

Fujitsu Siemens Computers – Agility for mission-critical applications PRIMERGY BladeFrame

Dynamic enterprises need flexible data centers. By migrating its own Siebel and SAP Business Information Warehouse applications to PRIMERGY BladeFrame servers, Fujitsu Siemens Computers demonstrates its commitment to the Dynamic Data Center.



We make sure



MORE THAN CAPACITY EXPANSION: A FUNDAMENTAL COMMITMENT TO A MORE DYNAMIC DATA CENTER



"A CRM system lives from its users' acceptance."

Heike Marx,
Large Enterprises Sales Germany

Fujitsu Siemens Computers is known as a pioneer in the area of dynamic infrastructure solutions for data centers. So it is only natural that the company should implement its Dynamic Data Center solutions in its own house. One of the first projects involved was Customer Relationship Management. The Siebel application in Paderborn had been giving below-par performance for some time. "Delays in scanning or entering customer data were becoming more and more common. As a regular user I could see that the Siebel system was definitely overloaded," says Heike Marx (Large Enterprises Sales Germany), who works with Siebel on a daily basis. The reduction in performance is more than a question of annoying delays. "A CRM system is only ever as good as the data inside it," comments Heike Marx. "It lives from its users' acceptance – and this acceptance stands or falls by how smoothly it runs."

There was a similar situation at the Augsburg data center – affecting the SAP® Business Information Warehouse application used as the basis for the company's reporting. Carsten Blomenkamp (IS Director, responsible for Finance & Reporting processes and systems at Fujitsu Siemens Computers) recalls:

"In peak periods, we had problems coping with data loads, especially in the nightly transfer of transaction data from core applications like SAP and Siebel to our Business Information Warehouse. The users noticed that the reaction times of standard reports and individual analyses were slowing down."

In order to serve as a basis for strategic decisions, a Business Information Warehouse has to keep up with the business dynamics. And that means reliable, well-founded, up-to-date reports must be delivered when new challenges appear and especially when large data loads need processing.



"In peak periods, we had problems coping with data loads."

Carsten Blomenkamp,
Information Systems Finance & Reporting



"Our IT philosophy is the Dynamic Data Center."

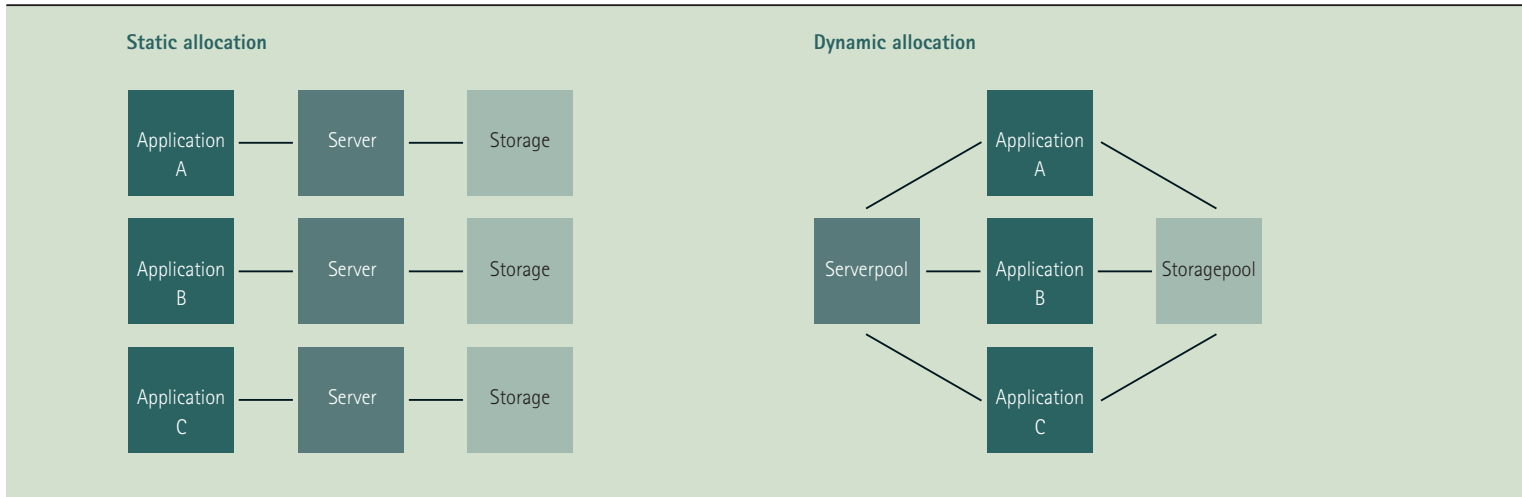
Klaus Richter,
Director IT Infrastructure and Support

