

Data Center Services

optimize

your data center environment
for greater compliancy, security and efficiency



Your business technologists. Powering progress

Atos

Integrated Data Center Services



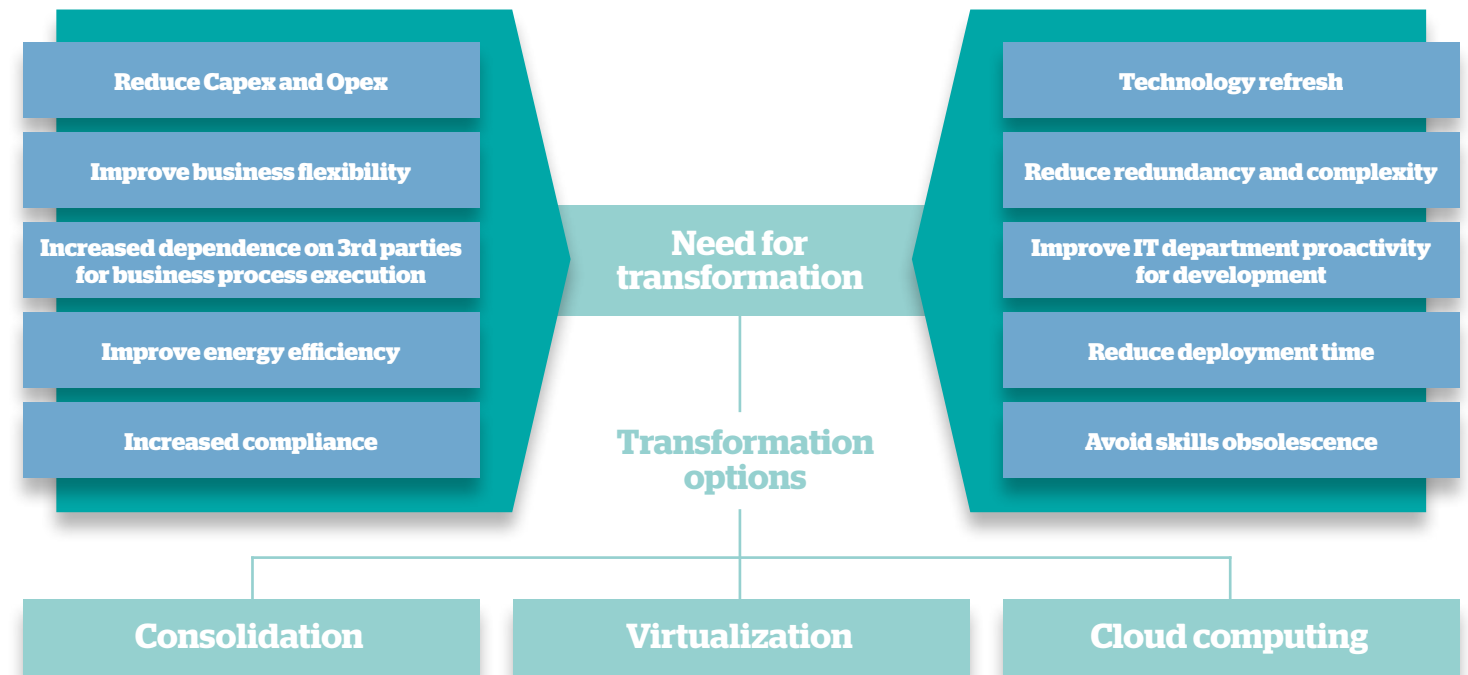
Secure, highly-available and compliant, while increasingly energy efficient

In today's connected global marketplace, with the explosion in data showing signs of continuing, and with the advent of Big Data, data centers are more important to enterprises than ever.

And now, with every decision or aspect of production based on real-time information, around the clock, any downtime – planned or unplanned – can seriously disrupt critical business processes and affect the enterprise as a whole.

