

FUJITSU Server PRIMERGY Systems

Servers that transform your IT into a competitive advantage





FUJITSU Server PRIMERGY Business Centric Servers

Built on decades of development and production knowhow, the Fujitsu servers offers you the choice of:

- FUJITSU Server PRIMERGY: Industry's most complete x86 portfolio
- FUJITSU Server PRIMEQUEST: UNIX functionality with x86 cost efficiency
- FUJITSU M10 servers: Unmatched mission-critical performance, scalability and reliability
- Mainframe Servers: Watertight security and legacy environments
- Fujitsu Integrated System PRIMEFLEX: Reference architectures and ready-to-run solutions for faster time-to-value

FUJITSU PRIMERGY servers provide your company with the most powerful and flexible data center solutions on the market for companies of all sizes, across all industries and for any type of workload. This includes expandable PRIMERGY tower servers for remote and branch offices, rack-mount servers with leading efficiency and performance, compact and scalable blade systems, as well as density-optimised cloud server infrastructures. Our PRIMERGY servers have shaped IT, at every stage, and set new standards in quality, efficiency and agility.

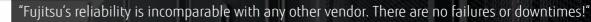


"The PRIMERGY family shows professionalism and lab-proven standards. Thanks to these stable conditions it is a pleasure working with these systems."

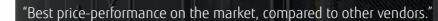
Mark Schulz, Administator, Häfen und Güterverkehr Köln AG, German

"We are using PRIMERGY servers for more than 15 years without downtime! That's what I call quality!"

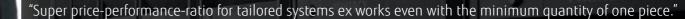
Uros Lampret, Procurator, Our Space Appliances d.o.o., Slovenj



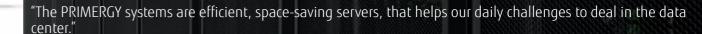
Josef Weih, City of Hirschau, Germany



Dinko Vranjes, Business Director Infrastructure, King ICT, Croati



Michael Hirschbrich, Product Manager, INGRAM Micro Austr



Alessandro Perrino, Business Development Manager, FASTWEB B.U., Italy

"The quality and flexibility of Fujitsu are perfect. We couldn't find any better vendor with this outstanding priceperformance ratio. Service and customer-orientation within the sales process regarding the configuration seeks for comparison – well done, Fujitsu."

Maoutew Bommassali, ICT Manager, SAIT Soc. Coop.Consorzio, Ita

"As we want to increase our support for our costumers delivering the right tooling solutions we added the Fujitsu servers as an appliance to our portfolio, delivering a high performance, flexible Big Data solution."

Remado Dyhland, Business Manager Government, Simple Management Technologies B.V. Netherlands

"Our servers allow us to quickly react and scale generations across a multitude of services, ensuring a seamless communications infrastructure."

David Barnwell, Editor, Burda Creative GmbH, German







FUJITSU Server PRIMERGY

Industry's most complete x86-based portfolio

The right server platform for all datacenter needs

To stay competitive, your IT should support your organization in reducing costs, maximizing performance and IT reliability, and providing the flexibility to react fast on business change. Fujitsu PRIMERGY systems deliver an unparalleled mix of quality, efficiency and agility. The servers provide your company with the most powerful and flexible data centre solutions on the market for companies of all sizes, across all industries and for any type of workload. This includes expandable PRIMERGY tower servers for remote and branch offices, rack-mount servers with leading efficiency and performance, compact and scalable blade systems, as well as density-optimized cloud server infrastructures.

Furthermore Fujitsu delivers new levels of x86 server performance for inmemory computing and resource-intensive applications, as well as x86 mission-critical uptime with the new PRIMEQUEST systems. This new server series combine UNIX-matching high-availability features with x86

All Fujitsu servers convince by business proven quality and a wide range of innovations, highest efficiency cutting operational cost and complexity, and more agility in daily operations in order to turn IT faster into a business advantage.



