FUJITSU

Data Center Management and Automation
Strategic Briefing

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Why is Data Center Management and Automation (DCMA) so Important?

With IT growing in importance as an enabler of business success, data center managers are expected to provide more agile, flexible and efficient support for the business – with standardized processes, self-service approaches and high service quality. They are also expected to deliver 24/7 service reliability, to shorten the time-to-productivity for new services, and to be ready for innovations based e.g. on Artificial Intelligence, Big Data and Cloud technologies. So what is the best way to do all this – and to do it well?

Fujitsu's DCMA offerings include customer specific strategic consulting, implementation and operation.

FUJITSU Data Center Management and Automation is a portfolio of solutions that embraces **IT Operations Management** (ITOM) and **Data Center Infrastructure Management** (DCIM). ITOM comprises tools to orchestrate, manage and monitor IT infrastructure. As such, it manages the availability of servers, applications, network components and configurations, and ensures that performance is up to scratch. It also takes care of incident management and keeps the IT service & help desks running smoothly. DCIM, on the other hand, creates a bridge between the IT infrastructure (such as servers, racks and network components) and system parameters such as power, cooling, space allocation and inventory, providing up-to-date status reporting on each element. The role of DCIM is to integrate processes, IT and facility management to provide the people in charge of the data center with functions to manage and monitor data center events, and to automate many of the processes that are driven by IT.

The Solution Pathway: Data Center Management and Automation

Data centers are expected to keep IT aligned with the requirements of the business and to adapt quickly to changing business models and processes, moving from an event-driven mode of operation towards a business-oriented approach. The data center's knowledge of how the organization works can be modelled into workflows, which can be standardized and automated. This replaces error-prone manual processes with process automation across platforms and organizations to improve service reliability and data center efficiency.

With its goals to improve agility, flexibility and speed, strengthen service quality management and increase compliance and governance in data centers and data center processes, Data Center Management and Automation helps organizations to implement consistent policies for operation, security and access rights – auditable and fully compliant with legal and financial regulations as well as corporate standards.

Identifying and Addressing the Challenges

Fujitsu enables his customers to digitally transform with connected technology services, focused on Artificial Intelligence, the Internet of Things, and Cloud - all supported by DCMA solutions:

- Automate IT infrastructure environments
- Improve operational efficiencies
- Reduce operational costs
- Accelerate the introduction of new services
- Facilitate the digital transformation

Fujitsu has developed a comprehensive model to address all these challenges, combining infrastructure monitoring, applications, end user services, capacity and performance management, security aspects, billing, capacity, resource planning, integration and process automation into a unified DCMA offering of solutions, products and services.

We provide DCMA how-to descriptions, best practices, blueprints and preconfigured solutions to ensure cost-efficient implementations with short time-to-production. We support various delivery models: our DCMA offering can be utilized on-premise, as a managed service or out of the cloud.

The Fujitsu DCMA Approach

Our standardized process for customized solutions is based on a staged approach. The first stage is the **How-to description**. Understanding our customers' business requirements, their current situation and the tools they currently deploy is the starting point. Our experts document each of the steps in ongoing DCMA projects, capturing the best and most cost-efficient approaches to be reused in other projects. Constantly gathering feedback and evaluations, we refine **Best Practices** from the How-to descriptions. The Fujitsu expert community agrees on generalized approaches to be applied in future DCMA projects to leverage efficiency gains. Taking experience and insights to the next level, the **Blueprint** makes this the standard approach. The next step, once more project experience has been collected, appropriate SW and configuration addons have been included, is the **Solution**.

FUJITSU Data Center Management and Automation
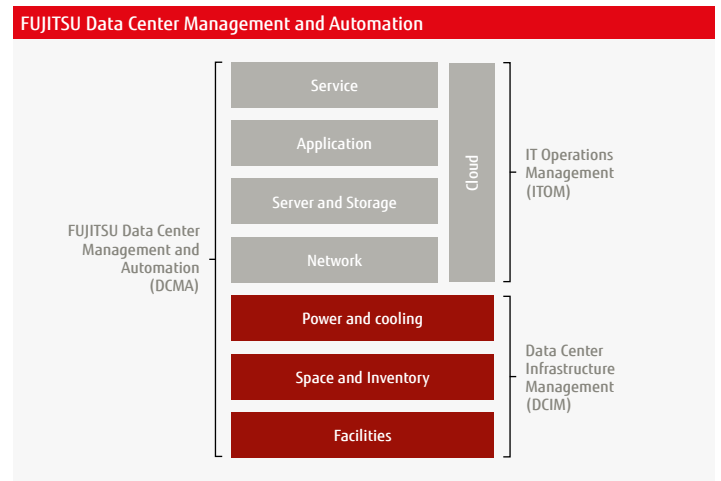
The Value Chain in Data Center Management and Automation

