

INPUT

**Desktop
Services
Opportunities
in Europe
1998**

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- Ensure an effective investment strategy
- Evaluate and select suppliers
- Save time in evaluating industry developments
- Avoid problems encountered by other organizations

Since its founding in 1974, INPUT's focus in the IT software and services industry has helped many of the world's leading companies to make key decisions not just about technology itself but, more importantly, about the application of technology to their specific business needs.

Desktop Services Opportunities in Europe 1998

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Introduction

As organizations' dependence on IT to perform critical business functions increases, IT managers expect and demand more from their desktop environments and from the vendors that provide desktop services. Competitive pressures are forcing more organizations than ever before to use service vendors to manage their desktop environments, thus leaving the organization to focus on its core activities.

But, how does such an organization choose a service vendor?

What should they expect from that vendors' performance?

Where do service vendors typically fail their clients?

What services do the different vendors offer?

This Buyers' Guide contains the major findings of a recent INPUT survey of desktop services opportunities and will aid IT decision makers in answering such questions. Also included are profiles of major European desktop service providers that detail the companies and their offerings.

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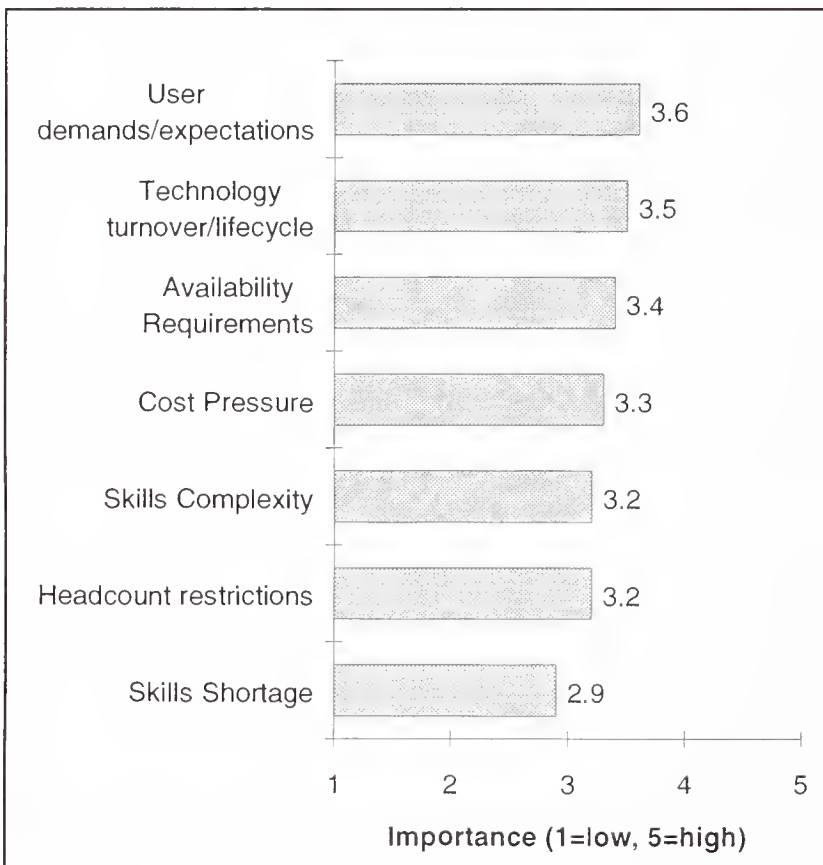
Executive Summary

The increased dependence on networked desktop environments brings service vendors new pressures to overcome in order to provide an effective and reliable service. User demands are high, reflecting the competitive and cost reduction pressures acting on most organizations. The pace of change of desktop technology is a constant challenge. High availability of the desktop becomes increasingly important as organizations operate more critical systems on these platforms.

When IT managers were asked to rate the importance of various pressures that they face in their desktop and network environments, the major challenges were user expectations, technology turnover and availability requirements. Issues surrounding skills and headcount were of least importance (see Exhibit 1).

Exhibit 1

Pressures on the Desktop and Network Environment, Europe



Source: INPUT

Overall, European enterprises would appear to have moderately strong pressures from a number of factors, although these factors only have slight variations in importance between them.

Most enterprises are experiencing these pressures when they are also trying to cope with Year 2000 work and preparing for European Monetary Union.

Against this background, INPUT research reveals how selective use of external vendors can help organizations cope with these pressures by:

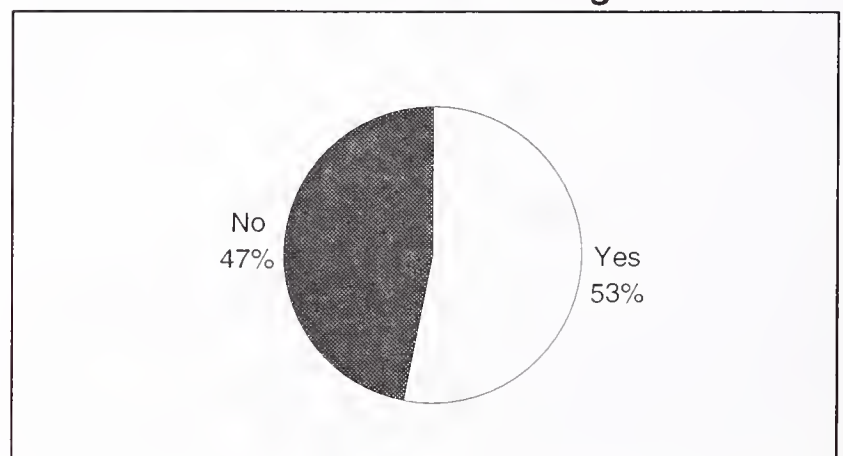
- Increased attention to service level agreements (SLA)
- Use of metrics to manage suppliers
- Attention to cost in relation to quality.

SLAs and Business Needs

It was perhaps surprising that only just over 50% of the respondents claimed to have a Service Level Agreement (SLA) in operation. However, it exceeds the estimate of 40% recently quoted by the Networking Outsourcing Association (see Exhibit 2).

Exhibit 2

Incidence of Service Level Agreements



Source: INPUT

Enterprises need to formalize SLAs with their desktop and network service providers. Several things are clear from comments that we have had on this topic:

- Service levels have to be realistically geared to business needs. The demands of users are endless and may not necessarily be able to be met economically.
- SLAs must be simpler and be based on parameters that are meaningful to the business.
- SLAs should be embedded in the support systems of suppliers, so that escalation processes kick in at the right time.
- SLAs between enterprises and their primary support suppliers must in turn be underpinned at each level below by SLAs between the primary supplier and other suppliers in the chain.