Furthermore, new regulations are requiring organizations to store larger quantities of data for longer periods of time, and environmental concerns mean that data centers are under increasing pressure both to reduce their carbon footprint and to dispose of old equipment in a safe and eco-friendly manner.

As businesses become increasingly dependent on information technology, IT agility, service quality and spending are now directly correlated to business imperatives such as revenue, productivity, and reputation. So to meet these evolving demands, data centers must strive to achieve near continuous availability, increase their capacity and efficiency, and become ever greener.



Answering the multiple business and technical issues driving business transformation today

Today, data center management is typically split between managing the IT, and point solutions for managing energy, cooling and facilities separately. For example, power currently averages 12% of a data center's operating costs. And with costs increasing by more than 20% annually, this is the fastest growing part of an enterprise's budget. Then on top of that, energy usage for cooling accounts for more than 40% of a typical data center's consumption.

However, there is always a difference between what suppliers and equipment providers claim and what is actually being delivered. And can you really combine all the mass of information and data you are receiving so as to deliver greater added value, increased efficiency and energy savings? And furthermore, do you have to rely on a disaster recovery plan while ensuring proper prevention in the first place?

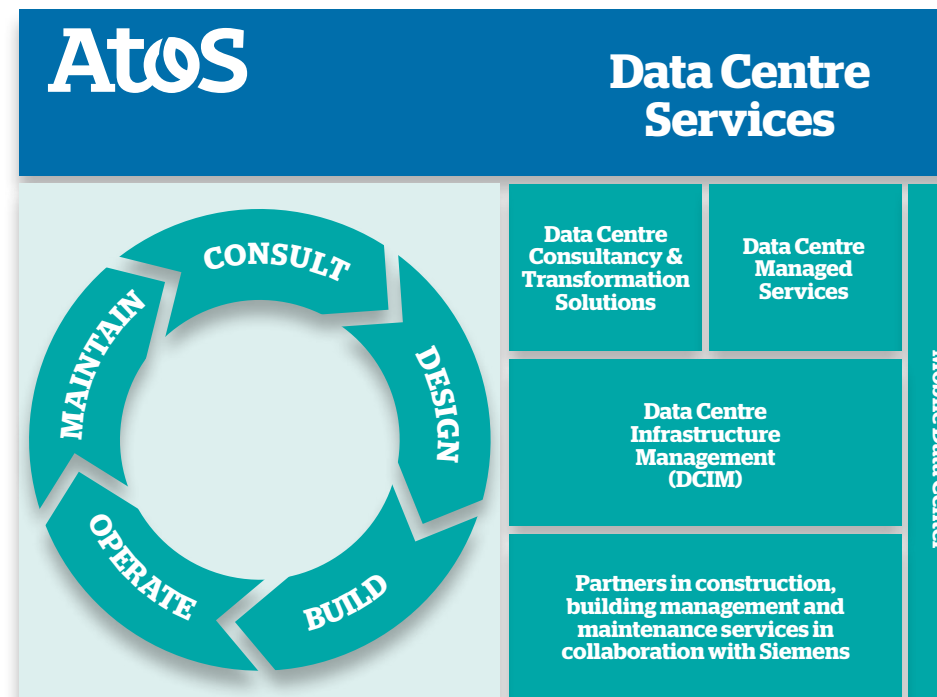
But energy saving and CAPEX reduction are just two of the issues facing data center operators. There is also the need to ensure ever-greater compliance and risk management, to improve availability and increase operational transparency, to have more accurate (sub) billing for DC costs and to guarantee a better recovery should any disaster occur. And from an environmental perspective, the continuing social pressure to reduce CO2 emissions puts businesses increasingly under the spotlight.

Integrated end-to-end management



“We believe it is difficult to achieve the more advanced levels of data center maturity, or of data center effectiveness generally, without extensive use of DCIM software.”