Fujitsu covers every stage in the value chain (consult, design, build, operate and maintain), with predefined Data Center Management and Automation service packages ranging from technical IT infrastructure services to financial and ROI services as well as project management.

Consult

Our strategic consulting service offers customer briefings, IT and data center strategy development, process consulting, configuration and sizing, assessment services, architecture workshops, solution concepts, proof of concept and project management as well as financial TCO and ROI estimate services.

In a DCMA strategy workshop with you, we investigate whether the current strategic direction and organization of your IT, and your IT landscape, are doing a good job of supporting your business strategy. At the workshop, participants compare the target and actual situations, assemble an overview of optimization measures and potential cost savings, and define a roadmap with proposals for short-, medium- and long-term measures.

We have also developed Optimization Services, which provide valuable insights for IT managers striving to raise efficiency. We analyze your data centers, networks, workplaces, server infrastructure, software, storage and backup environment and give insights on how you can make things work even better. You benefit from professional consulting services that provide a bespoke solution to requirements.

Design

Our design services offer solution specification, configuration and sizing, proof of concept, migration specification, operational specifications and ROI Predict.

Build

Our build services provide hardware installation and configuration, solution implementation, migration services, upgrade services, audit and rollout services. Project management, operational implementation, operational trainings and ROI Delivery services complement the offering.

Operate

We support our customers with Go-Live services, solution support, operational consulting and optimization, health checks, managed services and customer-specific training.

Maintain

In heterogeneous, globally distributed environments, maintenance needs to be precisely coordinated. Fujitsu supports you in managing service contracts in multi-vendor environments more efficiently, defining clear service responsibilities, coordinating and executing maintenance services. Fujitsu, as a Managed Maintenance Provider, can even assume full responsibility for seeing that Service Level Agreements (SLAs) with vendors and service providers are fulfilled.

Solution Overview: Fujitsu Data Center Management and Automation

The Fujitsu DCMA solutions are architected as part of a comprehensive working model, shown in overview below:

Our DCMA offering covers every aspect of this model, and includes products from Fujitsu and technology partners. This section highlights some of the services: process automation, service level management and service quality management, monitoring and service desk out of the cloud as well as energy management in the data center:
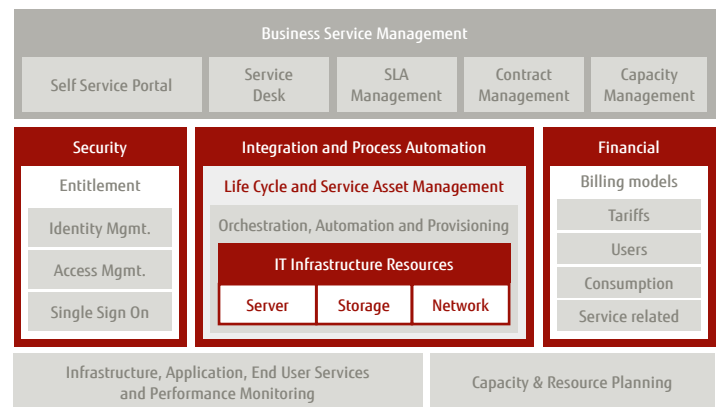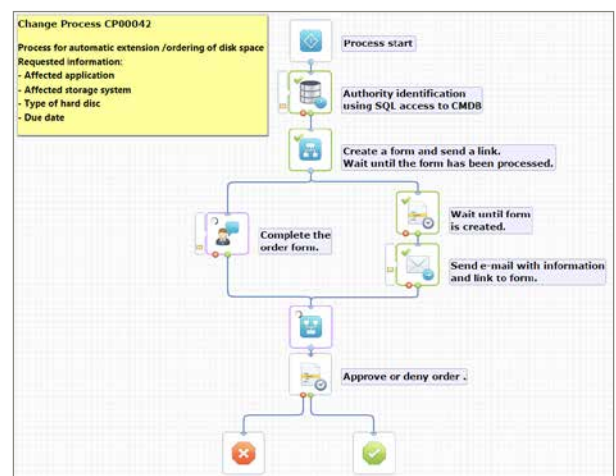

