Summary

Increased use of the Internet at the workplace and growth of eBusiness have resulted in a need to process ever larger data volumes, coupled with a demand for higher bandwidth and applications requiring increased output performance. After three years of economic stagnation and a subsequent reluctance to invest, German firms face a pent-up demand for investments in IT communications infrastructure, including a demand for more powerful server systems (RISC/UNIX). A slight improvement in the economic climate and a favorable USD-EUR exchange rate have led to a considerable increase in German demand for U.S. IT products and services.

Furthermore, industry analysts believe that, because Europe still lags behind the United States in Internet penetration, there is room for continuous and stable growth for IT in general and server systems in particular.

Decisions to upgrade or install new systems are also affected by financial considerations. Manufacturers are forced to lower prices in order to meet price expectations of their customers. End-users are purchasing large numbers of cheaper priced systems; interestingly enough servers in the higher price ranges are also selling well. Unit growth for servers in 2004 is expected to reach 13% with a corresponding 3% increase for revenues.

A. Market Highlights And Best Prospects

In 2003, around 51% of the German population was using the Internet. This figure is expected to rise to over 71% by 2007. The market research company IDC predicts that the increase in the use of information will continue to sustain market growth in these areas.

The industry differentiates, according to IDC, between three different categories of servers:

High-End Server: over USD 1,000,000 (about EUR 800,000)
Mid-Range Server: between USD 100,000 and USD 1,000,000 (EUR 80,000 to EUR 800,000).
Low-End Server: less than USD 100,000 (EUR 80,000)

Germany appears to be the most important European market for high-end servers, accounting for 32.8 percent of all high-end servers sold in Europe. In total Germany accounts for 26.3% of all servers sold in Europe in 2003.

Table 1. Germany's Percentage Share of Total Server Revenues in Europe

High End	32,8
Medium Range	32,6
Low End	21,1
Share of Total Market	26,3

Within Germany, the high-end segment accounted for sales worth EUR 1,213 billion in 2003, equaling 31.8% of all server sales.

Table 2: Percentage of Total Revenues in Germany by Server Category in 2003

	%	in EUR million
High End	31.8	1,213
Medium Range	21.7	828
Low End	46.5	1,774

Table 3: Germany - Unit sales

	2000	2001	2002	2003	2004p*
High-End Servers	896	643	664	648	691
Mid-Range Servers	23,756	4,723	3,599	3,514	3,758
Low-End Servers	24,6520	298,869	274,977	274,468	309,500
Total	271,172	304,235	279,240	278,630	313,949

(* projected)

Table 4: Germany - Revenues (EUR million)

	2000	2001	2002	2003	2004p
High-End Servers	854	1,169	1,264	1,213	1,231
Mid-Range Servers	1,461	1,389	854	828	852
Low-End Servers	1,855	2,057	1,792	1,774	1,845
Total	4,170	4,615	3,910	3,815	3,928

Of the 278,630 servers sold in Germany in 2003, 648 were high-end. Though only representing 0,23% of total units sold, they generated EUR 1,213 Mill. EUR billion or 31,8% of total revenues. Low-end servers with 98,5% of unit sales generated EUR 1,774 million or 46,5% of revenues.

Best Sales Prospects

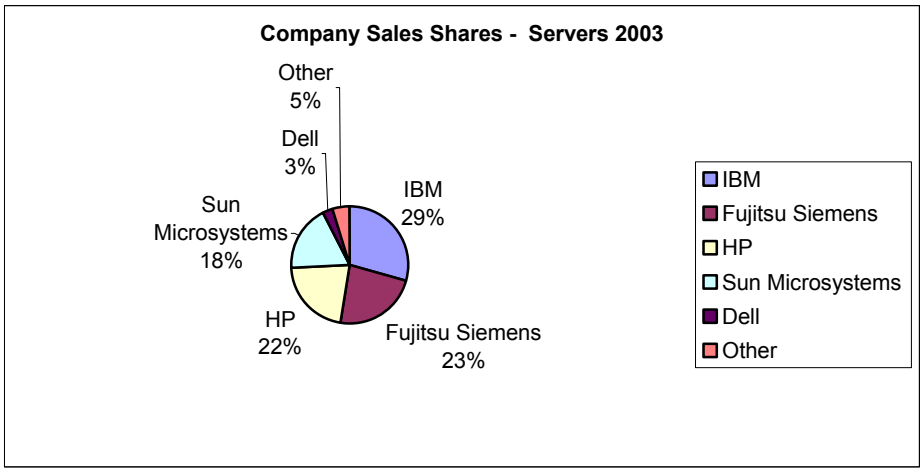
While unit sales of mid-range servers fell in 2002 by 23.8% and revenues declined by 38%, in 2004 sales are expected to grow 7% and by 3% in value. In previous years companies, when expanding, bought high-end servers, in the event they were not expanding, servers were replaced with low-end hardware. Due to the economic downturn over the last few years, companies have been under constant pressure to lower costs, and in many cases have generally opted for cheaper products. This trend is expected to continue throughout 2004 resulting in a 13% increase in unit sales of low-end servers and a corresponding 4% increase in revenues. High-end unit sales are expected to grow by 7% and revenues by 1%.