Metric management and vendor performance

The use of metrics to measure the ability of a support company has never been as critical. In a recent INPUT survey, over 90% of IT directors used them as part of their external vendor performance review.

IT directors should be employing service management and helpdesk tools that allow them to track performance in detail. No longer would they have to rely on anecdotal evidence from their users at the end of the year – they have a precise breakdown of service delivery.

However, different companies apply different degrees of importance to the array of metrics that are available to them. INPUT found that the three most important were:

- Call-out time
- System availability
- Time to repair.

The main focus for many IT vendors, at least in their marketing campaigns, has been systems availability. This may be important in high-end mission critical environments, but the reassurance of an engineer on site quickly or a rapid response over the telephone is typically all that most users require.

One of the main points IT directors made was that problem resolution time and systems availability is important to them; response time/call out time are important to his users.

However, it is important to remember that cold hard numbers do not always tell the whole story. If the abandon rate of a helpdesk decreases, users could actually be dissatisfied with its performance and thus using the service less. Likewise, a successful call center, at certain times, may be harder to reach, especially as users realize its usefulness. The answer is to track the performance and monitor the metrics frequently, demanding additional resources when it becomes necessary.

Many of the IT staff interviewed mentioned the need to judge overall performance from a combination of metrics; focusing on any one could give a false indication of performance.

IT vendors have made a commitment to provide a certain level of service. IT managers who ensure that their IT suppliers are monitored will be in a better position to judge their performance.

Cost and quality in IT services

The quality of the IT support a customer receives can be judged in a number of ways. Tracking service metrics that appear in the service level agreement, polling users for their opinion of the service, the relationship the IT manager has with the account managers, etc.

What governs how a client treats all of these? Their expectation of the level of service they will receive.

The significance of this becomes apparent considering that the IT managers surveyed displayed a willingness to change suppliers. Seventy-seven percent have changed one of their support vendors during the past three years and 50% will be changing vendors during the next 12 months.

IT managers have indicated one cause to be a general lack of communication. Many of the comments received from INPUT's survey were about this type of problem, "...getting hold of anybody", "finding someone senior to talk to", etc.

Exhibit 3 illustrates the main problems IT managers associate with using external support vendors.

Exhibit 3

Main Problems Using External Support

Problem	Number of Times Mentioned
Lack of Urgency	20
High turnover of suppliers staff	14
Getting hold of anyone	14
Not proactive	12

Source: INPUT

The high turnover of support vendors in our survey indicates that they expend a great deal of energy looking for and winning new business, without ensuring that their current clients are being serviced correctly.

Often the problem is not that the support vendor is failing to achieve the required level of service. It is often that the service sold was the wrong type of service for that client. It is becoming increasingly apparent that support vendors must focus more of their sales effort on understanding their potential clients needs. IT managers must ensure that they are clear about what they expect and ensure the SLA reflects this.

IT managers should ask for a trial period. This way, the vendors must ensure that their clients are receiving the correct type of support from day one. They should choose a vendor that not only promises top quality support but also regular service reviews.

Unfortunately, best practice customer care comes at a cost and traditionally support has been the one area where a cost saving can be made by shopping around. However, many IT managers have paid the price of cheap support. As mentioned earlier, 77% have switched vendors during the last three years. IT managers have found themselves unable to defend their choice of services vendor and IT vendors have not renewed clients as often as they should.

In light of this and the general change in attitude toward support, IT managers must scrutinize the *value* of a suppliers service. Cost will always be an important factor but it must be tempered by quality.

Profiles

Bull

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Company Background

Bull is a European information technology group that was originally founded in 1933 in Paris, France. Bull now employs 21,000 people in nearly 100 countries in Europe, North and South America, Africa and Asia. Bull is a publicly quoted company on the Paris stock exchange, whose main investors are major international players in the IT and telecommunications industry.

1956 Bull launches Gamma mainframe computer series

1972 Bull develops Micral-N, world's first micro-computer

1979 Bull launches first micro-processor Smart Card, the CP8

1993 Bull develops OpenMaster for Systems & Networks management

1994 Bull develops Escala first PowerPC multiprocessor server

1998 Bull launches SecurWare security solutions for business on the Internet.

Bull combines innovative technology with in-depth service expertise to provide integrated solutions for customers. The company's business portfolio is fairly balanced between products and services. In 1997 services represented 43% of the group's revenues, an increase of 7% from the previous year.

Bull Financial Information

Exhibit 1

Revenues & Income Figures in FF Millions	1997
World-wide Revenues	24,614
Of which Desktop Services Revenues	1,400
European Revenues	20,409
Of which Desktop Services Revenues	1,300
World-wide Net Income	603

Source: Bull

Bull is aiming for annual revenue growth of 5% and annual desktop services revenue growth of 15%.

Bull Employee Numbers

Exhibit 2

1997	Total	Desktop Staff
World-wide	21,267	1,300
Europe	18,500	1,200

Source: Bull

Main Activities

Bull's products and services are provided through its five divisions:

- Servers**
Bull develops and distributes IT systems for the distributed enterprise infrastructure, including mainframes, servers and personal computers. This division also covers contract manufacturing and printers.
- Software**
The BullSoft division focuses on security, with Bull OpenMaster secure Network & Systems management, and SecurWare solutions for Internet security.
- Smart Cards & Terminals**
Smart Cards and related payment terminals designed by Bull are used in a variety of applications, including transportation, electronic

purses, retail banking, loyalty cards and healthcare ID cards.

Integration Services

Bull offers systems integration, network integration and outsourcing services. These services include infrastructure design, user training, software package customization and data center management.

Customer Services

Bull provides an international, structured suite of services under the Bull GlobalCare brand. This offer covers the complete services life cycle, and is designed to ensure high availability, secure operations and effective user support for the three business domains:

- Systems Services - Gcos, Multi-Unix and High NT servers
- Networked Devices - Electronic financial transactions (ATM's, EFT-POS, Smart Cards and secured terminals)
- ServiceDesk - Desktop services

Desktop Activities

The following exhibit details the proportion of Bull's desktop services business that is derived from each of the desktop service types. The exhibit also shows Bull's five main areas of competency.

Exhibit 3

Bull Desktop Services by Type

Service Type	Proportion of Business (%)	Main Areas of Competency
Consultancy & Project Management	20	✓✓✓
Network Support & Management	10	✓✓✓
Environmental Services	5	✓
Training & Education	5	✓
Equipment Maintenance	30	✓✓
Help Desk Services	20	✓✓✓
Procurement & Asset Management	10	✓✓

Source: Bull

Bull's desktop services, which are branded ServiceDesk, include the following offerings:

Help Desk

Bull uses the best technologies and tools to ensure that users' requests are satisfied promptly. Bull's helpdesk implementations are customized for each client and can vary from an on-site cell to a combination of worldwide helpdesk centers.