Siebel and SAP BW as the first step of the overall project

The easiest way to solve performance problems is simply to expand the server park so it can accommodate the appropriate applications. The question is whether this method is efficient in the long run. Fujitsu Siemens Computers decided back in 2005 not to let its existing static IT structures become ever more complex and opted for consolidated dynamic systems.

"We have chosen the Dynamic Data Center as our IT philosophy because it offers an agile, safe, simple and cost-efficient IT infrastructure. Siebel in Paderborn and SAP BW in Augsburg were the first in-house applications for which we deployed this concept based on PRIMERGY BladeFrame. The SAP applications in Paderborn run on a FlexFrame™ for mySAP™ Business Suite system," explains Klaus Richter (Director IT Infrastructure and Support at Fujitsu Siemens Computers). Both projects are part of an overall

strategy in which, step by step, more and more data center applications can profit from the advantages of the Dynamic Data Center. More mission-critical applications are currently being implemented on PRIMERGY® BladeFrame powered by Egenera. Further applications are planned to follow, in order to fully exploit the significant optimizing potential of the concept.



Dynamic Data Center – innovation that pays off

Traditional IT concepts allocate specific applications to dedicated servers. The servers' capacity is usually oriented on the expected peak workload. That often means that in normal conditions only minimal utilization levels are reached – a solution that is both cost-intensive and susceptible to errors because of its complexity. Furthermore, the complexity of static data centers hinders fast and easy adaptation of IT to new business demands. Klaus Richter is emphatic about this:

"Information technology cannot be allowed to become an impediment to business. On the contrary: modern IT must encourage the exploitation of opportunities by offering enhanced flexibility. The key lies in virtualizing, integrating and automating processes in data centers."

To this end, applications are decoupled from their static hardware allocations and are allowed to access storage and server pools dynamically. The significantly reduced complexity of the harmonized structures raises operational security. Most importantly, the data center becomes much more agile – dynamic infrastructures react directly to changing levels of utilization and can be expanded with further applications in minimal lead times.

"Luckily, the growth in dynamism does not raise costs: instead, it enables substantial savings in investment and operational costs," adds Klaus Richter. Peak loads are evened out in the server pool. The average utilization of the servers rises from the usual 15 to 20 percent of the static structures to levels of up to 80 percent. At the same time, the operational costs decrease due to the lower complexity of the systems. TCO analysis shows that capital expenditure (CapEx) and operational expenses (OpEx) in Dynamic Data Centers are usually only half as high as those in traditional solutions. In other words, investing in dynamic IT infrastructures pays off a lot faster.





"The solutions we offer our customers are the ones we use ourselves."

Volker Wiedmer,

IT Infrastructure and Support, Services and Support

The touchstones of a real-world solution

Siebel was being run at Fujitsu Siemens Computers on a four-year-old configuration with 40 PRIMERGY servers. The switch to two PRIMERGY BladeFrame 400 S2 systems enabled considerably higher system flexibility and a dramatic increase in performance. At the same time, the number of servers that needed mapping in the BladeFrame system was reduced to five. Volker Wiedmer (IT Infrastructure and Support, Services and Support) explains the advantages:

"We can deploy the new system's capacity dynamically to run all the applications in the Siebel environment – from the productive system to development, integration, bug fix and training systems. We raised the basic workload of the servers without putting their peak performance capacity in danger."