FUJITSU Server PRIMERGY BX blade systems are the perfect platform to build a converged infrastructure designed to reduce IT costs, time and efforts. PRIMERGY Blade Servers utilizes a modular architecture and contain in addition to the compute power, all required infrastruc- fices with massive computing power for virtualized environture and network components, storage capacity as well as management modules that helps companies to simplify their infrastructure, achieve significant cost reductions and increase flexibility.

■ PRIMERGY BX400 S1:

Affordable and fully-featured blade system built from the ground up to be user-friendly and versatile, saving time and costs for midsized companies.

■ PRIMERGY BX900 S2:

Complete dynamic server infrastructure in a single chassis forenterprise data centers. Next generation blade server ecosystem designed for constantly changing IT environments.



The Fujitsu Server PRIMERGY CX scale-out systems are the ideal basis for cloud, hyper-converged and high performance computing solutions. They provide data centers as well as branch ofments, complex calculations as well as consolidation and high-availabilty scenarios.

■ PRIMERGY CX400 M1:

Flexible scale-out system which helps to meet the immense challenges now facing companies as well as research and development institutions.

■ PRIMERGY CX420 S1:

Dual node cluster server for Microsoft Windows Server 2012, enabling small and medium-sized enterprises or multi-site organizations to provide continuous uptime for their business applications and data.



FUJITSU Server PRIMERGY RX rack systems are versatile rack-optimized servers providing best-in-class performance and energy efficiency, and thus form the "standard" in each data center. PRI-MERGY RX servers deliver 20 years of development and production know-how resulting in extremely low failure rates below market average, and leading to continuous operations and outstanding hardware availability.

■ PRIMERGY RX1330 M1:

Mono socket 1U rack server designed to meet small budgets by offering highest energy efficiency and a rich set of optional expansions to best meet individual demands.

■ PRIMERGY RX2520 M1:

Modular 2U chassis with up to twelve 3.5-inch, or sixteen 2.5inch storage drives for essential business applications.

■ PRIMERGY RX2530 M1:

Dual-socket server in a space-saving 1U housing making it ideal for scale-out, virtualization, and cloud.

■ PRIMERGY RX2540 M1:

Dual-socket server in a modular 2U housing is the data center standard coming with high performance, easy serviceability, energy efficiency and expandability ex works.

■ PRIMERGY RX350 S8:

Dual-socket server with 4U offering maximum performance, expandability and availability.

■ PRIMERGY RX4770 M1:

Platform of choice for business critical backend services with superior levels of performance and reliability.



Perfect for small and medium businesses as well as branch offices, FUJITSU Server PRIMERGY TX tower systems are robust and cost-efficient servers by providing rock solid reliability. Additionally they are characterized by simple IT operations, low power consumption and quiet operation so that they can be handled by non-technically trained staff and can be used in standard office environments.

■ PRIMERGY TX1310 M1:

An ideal "first server" for small and medium-sized companies.

■ PRIMERGY TX1320 M1:

For small environments with high demands this ultra-compact and silent system is an excellent choice for retail premises and branch offices.

■ PRIMERGY TX1330 M1:

Expandable all-rounder with best performance, solid expandability, optionally redundant power supply and full server management support make it an excellent cost-efficient investment

■ PRIMERGY TX150 S8:

Ideal for those initial virtualization phases in a small or mediumsized company.

■ PRIMERGY TX2540 M1:

Perfect tower server for SMEs and branch offices featuring two processors with affordable performance and balanced expandability.

■ PRIMERGY TX300 S8:

Dual-processor performance, full redundancy, high availability levels and ample internal storage capacity.



The PRIMEQUEST series offer unprecedented x86 performance and memory expandability with innovative mission-critical functionalities.

■ PRIMEQUEST 2400E Mission-Critical:

Advanced 4-socket enterprise platform with outstanding platform reliability, innovative error prevention and self-healing capabilities.

■ PRIMEQUEST 2800B Business-Critical:

Enterprise 8-socket platform with extra-large memory capacities to handle bigger memory-intensive applications.

■ PRIMEQUEST 2800E Mission-Critical:

Top-of-the-range model additionally introduce self-healing capabilities and unique error prevention and RAS features.

