, and implementation methodology (such as ASAP methodology)

Use templates in SAP Solution Manager to streamline the global rollout along standardized business processes.

Other Related Measures

Additional ideas for a lean implementation include:

- Rapid design through preconfiguration or prototypes to aid visualization and mutual understanding, and to reduce the margin of error during realization
- → Standardized and automated testing

Accelerated and Lean Upgrades

Upgrades are perceived by some customers as costly and complex long-term projects because of the large number of people involved, the potentially long project duration, and the sometimes significant testing effort. Issues often cited by companies as the most challenging during the planning phase of an upgrade are estimation of the upgrade cost and effort, followed by defining the business case, defining and allocating project team and resources, and minimizing downtime.

However, with comprehensive services, tools, and content, you can lower the risk involved in an upgrade, accelerate and simplify its implementation, and help reduce mid- and long-term costs.

Proposed Measures and Best Practices

Due to its low costs and manageable impact, the majority of SAP customers first execute a technical upgrade to SAP ERP 6.0 (often including the latest enhancement package) without any immediate functional enhancements. This helps lower the impact, risk, and duration of the project as much as possible. On average, the upgrade project from SAP R/3® 4.6C software to SAP ERP 6.0 lasts 21 weeks, but the average business downtime is only about 48 hours. In most cases customers execute an upgrade of the operating system and database release prior to or jointly with the upgrade. Some customers take advantage of the business downtime and change to a better-suited hardware vendor or database provider, while some even switch to a new data center or a new service provider. So in the first step, the technical upgrade, significant savings can be realized.

In a second step, customers expand the processes supported by the new SAP ERP 6.0 application, which provides new capabilities for the customer.

An upgrade project offers the chance to implement changes that help reduce TCO in both the short and long term in the following areas:

- → Modification clearing
- → Custom development adjustments
- Implementation of development governance processes to reduce future modifications and custom developments
- → Test automation
- → System landscape consolidation

> "For upgrading our SAP systems to new releases, we ordered several sessions of the SAP GoingLive Functional Upgrade service that were performed by SAP Active Global Support. … With these services we can save at least two business days per system, which would be necessary for deeper administration tasks."
>
> **Rüdiger Hodapp,** Leiter Anwendungssysteme, HAHN & KOLB Werkzeuge GmbH

A recent upgrade to the SAP® ERP application by the French company Polyrey SAS demonstrated how it is possible to achieve significant total cost of ownership (TCO) savings when upgrading. Using proven SAP methodologies and implementation best practices, Polyrey deployed its upgrade on time and within budget, paving the way for enhanced customer service and ongoing savings.

The result was that Polyrey achieved several significant TCO savings. The software upgrade was implemented faster than scheduled, and deployed within the planned budget. The application landscape was streamlined, and custom code was replaced with standard software wherever possible. Also, training time was reduced owing to the user-friendly interface. In addition:

- The number of technical interfaces was reduced by 20%.
- The time to extract and analyze financial closing data was reduced by 50%.
- The number of lines of logistics-related custom code was reduced by 35%.

Source: SAP Customer Success Story "Polyrey – Increasing Business Value with Strategic Design"

SAP Offering

SAP offers several products and services to support accelerated and lean upgrades:

- Technical upgrade planning for SAP Business Suite software (S) – Using a standardized and proven approach, analyzes the specific upgrade situation and calculates the adjustment, test, basis, and project management efforts for the technical upgrade project
- SAP Upgrade Assessment service (S)
- SAP GoingLive™ Functional Upgrade Check service (S) – Optimally prepares your system to operate efficiently in the upgraded environment; usually consists of two service sessions, an analysis session and a verification session
- SAP Upgrade Road Map content in SAP Solution Manager and in the SAP Service Marketplace extranet – Provides SAP's standard methodology for planning and executing an SAP upgrade project, with best practices and templates for project management, as well as functional and technical aspects facilitating key tasks of the entire project team
- Custom development management cockpit (part of SAP Solution Manager) – Supports the handling and organization of ABAP custom development objects in SAP systems – for example, identifying obsolete developments in your SAP system and identifying the effect an upgrade can have on custom developments
- Solution browser tool – Identifies new features that have been added between two releases of SAP ERP or any of the available enhancement packages and describes their respective business benefits
- SAP Service Marketplace with the complete portfolio of upgrade tools (service.sap.com/upgradetools) and upgrade services (service.sap.com/upgradeservices)

SAP Enhancement Packages

To further simplify the way customers manage and deploy new software functionality, SAP introduced its enhancement package strategy for SAP Business Suite 7 software. SAP enhancement packages relate to the core applications of SAP Business Suite and are designed to accelerate the delivery of innovation to SAP customers. Enhancement packages have the same maintenance duration as the underlying core applications and provide customers with increased ROI, as they deliver new and improved functionality to boost the efficiency and flexibility of existing business processes.

> "We reduced the costs for installing, configuring, testing, and going live with the enhancement package by almost 10 times."
>
> **Didier Magnien**
> Director, Global SAP Systems, Sappi

A survey of responses to the "Enhancement Package Experience Database"[2] found that total average project duration was reduced from 21 weeks to 7 weeks when the enhancement package method was used, as opposed to traditional upgrades.

In the future SAP intends to continue to deliver enhancement packages for the core applications, making it unnecessary for companies to engage in large, potentially disruptive and expensive upgrade projects. As a result, organizations can isolate the impact of software updates and bring new functionality online faster through shortened testing cycles.

SAP recommends that customers include the latest available enhancement package that is in unrestricted shipment in their upgrade to SAP ERP 6.0. Customers who are already running SAP ERP 6.0 (with or without an enhancement package) are advised to install the latest enhancement packages along with their (existing) planned maintenance. The advantage is that the customer gets the most recent corrections and legal changes within one project, and is furthermore enabled to activate new functionality flexibly as the business needs it.

After installation, enhancement packages provide a selective activation of business functions at any time, as driven by business needs. Functionality required by the business can be selected and activated: functionality not required by the business will remain dormant.

2. Based on 51 enhancement package installations of enhancement packages 2 and 3.

SAP Offering

SAP offers several products and services to assist with enhancement packages:

- SAP enhancement package installer – Enables a streamlined installation process, adding only relevant enhancements; the standard tool used for the SAP enhancement package implementation
- The "Business Function Prediction for SAP ERP" – Provides a tailored recommendation for which business functions delivered by SAP enhancement packages are relevant for a customer's business and which functionalities are most often used by other customers
- SAP enhancement package planning for SAP ERP (S)

Minimize Downtime for Maintenance and Upgrades

When carrying out maintenance and upgrade projects, organizations can face unacceptable downtime, which can interfere with normal business operations and cause backlogs and disruptions. Minimizing downtime helps organizations limit these disruptions and optimizes the availability of their systems at such times.

This may be necessary when the estimated downtime of a productive system during a technical operation, such as an upgrade, Unicode conversion, or enhancement package implementation, exceeds the planned downtime window. Reducing downtime may also be necessary in order to reduce financial impacts and speed up availability; but it may be impossible to reduce downtime with conventional methods.

Proposed Measures and Best Practices

The following approach can help with minimizing downtime:

- Reduce downtime of technical operations significantly by combining best practices with tools and technical consulting
- Several techniques and service options are available for the different scenarios and complexity dimensions, such as size of database, downtime, and use case (for example, upgrade, Unicode conversion, database and operating system migration, data center relocation, enhancement package implementation)

SAP Offering

SAP offers the following services to assist with minimizing downtime:

- Minimize downtime service (S)
- SAP Downtime Assessment service (S)

Infrastructure Virtualization

With virtualization, application instances can be spread across available server resources to maximize infrastructure utilization. This decouples the users and applications from the hardware, enabling the resources to be shared between applications on an as-needed, dynamic basis, as demand fluctuates during the day. This includes the flexibility to move applications between servers as circumstances dictate. A server no longer sits idle for long periods when the application it is serving is not in use.

This approach can be useful when infrastructure costs are high – for servers, cooling systems, or electrical facilities, for example. Dedicated testing or training servers may be underutilized, or the whole hardware platform may be subject to vendor lock-in or dependency, leading to an unclear technology road map. IT systems can also be expensively overbuilt to accommodate occasional peaks of service, such as a month-end or year-end closing.