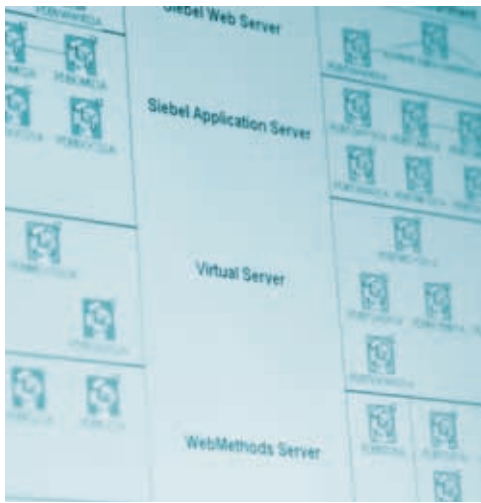
After the positive experiences with Siebel, the WebMethods Business Process Integration Suite has been reallocated to PRIMERGY BladeFrame. In this way, partners with online business relations to suppliers and large customers can benefit from the increased agility of the Padeborn data center. Further mission-critical applications such as Exchange and Sharepoint are planned.

At the Augsburg facilities, SAP BW was implemented on two PRIMERGY BladeFrame 400 S2 systems in order to improve performance and flexibility. *"This SAP BW implementation in particular proves that PRIMERGY BladeFrame can more than cope with the operation of core business applications. The solutions we offer our customers are the ones we use ourselves,"* confirms Volker Wiedmer. The migration brought about a strategic decision in favor of PRIMERGY BladeFrame, because in the future the data center will be running Windows and Linux-based applications in parallel – one of the special strengths of the system. The SAP applications, however, will operate exclusively on a Windows basis, since there is no certification for Linux operation. Volker Wiedmer adds:

"In Augsburg we're already working on the migration of further SAP applications such as SCM, APO and ERP. We also hope to increase the dynamics of Microsoft applications such as Exchange by running them on PRIMERGY BladeFrame."

"PRIMERGY BladeFrame reacts proactively to impending overloads and recognizes disturbances in the whole system independently."

Klaus Richter, Director IT Infrastructure and Support
Fujitsu Siemens Computers



Security for mission-critical applications

High availability and disaster recovery are important issues for a data center. When it comes to core business applications, the decisive criteria are security and availability. Very high demands are placed on consolidated systems because their system failures tend to have serious consequences. PRIMERGY BladeFrame offers the best conditions for security thanks to its consistent reduction of complexity as a central cause of errors and a comprehensive redundant structure without 'single points of failure'. Agility is, again, the key strength of the system. Klaus Richter explains:

"PRIMERGY BladeFrame reacts proactively to impending overloads and recognizes disturbances in the whole system independently. In such cases, thanks to the rapid redeploy capability, the application can be assigned to a more efficient server in the pool or to a failover system – and in the future, it won't even interrupt operation."



The high availability of the PRIMERGY BladeFrame system is achieved in a very cost-efficient manner because the infrastructure is not duplicated in 1:1 failover systems. Instead, PRIMERGY BladeFrame enables N+1 solutions where a failover system can be used dynamically by all the applications. Disaster recovery solutions are also cheaper because, for non-mission-critical applications in normal operation, an additional, separately located data center can be used for this purpose – a concept that Fujitsu Siemens Computers will be implementing in the forthcoming construction of a disaster recovery data center.

In the operation of mission-critical applications, security and availability are the key criteria.

SOFTWARE AND HARDWARE FOR DYNAMIC DATA CENTERS

PRIMERGY BladeFrame: Agility as a result of consistent simplification

PRIMERGY BladeFrame turns the dynamic server pool into a reality thanks to its stateless servers. Each server can take on the "identity" and configuration of another. Available server capacity is allocated flexibly to all the implemented applications. The functional principle is based on a Processing Area Network (PAN) of distributed resources. These include dedicated processor units along with the associated main memory (pBlades), virtualized I/O and network connections and virtual hard disks mapped in real form on the enterprise-wide SAN. PAN Manager is the management software that allows these resources to be put together in the form of virtual servers. With the help of vBlade technology it will even be possible to set up several partitions on one pBlade and allocate different applications to them. The PRIMERGY BladeFrame dynamic server pool enables a previously unknown flexibility. Pool resources can be allocated to applications during operation or reassigned to other applications. Failover constellations are especially easy to realize. And last but not least: the time required to implement new applications shrinks dramatically from several weeks to just a few minutes.