Deployment and Evolution

Bull uses its project management teams and established methodologies to help clients with the deployment of their IT solutions and their IT migrations. Bull also has a number of change management services to help clients during an IT transition.

Education

Bull can assist in the training of staff in co-operation with a HR department and partners to ensure staff IT skills are sufficient for the job.

Software Hot-Line

Bull can manage the technical 2nd or 3rd levels of any helpdesk to enable the client to focus on skills closer to its core competencies. Bull is experienced and accredited with Microsoft, Novell and Lotus software products.

Maintenance

Bull offers personalized maintenance services that stem from its systems diagnosis tools in its helpdesk centers. Bull's experience and partnerships with IT suppliers enable these services in a multi-vendor environment.

Systems and Network Administration

Bull's remote administration tools and technologies enable it to conduct preventative and corrective actions on IT infrastructures to optimize the availability of the system.

Assets Management

Bull's asset management service offers the tools, processes and methodologies necessary to create inventories and track equipment along its lifecycle. As PC and LAN environments are changing, such tools ensure costs are controlled and correct IT infrastructure decisions are made.

Products Procurement

Bull's product procurement service will manage the procurement of hardware and software from suppliers.

- Financing**
 Bull's financing services enable better management of cash flow and budgeting.
- Total Cost of Ownership (TCO) Consulting**
 Bull helps its clients to identify areas of cost improvement in desktop ownership. The process is initiated with a consultancy approach that measures the TCO and compares it with similar companies. Value from Bull's TCO Consulting stems both from the solution itself and from the expertise of the Gartner Group.
- Service Managers**
 A Bull service manager is appointed to each client's project. The manager advises how the best improvements in service quality can be made by

combining the services available. This service manager also ensures that service level agreements are met and that clients objectives are maintained.

Vertical Market Competencies

Bull does not specialize in any particular vertical market segment, but endeavours to develop an in-depth understanding of each of their clients industries.

Bull's Reference Customers

Exhibit 4 details Bull's reference customers.

Exhibit 4

Customer	Service Provided	Project Details
Legal and General, UK (Finance)	ServiceDesk Solution	<ul style="list-style-type: none"> Order desk and product fulfillment capability Onsite Help Desk & PC support Software and system management Network support Maintenance and project services Third party supplier management
Electricité de France, FRANCE (Utilities)	Migration of 13,000 PC's	<ul style="list-style-type: none"> PC's hardware and software upgrade Servers migration trajectory conception Software migration (NT & Netware) Users data transfer
Telepar, BRAZIL (Telco)	Deployment of 1,500 PC's	<ul style="list-style-type: none"> Equipment roll out Help Desk set-up Provision of on-going maintenance service
Debeka, GERMANY (Insurance)	ServiceDesk Solution	<ul style="list-style-type: none"> Asset management Help Desk Provision of on-going maintenance Hot-Line inquiries

Source: Bull

Strategic Positioning

Bull's desktop services are provided by a dedicated business unit within the Customer Service Division. It considers the following four points to be its main differentiators in the desktop services market:

1. Bull's *ServiceDesk* is a global, flexible and modular offering. Bull's approach is to tailor the solution to the clients' requirements.
2. Bull's *ServiceDesk* is a globally consistent offering, backed by the dedicated desktop services business unit. Moreover, its culture is deeply rooted within Europe, which guarantees its proximity to clients.
3. Bull's *ServiceDesk* offering is multi-vendor and independent from any manufacturers or editors. This guarantees the objectivity of Bull's recommendations.
4. Bull's partnerships with companies such as Microsoft, Novell, Lotus, Baan and GartnerGroup enable it to offer best-of-breed technology and practices.

Bull considers the following companies to be its main competitors in the desktop services market: IBM, HP and EDS.

Bull's future objectives include reinforcing its technology integration around its Help Desk centers and strengthening its position as a clients' high added-value partner.

Case Study

A leading worldwide car rental company.

Background

The car rental industry is a highly competitive and dynamic market that has recently seen several new entrants. These new players have used low price strategies to gain market share, and have forced the larger, better-established companies to rapidly adjust their pricing policies. This has been facilitated by yield management policies and a greater focus on quality, value-added services.

Key business issues

To deal with these issues, Bull's client implemented an Intranet-enabled office automation architecture for its European headquarters. This would enable better communication between disparate, international sites and improve reaction time and flexibility. The architecture will also serve as the basis for a future project: Data Warehouse.

Solution

Bull's *ServiceDesk* solution covered both the design, implementation and support aspects of the service. The implementation included the following:

- Architecture definition based on market standards that offered office automation facilities, an e-mail solution and e-fax solution.
- Integration of office equipment.
- Intranet and office automation solution deployment throughout Europe (nine sites).
- Outsourcing services: product financing, product procurement, asset management, installation, hardware and software support, system and network administration, Help Desk services.

Customer benefits

The benefits seen from a customer perspective included increased satisfaction and enhanced communication between customers and the rental company. This in turn increased reactivity and productivity.

Reasons for Bull selection

Bull was selected by the rental company for a number of reasons that included:

- Bull had the ability to provide a fully comprehensive solution from architecture design to complete outsourcing services.
- Bull had the capacity to operate locally with its helpdesk and service centers and also globally with a central management and system / network administration.
- Bull had proposed a flexible offer, open to future evolution and enabling competence transfer.

Cap Gemini

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Company Background

The Cap Gemini Group (formerly CAP Gemini Sogeti) was founded in 1975 by the merger of three information technology services and consulting companies:

- CAP, a Paris-based software and consulting firm
- Gemini, an American firm founded in 1969 as Gemini Computer Systems, Inc. that supported the establishment of software houses in Europe
- Sogeti Group, formed in 1967 to provide consulting in the design and implementation of software applications.

In May 1996, the name of the holding company, Cap Gemini Sogeti, was changed to Cap Gemini S.A. as part of a restructuring. Cap Gemini is now the holding company for its local-country subsidiaries, and is listed on the Paris stock exchange.

The Cap Gemini Group is one of Europe's largest management consulting and computer sciences firms. The company's 35,000 employees serve customers worldwide from locations in Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Italy, Luxembourg, Malaysia, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, The Netherlands, United Kingdom, and United States.