A high cost and a degree of complexity are often associated with conventional high-availability technologies such as cluster technologies. There can also be a need to speed up implementation projects by providing new systems quickly without acquiring new infrastructure, or to assign unused resources to solutions where additional capacity is required. Typically, the motivating factor is to support seasonal business or new projects or services, without unnecessary cost assignment to projects or LOBs.

Supporting separate "day" and "off-hours" applications is expensive, such as in the case of a business intelligence (BI) solution that has batch jobs running at night, while during the day, dialog users need to access a fast-reacting system. Finally, the downtime when carrying out hardware or software maintenance can be disruptive and costly.

Proposed Measures and Best Practices

Virtualization addresses these situations by making available the existing resources on a flexible basis, as a centrally accessible layer. With several virtual machines, a physical server can be used for a wide variety of tasks.

A recent study found that "Virtualization technology represents a promising opportunity to lower IT costs and develop a future-proof, i.e. flexible and dynamic, IT infrastructure."[3] With virtualization, application instances can be spread across available server resources to maximize infrastructure utilization. Also, the flexibility is available to move applications from server to server as circumstances dictate. The potential for driving down IT spend is tremendous. In support of this view, Gartner Inc. states, "Virtualization offers IT departments opportunities to reduce cost and increase agility."[4] Virtualization also offers some sustainability benefits, in terms of power saving, and may be realized through the following approach:

- Target the key virtualization areas, which are nonproductive systems (development, testing, and training); satellite systems (FTP server, global trade system, and other interfaces); and legacy systems (tax and auditing systems)
- Consolidate SAP software instances on a lower number of servers
- Implement alternative disaster recovery or high-availability scenarios
- In particular, use hypervisor virtualization on commodity hardware (x86_64) to enable multiple operating systems to run on the host server concurrently
- Use storage virtualization and deduplication technology to eliminate redundant data
- Employ central landscape management with the SAP NetWeaver Adaptive Computing Controller tool to handle additional complexity

SAP Offering

SAP offers the following services to support virtualization:

- Implementation services for SAP software landscape virtualization (S) – This holistic portfolio of service elements supports the customer's migration from a traditionally deployed landscape to a virtualized one, with architectural evaluations, prototypes, migration support, and several training measures.
- SAP OS/DB Migration Check service (S) – In addition to performing a standard system check, this service offers recommendations for reconfiguration of the system, including hardware. This service is performed when migrating to a new operating system or database.
- SAP NetWeaver Adaptive Computing Controller – This tool provides a central point of control for flexibly assigning computing resources to run any service on any server at any time. It enables management of entire SAP software landscapes and IT infrastructures, nimbly assigning resources in the landscape as needed. This helps reduce complexity, cut data center costs, increase hardware utilization, and achieve the flexibility and scalability needed to improve IT efficiency and value. SAP NetWeaver Adaptive Computing Controller manages either virtualized or nonvirtualized software landscapes, and is available within the SAP NetWeaver technology platform.

3. RAAD Research GmbH, "Virtualization in SAP Environments," (2009).
4. Philip Dawson and Thomas J. Bittman, "Virtualization Changes Virtually Everything," Gartner Research, March 28, 2008 (ID number: G00156488).

Archiving Optimization

Data archiving focuses on effective data management and has two main purposes – system load reduction and legal compliance support. Both primarily use the same processes: analysis and categorization, the archiving process itself, and access to archived data. Benefits include increased system availability, better use of resources, and improved system performance.

Archiving optimization can help answer some specific issues. An organization may have large or fast-growing data volumes associated with their SAP systems, with the consequence that their storage infrastructure may need to be adapted, system copies may become more time-consuming and costly, and there can be SLA violations. (For example, backup and restore times cannot be met, or there are disaster, restore, recovery scenarios.)

There can also be performance issues due to growing system sizes, leading to a continuous increase in response times of transactions or reports, causing users to have to wait longer for them. In addition, there can be longer downtimes during Unicode conversions.

Proposed Measures and Best Practices

The following approach can help with optimizing the archiving process:

- Set up a data archiving strategy in order to manage data volume and reduce future data growth
- Employ continuous monitoring of system-data volume size and growth
- Perform data archiving regularly
- Reduce the size of the existing database by using these methods: data avoidance, data summarization, data deletion, and data archiving
- Set up risk mitigation through early identification of unusual data volume increase
- Minimize the monthly data growth of SAP systems

SAP Offering

SAP offers the following services to assist with data archiving:

- Recommendations for system and data analysis and optimization ("scoping") (S)
- Archiving implementation and optimization (S)
- SAP Archiving application by Open Text – Helps you boost efficiency of business processes and reduce costs through application-spanning content views, integration of documents into processes, and secure data and document archiving
- Retention policy management – Provides SAP tools and technologies for SAP NetWeaver Information Lifecycle Management that support the complete information lifecycle, from creation to retention to destruction – enabling you to enter different rules and policies reflecting various criteria, including where data is stored, the duration of data retention, and when data can be destroyed
- Implementation services for SAP NetWeaver Information Lifecycle Management – Help automate the management of your data for compliance with internal, external, and legal requirements for its retention and destruction

Storage Cost Reduction

Storage costs can grow hugely when unchecked by a storage management plan. For example, one-to-one system copies are traditionally provided for testing purposes, requiring allocation of substantial resources and potentially causing performance issues in the test environment. Data volume management keeps data growth and size under control by implementation, operation, and optimization of a data reduction strategy.

Data volume management can help address various issues, including cost. For example, when the data volume associated with SAP systems is large or fast-growing, the number of systems and the storage needed constantly outweigh the benefit of the cost decreases on vendor prices. It can be costly providing enough storage with the SLA and the security level needed – for example, for HR systems with local legal constraints – or similarly, meeting legal requirements such as providing recent business data over a long period of time.

Proposed Measures and Best Practices

The following approach can help with reducing storage costs:

- Set up and monitor a data volume management strategy that defines how to manage, prevent, and reduce future data growth
- Reduce the size of the existing database by using these methods: data avoidance, data summarization, data deletion, and data archiving
- Set up risk mitigation through early identification of unusual data-volume increase

> "SAP Test Data Migration Server helped us to consolidate our nonproduction systems while increasing efficiency of the process. As a result, we reduced our combined database from 25 TB to 3.2 TB and now have a more centralized SAP software landscape."
>
> **Michael Giessner,** SAP COE Architect, Nike Inc.

- Minimize the monthly data growth of SAP systems
- Reduce the data volume in the test and development environment
- Use current storage technologies – for example, thin provisioning (which allocates "just enough" space to servers on a just-in-time basis) and data deduplication (which eliminates redundant data)
- Use database technologies such as data compression to reduce the use of storage

SAP Offering

SAP offers the following services to help reduce storage costs:

- Data volume management – Provides a holistic methodology, service, and tool portfolio for landscape solutions, avoiding critical system situations through early monitoring and reduction of data volume increases (both size and growth)
- SAP Test Data Migration Server software – Helps you create and update nonproduction systems that can help you test and validate the quality of your application development processes
- Implementation service for SAP Test Data Migration Server (S) – Implements and configures SAP Test Data Migration Server for SAP ERP and various industry solutions

Performance Optimization

System performance plays a key role in any strategy for cutting costs and increasing productivity within an organization. When system performance is poor, overall organizational performance and productivity goes down. System overload can cause business downtime leading to revenue losses, and slow system response or processing times can produce delayed business workflows. Similarly, an unstable IT system can cause high costs on business and IT administration, and disrupt business processes. These events can damage acceptance by the business user, and even lead to contractual penalties as a result of SLA violations.

These are some typical scenarios that can lead to performance issues:

- Newly implemented system and solutions
- Upgrades
- Enlarged user communities
- Extension of functionality
- Consolidation of resources
- System mergers
- Changes in technology or platform

A performance optimization strategy leads to increased system performance, shorter response times, and increased throughput.