The 451 Group



Data Center services that drive energy and capacity efficiency

In general, data center services are defined as all activities for the 'Design, Build, Improvement and Management' of IT and data center capabilities on the premises of the customer. Here Atos' expertise lies in the system integration and systems management aspects of the IT infrastructure. Atos' integrated data center services cover four key areas:

- ▶ **Data Center Consulting and Transformation Solutions**
- ▶ **Data Center Managed Services**
- ▶ **Data Center Infrastructure Management**
- ▶ **Mobile Data Center**

Atos' Integrated Datacenter services answer the challenges of:

- ▶ Business dependency on information technology. As IT agility, service quality, and spending are now directly correlated to business imperatives such as revenue, productivity, and reputation, this drives the need for datacenter transformation
- ▶ Providing solutions that enable CIOs and data center managers to have a holistic view of their entire data center, including linking IT and point solutions for managing energy, cooling and facilities
- ▶ High quality and cost-effective outsourcing, applicable to a wide range of environments requiring comprehensive, consistent and integrated end-to-end management
- ▶ Industry need for low-maintenance, fast deployable, temporary infrastructure, highly reliable and flexible IT facilities at remote sites



Data Center Consulting and Transformation Solutions



Atos' Data Center Consulting and Transformation Solutions consider your key primary focus areas and their constraints in order to come up with a number of transformation approaches.

Our value proposition includes services for:

- ▶ **Simplifying architecture through standardization and real business continuity:** Standard & consistent data center architecture Strategy, Design and Build, Rationalization, Consolidation, Virtualization and Optimization services, including Energy Assessments to optimize the carbon footprint of the data centers.
- ▶ **Successful executions of Data Center moves:** Whether you need a larger data center or office location, are merging with another organization or simply wish to rearrange your office or data center, there may come a time when you may want to move. Atos Move ICT takes away your ICT moving worries drawing on our accumulated experience over the last 10 years with more than 800 ICT projects. We know how to make sure your moving project goes like clockwork.

- ▶ **Definition of new Target Operating Model and Future Mode of Operations:** To ensure that the way you manage and monitor IT use and resources satisfies compliance requirements and delivers maximum business impact, and how to ensure IT resources (owned and 3rd party/outsourced/cloud) contribute directly to great operations.

For example, the benefits of facilities consolidation can include:

- ▶ Lower costs and reduced complexity of owning and operating multiple data centers
- ▶ Smaller carbon footprint
- ▶ Improved compliance with environmental regulations
- ▶ Enabling sustainable business growth

We then take a long-term look at rationalization, consolidation, and optimization to deliver overall benefits such as:

- ▶ Easier and more cost-effective data center management
- ▶ Better resource utilization
- ▶ Fewer business interruptions and better application performance (through dynamic capacity allocation)
- ▶ Increased availability, decreased downtime (both planned and unplanned) of the data center with adaptive sourcing

These services are all greatly enhanced through the build, building management and maintenance services that we can also provide thanks to our collaboration and partnership with Siemens.

Data Center Managed Services

Atos can take full service responsibility for all your managed IT operations. The more we do for you the better it gets - it's that simple.

Atos is the Number 1 European provider (number 3 worldwide) of vendor-independent managed infrastructure services. This means that we can develop and deliver the most cost-effective and suitable solutions using multiple leading market providers to manage customer-owned data centers. We also have early access to new technologies, enabling us to produce and deliver innovative technical solutions.

Atos Data Center Managed Services capabilities are deep and varied. They fall into the following natural fields of focus:

- ▶ **Managed Infrastructure** - Ensuring all storage and computing resources are fit-for-purpose across their lifecycle. Including:
 - **Server Management Services** - Cross-platform support (common and legacy operating systems); support of virtual and physical environments on various hardware platforms; fully integrated automated systems management tools
 - **Managed Application Storage** - Providing customers with a complete enterprise storage service that delivers key business functionality including backup, restore and business continuity
 - **Enterprise Management Center Services** - Remote centralized monitoring for IT services. Monitoring is provided for hardware and software infrastructure to ensure that any exceptions that arise are identified and handled promptly
- ▶ **Network and Communications** - Keeping all networks humming at business speed, absorbing the increased load of rich media communications and managing all aspects of unified communications including third party contracting, if desired.
- ▶ **Identity, Security and Risk Management** - Achieving compliance and sustaining secure and uninterrupted business operations, with particular emphasis on managing confidentiality across the extended enterprise, as well as providing secure integrated physical and digital environments around the clock, every day.