Fig. 1: Fujitsu Reference Architecture DCMA

Process Automation

By automating processes, enterprises can integrate and control operations across platforms, applications and departments, leveraging synergies and avoiding the errors that routinely occur in manual interventions. An efficient way to go about automating processes is to use graphical tools:

Fujitsu helps organizations integrate, orchestrate and automate operational processes across platforms, applications and IT groups. This significantly improves business service quality while also reducing costs, increasing staff productivity and creating a more standardized process environment – with clearly traceable process steps and dashboards for convenient management.

Solution Overview: Fujitsu Data Center Management and Automation

Service Quality Management

The objective of Service Quality Management is to maintain and improve the quality of IT service delivery – with due consideration of business cases and budget frameworks – through an iterative cycle of agreeing, monitoring and reporting upon IT service achievements and actions. Service Quality Management keeps service delivery and the fulfillment of service level agreements (SLAs) transparent by constantly monitoring data center components and automating customer processes to integrate people, IT processes and technologies into the IT service supply chain.

Together with our technology partners, e.g. CA Technologies, Microsoft, Schneider Electric and VMware, we offer the entire solution stack, with standard procedures, how-to descriptions and best practices for rapid implementation. The management cockpit is provided with information about the fulfillment of SLAs, the health and the quality of the services, the risk of service loss, service availability and historical data – as shown in the following graphic.
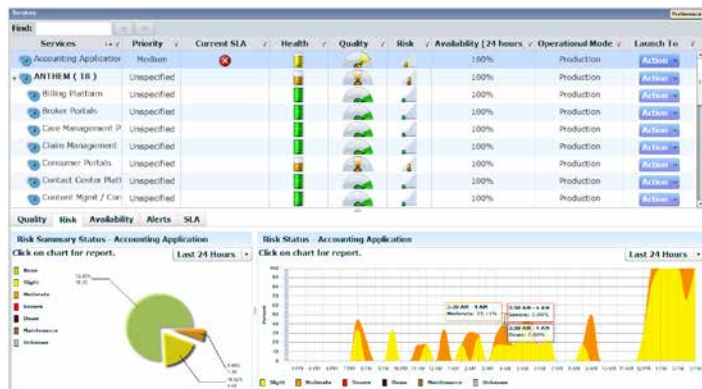

Fig. 2: Service level management dashboard

Data Center Infrastructure Management (DCIM)

FUJITSU Data Center Infrastructure Management – the digital twin of your data center – covers energy, assets and processes. It is the enabler of complex, automated work-flows and supports a wide range of data center equipment and platforms from all major vendors.

■ FUJITSU SE Manager

The SE Manager ensures a standardized, central management concept for the entire system which enables a very high degree of integration and the optimal use of resources:
- Cross-system administration using a modern, browserbased interface as a single-point-of-administration
- Common system monitoring of all parts and components
- Common service concepts
- Comprehensive consolidation options thanks to state-of-the-art virtualization

■ FUJITSU ServerView® Infrastructure Manager(ISM)

FUJITSU ServerView® ISM supports customers on their path towards software defined infrastructure. Enable faster IT service by automating and simplifying infrastructure operations across compute, storage and networking. ServerView® ISM helps to simplify day-to-day IT operations. Obtain actionable insights & act using programmable APIs:
- Track compute resources and reassign workloads to reduce power
- Increase storage utility based on data usage patterns
- Re-direct network traffic in case of a congestion.

Get an integrated view and centralized control over heterogeneous environment with ServerView® ISM components to deploy, control, dynamize and maintain.

