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WHITE PAPER

The Business Value of Software Deployment Services

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IDC OPINION

Today's enterprises increasingly utilize comprehensive software packages to improve employee performance and productivity by integrating business processes and data across the organization. Unfortunately, for many enterprises, deploying these complex software packages is a significant challenge that quickly becomes unmanageable. IDC recommends that enterprises use the following guidelines when selecting deployment services for their IT environments:

- Consider utilizing an external provider to deploy enterprise software packages. While many IT departments consider internal deployments to be the least expensive solution, complex software deployments can very quickly lead to delayed schedules and unanticipated cost overruns. An external provider that has extensive experience with the selected software can plan and deploy the solution while utilizing best practices learned from other implementations, especially when configuring software around existing business processes. In addition, external deployment providers can diagnose and resolve critical issues quickly and effectively, leading to smoother implementations that stay on schedule and on budget — and often cost less over the life of the project.

- Look for deployment providers with programs and processes in place to help reduce the risks inherent in deploying enterprise software. Software implementations typically require planned downtime, and any unforeseen issues can lead to unplanned outages that affect everyday operations. Software deployment providers with established deployment processes and well-defined implementation methodologies can help minimize the potential for schedule disruptions and cost overruns.

- Make sure the deployment providers can illustrate success with implementation practices that accelerate the move into production more than traditional software deployment. Faster adoption can mean a more immediate impact on business results and can often translate into a quicker return on your investment in the selected technology. In addition, phased deployments can be helpful for enterprises considering large software deployments. Starting to use the software as it becomes available can allow the organization to learn the software quickly, which means a faster payback period for the project as whole.

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IN THIS WHITE PAPER

This IDC white paper describes the challenges enterprises can encounter when deploying software packages into their IT environment. It also highlights what enterprises should consider when evaluating software deployment services and how specific deployment services can accelerate software adoption and solution payback. The paper examines a software deployment offering from CA as well as two case studies from customers who have utilized the offering.

SITUATION OVERVIEW

In today's environment of continually evolving market dynamics and increasing global competition, enterprises often look to comprehensive software packages to enable critical business processes. Enterprise software can allow organizations to integrate many aspects of their everyday business tasks and can give employees access to tools and data that can significantly increase performance and productivity. By implementing this software across the enterprise, organizations hope to streamline their business processes and delivery methods to gain key strategic and competitive advantages in today's competitive business climate.

Unfortunately, for many organizations, implementing enterprise software packages becomes a very difficult task that often spirals out of control. This can be the case in almost any circumstance, despite a team's best efforts to design, plan, and execute the implementation as carefully as possible. There are many reasons why enterprise software implementations can fail, but the most common include:

- **Lack of clear vision or coherent goals for implementation.** Organizations often undertake enterprise software implementations without an overarching, comprehensive goal for the project as a whole. As a result, key stakeholders often determine individual goals for the aspect of the project that applies to their area of concern — and these individual goals are frequently in conflict, with different requirements and different outcomes and expectations. There is no common discussion about the needs of each stakeholder as they relate to the goal for the project and the enterprise as a whole. Finally, stakeholders often fail to resolve differing requirements and reach a common understanding for the entire implementation as it will affect the enterprise.

- **No holistic view of the implementation.** Implementing a comprehensive software package typically requires participation from a broad range of parties, including top-level executives, line-of-business staff and managers, IT staff and managers, consultants responsible for designing and leading the implementation, and developers and architects for each component of the enterprise software package. Although most implementations include a named project lead overseeing the initiative, the project lead may not have significant experience leading a comprehensive project of this nature and integrating a diverse group of constituents as part of an overall solution. This lack of experience means that the project lead can miss out on critical integration and implementation steps and can unintentionally leave out key stakeholders during critical steps in the process. Then, when the project lead does reach out to the entire team later in the process, it is often too late to incorporate valuable input as part of the overall implementation.