Business proven quality for continuous operation with almost no unplanned downtimes



Operational continuity is a key element in the success of any company. Any IT faults often have an immediate effect on productivity levels. The availability of IT thus has top priority. One of the values delivered by PRIMERGY servers is founded on their business proven quality.

The Fujitsu x86-server portfolio has been shaping the IT branch for 20 years. For two decades Fujitsu has been providing industry-standard servers that concentrate on solving real customer problems. Due to continuous adaptation to trends and the continually developing IT landscape, we have developed new approaches for cloud computing, data analytics and high performance computing in order to master challenges that were previously inconceivable.

Each Fujitsu PRIMERGY system is subjected to stringent and comprehensive quality assurance measures during the development phase. This includes electromagnetic and climate technology tests aimed at ensuring availability even in the most difficult of conditions. A stress

test with 5,000 boot cycles brings out the very best of the system as it quickly detects and eliminates even the most minor of deficiencies.

In contrast to some other hardware vendors, Fujitsu will continue to provide drivers, BIOS versions, firmware and software updates for the industry-standard x86 PRIMERGY servers free of charge until further notice. These updates can be downloaded regardless of an existing service contract or valid warranty on the Fujitsu support web pages.

The Fujitsu factory in Augsburg is regarded as the state-of-the-art IT systems factory in the whole of Europe, drawing on 20 years of development and production know-how inspired by our customer base.

The results are extremely low failure rates below market average and outstanding hardware availability of 99,997% you can bank on. The data center thus enjoys lower costs due to fewer non-planned down-times and considerably less time is required for service calls.





"Even in the world of gaming you need to have something that is not a gamble. PRIMERGY server technology from Fujitsu gives us absolute security and more performance in handling daily business. Thanks to the new solution, risks were significantly reduced, and we are well on the way to achieving our business objectives with this technology."

Mark Sollors

Director of IT Infrastructure and Operations, bwin.party digital entertainment

"The quality and reliability running PRIMERGY systems even for longer periods are remarkable. The first generations of PRIMERGY systems were up and running for about 10 years without major disruptions."

Dieter Weimar,

echnical Development and Investments Infrastructure etworking and Mes Innovation driver, errero Germany

Highest efficiency helping to accelerate IT workloads



If you can operate reliably, then IT performance is the next priority. PRIMERGY servers offer an excellent price/performance ratio proven through independently benchmark results helping to accelerate IT workloads and shorten time-to-business results.

Fujitsu starts to optimize its PRIMERGY systems as early as the development phase using comprehensive quality assurance

processes which ensure that a company can rely on its IT at all times, even during peak workloads.

The "Hall-of-Fame" lists the world records and best-in class results achieved by Fujitsu's x86-based servers in the various benchmark categories.

Fujitsu x86 Server – "Hall-of-Fame"

	2010		2011		2012		2013		2014
System Performance SPECint, SPECfp	RX100 S6 RX300 S6 RX900 S1	TX150 S7 TX300 S6	BX922 S2 RX200 S6 RX300 S6	TX140 S1 TX300 S6	BX924 S3 RX200 S7	RX300 S7 RX500 S7	TX140 S2 TX300 S8	RX200 S8 RX350 S8 RX500 S7	PQ2800E RX2540 M1
Java/WEB Performance SPECweb, SPECjbb	BX922 S2 RX900 S1 TX300 S6		RX100 S7 RX300 S7 RX600 S6	TX140 S1 TX300 S6	RX100 S7p RX500 S7				
Server Virtualization VMware, VMmark	BX922 S2 BX924 S2 BX960 S1	RX200 S6 RX300 S6 RX600 S5	RX200 S6 RX300 S6	RX600 S6 RX900 S2	BX924 S3 RX200 S7	RX350 S7 RX500 S7	RX300 S7 BX924 S3 BX920 S4		BX920 S4 PQ2800E RX2540 M1
Database Performance TPC-E	PQ1800E RX300 S6	RX600 S2 RX900 S1	RX300 S6 RX900 S2		RX300 S7				PQ2800E
ERP/CRM Performance SAP SD	BX922 S2 RX300 S6 TX300 S6		PQ1800E		RX500 S7		RX300 S8 PQ2800E		PQ2800E RX2540 M1
Energy efficiency SPECpower, SAP Power,TCP-E Energy	CX120 S1 TX150 S7 TX300 S6		BX920 S2 RX100 S7 RX300 S6 RX900 S2	TX120 S3 TX140 S1 TX300 S6	BX920 S2 RX100 S7p RX200 S7 RX300 S7	RX500 S7 TX120 S3p TX200 S7 TX300 S7	RX100 S8 RX200 S8 RX300 S8	TX140 S2 TX300 S8	TX2540 M1 RX1330 M1 RX2540 M1

