

How can Data Center Automation help me manage complexity and reduce costs while improving service quality?



The background of the slide is composed of several overlapping geometric shapes. A large green triangle is positioned in the upper right, pointing towards the top right. A smaller, darker green triangle is in the upper left, pointing towards the top left. A blue triangle is in the lower left, pointing towards the bottom left. A light green triangle is in the lower right, pointing towards the bottom right. The text is centered within the green areas.

Data Center Automation from CA automates change, configuration and provisioning processes as well as complex workloads — helping you control complexity, manage virtualization and reduce costs while providing adaptive business services that optimize asset utilization and proactively accommodate demand fluctuations.

Overview

Challenge

As the demand to improve and expand IT services grows, you are under unrelenting pressure to manage an increasingly complex infrastructure while also controlling costs. Accomplishing these divergent goals requires you to take steps to transform how IT operates. Automation will be key to this transformation. The problems you face include inefficient and error-prone manual processes, difficulty mitigating the impact of configuration changes, a limited ability to enforce compliance with asset configuration standards and pressure to reduce energy costs.

Solution

Data Center Automation (DCA) from CA helps IT manage complexity and improve service delivery by implementing significant automation of change, configuration and provisioning processes; as well as automation of complex, high-volume workloads. This lets you anticipate demand fluctuations and adjust the infrastructure before service is impacted. CA DCA also helps optimize utilization of physical and virtual assets, supporting “Green IT” initiatives and improving staff efficiency so resources can focus on proactive management and planned projects.

Benefits

CA DCA solutions helps IT master complexity, improve service, reduce errors and inconsistencies and use staff more effectively. Automation of repetitive, manual tasks also ensures compliance and standardization across the data center, while freeing IT resources for strategic projects that deliver greater value to the business. Because CA DCA automates complex processes across the service lifecycle, you can also optimize utilization of physical and virtual assets, thus gaining agility and reducing redundant capital outlays as well as energy costs.

The CA Advantage

CA's DCA solutions allow flexible deployment across heterogeneous environments while leveraging current investments in related management solutions. By unifying workloads and workflows, CA DCA allows IT to integrate and automate complex processes across data repositories, applications and infrastructure domains, facilitating dynamic operational decisions. Integration across CA's comprehensive portfolio of Business Service Management (BSM) solutions enhances the value and business impact of your Data Center Automation investments. These advantages make CA DCA the most dynamic, comprehensive and strategic solution available, providing cross-domain, data-driven automation that gives you the ability to optimize assets to meet the service demands of the business while controlling complexity and reducing both costs and errors.

Next Steps

If you are under pressure to reduce IT complexity while improving services, and want to leverage virtualization and contain costs, CA can help. From change and configuration management to multi-platform, policy-driven workload automation to dynamic and virtual systems management, CA solutions are designed to help you achieve your Data Center Automation goals. For more information about CA's approach to DCA, please visit us at ca.com/bsm.

CHALLENGE

Automate Manual Processes and Workload Across the Data Center to Reduce Complexity and Align Services with Business Demands

Like most IT organizations, you must deal with an ever-growing demand for business services across an increasingly complex infrastructure. Yet the quality of the services you deliver must not degrade, even as you strive to reduce costs. Challenges that are becoming more urgent as demand and complexity escalate include:

INEFFICIENT AND EXPENSIVE MANUAL PROCESSES Many IT organizations manually perform complex and repetitious tasks like patch management and new server provisioning. These practices inevitably introduce errors and inconsistencies that threaten service quality — and that must, in turn, be manually diagnosed and repaired when service is affected. The ability to automate these processes is often limited because the systems involved are managed separately, and the relevant data cannot readily be consolidated.

UNDERUTILIZATION OF ASSETS To prevent service degradation due to inadequate capacity at times of peak demand, many IT organizations massively overprovision assets, especially when they lack tools for fully leveraging virtualization. When assets cannot be dynamically provisioned and automatically allocated to ensure availability, this serves as a de facto strategy to ensure service availability. However, the result for any gains in agility is higher capital and operating costs, including exorbitant energy costs and more resources required for administrative and maintenance tasks.

