



Toyota Motorsport GmbH

Toyota Motorsport GmbH aligns IT with business and racing objectives using the BMC Business Service Management strategy

Key Benefits

- > Aligned IT systems with business and racing objectives
- > Enhanced efficiency and return on IT investment
- > Improved decision-making and instant responses to operational issues
- > Achieved faster analysis, identification and resolution of technical problems
- > Improved modeling, management and execution of business processes
- > Established platform to support future business strategies and growth

Business Profile

Toyota Motorsport is Toyota's European-based motorsport center. With a successful competition record in the World Rally Championship and the Le Mans 24-hour race, the team is now one of only 10 competing at the pinnacle of world motor racing—the Formula 1 World Championship.

Challenge

Align the IT infrastructure to the business objectives of the organization, promote proactive management and optimize IT resources and services to enhance planning and increase operational efficiency.

Organization

Toyota Motorsport GmbH

Geography

Cologne, Germany

Challenge

When Formula 1 (F1) cars are competing, the world watches. Yet the race weekend is just part of the story. For F1 teams, the business of competition never stops and performance, reliability and teamwork are as important in managing the business as they are in running the cars on the track.

In the fight for success, all F1 racing teams depend upon IT systems to support their business operations. Toyota's F1 team, Panasonic Toyota Racing is no exception and, to maintain its commercial advantage off the track, it relies on the BMC Software® Business Service Management (BSM) strategy.

Toyota's 'can-do' philosophy is reflected in its approach to F1 racing. With more than 600 experts from 32 different nations based at its factory in Cologne, Germany, Toyota is one of only two teams in the sport that undertakes the entire end-to-end design and manufacturing process under one roof.

As a manufacturer team, Toyota must have all the processes in place to build or modify a complete car within a short timeframe. Compared to the several years it can take manufacturers to bring a new car to market, at the Toyota Motorsport Cologne headquarters the same process, from engine design and development to wind tunnel chassis research, construction and testing, often has to be completed in as little as one week.

The business processes involved in such a challenging operation are widely diverse. It is a time-critical complexity of interactions that requires an equally complex IT environment for support. It is vital that these IT systems are tightly aligned to business processes and always available.

Yet, like any other business, Toyota Motorsport is subject to commercial and management pressure for ongoing improvements in efficiency, productivity and quality. To achieve these improvements, the company realized it needed a systems management strategy to provide an overview of the many separate

business systems on which its demanding day-to-day operation depends.

Waldemar Klemm, IT systems manager at Toyota Motorsport, emphasizes the size of the challenge and the necessity of aligning IT systems to business needs: "Time is essential in the F1 business. To be competitive in this area, you need the appropriate IT resources dedicated to the end-to-end process design and manufacturing cycles."

The search began for a strategy that would support the company's business goals by enabling more proactive management, improving the control of processes and providing greater visibility of operational status and its impact on business performance. Klemm identifies the key issues the strategy must resolve: "Do we have the right IT resources in place to support company processes and demands? Is something missing from the system, or is something completely oversized? How can resources and budgets be kept under control? And how can we achieve the right level of efficiency?"

Solutions

One of the initial drivers for change was the Toyota Motorsport decision to outsource its SAP environment to Toyota Information Systems. A consequence of doing so was the need to monitor the availability of the outsourced SAP environment. Having evaluated different solutions in the marketplace, Toyota Motorsport approached BMC Software for help. It was on the strength of the response to this initial request that Toyota Motorsport became aware of the BMC Software BSM strategy and decided to adopt BSM as the foundation of the company's systems management strategy across the whole business.

The Toyota Motorsport vision for BSM is focused around the implementation of the BMC Software BMC Atrium™ Configuration Management Database (CMDB) and the BMC solutions that leverage the BMC Atrium CMDB. The BMC Atrium CMDB provides a central repository and "single source of

Technical environment

Linux, Microsoft Windows, Oracle, SAP, EMC

Challenge

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BMC Software Solutions

- > BMC® Event Manager
- > BMC Performance Manager for Databases
- > BMC Performance Manager for Servers
- > BMC Service Impact Manager
- > BMC PATROL® DashBoard
- > BMC PATROL Visualis Fault Manager
- > BMC PATROL Performance Assurance® for SAP
- > BMC Topology Discovery
- > BMC Remedy® IT Service Management for the Enterprise
- > BMC Remedy Asset Management
- > BMC Remedy Help Desk

Partner Participation

IDS Scheer

truth” for configuration items that make up Toyota’s IT infrastructure, creating the basis for achieving their BSM goals. By providing an accurate and consistent way for managing IT processes, the BMC Atrium CMDB helps facilitate integration and interaction across the Toyota Motorsport solutions from BMC Software and is the key enabling technology that drives Toyota’s BSM implementation.

The road to BSM began as a proof of concept phase that was completed at the end of 2004 and included the BMC Performance Manager solutions for the complete server and database infrastructure of Toyota Motorsport, BMC PATROL Performance Assurance for performance analysis and capacity planning and a network management capability using the BMC PATROL DashBoard and BMC PATROL Visualis Fault Manager solutions.