- **Lack of clarity in business processes.** Many organizations have not clearly defined their internal business processes before undertaking a major enterprise software implementation. Because enterprise software is intended to support defined processes across an enterprise, this lack of clarity can lead to significant issues for the duration of the project. This is especially true during the implementation itself because software installation and configuration is often closely dependent upon the processes that will be supported after implementation. As a result, poorly defined business processes can often lead to substantial delays during implementation — or a finalized implementation that does not fully leverage existing business processes.

- **Minimal planning and attention to detail.** Although a single point of contact typically manages an enterprise software deployment, many implementations are plagued by a lack of planning and an inadequate attention to detail. Project leads sometimes oversee these large implementations in addition to their regular responsibilities, leaving them with insufficient resources to manage a large software deployment. In addition, with so many parties participating in the project, project leads often assume that each party is monitoring its piece of the project individually and communicating with all other constituents — which is often not the case.

When the issues detailed above arise during software deployment, the enterprise will often face a number of potential setbacks as it tries to move the project toward completion. These setbacks typically include:

- **Delays during software deployment.** These delays can arise at any time during the implementation — from the design phase when the team struggles to reconcile poorly defined business processes with the purchased software to the implementation phase when developers have to implement significant custom code changes to address unforeseen requirements. These delays can pile up over time and often result in go-live dates slipping by weeks and months.

- **Increasing project costs.** When enterprises are faced with significant delays and changes during a software deployment, they often turn to additional staff and resources to speed deployment in an attempt to meet the original project schedule. These additional resources come at significant cost because extra personnel and overtime hours are often part of the potential solution. Depending on the size of the original deployment, these overruns can be anywhere from several thousand to several hundred thousand dollars.

- **Faulty implementations.** The potential issues described above can result in incomplete and incorrect software implementations because of both incorrect software configurations based on inadequate requirements and incorrect mapping of the software solution to business processes that were not well defined or that were unclear during deployment. Because these issues may not be discovered until after the go-live date, making updates and changes is always at an additional cost to the enterprise — in both time and money.

- **Slow adoption after deployment.** Unfortunately, after organizations spend significant time and money implementing large enterprise software packages, internal adoption can be slow among the different constituents. This can be the

result of having to wait for resolution to a faulty implementation, ongoing changes and updates that are required to make up for incomplete and inadequate requirements gathering, and the lack of a comprehensive educational program for all concerned parties. Lack of administrative and end-user training tends to result in slow adoption and increased use of help desk support.

IDC believes that organizations implementing enterprise software packages must consider how to plan for the issues detailed above as part of the deployment process. These problems can arise at any time during implementation, regardless of who is deploying the software (i.e., internal staff or an outside vendor).

FACTORS TO CONSIDER WHEN EVALUATING SOFTWARE DEPLOYMENT SERVICES

To minimize the potential risks associated with deploying enterprise software packages, organizations should carefully evaluate the methods and practices that will be utilized during implementation. IDC has identified a variety of key best practices that can accelerate software implementation and adoption. Organizations planning to deploy enterprise software should consider packages that contain the features outlined below when calculating the business value of deployment services.

Key Potential Success Factors

Domain Expertise Across All Software Solutions

A comprehensive knowledge of the technology required as part of the selected software solution is a critical consideration when assembling the deployment team. The personnel involved in implementation should have extensive experience with the entire software solution as well as with the complexities of integrations into the existing IT environment.

A thorough understanding of the selected software solution means the deployment team will realize the complexities that can occur during integration and implementation. In addition, a highly knowledgeable team can anticipate potential issues that could arise based on team members' many years of experience with the software. This means the team will be able to quickly address problems that occur onsite during implementation, reducing the potential for significant delays associated with diagnosing and resolving critical issues that arise during deployment.