CONFIGURATION DRIFT A chronic lack of policy automation coupled with a reliance on complex, manual processes results in a limited ability to enforce and detect compliance with configuration standards. Lack of automation also limits your ability to manage change without impacting business services — again because change, configuration and provisioning activities for servers, etc., are manual and labor-intensive.

Automation Reduces Complexity and Improves Agility

To manage complexity, optimize physical and virtual asset utilization and improve the agility with which IT can deliver service to the business, you need comprehensive automation for processes including change management, configuration management, provisioning and workload management that span complex, multi-platform systems.

Many IT organizations have sought to streamline their operations by automating functions like basic provisioning and software distribution. But these initiatives have often taken the form of point solutions that cannot address the automation of complex tasks nor span today's diverse infrastructures. Hence many of the highest-value opportunities for automation still exist.

How can you best address the pressure to automate complex operations in a way that leverages current investments and makes operations both more robust and more flexible? How can you use automation as a starting point for strategic IT/business alignment? Data Center Automation initiatives like CA DCA provide an opportunity to manage IT from the standpoint of the services IT delivers to the business, rather than as a collection of assets.

SOLUTION

CA DCA Solutions Consolidate and Automate Processes that Dynamically Supply Services and Optimize Asset Utilization

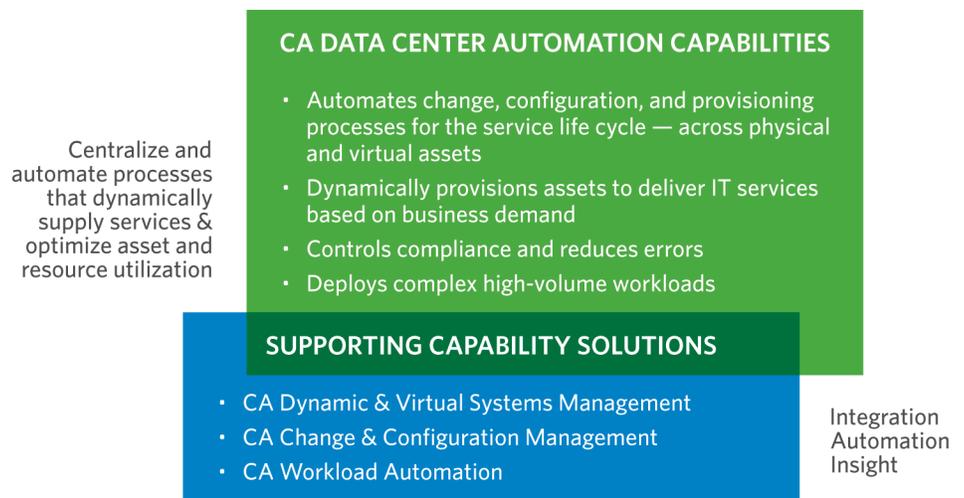
CA DCA solutions enable IT to leverage business policies and best practices to implement intelligent, policy-driven automation of change, configuration and provisioning processes, as well as automation of complex, high-volume workloads. These capabilities reduce complexity and risk while helping IT provide adaptive, dynamic and optimized services to the business.

When you can automate service delivery with this high degree of agility and accuracy, you can begin to anticipate service issues and adjust IT resources before service delivery is affected. You can also begin to optimize the utilization of physical and virtual assets, to reduce capital outlays for underutilized and redundant assets as well as reducing energy costs and waste. With operating efficiency greatly improved, staff can shift their focus to proactive management and planned projects that add business value (see Figure A).

FIGURE A

CA DCA solutions centralize and automate key processes across the data center.

CA DCA SOLUTIONS HELP IT MANAGE COMPLEXITY AND IMPROVE SERVICE



An In-depth Configuration Management Database is the Foundation

Intelligent automation of today's increasingly complex and diverse data center environments requires access to federated definitions and configurations for assets and services maintained in a robust, reliable Configuration Management Database (CMDB).

The CMDB and improved process orchestration are two of the recent technology developments that are expanding the possibilities for automating the data center in support of services. CA CMDB from CA includes advanced application mapping, which enables rich service definitions in a unified service model, enabling you to govern configurations and changes for each IT service throughout its lifecycle.

The unified service model maps each service to the assets it needs to operate — enhancing opportunities for automating change management, configuration management and dynamic provisioning by ensuring the integrity of the underlying service definition.