These BMC Software solutions enable the basis for Toyota to monitor and measure the availability of underlying IT infrastructure components. Now system administrators, whose responsibilities include the servers and network components, enjoy immediate insight (SIM) solutions. With out-of-the-box integration to the BMC Atrium CMDB, these solutions create the tie between Toyota’s infrastructure components and the service processes that are needed to keep them running. BMC SIM is able to consolidate events from the BMC Performance Manager and BMC Performance Assurance solutions, determine the impact of those events on the business, and in turn, leverage BMC Remedy IT Service Management to manage the entire process lifecycle, which includes reporting problems with IT components, managing service levels and contracts, all the way to making changes to those components in a controlled and managed way.

Klemm provides a compelling example: “BMC Software’s BSM strategy allows us to monitor the satellite link between Cologne and any racetrack at which we are competing. This link is essential to the entire team through each race weekend. It allows us to replicate the six to eight gigabytes of real time data, gathered by about 100 sensors on each F1 car, from the racetrack to our engineers in Cologne for immediate analysis. Without this live insight into the car’s performance, we could not respond to changing conditions as the race progresses. By helping us guarantee the availability of these communications, the BSM strategy is making a key contribution to our race successes.”

Since the start of 2005, the BMC Software BSM environment at Toyota Motorsport has continued to evolve. The BMC Event Manager solution provides event correlation and enrichment to provide faster analysis and identification of technical problems by identifying the core issues from the symptoms generated. This is an important step in giving Toyota Motorsport the ability to prevent disruption to its business by proactively managing IT issues.

As a result of mapping IT components to the business services they support, the BMC SIM solution reveals and displays to users both the cause of IT failures and the impact on the business. By storing these business services in the BMC Atrium CMDB, the Toyota Motorsport service support processes provided by the BMC Remedy IT Service Management solution have bridged the gap between the IT infrastructure and the IT processes that keeps it running. BMC SIM also delivers the ability to define jeopardy thresholds and alarms, making it possible to indicate the severity of the risk. Providing colorcoded displays of business processes, allows the system to help business users distinguish between a developing problem that remains manageable and an imminent or occurring business impact.

Klemm offers a straightforward example that clearly demonstrates the advantage to Toyota Motorsport: “If the SAP system should become unavailable, parts cannot be ordered. Without parts, construction is delayed and productivity falls. If productivity falls, service suffers and we may fail to honor SLAs. The BMC Software BSM strategy provides us with the best opportunity to understand and avoid the business consequences of such IT failures.”

Klemm continues, “With the BSM strategy providing detailed accurate information about each service, its servers and clients, we can manage the lifecycle of our assets across our entire infrastructure. Using the historical information we have gathered, we can predict the potential impact of losing any one service and plan strategies for managing such situations that will minimize their impact.”

Toyota is delighted with the improvements the BMC Software BSM strategy has provided to their organization. “Through its ability to monitor and manage our IT components and business services, the BMC Atrium CMDB gives us much tighter control over change management and delivery of services than we could achieve previously.”

Following the implementation of BMC Remedy IT Service Management, Toyota Motorsport has continued to take advantage of the integration provided by the BMC Atrium CMDB to implement a number of other improvements to the management of the Toyota Motorsport IT infrastructure. These include expanding the use of the BMC Remedy Help Desk solution across the company, automating the discovery of their IT infrastructure using BMC Topology Discovery to identify the dependencies between assets and then help automate the creation of business service modeling in BMC SIM. Finally, to rationalize its purchase and use of licenses, Toyota Motorsport has implemented the BMC Remedy Asset Management solution. In addition to license management, BMC Remedy Asset Management provides Toyota Motorsport with additional asset lifecycle support moving forward.

Klemm notes, "In the past, IT was concerned with servers. By allowing us to concentrate on services instead of servers, the BMC Atrium CMDB and integrated BMC Software BSM strategy places our focus firmly on the business."

Plans for the future include support for asset configuration and change management processes and enhancements to process modeling. Building their BSM strategy around the BMC Atrium CMDB has allowed Toyota Motorsport to deliver a single, shared view of the company's IT components and enabled better overall accuracy and control of their business processes. It does so by capturing and reflecting within the BMC Atrium CMDB the day-to-day changes, such as upgrades, new versions and part replacements in the Toyota Motorsport infrastructure.

Klemm provides an example of the tangible benefits Toyota Motorsport is enjoying: "The uninterrupted availability of our SAP environment is critical to our operation. The BSM strategy allows us to monitor the entire SAP environment – the servers, the database, the connections, the dedicated line and the overnight batch runs – to ensure its availability. Proof of the success of the BMC Software BSM strategy is that, since its implementation, we have suffered no SAP environment downtime at all."