Standardized Deployments Across the Software Platform

A standard deployment approach can ensure a consistent experience during implementation for all types of software across the IT environment. This can help both deployment staff and IT staff approach the implementation in a more holistic manner, creating a uniform approach throughout the deployment process. Additional benefits of standardized deployments include the following:

- The ability to leverage the expertise of deployment experiences across various software products and capabilities to incorporate all best practices rather than creating those best practices "on the fly" each time

- The opportunity to refine the deployment process over time based on real-world experiences because lessons learned from each engagement can be incorporated into improvements for the next engagement
- Enabling providers to streamline the deployment delivery process to increase efficiencies, which can translate into faster deployment times and a reduction in resources required — which can mean a faster payback period
- A highly detailed approach to the entire deployment process, which can create such a clear project road map that flexibility to accommodate unforeseen schedule changes is actually increased
- A smoother and easier transition to postdeployment support, as support teams are very familiar with the configurations and can respond to service requests and potential issues with an understanding of the customer's environment

Nonstandard approaches to software configuration and deployment can lead to significant difficulties when using and supporting the software solution in the customer environment. With these benefits, utilizing a standardized approach for deployment can result in a more effective process during deployment as well as an easier transition to support when the software is put into production.

Targeted Methodologies for Individual Product and Multiproduct Deployments

Using defined methodologies for both individual product and multiproduct deployments can also facilitate a smoother software implementation. Applying a strict sequential order to the deployment process from beginning to end can help identify and eliminate potential issues that can arise later in the deployment process. Incorrect assumptions and faulty design early in the process can lead to much larger problems later in the implementation, when costly delays and additional resources might be necessary to fix the problem. Detailed, standardized methodologies can help eliminate that risk by incorporating tested, established processes that focus on deployment, integration, and education throughout the life of the implementation process. The structured process also makes it easy to stop, restart, and restructure the implementation if necessary.

Linking Business Use Cases to Technology Solutions

A critical aspect of a successful software implementation is ensuring that the technology under deployment is directly tied to the business process that it is supporting. Any misalignment between technology and business processes could lead to significant issues during implementation. In general, it can be important to avoid ad hoc customizations and on-the-fly code changes that might be required to adapt to an existing business process at the customer site. These very specialized customizations can be very expensive to implement and very difficult to support over the life of the product.

Enterprises should make sure that solution architects are addressing these concerns in very early initial discussions. Linking software technology to actual customer business processes should be part of the original project scoping discussions and is an important piece of early sales discussions.

CA SOFTWARE DEPLOYMENT SERVICES OFFERING

In response to the many challenges facing enterprises deploying large software packages, CA has introduced the CA Services Deployment Methodology as part of the CA Services offerings. The CA Services Deployment Methodology incorporates aspects of the best practices described in the preceding section with capabilities and processes that are specifically targeted to improve software implementations and speed time to deployment.

Presales Planning

CA includes significant up-front design and planning for the overall solution architecture from the beginning of the sales process. In early talks with potential customers, the CA team will focus on questions regarding key business drivers, functional requirements for the solution, and key quality attributes to measure outcome and potential success.

As a result of these discussions, the sales team creates a high-level design of the potential solution as part of the sales process. Incorporating information regarding business drivers and requirements at this stage in the process can help eliminate the potential disconnect between design and implementation — leading to a smoother deployment when the software is actually implemented.

Project Management and Governance

The CA Services Deployment team includes a project management and project governance component to guide the overall implementation process and cover all phases of the project. All lead project managers are certified by the Project Management Institute and act as the single point of contact to facilitate communication between the CA team and the customer throughout the project.

The CA project managers are also fully trained in all aspects of the CA Services Deployment Methodology, including the nine-stage implementation process details outlined below. The CA project managers have lead responsibility for all customer deliverables and work closely with the entire CA team to facilitate all aspects of the software deployment.

Nine-Stage Implementation Process

The CA Services Deployment Methodology features a fully comprehensive nine-stage implementation process, with detailed steps required to complete each phase during deployment at the customer site (see Figure 1). The process includes an extensive checklist of both questions for the customer and detailed steps that need to be taken to implement the solution in the customer environment in a comprehensive manner.