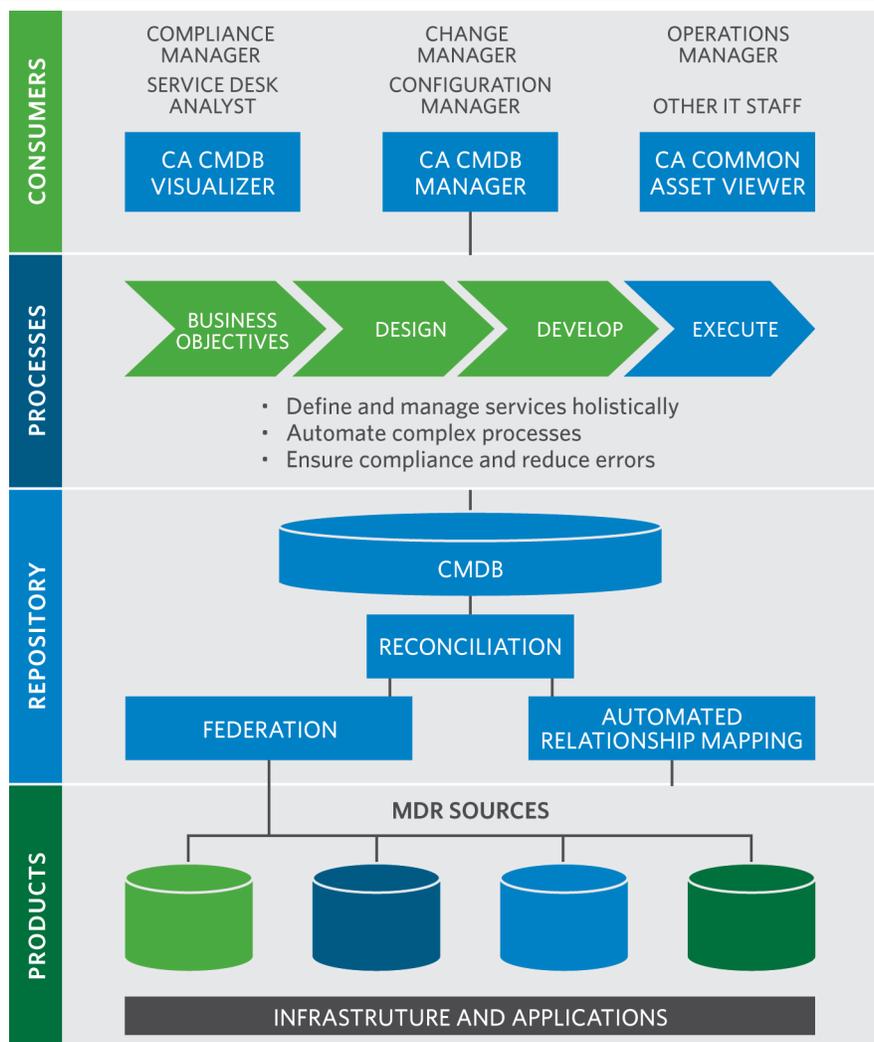
The Role of ITIL® in Data Center Automation

IT best practices defined in ITIL, the IT Infrastructure Library, have consistently emphasized the importance of automation and process-driven practices, which go hand-in-hand. Figure B shows how a robust CMDB and best-practice process coordination in line with ITIL guidelines enables the scope of Data Center Automation to encompass not only services and applications but also the entire IT infrastructure.

FIGURE B

A federated CMDB plus best practice process orchestration enable Data Center Automation solutions to span the entire IT infrastructure.

SPANNING INFRASTRUCTURE, APPLICATIONS AND SERVICES



Where Do You Start?

Data Center Automation can help IT automate many stages of the IT service lifecycle. These capabilities include:

- Automating IT processes, workloads and workflows
- Discovery of assets
- Managing change and configurations
- Enabling full use of virtualization
- Controlling configuration compliance and auditing unauthorized changes
- Provisioning servers, network, applications, services, storage, etc.
- Mapping services to supporting assets

The more mature the IT management environment, the more effectively you can automate processes — especially complex processes that span the infrastructure and applications that support services. Commitment to a process-driven, best practices standard such as ITIL is of great value when automating the data center. In particular, organizations can benefit greatly from embracing ITIL's emphases on assessing maturity levels, setting business goals and measurable objectives, planning changes to people and processes in concert with changes to technology and committing to continuous improvement.