For more information: http://www.fujitsu.com/fts/products/computing/servers/primergy/benchmarks/

- (1) The VMmark results was achieved by Fujitsu PRIMERGY BX924 S3 server blades. Full test results including system specification, further details and current results can be found at: http://www.vmware.com/a/vmmark/. The comparison reflects the status of October 23, 2012.
- (2) The VMmark results was achieved by Fujitsu PRIMERGY BX920 S4 server blades. Full test results including system specification, further details and current results can be found at: http://www.vmware.com/a/vmmark/. The comparison reflects the status of December 23, 2013.
- (3) Benchmark results stated above reflect results published on www.spec.org as of November 13, 2013.
- (4) Benchmark results stated above reflect results published on www.spec.org as of April 16, 2014.
- (5) Benchmark results stated above reflect results published on http://www.spec.org as of September 10, 2013. Score of 109 SPECfp_base2006 published by Fujitsu on the PRIMERGY RX350 S8. see:
- http://docs.ts.fujitsu.com/dl.aspx?id=eb3ad5dd-1da2-43a1-86b9-4e4996b208c9.
- (6) Competitive benchmark results stated above reflect results published on www.spec.org as of Nov 27, 2013. The comparisons presented above are based on the best performing quad-socket server in SPECpower_ssj2008.
- 7) The VMmark results was achieved by Fujitsu PRIMEQUEST 2800E systems. Full test results including system specification, further details and current results can be found at: http://www.vmware.com/a/vmmark/. The comparison reflects the status of April 01, 2014
- (8) Record claim as of Feb 18, 2014. Fujitsu PRIMEQUEST 2800E, 47500 benchmark users, SAP EHP 5 for SAP ERP 6.0, SQL Server 2012, Windows Server 2012, 8 processors / 120 cores / 240 threads, certification 2014003. Further information at www.sap.com/benchmark.

- (9) Competitive benchmark results stated above reflect results published on http://www.spec. org as of February 19, 2014. Score of 4570 SPECint_rate_base2006, and Score of 3240 SPECfp_rate_base2006.
- (10) The TPC-E result was achieved by one Fujitsu Server PRIMEQUEST PQ2800E. Full test results including system specification and further details can be found at http://www.tpc. org/tpce/results/tpce_result_detail.asp?id=114041401.