The CA Services Deployment Methodology is intended for use exclusively by trained CA staff or partners who have extensive experience with CA software and solutions. All deployment staff are trained in all aspects of the methodology and the corresponding material. In addition, the CA Services Deployment Methodology

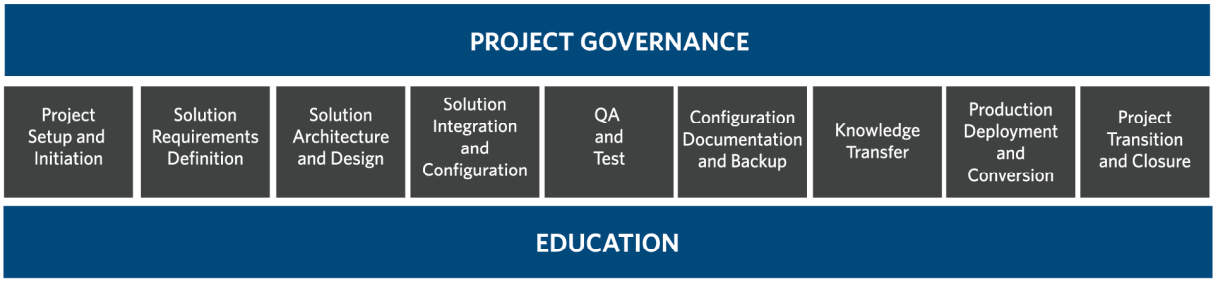
can apply to both rapid implementations and solution implementations. These approaches vary only by how the scope of work is determined; other than that, the elements of the program are identical.

All CA architects are trained through an extensive set of courses that have been accredited by The Open Group.

For all CA software deployments, each phase features an extensive set of documents and templates that are used to facilitate the process. The documents include presentations regarding elements of each phase; requirements documents to ensure that the customer has a comprehensive understanding of its environment and how the solution will map to its environment; test plans, run books, and questionnaires that facilitate gathering all the necessary data from the customer to enable deployment; and step-by-step instructions for the deployment process that ensures a standard approach across all CA software and solutions.

FIGURE 1

CA's Nine Stages of Project Governance



Source: CA, 2009

Custom Code Development

The CA Services Deployment Methodology features prebuilt components that can be useful for customers who require custom functionality as part of the software solution. These prebuilt applets and connectors come from a catalog of pretested modules. They are easily deployed as part of a CA solution. These packages allow the deployment team to implement customizations that are easily supportable — which means fewer potential integration issues during deployment and more readily accessible support for the system after deployment. For requirements that go beyond prebuilt components, CA can also develop, test, and support functionality that meets customer requirements.

Ongoing Process Improvement and Optimization

The CA team has developed an internal knowledge base that is used to store and update all aspects of the CA Services Deployment Methodology, including the detailed presentations, deployment playbooks, and templates that are required at each step in the process. CA has defined a process for maintaining and updating the documents and has staff dedicated to incorporating CA staff and client feedback into the components of the program on an ongoing basis. CA continually monitors project success to identify opportunities to improve the program, and feedback from customers and the field staff is an integral part of incorporating any updates or revisions.

CASE STUDIES

Food Lion

Over the years, a large supermarket chain had implemented various network monitoring technologies throughout its datacenters. However, a growing need to deliver consistent and reliable network performance to 1,300 retail locations forced the IT staff to consider a robust, comprehensive system and network monitoring solution. System and network uptime is a critical element of business success for the grocery chain, with more than half of customers performing noncash transactions — and a store can lose as much as $1,200 an hour when the network is down at a single retail location. Networks have to be consistently reliable and available, with the ability to rapidly restore service when problems did occur. The IT staff needed to integrate and consolidate all network and system monitoring with enterprise-level features and functionality.

The company has worked with CA for more than eight years and selected CA as a partner for this implementation due to this relationship and CA's expertise working in its environment. The details of the project included deploying CA Spectrum Infrastructure Manager, CA eHealth Performance Manager, and CA eHealth for Voice and consolidating and integrating system and network monitoring across the IT environment — including the 1,300 retail locations. The supermarket chain also wanted to upgrade existing processes as part of the implementation in order to take advantage of the new capabilities to benefit system and network performance.