CA Capability Solutions

CA DCA solutions deliver business value and return on investment with capabilities for dynamically provisioning IT assets based on demand, automating workload and workflow while minimizing the impacts of change, configuration and provisioning activities on service availability and performance. As mentioned above, the foundation for intelligent automation across applications, services and infrastructure is a unified service model that governs configurations and changes for each service, based on federated data maintained in a CMDB.

The following CA Capability Solutions leverage the CA CMDB to automate key processes across platforms and management technologies, enabling you to improve efficiency, reduce errors, maximize physical and virtual asset utilization and optimize services in line with demand. These enabling capability solutions for CA DCA can be implemented independently and integrated over time. Each includes products, services and education to help ensure successful implementation.

CA Change & Configuration Management

Provides a unified solution for managing change to all configuration items (including IT infrastructure, applications and client systems) and includes a scalable, federated CMDB. By unifying the entire change lifecycle from incident reporting to the delivery of changes, you can ensure that every change complies with standards and is managed properly. CA Change & Configuration Management includes capabilities that support the detailed mapping of a service to the assets it needs to operate, giving you greater confidence in the integrity of your change management and provisioning automation.

CA Dynamic & Virtual Systems Management

Provides centralized and automated management of your diverse physical and virtual system environments in a single point of control, which helps to ensure the availability and performance levels of the business-critical processes that rely on these systems. CA's vendor- and platform-neutral approach gives you equivalent functionality across all platforms, manages the full server lifecycle, and is the only offering that enables you to visualize virtual and clustered environments as clearly as their physical counterparts. CA Dynamic & Virtual Systems Management employs visualization, self-management and policy-driven automation to monitor, configure and provision critical system resources, to dynamically meet the load demands of complex and business-driven data center infrastructures. These capabilities enable you to optimize resources and improve productivity while helping to reduce the costs associated with the management of data center environments.

CA Workload Automation

Dynamically automates workload in real time across multi-platform environments based on events, policies and schedules, allowing you to unify and simplify complex workloads and schedules throughout the data center. Through more efficient resource utilization and improved ability to manage to service levels, CA Workload Automation enables organizations to improve the reliability of critical business services while reducing costs.

CA DCA and Business Service Management

Because of the vital role Data Center Automation plays in enabling IT to deliver higher quality, more agile service while lowering costs, CA DCA is a core element of, and starting point for, CA Business Service Management (BSM). BSM enables IT to manage services based on business priorities and strategic goals — in other words, aligning business and IT. An automated and optimized IT infrastructure that you can proactively manage is a key pillar of business-driven service delivery.

BENEFITS

Automate Complex Processes to Reduce Complexity, Improve Service and Increase Policy Compliance

Intelligent automation made possible by CA DCA means that your organization has enhanced process efficiency across much of the service lifecycle — even across traditional departmental boundaries such as the service desk and systems management. The benefits of CA DCA at this level include:

- Improved ability to manage complexity and change across infrastructure and applications
- Capability to fully leverage virtualization and dynamic provisioning
- Ability to implement dynamic, adaptive processes that proactively optimize asset utilization and reduce energy waste
- Reduced errors and improved efficiency across many routine processes
- Enhanced ability to ensure and enforce compliance with configuration standards and mitigate configuration drift
- Improved responsiveness and reduced Mean Time to Repair (MTTR) when incidents arise

- Increased staff productivity, opening up more opportunities to execute planned tasks and strategic projects
- Reduced operational and capital costs, including reduced power consumption for a “greener” data center
- Greater ability to balance service levels against operational efficiency in line with enterprise requirements
- Better ability to quantify service improvements for business stakeholders

By conferring greater IT agility in response to changing business demands, CA DCA not only increases IT’s value to the business, but also changes how the business views IT: from a cost center to a trusted and valued provider of business services.

THE CA ADVANTAGE

CA DCA is an important part of CA’s overall approach to transforming IT management. With our unique capabilities, CA can help you unify and simplify IT management across the enterprise for greater business results. Our Enterprise IT Management (EITM) vision, proven Capability Solutions and expertise help customers govern, manage and secure IT. Customers gain the ability to manage risk, improve service, manage costs and align IT investments with the needs of the business.