Proposed Measures and Best Practices

The following approach can help with performance optimization:

- Conduct performance assessments on a regular basis
- Conduct performance optimization and sizing of system infrastructure
- Plan for optimized performance when designing development projects
- Include performance requirements in system landscape planning
- Conduct long-term performance monitoring and management
- Conduct performance testing of design concepts
- Conduct performance test monitoring

SAP Offering

SAP offers the following services to assist with performance optimization:

- Performance assessment (system analysis, use-case analysis) (S) – Helps identify the root cause of performance problems in IT systems or IT-supported business processes, and defines the service delivery measures to solve the identified problems. The service aims to identify performance optimization potential across all layers of the system architecture – hardware, deployment, configuration, and program code.
- Capacity change-management service (S) – Takes a systematic approach to plan and control the infrastructure capacity for your SAP system landscape in four steps:
  - Workload analysis – determine the actual status of the system
  - Demand forecast – calculate the additional requirements
  - Resource check – check the availability of needed capacity
  - System adjustment – adjust the system configuration to the evaluated size
- SAP Remote Performance Optimization service (S) – Analyzes an IT system for bottlenecks, performing such functions as SQL statement optimization, application optimization, and SAP R/3 basis analysis. The SAP Services organization then develops an action plan for removing the bottlenecks and improving the IT system's performance. This service most effectively optimizes a system's performance when run with two other system assessment offerings: SAP EarlyWatch® Check and SAP Solution Management Assessment services.
- SAP Business Process Performance Optimization service (S) – Identifies and analyzes performance bottlenecks and provides (mainly) technical recommendations that can be implemented quickly
- Technical analysis and design (S) – Focuses on eliminating overall system performance problems such as bottlenecks on CPU, memory, database, or storage subsystem and on enabling technical capacity management
- Expert sizing service (S)
- SAP LoadRunner application by HP – Optimizes quality, performance, and scalability of end-to-end business processes that run on SAP and non-SAP software over the entire application lifecycle
- SAP GoingLive Check (S) – Helps you manage technical risk to ensure the optimal performance, availability, and maintainability of your SAP solution; best applied during a new implementation or after a significant increase in data or user volume
- SAP EarlyWatch Check (S) – Helps eliminate costly performance bottlenecks, improve response time and user acceptance, optimize IT investments, and reduce the risk of incurring downtime by detecting an IT system's critical issues
- SAP OS/DB Migration Check (S) – Offers recommendations for reconfiguration of the system, including hardware, in addition to performing a standard system check; performed when migrating to a new operating system or database

Optimizing the Printing Landscape

In many organizations, printing is not given enough consideration, bearing in mind the fact that in almost every business process, at least one output document is created. Today, most of this output is paper based (invoices, delivery notes, and so forth).

Using interactive forms instead of paper-based forms not only reduces your printing costs; it also ensures that the data from the form is processed automatically and correctly within your IT landscape. Nevertheless, we know that printing will always be a business-critical part of a company's processes and that there are many challenges faced by almost every company in this regard.

These issues are: lowering TCO, green IT, Unicode-related printing issues, governance in printing, and process monitoring in printing. All these challenges can be solved with the use of a professional enterprise output management system. This system can help you create a single point of contact for your entire IT infrastructure (SAP and non-SAP), and potentially save a substantial sum of money.

Proposed Measures and Best Practices

The following approach can help optimize the printing landscape:

- Analyze your printing landscape, including a detailed examination of ways to avoid unnecessary administration effort

- Implement a central output management system to reduce printing costs and increase the control of printing processes
- Lower your printing costs with quick wins like rule-based printing, which can result in instant savings of 10% to 20%

SAP Offering

SAP offers the following products and services to assist with printing optimization:

- SAP Interactive Forms application by Adobe
- Analysis services (S)
  - Evaluation of your complete printing landscape
  - Detailed analysis for the SAP software landscape
  - Quick hints to avoid unnecessary costs in printing
- Concept services (S) – Helping you to create a complete concept for your printing landscape with the best solution for you
- Implementation services (S) – helping you to realize your concepts

Automate Job Scheduling

The goal of automatic job scheduling is to manage the planning, scheduling, running, and monitoring of background jobs that would otherwise have to be performed manually, in order to automate business processes. This saves time and user input, and uses hardware economically.

Where there is a lack of process automation, revenue losses can be caused by slow, or even stuck, business processes. Similarly, automation can avoid high costs in business and IT administration caused by inefficient job handling.

In addition, inadequate job monitoring and job documentation can lead to excessive risks in scheduling business-critical processes. There is a risk too in uncontrolled job scheduling, where large numbers of background jobs are scheduled directly by end users: this can undermine load balancing, and risk business breakdown and system overload.

Supported by cutting-edge software and services, SAP Education enables organizations to lower TCO via a range of new training options, which are offered in addition to traditional project team training in public training centers.

Proposed Measures and Best Practices

The following approach can automate job scheduling:

- Establish central process scheduling
- Establish real-time, time-driven, and event-driven workload automation solutions
- Integrate with SAP and non-SAP applications (operation system, database, mainframe)

SAP Offering

SAP offers the following products and services to automate job scheduling:

- SAP Central Process Scheduling application by Redwood – Delivers adaptive, real-time, event-driven job scheduling and process-automation functionality across distributed and heterogeneous platforms
- Proof of concept for SAP Central Process Scheduling (S) – Helps familiarize you with the benefits of SAP Central Process Scheduling and apply the solution; provides you with a complete overview about your best-fit solution scenario with an analysis workshop
- Implementation service for SAP Central Process Scheduling (S) – Enables you to migrate from your existing scheduler to a modern, state-of-the-art automation management tool. Experienced consultants support you in designing and redesigning your batch processes to optimize your old processes and implement new process functionalities, including integration with SAP Solution Manager or the SAP Financial Closing cockpit. You receive a stable productive environment with SAP Central Process Scheduling, which will run your business processes efficiently and safely with reduced TCO.

Standardize and Automate Testing

Building and implementing high-quality testing procedures can be difficult; as a result, testing is not done at all, or expensive, error-prone manual testing is performed on an inconsistent and unplanned basis. There can be extensive (or even unknown) manual test efforts, within the implementation of minor as well as major changes (for example, projects or releases). This can sometimes mean heavy involvement of business resources in testing (a super user,

for example). There can be insufficient test coverage, with a trade-off between too little and too much testing effort, and problems with quality causing an extension of project duration or delay of going live. Also, there can be inefficiencies in recurring testing tasks – in rollout projects, for example.

The challenge is to carry out testing correctly, balancing quality with speed and cost, with an adequate scope, on time and within budget. Standardizing and automating testing leads to controlled and comprehensive testing being performed consistently throughout an organization's IT landscape. This can include functional testing of all new processes; integration testing of all new and existing modules, including interfaces and add-ons; and regression testing, to check that all existing parts of the system support the business processes as they did before.

Proposed Measures and Best Practices

The following approach can support testing efforts:

- Centralize and formalize test management
- Standardize test management (test processes, roles, test standards) and execution (test documentation)
- Integrate test management with other ITIL processes (change management, incident management)
- Leverage state-of-the-art testing tools
- Introduce automated testing, both execution and documentation, including regression testing. Automated testing reduces both the time involved and the total cost of ownership, particularly where automated scripts are developed that can be reused for years.
- → Outsource/out-task all or part of the organization's testing

SAP Offering

SAP offers the following products and services to assist with standardizing and automating testing:

- SAP Solution Manager (test workbench, extended computer-aided test tool, service desk)
- Service portfolio for SAP Solution Manager
- SAP Test Data Migration Server – Helps you create and update nonproduction systems with productive data and concurrently reduce the volume of data significantly. Additional functionality allows you to make anonymous the migrated data to comply with data protection requirements.
- Implementation service for SAP Test Data Migration Server (S) – Implements and configures SAP Test Data Migration Server for SAP ERP and various industry solutions
- SAP Quality Center – Provides activities essential to quality management, including managing requirements and defects as well as running tests and reports, in a single, Web-based application
- SAP LoadRunner – Optimizes quality, performance, and scalability of end-to-end business processes that run on SAP and non-SAP software over the entire application lifecycle
- SAP Test Acceleration and Optimization application – Supports customers in automating their business process tests by automatically generating test components for SAP GUI–based transactions. Using this application in combination with SAP Quality Center, you can compose and execute automated business process tests.
- SAP Test Management Optimization service (S)
- Test-tool strategy workshop (S)
- Test analysis and proof-of-concept services (S) – Provides guidance in implementing the methodologies and tools needed to test business processes and applications
- Service for setup of automated regression testing (S)
- SAP test center

> "SAP Consulting manages and operates our testing environment, saving us time and significantly reducing the cost of development."
>
> **Georg Herrmann**, Project Manager, RACE Test Lab, Mail Division, Deutsche Post AG

Implement Best-Practice ITSM Processes (ITIL)

Information Technology Infrastructure Library (ITIL) is a discipline for managing IT systems throughout their whole lifecycle, from service strategy via service design and service transition to service operation and continual improvement. ITIL helps ensure that users of business functionality can access the applications they need efficiently and fruitfully. ITIL defines an organization-wide structure for dealing systematically with the needs of users and the IT organization when, for example, they seek changes to, or have difficulties with, the system or software they work on.