The CA Services Deployment Methodology allowed for significant design and architecture work early in the project. CA also used deployment playbooks to tailor the deployment process around the company's specific requirements, which allowed the team to identify and eliminate "blind spots" before implementation. According to the Rob Thornton, Team Lead, Enterprise System Management at Food Lion, the CA deployment team "did a better job of design, put the right people onsite at the right time, and found the correct product" for its IT environment.

The project was structured with milestones around monitoring the accuracy of the solution in meeting customer use cases, not around specific dates and timelines. Because of the phased implementation, Food Lion was able to thoroughly check the validity of system and network performance data coming from its infrastructure

against data from service providers — and in some cases, Food Lion was able to fully understand service level impacts from the retail perspective and not rely solely on reports generated by the service provider or manually created as incidents occur, which was a significant win for the organization. The phased approach also allowed for detailed knowledge transfer between CA and Food Lion staff, ensuring accurate and thorough training and documentation.

Overall, Food Lion was pleased by the success of the implementation — in terms of both product performance and deployment process. The implementation proceeded more smoothly and more quickly than anticipated and was completed on time and on budget. In addition, the CA team completed some aspects of deployment ahead of schedule — allowing Food Lion to apply those resources to projects that were not included in the original scope of work. "As a result, Food Lion was able to tackle additional issues and get more value from the project," said Thornton.

General Dynamics for the U.S. Army Reserve Command

General Dynamics Information Technology (GDIT), a business unit of General Dynamics, has managed the datacenter for the U.S. Army Reserve Command (USARC) for at least five years, providing services to 50,000 full-time and 150,000 part-time users. The datacenter has employed CA technology since 2004, when it was powered up and went into general use for the U.S. Army Reserve Command. Since that time, USARC has consolidated from twelve to four major subcommand units. As part of this effort, the U.S. Army Reserve Command needed to eliminate redundancy in both staffing and technology, and it turned to General Dynamics and CA for help in this area of the datacenter.

General Dynamics selected CA as a partner for this implementation due to CA's longstanding relationship with both GDIT and USARC and its expertise in the datacenter from the original implementation. The GDIT and USARC staffs were looking for a solution that would coordinate the services delivered across their user base and provide true integration of the datacenter capabilities. The details of this project included upgrades for all existing CA software to R11 from a mix of prior releases, deploying CA eHealth Performance Manager and CA Spectrum Infrastructure Manager in the datacenter, and adding new tools to enable discovery and a common data set. The implementation staff was tasked with consolidating and integrating the tool suites across the datacenter to streamline delivery and improve performance.

From the beginning of the project, CA outlined policies and procedures for the deployment that were even more detailed than what GDIT required. CA's nine-step implementation process was easily adapted for GDIT's five-step approach, and one meeting quickly brought both teams into alignment. CA's phased implementation approach also allowed the GDIT team to take advantage of the new capabilities early in the project. In fact, the Spectrum software package was deemed so useful that it went into production very quickly — and was used to help define the project and gain additional efficiencies going forward. The detailed planning and phased implementation meant that CA staff members had everything they needed exactly when they needed it, making the deployment process smooth and problem free.

This clear, structured process proved valuable when the team needed to manage a six-week delay in the delivery of hardware. The detailed schedule and project plan from the CA deployment process allowed the team to easily move around various resources and activities to ensure that the deployment stayed close to schedule despite the delay. There was enough granularity in the plan to make quick adjustments to the schedule, which meant a six-week delay was reduced to only a single-week delay to the overall technical implementation project schedule.

The U.S. Army Reserve Command is very pleased with the work of General Dynamics and the performance of both the CA software and the CA implementation process. GDIT knew that the CA team was available whenever issues might arise and always had access to the right CA personnel when needed during implementation. In fact, General Dynamics is so happy with the results of this project that it is hoping to partner with CA to replicate the solution with other potential customers. "CA was really clear setting expectations up front so we knew exactly what to expect and when. They always had the 'right' people available for the team, and we completed on schedule and on budget. It was a great experience," concluded Jeffrey Corvey, Program Manager, IT support contract for USARC at GDIT.