Through CA Services and our partners, we can help you assess your current IT management needs, define your goals in terms of process improvement and implement solutions to help you gain measurable results as quickly as possible. Our structured, proven, phased approach draws on the expertise and best practice knowledge developed during thousands of successful projects in large and diverse organizations.

Our CA Support global network of people, systems and services delivers unparalleled technical and customer support devoted to keeping your CA solutions operating at peak performance. We also offer all levels of training around industry best practices and specific solutions, as well as certification through CA Education. Our Unified Learning Approach helps you assess your training needs and develop a plan to address those needs to gain the most from your software investments.

You know that inefficiencies increase costs, introduce unnecessary risks, threaten the performance of your systems and services and inhibit your ability to adapt to the changing needs of the business. If your IT organization is challenged by the complexity of your infrastructure, the ongoing inefficient, resource-intensive efforts needed to manage it and the reduced number of IT staff and resources available to do both maintenance and project work, you can benefit from a comprehensive approach to automating your data center processes.

To provide a foundation for effective and efficient IT service delivery, you need to define, refine, standardize and automate infrastructure management processes, while aligning with best practices such as ITIL. It's no longer enough to simply guarantee server availability. You need to manage server performance, reduce manual efforts and provide flexible IT resource allocation to meet the dynamic demands of business — not just on one or two platforms, but across the enterprise. You also need to replace overlapping products that do not integrate with one another and eliminate the need for IT administrators to manage multiple products that put a strain on resources, increase costs and threaten service level agreements.

CA's approach to DCA alleviates the challenges organizations face in managing complexity across their IT infrastructures and applications; and provides the foundation for effectively managing change, configurations and provisioning in a combined physical and virtual environment. Implementing CA's capability solutions can help you automate and streamline complex data center activities that must currently be performed manually.

CA is the only vendor that fully manages physical and virtual environments. CA is the only global vendor completely dedicated to IT management and that provides a comprehensive, platform-neutral portfolio of products for heterogeneous environments. Our products include many best-in-class offerings and unique functionality. These capabilities ensure that you can build the Data Center Automation environment you need. The solutions you implement today will work with the solutions that are added next year. CA is committed to work with you to create a long-term plan to achieve your goals and do so at your own pace, respecting your investments in other vendors' products.

Creating a business-centered IT organization is a process of optimizing both your IT environment and the way you manage it. Superior CA DCA capability solutions offer dynamic provisioning, virtualization management, workload automation and CMDB-driven application mapping. These capabilities offer real-time visibility into the IT service lifecycle, empowering end-to-end service management to control and automate key data center activities. Our integrated workflows and policy packs accelerate time-to-value while automating key policies and processes, including ITIL, in a manner that delivers quantifiable business value.

NEXT STEPS

If you're asking:

- How can Data Center Automation help me to reduce complexity, reduce the risk associated with human errors, improve service delivery, and lower costs?
- How do I manage changes, configurations and provisioning to ensure compliance and standardization and minimize impacts to services?
- What options exist for automating complex workloads across my infrastructure?
- What can I do to dynamically and proactively reallocate assets to meet fluctuating business demands in addition to meeting our service level agreements?
- How can I get the most out of virtualization technologies and manage them along with physical assets?

- My infrastructure information is not centralized or fully correlated, and is not linked to the business services it supports. What can I do?
- How can I get more from my IT infrastructure with fewer staff and resources?
- How can I improve service performance and deliver greater value to my business?

If you want to learn how to automate your center to reduce complexity, manage configuration changes, reduce manual intervention and improve service delivery, visit the CA website at ca.com/bsm. You also can learn about Business Service Management and other CA solutions that can help you more effectively govern, manage and secure your enterprise — and that integrate with Infrastructure Management.

To learn more, and see how CA Business Service Management software solutions enable organizations to unify and simplify IT management for better business results, visit ca.com/bsm.

CA (NYSE: CA), one of the world's leading independent, enterprise management software companies, unifies and simplifies complex information technology (IT) management across the enterprise for greater business results. With our Enterprise IT Management vision, solutions and expertise, we help customers effectively govern, manage and secure IT.



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