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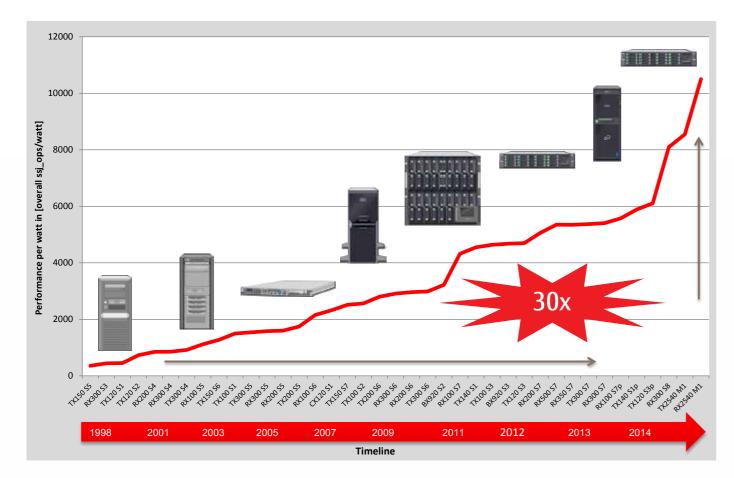
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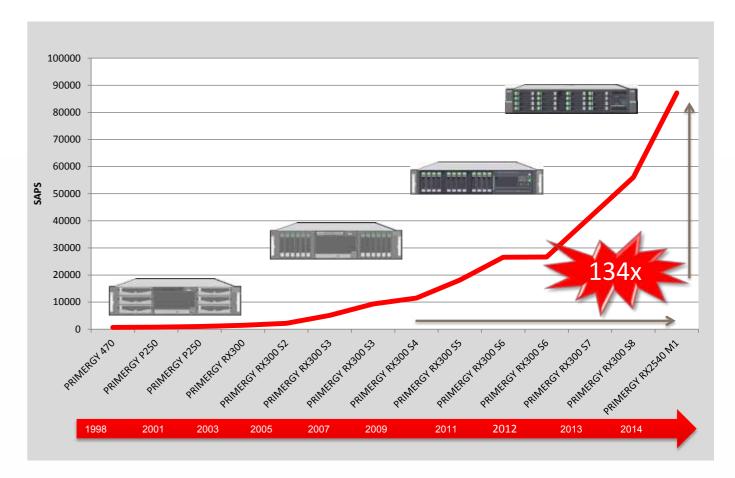


Fujitsu x86 Server benchmark performance

Customer- and market-inspired innovations help PRIMERGY ensure the most efficient, best performing server solutions in every class to help our customers stay ahead of rapidly changing business environments. Additional to our comprehensive and extensive internal testing, market benchmarks are performed in our own benchmark labs. Running certified benchmark test like e.g. the SPECpower_2006 or SAP SD among several others prove over and over again that we did not fail our mission: to provide our customers with high performing, energy efficient and ideal server systems. Fujitsu has continually optimized its x86-based servers for virtualization and cloud environments over several generations. FUJITSU Server PRIMERGY Energy Efficiency improved by factor 30 since the start of power and performance characteristic measurements 7 years ago.



PRIMERGY dual-socket systems increased SAP SD perormance by more than factor 134 in the last 15 years





How does Fujitsu help you to save money in a data center?



Fujitsu PRIMERGY systems are optimized to provide the best energy efficiency. From the mainboards developed and manufactured in Germany through to the selection of components, everything is aimed at providing minimum power consumption and simultaneously the best compute performance. But did you know that expensive cooling in a data center coupled with lost efficiency in power supply units and cables often account for more than 50% of the energy costs?

Here's the good news: there is a simple way to save money! A highly efficient infrastructure reduces air-conditioning and computer performance costs. The new generation of PRIMERGY servers use highly efficient components, sophisticated cooling technology and top-quality power management tools. Servers can thus support a wider range of temperatures and the risk of heat-related downtimes drops.

A perfect climate and savings in energy costs

The new generation of servers support environment temperatures of up to 40 °C / 105 °F. The temperature in a data center can thus be increased by a few degrees without any problems. Each additional degree results in a 5 to 6% drop in air-conditioning costs. Even the "dreaded hot zones" in a data center are now not so frightening. Indeed: a skillfully configured area within the data center with a higher environmental temperature relieves the burden on air-conditioning and your budget in a very simple manner.

To be able to offer customers a uniform data center concept it's not just the servers that support the Cool-safe® Advanced Thermal Design technology, but also selected Fujitsu ETERNUS storage systems and network components. Fujitsu thus offers its customer a complete infrastructure consisting of servers, storage, and network that supports an ambient temperature of up to 40 °C / 105 °F.