FUTURE OUTLOOK

With the increasing focus on new technologies such as unified communications and virtualization, IT departments will continue to grow in complexity over the next five years. Although many of the new technologies are meant to simplify business processes, they add significant levels of difficulty to managing an IT environment. To enable seamless, problem-free deployments, implementation teams will need a comprehensive approach that is detailed and precise in process and execution.

IDC believes that enterprises will be looking for deployment services that can meet these requirements and that can ensure a detailed approach that means the implementation can proceed as smoothly as possible. With increasingly complicated IT environments, enterprises will select deployment services that have deep expertise in minimizing potential issues during implementation and can address integration complexities at all levels of the project.

IDC also expects that enterprises will be increasingly concerned with realizing the benefits of software as rapidly as possible throughout the organization. This means that deployment services should be refined to a level that can offer an accelerated implementation time frame as well as faster adoption of the software solution at all levels required in the enterprise.

CHALLENGES/OPPORTUNITIES

IDC believes that the primary potential issue associated with the CA Services Deployment Methodology is the ongoing maintenance of the playbooks and templates that are so essential to each step of the process. CA has defined a detailed process to make sure that the material is updated consistently and that feedback from the field is incorporated into each phase. CA needs to ensure that these processes are followed very closely as this program is expanded to cover additional CA technology.

Making sure that the program materials are always the "latest and greatest" is a key part of maintaining the program's success going forward.

IDC also recommends that CA work to maintain adequate flexibility within the detailed framework to ensure that the program can be adapted and updated easily to meet changing market requirements. This can be a difficult proposition with a process that is extremely detailed and precise; it is very easy to overengineer the process so that it cannot be easily adapted going forward. However, it is essential to meet the needs of customers facing constantly evolving technology and requirements.

In addition, IDC sees significant opportunities for CA to continue refining the messaging around the CA Services Deployment Methodology. It is important for CA to keep evangelizing the process so that the new program quickly becomes the de facto standard in deployment services. CA should make sure that external customers clearly understand what can appear to be an overwhelming process. The lengthy requirements documents and specifications with many questions can seem insurmountable at first. However, focusing on the customer success stories and the potential benefits can be helpful when addressing potential questions about the process.

Finally, CA could consider leveraging the wealth of proprietary material developed for the CA Services Deployment Methodology to expand existing programs for both partners and customers. Allowing access to elements of the programs for partners who offer deployment services for CA software could help increase the adoption of and satisfaction with CA software through that channel. The same holds true for elements of the program that could be shared with customers in order to improve self-implementation. IDC believes that these elements should be selected very carefully and developed specifically for either partners or customers as appropriate — many of the playbooks and documents contain significant intellectual property, which should be protected. However, if CA can make less proprietary aspects of the program available to partners and customers, the company may see improvements to software adoption, usage of support processes, and customer satisfaction.

CONCLUSION

The IT environment will continue to grow increasingly complex and sophisticated over the next five years, as more enterprises deploy advanced technologies such as service-oriented architecture and virtualization. Deploying new software into existing environments can seem overwhelming, with complicated integration issues and the potential for additional issues during implementation. To improve the software deployment process, enterprises must ensure that implementation teams have highly detailed plans and processes to speed implementation and adoption. To better meet the needs of demanding customers who require a higher level of deployment services, CA is offering the CA Services Deployment Methodology. IDC believes the CA Services Deployment Methodology is well suited for customers who need to minimize the risk of deploying software into an already complicated IT landscape. By utilizing the CA Services Deployment Methodology, these customers can take advantage of the extensive experience and expertise that is reflected in the detailed program materials and the comprehensive nine-step process.

METHODOLOGY

The basis for this white paper is IDC's ongoing research into the challenges associated with deploying enterprise software and the best practices that can be applied to streamline and improve implementation. Our research includes interviews with software vendors as well as their partners and customers to understand the key attributes and benefits of software deployment services.

In addition, IDC conducted in-depth interviews with two CA customers.