ITIL can help to shape and focus an organization's internal procedures. A low quality of ITSM processes within an organization can be indicated where, for example, there are unstable operations with rising costs or a high frequency of uncoordinated transports into productive systems. Or there might be a high (or rising) number of incidents related to changes and a low rate of incident solution in first- and second-level support.

Proposed Measures and Best Practices

The following approach can support implementation of ITSM processes:

- Analyze, standardize, and measure the most important processes of the value chain of the IT department
- Implement clear and holistic ITSM processes within your organization
- Take advantage of tools which support ITIL processes
- Reduce manual effort by enhanced ITSM and IT service automation; for example, → test automation, → automated monitoring and event management, → job scheduling management and capacity management
  → = Link to another section

SAP Offering

SAP offers the following to assist with implementing ITSM processes:

- Assessment and implementation of a Customer Center of Expertise (Customer COE) organization (S) – Helps prioritize the areas of action, tailor the ITIL processes to the specific needs of your company, and implement them
- ITIL assessment and implementation (S)
- SAP Solution Manager – Provides an integrated bundle of functionality including service desk, change request management, test management, and monitoring; is the basis for implementing the Run SAP methodology, which is related to ITIL
- SAP CRM 7.0 – Contains much ITSM functionality for managing your SAP and non-SAP solutions
- SAP Test Data Migration Server – Helps you create and update nonproduction systems, which assist you in testing and validating the quality of your application development processes
- Implementation service for SAP Test Data Migration Server (S) – Implements and configures SAP Test Data Migration Server for SAP ERP and various industry solutions

Establish Customer Center of Expertise

A Customer COE team is an organizational structure that drives integrated quality management, enabling transparency across business and IT units when faced with critical challenges in solution operations. It helps ensure business continuity, reduce costs, and accelerate innovation.

Customer COE can help organizations succeed in the constantly evolving business world. Ever-changing markets, business models, and business strategies require flexible IT solutions. Continual improvement is essential to stay competitive. IT operations and solutions need to be aligned closer to the business, as do operations and development projects.

Customer COE can help when other areas require improvement within an organization. For example, governance may be missing in IT operations, as well as clear contact roles in application management, IT operations, custom development, IT infrastructure,

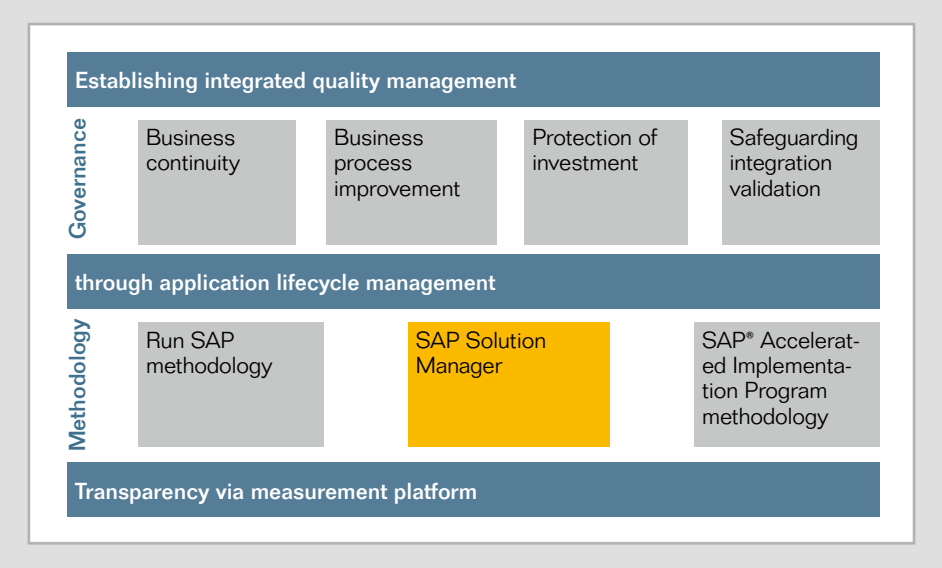

Figure 3 : Advanced Customer Center of Expertise

and other units. The cost of operations may be higher than necessary due to a lack of standardization, automation, and skills. There may be a limited capability for innovation and improvement in business processes. In addition, the availability of business processes and systems may be limited and may not meet business requirements. An advanced Customer COE team acts across business units to align stakeholders and provide standards and quality management for implementation and operations. Customer COE can also be the organization to implement and run the ITIL processes mentioned above.

Proposed Measures and Best Practices

The following are concepts to keep in mind when establishing a Customer COE team within the company:

- The Customer COE team holds responsibility for the support of efficient implementations of SAP software, as well as the related ongoing development, maintenance, and quality of the business processes and systems.
- Customer COE drives transparency and integrated quality management to ensure an efficient implementation of SAP solutions and a safe flow of mission-critical business processes. In particular, Customer COE:
  - Provides a central point of contact for critical situations – a "single source of truth"
  - Provides business continuity by ensuring that the right processes and tools are in place
  - Speeds up innovation by safe and efficient implementation of business processes
  - Protects investment through an effective release and upgrade strategy
  - Promotes standardization and automation
  - Identifies TCO drivers and proposes solutions
- Customer COE is responsible for end-to-end application lifecycle management processes and best practices (see Figure 3).

SAP Offering

SAP offers the following to assist with establishing a Customer COE organization:

- Customer COE primary certification – Indicates that the Customer COE organization possesses the basic support infrastructure necessary for interaction with SAP
- Customer COE advanced certification – Validates that the Customer COE organization has mastered the implementation of application lifecycle management, quality management functions, and the measurement platform in SAP Solution Manager
- Run SAP methodology (S) – Provides the knowledge and the services to implement application lifecycle management

- Operations planning workshop (S) – Evaluates an existing SAP customer's support operations to determine areas in need of optimization. SAP consultants work with the customer's decision makers and team via workshops to understand the current support strategy and vision and the as-is support processes, and then provide the team with a road map focused on increasing the overall maturity and effectiveness of the support operations and Customer COE organization.
- SAP Solution Manager – Provides an integrated bundle of functionality such as service desk, change request management, test management, and monitoring. SAP Solution Manager is the basis for implementing the Run SAP methodology, which is related to ITIL.
- → Application lifecycle management – Provides the tools and services required for the implementation of SAP solutions and their operations during the lifecycle
- Customer COE vision and strategy – Provides the basis for strategic decisions for setting up a new Customer COE
- Customer COE setup and development – Guides and assists our customer during the design and implementation phase of the center of expertise

Establish Super User Concept

A super user is a talented user within an organization who is brought into a position of leadership of one or more IT systems, supporting and instructing users, answering how-to questions, and making acceptance of the technology less challenging. This leads to a significant time and cost reduction as systems are adopted sooner, and companies are not seeking or hiring outside documentation, training, and support personnel.

A super user can help where there is a high number of service desk calls or where there is little or no knowledge transfer within the enterprise, leading to insufficient enablement and support of the business users. Business users might be insufficiently involved in projects and change request management, and clearly defined roles and responsibilities might be lacking on the business side for business-related applications – for example, responsibility for defining requirements, implementing changes, and supporting users. Business users may face difficulties in getting help and guidance on how-to questions and in case of incidents.

Proposed Measures and Best Practices

The following approach can help when considering a super user role:

- Establish a super user concept by defining clear roles and responsibilities for business user support and alignment with IT
- Implement a program of early and proactive involvement of super users in projects
- Ensure that super users have the following support tools available to try resolving issues themselves:
  - FAQ database
  - Solution database
  - Notes search
  - Online help functions
  - User manual

SAP Offering

SAP offers the following to assist with establishing a super user concept:

- Customer Center of Expertise assessment and implementation (S) – Helps design and implement the super user concept
- SAP Solution Manager – Provides service desk, change request management, testing, incident and problem management, and other essential functions for daily work – the tool of choice for all super users

IT Service Productization

"Productization" services is an approach where there is a clearly defined scope – for example, of price and deliverables – and where the content is standardized and reused (ideally scaled to mass volume adoption). Productization is a cost-effective way of delivering IT services that are operated or run repeatedly.