More agility in daily operations to turn IT faster into a business advantage



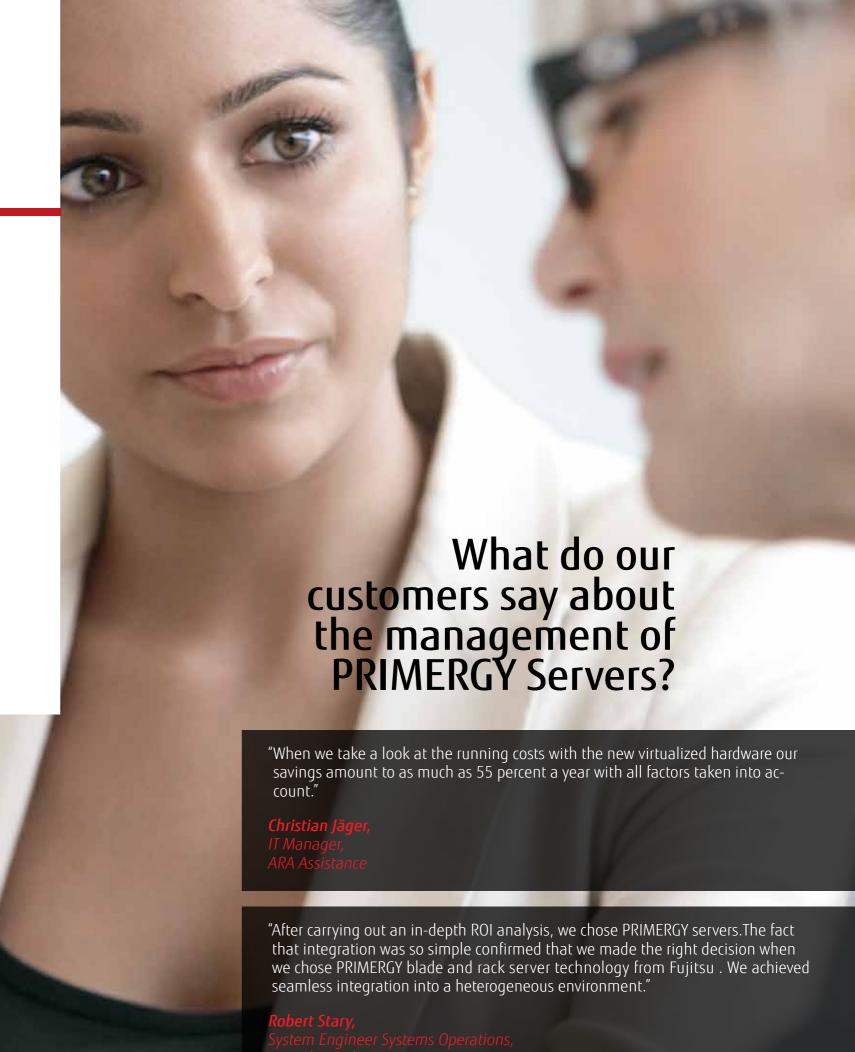
Administrators do not have it easy. On the one hand, they are expected to ensure reliable IT functions, provide new capacities quickly and have good knowledge about infrastructures which are becoming increasingly complex. On the other hand, an IT department does not directly contribute to a company's profit and constantly faces cost and job number pressure. So how can this situation be handled?

How can you make administrators and commercial staff happy?

When managing individual servers as well as entire server parks, a comprehensive server management solution removes the burden of routine work from an administrator's shoulders, thus providing more time for the really important tasks. The focus is also on virtualization technologies as well as the dynamization and automation of IT landscapes right up to their integration in corporate solution concepts covering several locations. Commercial employees are also pleased about such effective server management: there is empirical evidence that, in addition to energy cost savings, maintenance and administration expenditure can be reduced by up to 55% if hardware is used more efficiently.

The comprehensive FUJITSU Software ServerView® Suite supports your administrators and helps you to reduce data center costs. This solution is divided into five individual packages: Deploy, Control, Dynamize, Maintain and Integrate, mainly consisting of free-of-charge modules. ServerView® Suite thus offers comprehensive administration processes that cover the entire lifecycle of individual servers as well as entire server parks.

Incidentally, Fujitsu hardware can be easily integrated into the existing management environments of other manufacturers via the so-called "integration packages". In addition to the technical and organization benefits this also has notable economic advantages: the training and conversion costs are kept to a minimum from the very start and the costs for implementing PRIMERGY systems can be reduced by up to 65% in comparison to conventional methods.