Cap Gemini Financial Information

Exhibit 1

Revenues & Income Figures in FF Millions	1997
Annual Gross Sales	20,177
Net Income After Taxes	762

Source: Cap Gemini

Cap Gemini Employee Numbers

Exhibit 2

1997	Total	Desktop Staff
World-wide	31,094	2,800
Europe	26,108	2,650

Source: Cap Gemini

Main Activities

Cap Gemini's corporate mission is to "design and deliver strategic change through ideas, people and technology." To accomplish this goal, Cap Gemini centers its activities on management consulting and information systems with a specific focus on systems transformation and systems management projects. The firm's primary activities include:

- Helping clients orient and manage their business activities
- Mobilizing people to change business structures
- Advising and equipping clients to fulfil IT system requirements
- Managing IT systems and applications for clients.

Cap Gemini's IT systems management activities are grouped under its Information System Management (ISM) service offering. The main services are:

- **Distributed Computing Services (DCS)**
Cap Gemini's DCS involves the installation, maintenance and management of distributed infrastructures including servers, peripherals, mini and micro systems, and local and wide area networks.

- **Applications Management (AM)**
Cap Gemini's AM service involves the management of application assets in order to ensure user support, error correction and evolution within agreed service levels.
- **Centralized Computing Services (CCS)**
Cap Gemini's CCS includes the support, administration and management of tasks such as administration, installation, maintenance, and upkeep of service level agreements.

Desktop Activities

Cap Gemini's desktop activities are part of its DCS offering. The main axes of DCS are the following:

- Provision of assurance and industrialization in the realm of asset management
- Improving the quality of service
- Optimizing service costs and flexibility.

The arrangement of Cap Gemini's DCS offering into separate modules allows the activities to be tailored to the clients specific needs, but also guarantees a degree of flexibility should project requirements change.

Clients' support needs are organized through a system of call centers. An on-site dedicated call center will be linked to the national call center for the provision of certain services, and for access to second-tier experts. There is also the possibility of a direct link to centers providing third-tier support. In 1998, Cap Gemini support centers in Europe handled approximately 330,000 calls per month.

Cap Gemini's telephone support is divided into particular activities:

- **Application Management Support**
Assures the management of assets and of client applications (helpdesks, problem solving and upgrades).
- **Support Systems and WAN**
Provides support and assistance for mid-range systems such as AS400 and Unix. Usage and support may be effected either on a local support level, or remotely using the resources on the clients' premises.

- **Support of Desktops, Laptops and LAN**
Main services are listed on the following exhibit.

Exhibit 3

Cap Gemini Desktop Services by Type

Service Type	Proportion of Business (%)	Main Areas of Competency
Consultancy & Project Management	20	✓✓✓
Network Support & Management	15	✓✓✓
Environmental Services	10	✓✓
Training & Education	3	✓
Equipment Maintenance	8	✓
Help Desk Services	34	✓✓✓
Procurement & Asset Management	10	✓✓

Source: Cap Gemini

Vertical Market Competencies

Cap Gemini has created four Global Market Units (GMU):

- Telecom and Media
- Life Sciences
- Insurance
- Travel and Transport

These GMUs offer a service that integrates management consulting with information systems to meet the demand from these high-growth-potential sectors.

Cap Gemini Reference Customers

Exhibit 4

Customer	Service Provided	Project Details
Renault Vehicules Industriels, FRANCE	Equip 1500 sales personnel with laptops	Contract includes training, help desk service, maintenance and asset management.
Motorola, EUROPE	Provision of VMS, UNIX, TANDEM, Windows NT and Netware 4.xx	Contract includes remote network, systems administration and multi-lingual first-tier help-desk - 24 hours, 365 days per year
Prologic, GLOBAL	Provision of help desk for Prologic clients on a world-wide level.	Contract includes a bilingual help desk involving 20 technicians handling 6,000 calls per month. Help desk is open 24 hours, 365 days per year
ESSO/EXXON, UNITED KINGDOM, FRANCE	Provision of help desk support for 4,000 PCs in UK and for 2,500 PCs and 150 servers in Esso France's premises.	Contract includes bilingual support in English and French, on-site support, hardware maintenance.
British Steel, UNITED KINGDOM	Provision of business re-engineering program over 10 year period, as well as on-site help desk support for 7,000 PCs	The initial contract won in February 1996 involved a transfer of 300 technicians to Cap Gemini. The second contract was won in competition with EDS and IBM in March 1998, and involved the transfer of an extra 600 technicians.

Source: Cap Gemini

Strategic Positioning

Cap Gemini's DCS offerings focus on its clients support needs and is fully based on its contractual service level agreements. These service offerings are independent of hardware and software vendors.

Compaq Computer Corporation

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Company Background

Founded in 1982, Compaq Computer Corporation is one of the world's largest global suppliers of personal computers, software and IT services. These products and services are sold and supported in more than 100 countries through a network of authorized Compaq marketing partners.

In June 1998, Compaq acquired Digital Equipment Corporation, a long-standing player in the systems integration, client/server, networking, and support markets. Digital employed over 22,000 service professionals in 450 locations worldwide, with the combined organization of Compaq and Digital now employing more than 80,000 employees, 26,000 of whom are in Compaq Services Group.

Compaq is a publicly held company that is listed on the NYSE.

Compaq Financial Information

Compaq's worldwide sales for 1997 grew to \$24.6 billion, a 23% increase from 1996. Net income for 1997 increased by 41% to \$1.9 billion or \$2.69 per share.

Exhibit 1

Dollars (Millions)	1995	1996	1997
World-wide Revenues	16,675	20,009	24,584
World-wide Net Income	893	1,318	1,855

Source: Compaq

Compaq Employee Numbers

Exhibit 2

(Approx.)	1997
World-wide	80,000
Europe	26,000

Source: Compaq

Main Activities

Compaq Services Group provides IT lifecycle services that cover planning, design, implementation, management, and maintenance of networks, applications and systems.

Compaq Services Group provides a single point of contact for its clients' global IT needs, and is comprised of three divisions. These divisions provide support for more than 14,000 products from over 1,300 different suppliers.

Network Systems and Integration Services

Compaq's service offerings range from integrating systems and networks to migrating networks and technology, including:

- Windows NT integration/migration
- Internet/Intranet configurations and electronic commerce

- Data warehousing
- Mail and messaging
- Year 2000 assessment and implementation services
- Application integration
- TCO (total cost of ownership)
- Collaboration and workflow services
- High-performance networks

Operations Management Services

Compaq's outsourced management of enterprise IT systems includes:

- PCs
- Enterprise applications operations
- Enterprise help desk
- Systems and network management
- Internet infrastructure operations
- Enterprise messaging
- Business recovery services
- Electronic commerce
- Software publishing

Customer Services

Compaq's services include:

- Business-critical services
- Custom help desks
- Asset management
- Maintenance and repair of hardware
- Remote system and network monitoring and management
- Software, networks, and peripheral components
- Desktop support services
- Year 2000 support services

Desktop Activities

Compaq's desktop activities are comprised of the service elements listed below. Each service solution is customized from a selection of these service elements to the clients' requirements. The level of service provided by Compaq varies between clients but is always priced on a cost per seat model.