Productization can help where the cost of IT services is an issue, as well as when a department's share of individualized or tailored IT services is unnecessarily high. Productization can also be effective when IT services have limited scalability and delayed delivery due to the high volume of certain customer requirements, usually because of a lack of resources or a shortage of the required skill sets. Also, there may be a lack of standardization of a significant number of repetitive tasks, or insufficient reuse of knowledge within the organization.

Proposed Measures and Best Practices

The following approach can help with IT service productization:

- Recognize common requirements
- Normalize and standardize software requirements throughout the organization
- Introduce templates for recurring user requirements and setups
- Invest in reusable service assets
- Drive out waste and complexity
- Automate wherever possible
- Adhere to best practices and standards

Virtual Training and E-Learning

The best-designed improvement strategies do not realize the benefits expected unless colleagues across the business are engaged, informed, and prepared to succeed. Training supported by cutting-edge software, services, and cost-effective learning strategies such as e-learning can build a culture of continuous blended learning, and help reduce TCO.

Virtual training and e-learning can help, for example, where there is a conflict between the necessity of training users and the associated costs, which involve travel expenses, training fees, and employee downtime. Additional difficulties arise in deploying knowledge across multiple regions and office locations and in creating documentation, especially in different languages.

A broader training issue often in play is that effective knowledge transfer and efficient learning techniques are not linked to corporate strategy and business objectives. Virtual training and e-learning can help promote acceptance by its lower pricing structure.

> "We calculated what online training cost us in the first six months. If we did not have SAP Enterprise Learning, these training initiatives would have cost us 10 times more."
>
> **Frederick Stroebel,** Head of Training and Development, Sanlam Personal Finance

Proposed Measures and Best Practices

The following approach can help with virtual training and e-learning:

- Introduce more effective and cost-efficient training offerings that can be used globally, both e-learning (live and on demand, with or without an instructor) and blended offerings (e-learning combined with classroom training)
- Fully exploit the advantages offered by SAP software through ongoing expert training, while simultaneously cutting down travel costs and reducing employee downtime resulting from classroom training
- Opt for on-site delivery where possible
- Implement solutions that enable the coupling of effective knowledge transfer and efficient learning techniques with corporate strategy and business objectives

SAP Offering

The SAP Education organization offers a virtual training concept that includes "blended academies," e-academy, virtual live classroom training, and e-learning. In addition, instructor-led training at the customers' own facilities (on-site delivery), as well as the SAP Corporate Master program, offer a wide range of options to optimize the value of an organization's IT investment. This approach promotes employee productivity while reducing travel expenses, training fees, and the opportunity costs of employee downtime (see Figure 4).

Supported by cutting-edge software and services, SAP Education enables organizations to lower TCO via a range of new training options, which are offered in addition to traditional project team training in public training centers:

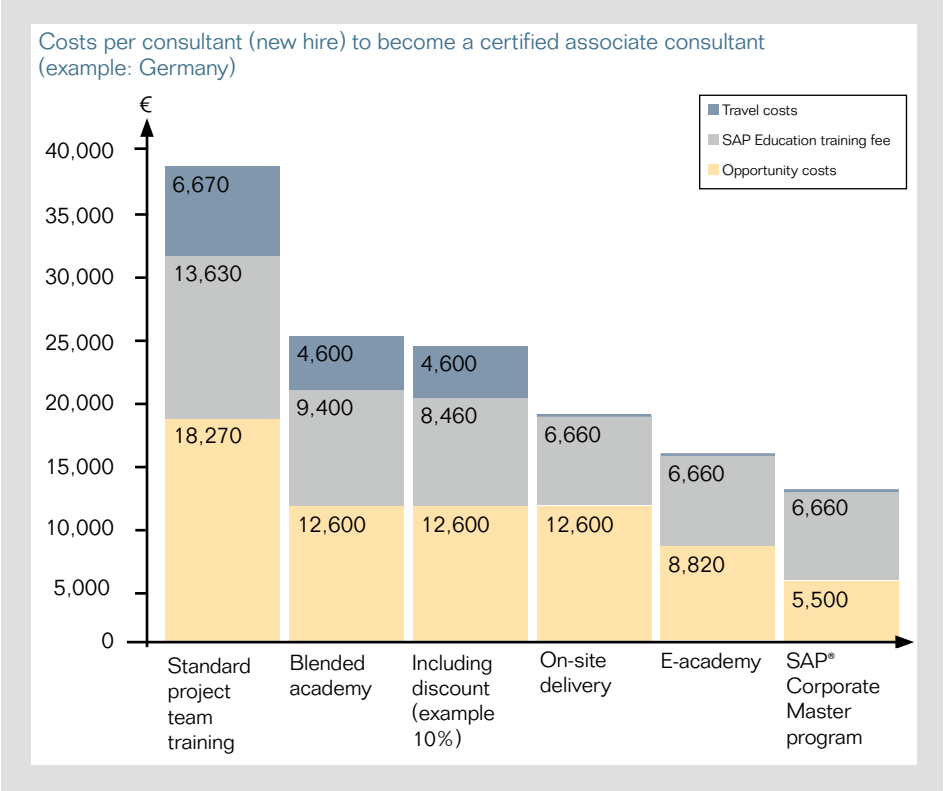

Figure 4: Example of Costs per New Hire to Become a Certified Associate Consultant

Blended Academies: Classroom-Based Training and E-Learning

Considerable TCO savings can be achieved by choosing the "blended academy" option, which combines instructor-led training with e-learning. It compresses the average 29 classroom days of public training into 20, with the remainder of the training comprising e-learning. Blended academies prepare participants for SAP certification.

On-Site Delivery

Even greater savings can be made by conducting the courses, whether standard project team training or blended academies, at your own facility. There are no staff travel and accommodation costs, and you can take advantage of a significantly reduced training fee based on daily all-inclusive rates.

E-Academy

As an alternative to the blended academies, SAP Education now offers e-academies, which are more flexible. The e-academy offers online access to audio-visual training material delivering the same content as classroom-based academies. In conjunction with the training slides provided, participants can either listen to the instructor's presentation or read the instructor's transcript. Participants have access to a live SAP training system and help desk support for a period of three to five months. Expert know-how is available via the help desk using a Web-based conference. Upon completion of the e-academy, participants can register to attend a certification examination at one of SAP's training centers.

Volume Contracts

SAP Education provides a simple and transparent offering that increases an organization's training budget by a certain percentage depending on the volume of its education spend.

SAP Corporate Master Program

SAP Education offers courses for students studying for master's degrees that are funded by partners. This is an extremely cost-effective method for partners to train and certify new resources. Partners sponsor students at a lower-cost rate, and they save on the

recruitment costs for resources who are skilled with SAP software. A partner's employees who are studying part-time for a master's degree work reduced hours at a reduced salary during what is typically a 24-month program. The skills that SAP Education delivers during the master's courses prepare students for SAP certification.

Virtual Live Classroom Training
SAP provides "project team training" in a classroom environment. These courses are aimed at all employees from specialist or IT departments, and range from a basic overview of SAP applications and technologies to far more detailed courses.

Many of these courses are also available as virtual live classroom training. The range of topics is the same as with classroom-based training, but is accessed via the Internet using the SAP Acrobat Connect Professional Learning application by Adobe. All participants are interactively trained by an experienced instructor via a toll-free teleconference, during which they can ask questions. The instructor's systems demo can be watched in real time via a Web-based learning environment. Furthermore, all participants are granted access to live SAP training systems. In addition, printed training material is sent to participants prior to the course.

With virtual live classroom training there are no travel costs and students can attend the training wherever they are located. In addition, organizations can request customized sessions (with a minimum of five participants).

> "SAP Productivity Pak has improved the quality of our documentation significantly. The central document management function … and a user-friendly interface … result in considerable time and cost savings in our day-to-day work."
>
> **Ludger Klockenbusch,** Program Manager of the Mobility Division, Siemens AG

Traditional E-Learning Courses
In addition to the e-academies and virtual live classroom training services, SAP Education also offers traditional e-learning courses. These cover an overview of SAP applications; early delta training courses, providing SAP experts with information about changed product versions; and role-based user courses, imparting user knowledge required in specialist roles.