FUJITSU Software ServerView® Suite Integrated Server Lifecycle Management













tended or menu-driven, locally or remotely. ■ Scripting Toolkit Collection of utilities and sample scripts for individual script-based Fujitsu PRIMERGY server configuration and

installation.

CONTROL

Control

Server Monitoring and

Operations Manager

■ System Monitor

■ Agentless Service

Capacity Management

■ Threshold Manager

Power Management

■ Power Consumption

Management (in iRMC)

■ Storage Management

■ Power Monitor

Storage Support

- Monitoring

- Events

■ Event Manager

■ RAID Manager







☐ Local Service Display



Fujitsu Integrated System PRIMEFLEX Your fast track to data center infrastructures

Building data center infrastructures for a certain use case can be complex, error-prone and time-consuming. Moreover it requires a deep knowledge of all components involved and their dependencies to each other. Therefore, a do-it-yourself approach entails many risks for businesses.

These risks can be avoided by using integrated systems. FUJITSU Integrated System PRIMEFLEX is a pre-defined, pre-integrated and pre-tested combination of servers, storage, network connectivity and software. While management software is mandatory, depending on the use case, software for virtualization, automation and orchestration, as well as databases and applications may be optionally included.

PRIMEFLEX encompasses factory-installed solutions which are ready-to-run and reference architectures which can be easily adjusted to customer-specific requirements. Along with its reference architectures, Fujitsu makes detailed configuration and installation descrip-

tions available as a standard. Optional deployment and integration services ensure a smooth integration into the on-site environment. To ensure simplified operation and maintenance of PRIMEFLEX solutions, Fujitsu provides support on solution level, and further data center services including managed services and hosting.

The PRIMERGY servers form the cornerstone for Fujitsu PRIMEFLEX solutions including both 'ready to run' pre-integrated systems and reference architectures.



Ten compelling reasons to invest in FUJITSU Server PRIMERGY systems

One size does not fit all: To be able to meet the requirements for companies of all sizes, Fujitsu offers • industry's most complete portfolio of industry standard x86 servers ranging from Tower Servers (TX), Rack Servers (RX) over Blade Servers (BX) to Scale-

- With Fujitsu, you can make sure to get exactly what you need
- Fujitsu fits perfectly as a one-stop shop: get high performing data center solutions as well as easy to maintain and implement low noise tower systems in your branch offices
- Integration, Implementation, Administration and Deployment becomes an easy task: benefit from transfer competencies for your IT staff

FUJITSU Servers PRIMERGY have been and always will be developed with a main driver to deliver best quality. Rigorous testing is deeply implemented in our development and engineering cycles to ensure outstanding quality.

- Extremely low annual failure rates with minimum downtime, already in
- Downtimes can be planned better, if even necessary

Cut your operational costs and complexity and shorten your time-to-business results

Your benefits

- Extended Cool-safe® Advanced Thermal Design allows for system operation in ambient temperatures of up to 40°C
- PSUs with up to 96% energy efficiency help to shrink costs while still maintaining to deliver the power requirements of the server
- Nexperience Design allows for screwless removal of hard drives, PSU etc., all touchpoints on the system are green to improve usability

All FUJITSU Server PRIMERGY systems rely upon strong bi-directional partnerships with leading component manufacturers. This ensures businesscentric system development for demanding applications without letting performance be a

- World and best-in-class records across all form factors and platforms for best system performance while keeping a strong efficiency focus lead to cost reductions and future
- Intel® Xeon® processors across all product families from Intel® Xeon® E3 to Intel® Xeon® E7 deliver unprecedented computing performance for every need

FUJITSU Server PRIMERGY systems are researched, Your benefits designed, manufactured, and tested in Germany. With accumulated centuries of experience in server development and engineering, we deliver all our products with highest aspirations at fair conditions for all parties involved.

- "made in Germany" is not just a claim at Fujitsu, we live this to any extent proven by
- Corporate social responsibility is not just a fact for us, but also for you and your customers. In a hyperconnected and globalized world we support and live fair conditions.
- Both, global and national regulations are nothing we fear. To the contrary, we exceed such requirements to be ready for the future and beyond



www.fujitsu.com/primergy

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