DevOps - automating the modern software factory

DevOps is an artificial word, derived from the terms development and IT operations, providing an agile and efficient process improvement concept from the areas of software development and system operation. It enables the fast and interlinked cooperation of software planning, development, quality assurance, approval and operation. In general, DevOps enables new ideas and concepts to be implemented faster in applications and solutions - reducing the time from the idea to the productive deployment into days.

For this purpose, Fujitsu offers open and flexible integrable BluePrints and solutions from the DCMA portfolio, which allow our customers to use DevOps concepts productively in the shortest possible time.

Fujitsu ManageNow® Solutions Ready-to-Run

Delivery Models

FUJITSU ManageNow® are service solutions for easy, automated implementation and efficient operation of heterogeneous IT environments. Fujitsu provides ManageNow® solution suites for Data Center Monitoring, Data Analytics and Client & Server Automation.

■ **ManageNow® Data Center Monitoring**
FUJITSU ManageNow® Data Center Monitoring is a highly scalable solution to monitor, manage and automate enterprise IT and secure the availability and performance of IT infrastructures and business services in heterogeneous data centers. Providing a 360° view of the entire IT infrastructure with automated problem identification, classification, prioritization and rule-based error handling, it speeds up and simplifies monitoring tasks.

■ **ManageNow® Data Analytics**
FUJITSU ManageNow for Data Analytics platform (MN4DA) is an integrated set of data storage, visualization and analytic tools that are built in a scalable cluster with automated scripts. Using MN4DA you no longer need to design, deploy, manage, scale and upgrade your own Big Data (Hadoop / ELK) solution. Just connect to the MN4DA platform as a Service or Fujitsu can install a dedicated MN4DA in your own environment. Get the installation and management services you need with a simple and flexible price model.

MN4DA features a portal providing one place to access all the available tools for creating dashboards and graphs. Using this portal, the business users can get to the information they need quickly and easily, looking at predefined dashboards or creating their own data queries. For more sophisticated data analysis, prediction or Machine Learning solutions, Fujitsu can provide skilled Data Scientists or customers can use MN4DA as their own development platform.

■ **ManageNow® Client & Server Automation**
ManageNow® Client & Server Automation simplifies the administration and automation of heterogeneous server, desktop and notebook infrastructures by optimizing operations. Functions range from hardware and software inventory to software packaging, patch management as well as remote maintenance and management of workplace system

On premise, managed service and out of the cloud: Fujitsu DCMA solutions can be operated at the client's own site, be sourced as managed services or operated out of the cloud.

On premise
Your custom-designed DCMA solution is installed on site in your data center and operated by your IT staff.

Managed Services
DCMA solutions are designed around the customer's requirements and run in a Fujitsu data center, operated by Fujitsu staff on behalf of the customer as a managed service.

Out of the Cloud
Specific DCMA services are provided as cloud services.

Data Center Management and Automation Demo Center

Why Fujitsu?

We provide hands-on demonstrations of Fujitsu DCMA in our Demo Centers - on-site or remote.

Our solutions help customers integrate and automate their business processes, and manage them more effectively. To find out more, visit our Demo Centers and experience DCMA in action with:

- Energy management in the data center
- Automated client and server provisioning
- Runbook automation and process automation
- Service quality management
- Root cause analysis for network and services
- Performance management and reporting
- Incident management along the process chain
- … and much more

Our experts demonstrate the potential efficiency gains of DCMA and the capabilities of our solutions. We are continually enhancing our demo offering, so be sure to call! Your sales representative will be delighted to arrange a visit. Alternatively, you are welcome to contact us directly if you prefer. We look forward to meeting you.

Fujitsu is one of the largest IT service providers in the world. With over 30 years' experience managing IT service delivery; Fujitsu is a reliable and trusted one-stop shop for IT services.

With automated procedures, we reduce manual activities and guarantee high quality implementations. All work packages come clearly defined with interfaces and documented inputs and outputs. Our business process orientation ensures that your DCMA implementations are tightly matched to your business requirements. With our consulting services, we help you develop the right data center management and automation strategies, and our design services offer valuable assistance in finding the appropriate tool landscape for your requirements. We accompany you through every stage of your project with a comprehensive portfolio of solutions, products and services. We build, operate, maintain and provide optimization services to support you in managing and automating your data centers.

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