Asset Management, including license administration, tracking and re-deployment

Help Desk Services, including call management, problem management and customer survey

Maintenance Services, including systems, networks and software

Installation Services, including scheduling, configuration certification and adds/moves/changes

Procurement Services, including multi-vendor contracts, ordering and tracking

Operations Management, including disaster recovery, systems, networks and security

Network Management, including monitoring, performance analysis, and operations refinement

Application Operations, including application specific workbenches, production automation and scalable management solutions.

These services cover hardware and software, and can be enhanced to include telephony for call centers, fax and copier supplies and other consumables.

Compaq has also developed a range of TCO assessment services that aim to reduce its clients' cost of ownership, these services include:

TCO Snapshot, which provides an estimate of TCO in comparison to industry averages

TCO Assessment, a project-based service that provides a more accurate understanding of TCO, as well as related recommendations based on actual costs and their key driving factors

TCO Analysis, an in-depth analysis of customer specified areas of TCO concerns, based on extensive customer interviews and estimates of the value of implementing specific recommendations.

New developments in Compaq's desktop service approach include:

Exchange Utility, which provides a fixed price per month, fully managed Exchange account, with 24 x 7 and guaranteed uptime

E-commerce Utility, a fully inclusive service charged on transaction volumes.

Vertical Market Competencies

Compaq has no specific vertical market focus.

Strategic Positioning

Compaq considers the following four factors to be its main differentiators in the desktop services market:

- its ability to deploy global IT solutions
- its ability to provide economies of scale and scope
- its provision of services throughout the IT lifecycle
- its alliances with key industry players, including Microsoft and Novell.

GE Capital Information Technology Solutions

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Company Background

GE Capital Information Technology Solutions (GECITS) is one of 28 business units of GE Capital, a wholly owned subsidiary of General Electric (GE). GE accrued revenues of \$90.8bn in 1997.

GECITS was formed in November 1996 from the acquisition of CompuNet AG, a German distributed information technology (IT) company, and a number of IT service providers that had previously operated

independently under the GE Capital umbrella. These companies included AmeriData Technologies, Ferntree of Australia and TMS-Canada, a leading Canadian systems integration provider. In addition, GE Capital acquired CPC SI of Portugal, Management Data Systemhaus of Austria, Systems International of the UK and Nicom of Denmark in order to substantiate its European presence.

Worldwide, GECITS accrued revenues of \$6bn in 1997 and employs 14,000 people in more than 200 offices.

CompuNet's strong presence in Germany has resulted in it becoming the development platform for GECITS European services. CompuNet integrated the disparate companies that now form the European group and established the corporate structure necessary for the establishment of scalable European operations. The group's pan-European brand name is GE Capital Information Technology Solutions.

CompuNet, GECITS European operation, is headquartered in Munich, Germany and has offices throughout Europe including Austria, Denmark, Greece, Norway, Portugal, Spain and the UK.

GECITS Financial Information

Exhibit 1

All figures are in \$ Billions	1997	1998 (GECITS forecast)	1999 (INPUT forecast)
World-wide revenues	6.0	N/A	7.5
of which desktop services revenues	15%	18%	N/A
European revenues	1.4	2.5	3.5
of which desktop services revenues	20%	22%	N/A

Source: GECITS / INPUT

GECITS Employee numbers

Exhibit 2

	Total
World-wide	14,000
Europe	5,300

Source: GECITS / INPUT

Main Activities

GECITS's services cover the following areas:

- **Product Supply Services**
GECITS provides IT infrastructures for large clients in Europe. Multi-vendor products are supplied through eight warehouses and production facilities. The three major facilities are located in Paris (France), Rossendale (UK) and Kerpen (Germany). The Kerpen facility was recently expanded for pan-European capabilities and, in 1997, prepared 188,000 client/server systems for delivery across Europe.
- **Account and Project Management Services**
GECITS provides a single point of contact for national and international projects, controlling all the partners involved to ensure projects meet deadlines and budgets. GECITS provides life-cycle management of distributed information and communication technology on a global basis.
- **Financial Services**
Creative solutions for acquiring and operating technology from a cost-reduction perspective.
- **Training and Education**
On-site customized courses delivered by IBM, Microsoft and Novell certified trainers.
- **Internet Security Services**
Internet security in four areas: accessibility, hosting, virtual private networks and consulting.
- **Network Migration**
Migration projects from specialists that are certified in network operating systems.

Desktop Activities

GECITS ranks the following types of desktop service as its four main areas of competence.

Exhibit 3

Rank	Service Type
1	Consultancy & Project Management
2	System Design & Integration
3	System Support, Help Desk Services
4	Network Support & Management

Source: GECITS

GECITS's desktop service offerings cover the following areas:

- **Enterprise Management Services (EMS)**
GECITS EMS centers can remotely and pro-actively manage networks, servers, workstations, and enterprise applications and their distribution. The EMS centers will alert clients and their support staff to changes or problems in their IT systems on a 24x7 basis.
- **Network Planning and Design**
GECITS network design commences with an analysis of business operations to develop a network architecture that provides performance with low cost of ownership.
- **Network Implementation**
GECITS supports customers in the acquisition, installation and testing of their networks.
- **Network Management**
GECITS EMS centers monitor and manage network hardware while also tracking network usage and bottlenecks. The service centers can also manage user accounts and control security.
- **Help Desk Services**
GECITS help desk centres provide tracking tools and reporting services as well as maintenance and network management. Clients choose a service level to best suit their needs.
- **Maintenance Services**
GECITS maintenance services are certified by all major vendors and provide a 24x7 service. Over 50% of field consultants work permanently at client sites.
- **Disaster Recovery/ Business Continuity Planning**
GECITS business continuity planning services include application or business impact analysis, risk and threat analysis, computer recovery planning, business resumption planning, technical scripting and plan maintenance.
- **Systems Management**
GECITS EMS centers monitor IT systems including databases, enterprise applications, servers and electronic commerce applications to alert clients of failures or the need for upgrades.
- **Asset Management**
GECITS will record and track information on its clients IT assets such as desktop and network systems. This information is used to meet legal /

financial requirements and ensures that IT investments are effective and available.