Education-Related Software Products
In addition to the above services, these education-related software products also help drive down the total cost of ownership and increase the return on IT investments:

- SAP Productivity Pak application by RWD – Helps you maximize your employee proficiency and derive greater value from your enterprise systems. These software tools enable easy creation of documentation, context-sensitive online help, and transaction simulations – all in multiple languages and with the focus on end-user training.
- SAP Enterprise Learning environment – Integrates business processes, content development, and the delivery of learning linked to employee performance. SAP Enterprise Learning is unique as an enterprise solution that integrates back-office enterprise resource planning (ERP) functionality with functionality for both learning management systems (LMS) and learning content management systems (LCMS) in a single offering. As a result, competency management, performance management, and analytics can all be improved, including support for ad hoc reporting.
- SAP Acrobat Connect Professional Meeting application by Adobe – Establishes and manages real-time, on-demand virtual meeting rooms with a standard URL, along with live e-learning and Web conferences
- SAP Knowledge Acceleration software – Provides training and support on a variety of SAP and SAP BusinessObjects products with Web-based learning and support
- SAP User Experience Management application by Knoa – Measures the precise experience being received, and the performance being achieved, by an entire end-user community
- SAP ERP Simulation game by Baton Simulations – Enables participant teams to use live SAP software to run a company in a competitive market and develop an understanding of the value and power of the software

Integrated Service Delivery

Integrated service delivery goes far beyond the trend of global delivery and low-cost sourcing. It applies the principles of process standardization and lean manufacturing to driving value and productivity, dividing a project into discrete service components and delivering them in combination to meet demand as needed. This model supports work based on skill set and defined, agreed-upon results, rather than an arbitrary number of person days.

Budget cuts and cost pressures may be impacting IT resourcing and efficiency. Coupled with this, there may be increasing service demand from the business units or divisions, but only limited scalability of the as-is IT sourcing model. Similarly, only limited resources may be available for new projects and innovation due to operational inefficiencies. These are some of the issues that integrated service delivery can address.

Proposed Measures and Best Practices

The following approach can support integrated service delivery:

- Offer and deliver IT services that combine different options for different dimensions, such as local versus remote service delivery; local, regional, or global staffing; bill of services versus bill of resources
- Utilize best-fit internal units or global suppliers, as well as traditional local IT staff and consultants

The success factors required to be put in place to achieve this include:

- Mutually agreed scope and project plan
- Transparent and clear project setup (including governance framework)
- Clearly defined work packages
- Easy-to-understand and easy-to-follow task descriptions and work instructions
- Precisely defined communication structure
- Well-defined roles and responsibilities of the different teams
- Risk and escalation management paths

SAP Offering

SAP offers the following services to assist with integrated service delivery:

- Consulting on an integrated service delivery model from SAP Services (S)
- Fixed-price, defined-scope ("productized") services (S)
- Global delivery services (S)

Outsourcing and Out-Tasking

Outsourcing means contracting out or "externalizing" noncore activities to free up resources for activities where an organization holds competitive advantage, thus reducing average unit cost. Areas contracted out may be, for example, data processing, payroll accounting, or manufacturing.

Out-tasking is a modified form of outsourcing where you contract out a particular function, management of a particular technology, or delivery of a particular service to an outside organization. Out-tasking is done on a smaller scale than outsourcing, using multiple firms to perform specific tasks instead of having one large organization take over.

Factors motivating outsourcing or out-tasking can be, for example, the high cost of operations, and budget cuts and cost pressure generally. There may be difficulties keeping operational costs under control due to system and application availability issues, leading to costly unplanned downtime.

Proposed Measures and Best Practices

The following approach can support efforts to outsource or out-task:

- Investigate out-tasking or outsourcing as a proven approach to reducing workload, freeing up resources and shifting skill and bandwidth into core IT service delivery areas. Top out-tasking and outsourcing areas are application management, operations, testing, upgrades, and Unicode conversions.
- Safeguard remote and partner deliveries with SLAs, and manage the relationship by means of the SLA.
- Take advantage of labor arbitrage – that is, leverage lower-cost locations.
- Consider increasing the footprint of outsourcing (if already established) by moving into the next-level domain, or expanding a cost-based outsourcing to a model with productivity gains.
- Consider transformational outsourcing if IT process maturity or capacity is low.

SAP Offering

SAP offers the following to assist with outsourcing or out-tasking:

- Outsourced testing for SAP solutions (S)
- Capability assessment for Customer COE (S)
- SAP Application Management services (S)

> "The SAP Application Management services allowed us to significantly reduce our SAP support headcounts. As a result we achieved a TCO reduction of at least 20%."
>
> **Wong Voon Pui,** Head of IT & Card Services, BHPetrol

Other Selected Sourcing Options

IT Shared Service Center

A shared services operation brings together administrative functions previously performed separately – for example, IT, finance, HR, purchasing, and so forth. For IT, this means consolidating IT service delivery used by multiple divisions of the same company into a shared operation.

A Customer Center of Expertise (→ Customer COE) team can serve as a potential organizational structure of an IT shared service center that drives integrated quality management, enabling transparency across business and IT units when faced with critical challenges in SAP solution operations.

Proposed Measures and Best Practices

The following approach can help with establishing an IT shared service center:

- Ensure common understanding regarding the motivation of an IT shared service center
- Ensure that there is a clearly defined scope for the IT shared service center
- Ensure clear roles and responsibilities
- Standardize master data
- Ensure that there is intensive engagement with the customer and regularly measured feedback
- Institute and maintain continuous benchmarking against the market
- Engage external consulting help to drive the shared services decision, as is common in companies with the best-run shared services
- Institute a clear implementation plan, a phased approach, and change management
- Seek executive commitment and an acknowledgment of the key risks of a shared service center implementation

IT Co-Sourcing

"Co-sourcing" describes outsourcing IT functions into an independent organization within the boundaries of a concern (captive outsourcing), or together with partners (partnering), in order to realize synergies while still keeping control of the IT-providing company.

Proposed Measures and Best Practices

The following approach can support IT co-sourcing:

- Safeguard IT supply with SLAs and manage the relationship by means of the SLA
- Put in place a clear IT demand-supply governance model
- Put in place enforced contracts between parties
- Ensure joint business–IT planning

Business Process Outsourcing

Business process outsourcing (BPO) is a form of outsourcing that involves contracting out the operations and responsibilities of specific business functions – including the related information technology – to a third-party service provider, in order to become leaner and more efficient. In this way, you can better allocate resources and focus on developing core competencies.

Typically, business areas suitable for BPO are finance and accounting (order to cash, procure to pay), HR (payroll), procurement, and industry-specific processes (insurance claims processing and payments processing).

SAP Offering

SAP offers the following products and services to assist with business process outsourcing:

- SAP BusinessObjects Profitability and Cost Management application – Identifies the causes of underperformance and helps you take action to reduce costs and optimize profitability across dimensions such as product, customer, and channel
- Customer COE capability assessment
- Operations maturity assessment (S) – Evaluates an existing SAP customer's support operations to determine areas in need of optimization
- SAP Business Process Outsourcing organization (S)
- SAP-supported BPO providers

Joint Business–IT Planning

The main mission of joint business–IT planning is to determine investments in the application landscape, operations, maintenance, infrastructure, and other IT services, in strong alignment with the business. This avoids any divergence of aims and requirements.

Joint business–IT planning may be of benefit where organizations find there is insufficient reflection of business needs in the IT planning portfolio, limited budgets and resources, a high number of ad hoc IT requests from the business, and a disconnect between IT planning and IT budgeting. Coupled with this may be a missing alignment with IT strategy, policies, and standards, and a lack of communication and reconciliation with IT customers.

This can all lead to insufficient consideration of economic impact in IT investments and unbalanced decision making on IT issues by various stakeholders.

Proposed Measures and Best Practices

The following approach can support joint business and IT planning:

- Ensure that IT investments are being made only when:
  - Business and economic needs are met
  - Compliance with IT strategy is given
  - Risk is acceptable
- Ensure that the IT planning portfolio is defined jointly between business and IT
- Provide a clear decision-making mechanism
- Integrate budgeting into IT planning
- Ensure up-front transparency about activities in IT for the planning period
- Ensure transparency about the planning process

SAP Offering

SAP offers the following products and services to support joint business and IT planning:

- SAP BusinessObjects Profitability and Cost Management – Identifies the causes of underperformance and helps you take action to reduce costs and optimize profitability across dimensions such as product, customer, and channel
- Executive advisory services (S)

Joint IT–Business Project Portfolio

By planning and managing the project portfolio jointly, both partners – IT and the business – can better focus on the correct disposition of project-related resources.