There also are plans to enhance business process modeling within the BSM environment using a product from BMC Software business partner IDS Scheer. By relating the business processes modeled within the IDS Scheer solution to the IT systems and business service information in the BMC Atrium

CMDB, Toyota Motorsport will give non-technical users in their business units the ability to model their own business processes and map those to the supporting IT components. The result will be a process engine capable of driving and monitoring end-to-end business processes.

One of the practical benefits is the improved dependability of business processes, as Klemm explains: "In the previous year, we had a total of eight hours' downtime. In the first five months of 2005, since the start of the BSM initiative, we have had only one-and-a-half hours' downtime. We are confident that the BSM strategy makes it possible to eradicate downtime and deliver business processes that are 100 percent reliable."

Managing IT services from a business perspective enables Toyota Motorsport to improve the speed and quality of those services, enhance strategic planning and save money at the same time. Klemm summarizes the steps: "First, we list and view all our processes, naming the most critical ones and the relationship between them. Second, we identify the sets of services that support those processes. Then we map the appropriate chain of services, collect and analyze the data, and generate reports for every question that arises."

With a clear picture of its IT environment, Toyota Motorsport can align IT resources with business and racing goals, optimizing resources to improve the team's business and racing performance as well as its business objectives.

"Working with BMC Software, we're convinced of the ability to set up a process-driven and highly automated monitoring system, enabling us to achieve the efficiency with moderate resources to become more competitive. Toyota Motorsport will use BMC Software to have the appropriate IT resources in the right place at the right time to win the F1 World Championship," says Klemm.

Toyota Motorsport has achieved quantifiable operating cost benefits through an approximate 10 percent reduction in the number of PCs and notebooks used by the organization and an approximately 20 percent reduction in the number of design workstations used. The savings not only include the ownership costs of the hardware, but also the software licensing costs. Klemm admits, "We were astonished to discover the quantity of unnecessary equipment we were carrying and fully expect to reduce our inventories further."

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Waldemar Klemm
IT Systems Manager
Toyota Motorsport GmbH

Toyota Motorsport has achieved other inventory benefits as Klemm explains: "We have also been able to analyze and consolidate our server environment. In some cases, servers were over-specified. By eradicating unnecessary resources, we have saved about 15 percent of our costs in this area. And the figure is still growing."

With the BMC Software BSM strategy, Toyota Motorsport is confident that it can develop business strategies and control resources as needed and respond to the changing environment of F1 competition, without worrying about the IT infrastructure's ability to cope with the challenges.

"This exciting partnership with BMC Software will enable us to improve strategic planning activities and concurrently provide operating cost reductions," says John Howett, president of Toyota Motorsport. "All are essential ingredients to support our quest to achieve long-term success in Formula 1."

Encouraged by the success to date of the BMC Software BSM strategy, Toyota Motorsport is confident that it will accomplish more. Klemm offers some examples: "Through the partnership with IDS Scheer we expect to improve further the management of business processes and develop new initiatives such as integration with Microsoft Systems Management Server."

Thomas Schiller, CIO of Toyota Motorsport, acknowledges that, in BMC Software, Toyota Motorsport has a technology partner that

shares its vision, spirit and commitment to success. "BMC feels like part of the team — their commitment is for the technical implementation, as well as the sponsorship. With that commitment, we have a win-win situation for both sides."

Customer's perspective

"With the BSM strategy providing detailed accurate information about each service, its servers and clients, we can manage the lifecycle of our assets across our entire infrastructure. Using the historical information we have gathered, we can predict the potential impact of losing any one service and plan strategies for managing such situations that will minimize their effect," says Klemm.

Results

- > Aligned IT systems with business and racing objectives
- > Enhanced efficiency and return on IT investment
- > Improved decision-making and instant responses to operational issues
- > Faster analysis, identification and resolution of technical problems
- > Improved modeling, management, and execution of business processes
- > Established platform to support future business strategies and growth
- > Reduced PC, notebook and workstation inventories by approximately 20 percent
- > Saved approximately 15 percent of server costs by identifying unnecessary resources

"Our relationship with BMC Software is a partnership of strength that will allow us to take full advantage of changing technologies as these occur. The BMC commitment is exceptional. Knowing that successful implementation of Business Service Management would be closely tied to the specific needs of our business, BMC Software provided us with a highly skilled onsite team to help us define these needs and translate them into the BSM strategy. They are doing an outstanding job."

Thomas Schiller
Chief Information Officer
Toyota Motorsport GmbH

About BMC Software

BMC Software helps IT organizations drive greater business value through better management of technology. Our industry-leading Business Service Management solutions ensure that everything IT does is prioritized according to business impact, so IT can proactively address business requirements to lower costs, drive revenue and mitigate risk. BMC solutions share BMC Atrium™ technologies to enable IT to manage across the complexity of diverse systems and processes—from mainframe to distributed, databases to applications, service to security. Founded in 1980, BMC has offices worldwide and fiscal 2004 revenues of more than \$1.4 billion. BMC Software. Activate your business with the power of IT. For more information, visit www.bmc.com.