GECITS Reference Customers

Exhibit 4 lists GECITS' reference customers.

Vertical Market Competencies

GECITS has no specific vertical market focus.

Exhibit 4

Customer	Service Provided	Project Details
Deutsche Post AG, GERMANY	Consolidating financial and distribution data from eight centers to a single center, while maintaining availability.	GECITS installed Compaq servers running Windows NT and SAP R/3 modules to enable the 24-hour operation of the center. 40 SAP R/3 database servers were installed with 80 application servers.
United Energy, AUSTRALIA	Installation of an SAP R/3 HR Payroll module to improve efficiency and support its new business framework.	Taking eight months from start to finish, the project comprised of three phases: design of processes, the build phase, and the testing phase.
Weyerhaeuser Canada Ltd., CANADA	Design and implementation of a disaster recovery plan for Weyerhaeuser's mission critical applications and technology at its data center and communications network in its Prince Albert complex.	GECITS planned how the existing business continuity plan could be updated to accommodate changes in the hardware and operations. The hardware required to maintain operations, where it would come from and how long it would take to install were considered as part of the plan.

Source: GECITS

Strategic Positioning

GECITS considers its main competitors in the desktop services market to be Computacenter and Info Products.

GECITS's unique relationship with its parent company, General Electric, ensures that GECITS adheres to GE's 'Six Sigma' quality drive and has the resource support of a large global company. GECITS also has the ability to adapt to change and has the management initiative of a small national company.

Case Study

Hypovereinsbank, GERMANY

Challenge

Hypovereinsbank was formed from the merger of Bayerische Vereinsbank AG and Hypobank AG to create the second largest financial institution in Germany, one that offers its services to numerous

domestic and foreign markets. As Hypovereinsbank prepared to move into new premises at Vintners Place, London, it was faced with the task of establishing its IT infrastructure on a scalable and secure platform.

For this new project, Hypovereinsbank's internal IT organization required a strong partner in the field of distributed information technology who could offer an integrated range of global services and seamless business processes. CompuNet had already implemented a local network solution for Hypovereinsbank in Germany. However, the decisive factor in securing further contracts across an international environment was CompuNet's affiliation to GECITS global network.

Solution

CompuNet and GECITS in the UK took over the planning and management of the migration process from the original network and its hosted applications to the new client/server infrastructure.

The active network components were configured prior to installation at the GECITS centre in Burgess Hill, in order to be able to implement the on-site changeover without any major disruption to operations. New switching technology provided each of the bank's services with the required bandwidth, and an allowance was made for conversion of the network to ATM. All system resources and mission-critical applications can now be accessed throughout the entire network, in order that the highest level of security and availability is guaranteed.

In order to simplify the monitoring of Hypovereinsbank's hardware and software, CompuNet provided procedures and tools for network and system management. The service provided for Hypovereinsbank, including its 48-Month Life Cycle Warranty and its 4-Hour Availability Warranty, was extended to the system environment in London in order to ensure uninterrupted operation.

Conclusion

With the creation of a client/server environment in London, CompuNet and GECITS facilitated the gradual development of Hypovereinsbank's IT infrastructure into an All Area Network.

Osiatis

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Company background

Osiatis is the new name for the French IT services company, Thomainfor. Thomainfor was created in 1988 as a subsidiary of Thomson-CSF, a large European provider of professional electronic equipment.

Osiatis has subsidiaries in Austria, Belgium, Luxembourg, France, Germany and Spain, which together employ over 900 people. Through its partnerships with selected companies, Osiatis is able to deliver services all over Europe to a uniform standard of quality.

Osiatis will be listed on the Paris stock exchange by the beginning of 1999 through WB Technologies, its main shareholder.

From the core competencies of its predecessor, Thomainfor, Osiatis has developed a full set of IT services called CustomerWare®. Its mission is focused on user satisfaction through availability and efficiency in IT infrastructures.

Osiatis Financial Information

Exhibit 1

Revenues and Income figures in FF Millions	1998
European revenues	500
Of which desktop services	360
France revenues	350
Of which desktop services	250
European trading profit	10

Source: Osiatis

Osiatis forecasts its 1999 revenues to be 8% higher, with desktop services showing a 19% increase.

Osiatis Employee Numbers

Exhibit 2

	1998	Total	Desktop staff
Europe		900	600
France		600	400

Source: Osiatis

Main Activities

Osiatis' products and services, which are branded CustomerWare®, are provided through four delivery domains that cover the complete technology value chain.

- Continuous services**
 Osiatis' core business provides cost-effective customer services to ensure high availability, perform reliable and efficient user and system support, and to provide security of the IT infrastructure
- IT Engineering**
 Osiatis improves the way IT Operations are performed, from the design of processes and methods to tool selection and implementation. Osiatis standardized and secures systems management and support.
- Evolutions management**
 Osiatis offers evolution planning, technical and data migrations, platforms integration and deployment. These include change management to facilitate transition and staff training.
- Technical Architecture**
 Osiatis designs future-proof IT infrastructures, including servers, networking components and desktops. Reusable solutions and web-based techniques are leveraged to the full.

Desktop Activities

Osiatis' desktop services, within the CustomerWare® framework, include the following offerings:

- Desktop Architecture**
 Osiatis designs desktops, laptops and webtops as well as servers and networking facilities.

- Migration**
 Osiatis helps clients in their evolution planning and their IT migrations for proprietary and open environments.
- Desktop Integration and Deployment**
 Osiatis has standardized its platform integration and implementation to increase the speed and quality of its upgrade and deployment projects.
- Network and System Management**
 Osiatis uses remote tools to perform automated and centralized management. This enables preventive and corrective actions, as well as proactive decisions to be made.
- Asset Management**
 Osiatis offers methods and tools to perform inventories and follow hardware and software components throughout the desktop life cycle, facilitating management and reducing the total cost of ownership.
- User support and assistance**
 Osiatis uses selected tools and methods in its customized help desk implementations. Osiatis also manages external help desk sites and technical hot-line services.
- Training**
 Osiatis can assist clients in designing human resource development plans. Osiatis also performs technical training on networks and on various software products.

- Maintenance**
 Osiatis offers customized system support and maintenance in a multi-vendor environment. Osiatis has long term alliances with key IT suppliers.

The following exhibit details the proportion of Osiatis' business that is derived from each of the following desktop service types. The exhibit also shows Osiatis' main areas of competency.