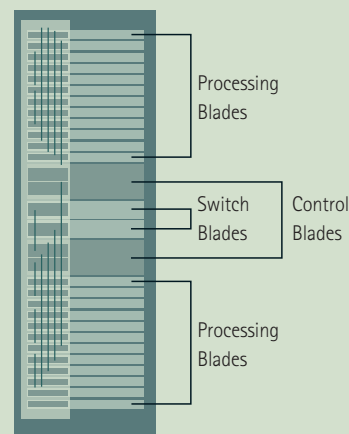
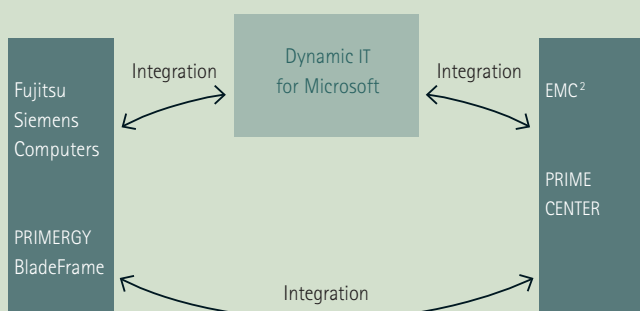
PRIMERGY BladeFrame is characterized by consistent simplification; complexity as a cost driver and a potential source of errors is

considerably reduced. Only PRIMERGY BladeFrame can completely dynamize the server pool without an additional software layer (as in normal virtualization solutions) and offer a substantial reduction of hardware complexity at the same time. This makes PRIMERGY BladeFrame ideal for companies that are planning a widespread consolidation of their IT for mission-critical application.

Dynamic IT for Microsoft: For a more dynamic data center

Dynamic IT for Microsoft enables an application-oriented, automated data center for Microsoft standard applications and solutions implemented on Microsoft operating systems. Microsoft's application-oriented Operations Manager and the hardware-level PAN Manager combine to raise the availability and flexibility of Windows-based applications. At the same time, costs and administrative workload are significantly reduced. Use of resources is optimized; the high availability of all business-related enterprise applications is ensured thanks to the permanent monitoring of all existing hardware components and applications. With the implementation of SAP BW, Fujitsu Siemens Computers has already laid a cornerstone for a widespread deployment of Dynamic IT for Microsoft. The full potential for data center optimization will be made possible by the future implementation of Microsoft applications such as Exchange and SharePoint.

Dynamic IT for Microsoft



PRIMERGY BladeFrame is characterized by the consistent reduction of complexity.

FACTS AND BENEFITS AT A GLANCE

Applications and operating systems

- ❑ Siebel 7.8, WebMethods; Windows 2003, LINUX SUSE EE; Oracle 9.2.0.7
- ❑ SAP BW 3.5 / SAP NetWeaver BI; Windows 2003; Oracle 10.02
- ❑ Business Process Integration Suite, WebMethods

Hardware

- ❑ Per 2 PRIMERGY BladeFrame BF400S2

Outlook

- ❑ Sharepoint and Exchange 2007 in planning
- ❑ SAP SCM 5.0, SAP APO and SAP ERP in planning

Benefits

- ❑ Dynamic resource usage
- ❑ Performance increase
- ❑ Cost reduction
- ❑ Easy administration
- ❑ Several operating systems on one system (Windows, Linux, Solaris)
- ❑ Free choice and combination of AMD and Intel-based blades in different performance classes
- ❑ Additional applications integrated without set-up time
- ❑ Reduced downtime



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We make sure

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