A joint IT–business project portfolio may be of benefit when there are various unclear contacts between IT and the business, and reconciliation and discussion about project requests are needed. There may be inconsistent request assessment criteria leading to unclear project priorities ("Excel engineering") and inconsistent prioritization methodology and objectives leading to a lack of transparency. Weak transparency across the IT–business project portfolio can lead to political decision making, with no firm foundation for project budgeting.

Lack of clear business buy-in for project approval decisions can leave IT having to justify partially fulfilled requirements and the overall IT project budgets.

Proposed Measures and Best Practices

The following approach can support a joint IT–business project portfolio:

- Establish an effective process and interface to the business organization for project requests to follow their requirements and decisions ("do the right things")
- Gain control over targeted changes by managing the project portfolio actively, as projects are the vehicle to deliver any change
- Allocate the IT project budget based on clear, agreed criteria and business-aligned priorities, and gain IT project budget transparency
- Gain business buy-in for business-requested IT projects and refer back to business decisions, instead of defending the overall result of "too-high IT costs"

SAP Offering

SAP offers the following to help business and IT organizations with a joint project portfolio:

- SAP BusinessObjects Profitability and Cost Management – Identifies the causes of underperformance and helps you take action to reduce costs and optimize profitability across dimensions such as product, customer, and channel
- Business assessment for project and portfolio management (S)

Joint business–IT planning may be of benefit where organizations find there is insufficient reflection of business needs in the IT planning portfolio, limited budgets and resources, a high number of ad hoc IT requests from the business, and a disconnect between IT planning and IT budgeting.

Eliminate Shadow or Hidden IT

"Shadow IT" is a term often used to describe IT systems and IT solutions built and used inside organizations without organizational approval, often not in line with the organization's stated aims, and without the knowledge or control of a centralized IT department. Shadow IT creates "unofficial" and uncontrolled data flows, making it difficult, for example, to comply with the U.S. Sarbanes-Oxley Act and many other compliance-centric initiatives. The answer is to make shadow IT transparent and actively manage it.

Several issues can be addressed by eliminating shadow IT, which results in wasted time and hidden costs, comprised largely of non-IT workers in finance, marketing, and HR spending a significant amount of time discussing and rechecking the validity of certain data. It causes incidents and outages due to unplanned infrastructure modifications and inconsistent business logic – errors that occur from either lack of understanding of the concepts or incorrect use of tools (such as spreadsheets).

Shadow IT can prevent full ROI from investments in systems that are designed to perform the functions now replaced by shadow IT – for example, data warehousing and business informatics projects. In addition, it blocks establishment of more efficient work processes and acts as a brake on the adoption of innovative new technology.

"Shadow IT" is a term often used to describe IT systems and IT solutions built and used inside organizations without organizational approval, often not in line with the organization's stated aims, and without the knowledge or control of a centralized IT department. The answer is to make shadow IT transparent and actively manage it.

Proposed Measures and Best Practices

The following approach can help eliminate shadow IT:

- Make shadow IT transparent
- Create a balance that minimizes shadow IT as much as possible without crippling business units' ability to get their work done
- Actively manage shadow IT and mitigate risks, enforcing enterprise architecture, system administration needs, and security standards
- Establish a strong governance model where collaboration between IT and the business is enforced
- Promote open and frequent communication with the business
- Provide good customer service rather than user support only
- Leverage agile techniques such as scrum, where requirements and solutions evolve iteratively through cooperation between autonomous cross-departmental teams

SAP Offering

SAP offers the following service to help eliminate shadow IT:

- Executive advisory services (S)

Service-Level Rightsizing and SLA Optimization

Service-level rightsizing is a one-time or regular assessment of an organization's SLAs, checking to see if they reflect current business needs and balance the benefit and the effort required to ensure the defined service level.

This measure addresses situations where there is no clear definition of IT services, or the IT service cost is perceived as lacking transparency or as too high in comparison with market prices. IT service delivery commitments may not be managed along real business demand, or there may be no regular expectation management and alignment of the SLA between business and IT. Other issues may be SLA violations, low customer satisfaction, and ill-defined customer duties.

Proposed Measures and Best Practices

The following approach can help with service-level rightsizing and SLA optimization:

- Define IT service catalog and pricing
- Ensure regular joint business–IT SLA reviews
- Adjust SLA commitments to properly reflect business needs and capabilities with minimized cost
- Ensure regular IT service benchmarking
- Define clear roles and responsibilities for SLA management and controlling
- Make sure IT capabilities and SLA commitments are synchronized
- Apply ITIL
- Define clear roles and responsibilities for SLA management and controlling

SAP Offering

SAP offers the following products and services to help with service-level rightsizing:

- SAP BusinessObjects Access Control – Protect information efficiently and prevent fraud by identifying and preventing access and authorization risks in cross-enterprise IT systems
- SAP BusinessObjects enterprise performance management solutions – Capitalize on the value of your corporate data, enabling your organization to become more agile and competitive by providing organizational alignment, visibility, and greater confidence
- SAP BusinessObjects Profitability and Cost Management – Identify the causes of underperformance, and take action to reduce costs and optimize profitability across dimensions such as product, customer, and channel
- ITIL assessment and implementation (S)
- Executive advisory services (S)

CHAPTER 5
IDENTIFY YOUR TCO POTENTIAL

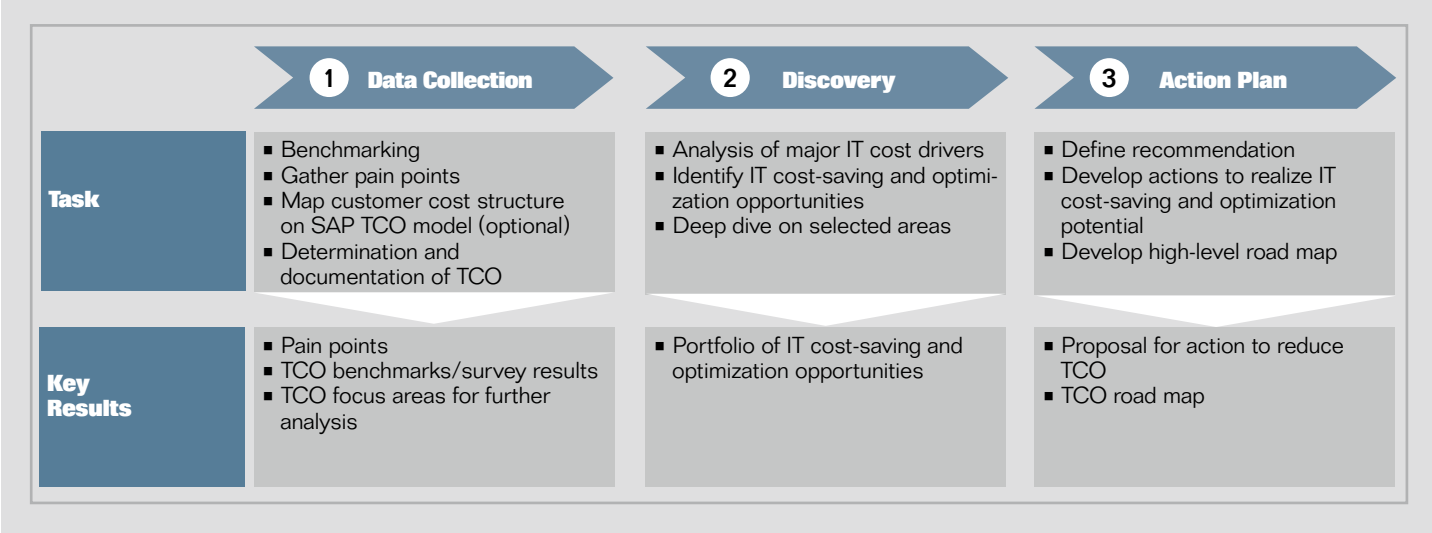

Figure 5: TCO Discovery Assessment

During the past two years we have recognized an increasing demand from our customers for guidance and on-site support to identify TCO reduction potential and set up programs to drive down TCO. Together with selected customers we have worked on these projects and evolved a successful approach and methodology. Based on these experiences SAP has developed the TCO discovery assessment (see Figure 5).