Exhibit 3

Service Type	Proportion of business (%)	Main areas of competency
Consultancy & Project Management	5	✓
Network Support & Management	10	✓✓
Environmental services	5	
Training & education	5	
Equipment maintenance	40	✓✓✓
Help desk services	30	✓✓✓
Procurement & asset management	5	✓✓

Source: Osiatis

Vertical Market Competencies

Osiatis' CustomerWare[®] services do not specialize in any particular vertical market segment, but focus on maintaining customer satisfaction.

Osiatis' Reference Customers

Exhibit 4

Customer	Service Provided	Project details
Tractebel, Belgium	Help desk	Asset management, On-site help desk
Renault, France	Multi-site user assistance (8000 PC's)	Help desk, Hot line, Asset Management, Deployment
Sextant Avionique, France	Global PC's users assistance (2400 PC's)	Help desk, Hot line, Asset management, Systems management, Maintenance
French army, France	Project Management, deployment and maintenance (20 servers, 500 PC's)	Project management, Integration/deployment, Users and administrators training, Warranty management and maintenance

Source: Osiatis

Strategic Positioning

Osiatis considers its strategic positioning to be unique in the desktop services market, it aims to become dual-focused hardware and IT services supplier. Osiatis' goal is to be considered as a market reference in IT infrastructure management.

Osiatis considers the following points to be its key competitive differentiators in the desktop service market:

- A spirit of service focused on our clients' users and customers

- A commitment to a permanent improvement of key IT processes
- An expertise in new technologies and web-based solutions
- An independence from IT suppliers
- A partnership policy with companies such as Intel, Microsoft and the main technology providers

Sema Group

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Company Background

Sema Group is a European IT software and services company that has four main business areas: consulting, system integration, products and outsourcing. With around 16,300 employees in 120 locations across Europe, America and Asia, Sema Group had a turnover of £1.130 million in 1997. Of this, 42% was derived from outsourcing, 49% from systems integration and 9% from products.

The Group has operations in each European country as well as in Asia, including China, Hong Kong, India, Malaysia, Singapore and South Korea. There are also operations in South Africa and America including Argentina, Canada, United States and Venezuela.

Sema Group was formed from the French services company Sema Metra and the UK-based Cap Group plc in 1988. Both companies were well established IT services players, having been founded in 1958 and 1962 respectively.

Sema Group is now listed on both the London and Paris stock exchanges. France Telecom and Paribas are Sema Group's major shareholders, owning 22.6% and 14.1% respectively.

Sema Group Financial Information

Exhibit 1

£ Millions	1995	1996	1997
Worldwide Revenue	678	927	1130
Profit Before Tax	37.9	50.0	64.1

Source: Sema Group

Sema Group Revenue Split by Geographic Region Served

Exhibit 2

Geographic Region	Revenue (£ Millions)
UK	395.5
France	282.5
Scandinavia	135.6
Asia	67.8
Italy	56.5
America	45.2
Spain	45.2
Germany	45.2
Benelux	22.6
Other	33.9

Source: Sema Group

Main Activities

Sema Group's main IT service activities merge around three axes: outsourcing, products, and consulting and systems integration. These groups of services include the following:

Consulting and System Integration

- Consulting on strategy, organization, management and information systems
- Design, development and integration of information systems

- Program and project management

Outsourcing

- Management of applications, infrastructures and working processes
- Network, desktop and distributed systems
- Managed business services
- Recovery services.

Products

- Cards and credit management
- Mobile communication billing systems
- Intelligent Network Systems (INS) telecom product.

Desktop Activities

Sema Group’s desktop activities are delivered as part of a wider information systems evolution that allows businesses to focus on their core activities. Sema Group’s desktop activities are designed around the life-cycle concept, which includes the following stages:

- Consultancy and design
- Selection and procurement
- Implementation
- Training
- Support and maintenance
- Systems management
- Disposal.

This life-cycle service supports the following technologies: PC’s; mid-range servers; WAN/LAN networks; Internet; messaging and video conferencing systems; networks computers, and printers.

The support and maintenance services offered by Sema Group include a 7x24 hours helpdesk facility that is offered from its service management centers.

These centers apply various tools and methodologies to support Sema Group’s clients, including:

- Asset and configuration management
- Business continuity
- Performance reporting and improvement
- Call management
- Problem management.

Sema Group considers the following four service types to be its main areas of competency in the desktop services market:

Exhibit 3

Service Type	Top 4
Consultancy & Project Management	✓
Operational Management	✓
Total Desktop Outsourcing	✓
Helpdesk Services	✓

Source: Sema Group

Sema Group Vertical Market Competencies

Exhibit 4

Vertical Market	% of Revenues
Utilities	25
Public Sector	30
Bank & Finance	25
Distribution	5
Industry	15
Transport	5
Services	10

Source: Sema Group

Other vertical markets that Sema Group provides services to include aeronautics, defense and telecommunications.

Reference Customers

Exhibit 5

Customer	Service Provided	Project Details
Messier Bugatti, FRANCE	Global outsourcing of distributed systems	Management of distributed information system, including 1000 PC's, 25's servers of desktop and industrial applications
France Telecom, FRANCE	Desktop and server management	Sema Group was contracted to upgrade part of the 70,000 PC's involved in France Telecom's architecture upgrade.
Societe Generale, FRANCE	Renewal of bank's IT infrastructure	Sema Group was contracted to design, develop, deploy and operate a new technical infrastructure for the bank's 2,000 branches.
British Petroleum, UK	Desktop services for BP Group subsidiaries	Sema Group's services included desktop and network contracts as well as strategy realization for BP's globally distributed operations.
Home Office, UK	Global desktop services	Sema Group provided enterprise systems management, applications management, consultancy and desktop services.
Bristol Water, UK	Desktop services	Sema Group provided enterprise systems management, desktop and network services, applications maintenance and development and IT consulting.
Department of Social Security, UK	Global distributed systems services	Sema Group is responsible for the management and support of clients/server systems distributed across many DSS/ITSA offices throughout the UK. This includes 35,000 PCs and 2,000 servers across 1,000 locations.

Source: Sema Group

Strategic Positioning

Amongst the desktop service issues faced by its clients, Sema Group considers the most important to be managing complexity, controlling costs and optimizing quality of service to users. In response to these issues, Sema Group claims the following differentiators:

- Sema Group's willingness to share risks as well as rewards with its clients, therefore substantiating its delivery commitments.
- Sema Group's continued investment in its infrastructure and technology to provide worldwide solutions.

- Sema Group's collaborative team-working approach with its focus on the clients' goals.
- Sema Group's offering of desktop services as a wider business transformation and cost-cutting solution.

Sema Group's future objectives include developing long-term relationships with its clients in order to improve the service provided.