B. Competitive Analysis

Competitive Situation

The major players in the German server market are (in no specific order) IBM, Fujitsu Siemens, SUN, Dell and Hewlett Packard. Sales by these companies represent over 90% of market revenues and unit sales.

Table 5: Market Shares in Germany



RISC UNIX Server Market 2003
Sales in the Unix RISC market declined by 9% in volume and by 1% in value. SUN Microsystems remains the market leader with a 37% market share followed by IBM with 31%. The other major players are Fujitsu Siemens with 23% of the market followed closely by HP with 22%.

Server Operating Systems
For 2003, the most popular operating system is, as in previous years, one or the other version of Windows, which hold a majority share of the low-end segment. Despite this there is some competition from NetWare, Unix and Linux. Mid-range and high-end systems are dominated by the Unix OS. Unix has been successful in increasing its market share in the volume server market, and it is still regarded as the key OS for core IT infrastructure.

Distribution

The tables below characterize the importance of the differing distribution channels.

Table 6: Distribution Channels: Unit sales of high-end servers in percent

	2000	2001	2002
Direct to end-user	24.3	19.3	18.9
Indirect	75.7	80.7	81.1

Table 7: Distribution Channels for high-end servers in percent

	2000	2001	2002
Direct to end-user	65.1	66.7	65.7
Indirect	34.9	33.3	34.3

C. MARKET ACCESS

Import Climate
There are no import tariffs on servers in Germany. There is a 16% import turnover tax, which is levied on all imported servers. This tax is passed on in later distribution stages to the end-user as a value-added tax. A value-added tax of 16 percent also applies to all domestic products.

Environmental Considerations
The Directive 2002/96/EC of the European Parliament and of the Council on "Waste from Electrical and Electronic Equipment " (WEEE) is currently in the legislation process of EU member states. Manufacturers will be responsible for taking back and recycling electrical and electronic equipment. The EU decides that consumers will be able to return their equipment free of charge.

Another Directive, the 2002/95/EC, requires the substitution of various heavy metals (lead, mecury, cadmium, and hexavalent chromium) and brominated flame retardants (polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE)) in new electrical and electronic equipment sold from July 1, 2006.

For additional information see:
European Commission (Directives 2002/96/EC and 2002/95/EC in detail)
http://europa.eu.int/comm/environment/waste/weee_index.htm

or contact:

Bundesverband für Informationswirtschaft,Telekommunikation und Neue Medien (BITKOM - (Federal Association For Information Technologies, Telecommunications and New Media)
Albrechtstraße 10
10117 Berlin
Phone: [49] (0)30- 27576-0
Fax: [49] (0)30- 27576-400
www.bitkom.net
or

Zentralverband fuer Elektrotechnik and Elektronikindustrie (ZVEI)
(Central Association for the Electrotechnical and Electronics Industry)
Stresemannalle 19
60596 Frankfurt/Main
Phone: [49] (0) 69-6302-0
Fax: [49] (0) 69-6302-3 17
www.zvei.de

Legal Changes
Harmonization in the EU member states also affects the German legal system, most importantly the Citizens Law Book (Bürgerliches Gesetzbuch (BGB)) which contains important laws affecting trade. The most important change for the industry is the law pertaining to faulty products (Schuldrecht), which deals with dispute resolution between buyer and seller. Previously, the law (Schuldrecht) stipulated a six-month warranty period for all products. Effective January 1, 2002, this period was extended to two years from date of purchase. For the first six months following the sale of a product the burden of proof regarding any faults rests with the manufacturer, for the remaining eighteen months the purchaser is responsible.