The TCO discovery assessment is designed to help IT organizations discover IT cost-saving potential, identify areas for improvement, and define an action plan to realize cost savings – leveraging proven SAP best practices, services, solutions, and support know-how. This methodology involves setting up a joint customer–SAP task force, gathering data on-site on the TCO challenges, and conducting workshops and interviews to analyze major IT cost drivers and identify IT cost-saving and optimization opportunities.

Phase 1: Data Collection

- Define a clear TCO reduction charter
- Set up a joint customer–SAP project team
- Gain transparency about as-is cost situation; gather information from resources (customer and SAP)
- Conduct TCO benchmarking
- Analyze TCO benchmarking results
- Define focus areas for further analysis

Phase 2: Discovery

- Analyze major IT cost drivers
- Identify gaps in best practices
- Identify IT cost-saving and optimization opportunities
- Estimate saving potential
- Deep dive on selected areas
- Analyze SAP solutions and services that can to contribute to TCO reduction

Phase 3: Action Plan

- Set TCO reduction priorities
- Develop high-level benefit ranges, model solutions, and value proposition
- Define actions to realize IT cost-saving and optimization potential
- Develop TCO reduction road map
- Initiate TCO reduction program

CHAPTER 6
APPLICATION LIFECYCLE MANAGEMENT (ALM)

In the current economic environment, CIOs and IT managers are challenged more than ever to cut IT costs and enable business process excellence and timely innovation adoption at the same time.

The Strategic View

With application lifecycle management, customers implement high-quality solutions faster and operate them at lower cost. Here's how:

- Accelerated innovation through value discovery and realization, innovation without upgrade, and near-zero downtime
- Operation at lower cost through standardized, unified, and automated operations; managed complexity; and managed SLAs
- Superior quality of SAP solutions, customer enhancements, and partner deployments in terms of functionality, performance, availability, and security

Business Performance in Volatile Times

Several organizations have reduced total cost of ownership between 15% to 60% while maintaining and even improving business agility, innovation, and business continuity – as a result of a holistic approach of application lifecycle management based on SAP solutions, services, and support.

Leading enterprises demonstrate how they have successfully taken different measures in responding to individual business drivers. These measures include → system landscape consolidation and harmonization; → standardization of IT service management; use of → SAP enhancement packages; and adoption of service-oriented architecture (SOA).

→ = Link to another section

Read more:
How Companies Sustain Business Performance in Volatile Times: Raise IT Productivity with Application Lifecycle Management

Overview

Application lifecycle management from SAP is based on ITIL and provides processes, tools, services, and an organizational model to manage SAP and non-SAP solutions throughout their entire lifecycle (see Figure 6).

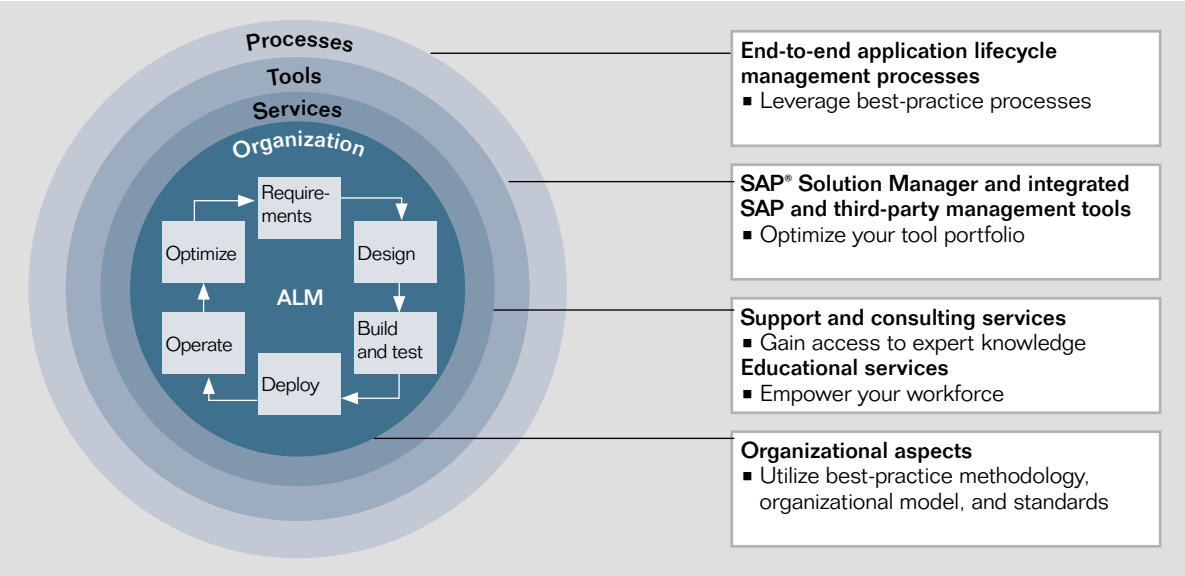

Figure 6: Application Lifecycle Management

Best-Practice Processes

ALM is executed through processes that span the complete application lifecycle. These processes support stable operation of the IT solution while enabling accelerated innovation. Optimizing these processes reduces costs and helps ensure the highest quality of IT operation.

SAP provides 10 best-practice processes for application lifecycle management to support both projects and solutions throughout the entire lifecycle:

- Solution documentation
- Solution implementation
- Template management
- Test management
- Change control management
- Application incident management
- Technical operations
- Business process operations
- Maintenance management
- Upgrade management

SAP Solution Manager and Tools

Application lifecycle management relies on efficient collaboration of multiple SAP and non-SAP tools. They provide the required functions for the different ALM processes.

Several organizations have reduced total cost of ownership between 15% to 60% while maintaining and even improving business agility, innovation, and business continuity – as a result of a holistic approach of application lifecycle management based on SAP solutions, services, and support.

SAP Solution Manager

SAP Solution Manager plays a decisive role within the ALM tools. Besides providing ALM functionality itself, SAP Solution Manager integrates the other tools to ensure a comprehensive approach. It enables the central access to all required functions and central availability of all required information. In addition, SAP Solution Manager facilitates the efficient collaboration between your company and the SAP support organization to optimize the value of your support engagement with SAP.

SAP and Third-Party Tools

Besides SAP Solution Manager, SAP offers other tools to complement the ALM offerings. And it is possible to integrate third-party ALM tools via available interfaces, as well, using the following products and services:

- SAP Quality Center application by HP
- SAP Central Process Scheduling application by Redwood
- SAP Productivity Pak application by RWD
- SAP Extended Diagnostics application by CA Wily
- SAP Test Data Migration Server software
- SAP Test Acceleration and Optimization application
- SAP IT Service Management application
- SAP Resource and Portfolio Management application

Best Practices and Methodologies

Application lifecycle management provides standards, best-practice methodologies, and organizational recommendations covering the most typical customer situations – implementation, operation, or upgrade. You can leverage these experiences to optimize the implementation and operation of ALM within your organization.

SAP standards for solution operations describe the different processes of end-to-end solution operations. They address the tasks and needs of business process experts – the stakeholders responsible for designing and executing business processes – and IT departments responsible for making the functionality of SAP applications available to business users.

SAP road maps provide methodical frameworks for SAP projects. They give a structure to results and activities and provide the tools, services, and other methodical procedures that are recommended or required to help achieve the project objective. Special accelerators in the road map structure help with certain project tasks by providing templates, examples, standards, product information, or best practices, for example.

Establishing a Customer Center of Expertise (→ Customer COE) empowers an organization to manage its mission-critical operations effectively and efficiently. The Customer COE team manages quality and collaboration between all parties involved in ALM activities.

Services

To support you in implementing ALM in your organization, SAP provides various services. SAP customers can get further information regarding these offerings on the ALM Services page.

- Expert-guided implementation is an optimized, short-term setup service to configure basic settings of SAP Solution Manager without long-term, in-house consulting.
- Consulting services for SAP Solution Manager will help plan the deployment of SAP Solution Manager, install the system, configure the mandatory and desired functions, and train users and administrators on how to handle SAP Solution Manager.

SAP offers several training courses and empowering workshops to facilitate knowledge transfer to your support organization. The training and certification of Run SAP methodology provides companies, partners, and SAP consultants with the expertise to implement ALM.

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