Case Study

Eurostar

Objectives:

As the demand for Eurostar's rail services increase, the IT system that manages the ticket reservations across the 5,000 associated travel agencies requires upgrading to cope with the increase. This extension in system capacity needs to be reliable; have the capacity for future growth; and be compatible with the existing reservation system.

Since Sema Group acquired British Rail Business Systems in 1997, it has been a significant provider of IT solutions to the transport industry. This experience enabled Sema Group to win the five-year service contract.

Implementation:

Sema Group will run the ticket system from its mainframe center; this already handles mission critical rail systems including the UK rail reservation system. Sema Group will supply two servers to manage the increased capacity and will develop a new IT platform to enable further scalability. For the first time, this platform will generate comprehensive fare, route and reservation information for the agencies.

Sema Group will also be responsible for maintaining the communication links between the system and the travel agencies, as well as connecting the system to the UK rail network.

Wang Global

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Company Background

Wang Global is a \$3.0 billion network and desktop services company that employs over 21,000 people in 44 countries. Wang Global's service partnerships extend this coverage to over 130 countries.

Wang Global was formed in March 1998 from the merger of Wang Laboratories and Olsy, the IT services subsidiary of Olivetti. Wang Laboratories was originally founded in 1951 as a hardware vendor and had recently been shifting its focus towards services only. Wang derived a high proportion of its business from the U.S. market, whereas Olsy, although focused

on similar vertical markets and providing similar services, had strengths in Europe and Asia.

The merger between the two companies was the most recent in a series of acquisitions made by Wang as part of its restructuring. It enables Wang Global to provide a full complement of service offerings across the globe.

Wang Global Financial Information

Exhibit 1

\$ Billions	1998 (forecast)
World-wide revenues	3.0+
of which services revenues	2.0
European revenues	2.0

Source: Wang Global

Wang Global Employee Numbers

Exhibit 2

Area	Total Employees
World-wide	21,000
Europe	9,000
United States	9,000

Source: Wang Global

Main Activities

As a network and desktop services company, Wang Global designs, installs, operates and maintains global computing and telecommunications networks for large multinational companies. These solutions are marketed by Wang Global as Life Cycle Services.

These services include systems architecture design, installation, training, warranty, help desk services, maintenance, disaster recovery and software support.

Wang Global's network computing services are marketed as NetWork Place™ and cover the planning, deployment and management of the network. These services include security assessment, NT migration, enterprise messaging, asset management and remote desktop management.

Wang Global's Networked Technology Solutions primarily provide business solutions for the financial services industry, but also serve government and public authorities.

Wang Global Desktop Activities

The following exhibit details Wang Global's desktop activities.

Exhibit 3

Service Type	Activities Undertaken
Consultancy & Project Management	Network design; systems integration; delivery channel solutions for financial services.
Network Support & Management	Network monitoring; network management; network asset discovery; network performance.
Equipment Maintenance	Independent servicing of over 3,500 products from over 300 vendors; servicing of ATM's, financial systems, branch automation systems and specialty printers.
Help Desk Services	Fully managed service or outsourced services available.
Procurement & Asset Management	Product resale; procurement support; fully managed asset management service; IMAC services.

Source: Wang Global

Vertical Market Competencies

Wang Global's operations are predominantly focused on the following four vertical market sectors: government and public authorities, financial services/banking, telecommunications, and retail. The following exhibit details the proportion of revenues derived from these vertical markets.

Exhibit 4

Vertical Market	% of Revenues
Finance	30%
Retail	10%
Government and Public Authorities	20%
Communications	10%
Other	30%

Source: Wang Global

Wang Global Reference Customers

Exhibit 5 on the following page details Wang Global's reference customers.

Exhibit 5

Customer	Service Provided	Project Details
Bass Taverns, UK	IT support for Bass Taverns' distributed IT infrastructure across its 2,800 UK pubs.	The contract provides 16 hours a day of cover each day of the year and includes the support of checkout computers, touch-screen terminals, back-office PC's and hardware that enables Bass's loyalty card scheme.
San Paolo di Torino, ITALY	Management and maintenance of the banks' local area network (LAN) and information systems.	The contract, valued at \$56 million, covers inventory management, system configuration, LAN implementation, application training, and helpdesk services, as well as hardware and telecom equipment maintenance/support.
Iveco, ITALY	Support for Iveco's distributed IT infrastructure across its five European manufacturing centers.	The contract includes an international, Remedy based, call center staffed by Wang Global. This center also monitors and manages Iveco's distributed systems by handling 70,000 calls per year, of which 80% are resolved by Wang and 20% by Iveco.

Source: Wang Global

Strategic Positioning

Wang Global considers its four main competitive differentiators to be:

- NetWork Place™ - Wang Global's family of services that plan, deploy, manage and maintain networks and desktops.
- Wang Global Solutions Integration - Wang Global's delivery channel for retail banking and e-commerce solutions across all industries
- Wang Global's ability to offer fully managed network and desktop services.
- Wang Global's worldwide reach.

Wang Global considers its main competitors in the desktop services market to be IBM, Hewlett-Packard, Compaq, EDS and Cap Gemini.

Case Study

Argentaria Sistemas Informaticos, Spain

Objectives:

Argentaria Sistemas Informaticos (Argentaria S.I.) is a subsidiary of Spain's National Banking Group that manages and supports the IT infrastructure of the group's branches and head office. This includes over 8,000 PC's, 1,920 servers, 4,000 printers and a mainframe system.

The change in type of technology and, in particular, the increasing importance of IT as a key driver in the banking industry prompted Argentaria S.I. to rethink its approach to its support role. In an effort to improve its service levels, Argentaria set itself the following challenges:

- To deliver proactive and effective support to end-users.
- To deliver best practice in IT support.
- To deliver optimal IT asset deployment and management.

In order to provide this level of support, Argentaria contracted a service provider that was experienced in managing multi-vendor, business critical applications and technology.

Implementation:

Wang Global was awarded a three-year contract for support services for nine of Argentaria Group's sites. Wang would complement Argentaria S.I.'s support by providing desktop management services; these services included the following:

- Project management.
- Asset management.
- Order and warehouse management.

- Deployment.
- Moves.
- Helpdesk.

Wang Global was chosen for this contract as they could provide a European service that would maintain consistent levels of quality. The partnership has enabled Argentaria S.I. to gain greater control over its IT operations as well as providing more flexibility in running its core projects and initiatives.

Contact your local INPUT office (see back cover) to find out how you can use our services, knowledge and experience to grow and profit in the revolutionary IT world of the late 1990's and the 21st century.

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