Standard Requirements
The European Union's (EU) attempts to harmonize the various product safety requirements and related standards for industrial products of its member states have complicated the issue. During a transition period national requirements must be met. After the transition period, the Europe-wide "CE" mark supersedes all other compliance certificates, provided the products in question are covered by a EU-directive. The EU's efforts to harmonize standards through the "New Approach" certification-facilitating directives (and separately developed European standards) are incomplete as far as sectors covered. In some cases, U.S. firms, e.g., in the automotive or medical sectors, will have to worry about complying with the specific requirements of all applicable "Old Approach" product-specific EU standards legislation. This is doubly important because, to the extent EU-wide standards are developed, there is a high probability that the existing German standard will form the basis for the eventual European standard. In many cases, Germany will also be the first European country to implement EU-wide standards. The implementation of electromagnetic compatibility standards (EMC), despite a five-year phase-in period, surprised many affected companies - not only foreign but also German - with the result that accredited test laboratories are booked for months and the market introduction of some products has been delayed.

German buyers may require additional performance or quality marks, which are not necessarily legally required, but greatly enhance a product's marketability. Both EU requirements and the standards for a German quality or performance mark will, in many cases, require a product to be modified. Even if the product does not require modification, it will require testing and certification before it can be marketed. Important marks are the "gepruefte Sicherheit" (GS) mark for mechanical products, and the "Verband Deutscher Elektrotechniker" (VDE) mark for electrical components. It is emphasized that neither of these marks are mandatory for products to be sold in Germany. The only exception is for products being used in certain work place applications and where either of these marks is required to meet insurance eligibility requirements.

The German organization that compiles the standards laying down the requirements for a "GS" mark is the "Deutscher Industrie Normenausschuss - DIN" (German Standards Institute). The organization responsible for testing is the "Technischer Ueberwachungsverein e.V. - TUV," (Technical Inspection Association).

Although the "VDE" license deals with electrical products, the same process of certification can be followed. A company can obtain "VDE" literature from the VDE publisher (VDE Verlag, GmbH), or directly from the VDE association (for contact information please see below).
The TUV tests for both the "VDE" and "GS" licenses. The process for "VDE" certification is the same as that of the "GS" mark. TUVs are private companies set up by various German states to inspect and test products for compliance with German safety standards. Individual TUVs have also been authorized by the German Government to test products for compliance with EU legislation, and many have established representative offices in the United States.
Neither of the above certificates is mandatory but both are recognized as industry standard.
For more detailed information, including a listing of authorized testing institutes, please see Germanys' Country Commercial Guide. **http://www.export.gov/comm_svc/**

Trade promotion opportunities

Trade Fairs

Trade fairs play a major role in the marketing of ICT products Germany. The world's premier ICT show, "CeBIT" is held annually in Hannover. Further information can be obtained from:

Deutsche Messe AG
Messegelände
D-30521 Hannover
Germany
Tel: + 49 -511 89 0
Fax: + 49 -511 89 32 626
www.cebit.de
or
Hannover Fairs USA, Inc.
212 Carnegie Center
Princeton, NJ 08540
Tel: (609) 987 1202
Fax: (609) 987 8810
www.hfusa.com/cebit
www.cebit-events.com

Relevant Websites:

Federal Association of Information&Communications Systems (**www.bvb.de**)
Federal Association of Office and Information Systems (**www.bvb.de**)
German Association for the Information Industry (**www.viw.de**)
German E-Commerce Association (**www.eco.de**)
Federal Information Technology Association (**www.bvit.de**)
Information Technology Association (**www.itaa.org**)
Context-European Source for IT Market Info (**www.context1.com/**)
Information Market Europe (**www2.echo.lu/home.html**)
Verband deutscher Elektrotechniker (**www.vde.de**)
European Committee for Standardization (**www.cenorm.be**)
Deutsche Kommision Elektrotechnik (**www.dke.de**)
National Institute of Standards and Technology (**www.nist.gov**)
European Committee for Electrotechnical Standardization (**www.cenelec.org**)

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