Overall our Data Center Managed Services provide high availability and demonstrable cost-effectiveness through ensuring continuity for critical application environments. They enable effective cost control and ensure that costs are in line with the services required by the customer. Not only that, but customers can then, at the same time, focus on their business with confidence and lower their total cost of ownership through receiving:

- ▶ Agile, flexible, tailored solutions
- ▶ Appropriate offshoring service delivery elements
- ▶ Improved utilization and better price/performance hardware

Data Center Infrastructure Management

Nobody likes to manage based on assumptions rather than facts, certainly not CIOs. And certainly not in an economic climate where every resource and cost has to be accurately accounted for and exploited to its maximum. A proper Data Center Infrastructure Management tool can offer potential ongoing savings of 20%, on top of the operational benefits that can be delivered through more-rigorous management of the physical data center environment.

Here Atos and Siemens have entered into a strategic partnership to offer a full portfolio of integrated data center services. Siemens has a long-established and comprehensive offering in the area of Data Center Building Systems. As part of the new partnership approach, Siemens will continue to contribute in developing the scope of the new data center services jointly with Atos, being closely involved in the development phase, especially with regard to the integration with the Building Systems. The result is a unique offering from two market and thought leaders in this field, Atos and Siemens, that combines Atos' proven systems performance management capabilities with Siemens global expertise in Data Center Building Systems.

Data Center Infrastructure Management (DCIM) from Atos and Siemens is essentially a virtual integration layer between a data center's IT layer and its physical layer. The DCIM services connect the various components and allow end-to-end management of data centers by connecting IT management into energy, cooling and facility management. This allows you to create a complete and transparent view of your data center and so drive greater energy and capacity efficiency.

Atos currently manages thousands of servers in data centers around the world while providing a local presence on a global scale. We also support a wide range of platform environments.

Management based on facts not assumptions



DCIM tooling integrates facets of the various IT systems, building systems and energy management systems to:

Measure
power usage effectiveness

Monitor
consumption in real time

Manage
power consumption across physical and virtual assets

As a result you can get a better understanding of the complex component interdependencies affecting the major physical infrastructures in the data center. Data can be displayed as a dashboard or on a spreadsheet for further analysis if required. Whatever system you prefer, through it you will be able to identify how you can lower energy consumption and maximize the utilization of current assets, and spot and eliminate waste or spare capacity, while maximizing the uptime of cooling systems. And furthermore, you will be able to link energy costs to business criticality and thus optimize workload allocation relative to energy costs.

Benefit from a holistic view of your entire data center

DCIM from Atos and Siemens is an end-to-end offering covering strategy, design, implementation, run and assessment that enables data center managers to have a holistic view of their entire data center. Implementing DCIM enables:

- ▶ **Energy Saving** - Reducing infrastructure and power costs through complete, real-time reporting on all data center variables
- ▶ **Compliance, Risk Management** - Increase operational transparency leading to informed decisions on changes using scenario-planning based on real-time data
- ▶ **Improve Availability** - Forward capacity planning using historic data and scenario-planning
- ▶ **Accurate (Sub) Billing for DC Costs** - End-to-end billing of capacity utilization per end-customer
- ▶ **CAPEX Reduction** - Better utilization of resources leading to lower Capex
- ▶ **Demonstrable Environmental Responsibility** - through a lower CO2 footprint
- ▶ **Better Recovery from Disaster** - Prevent IT failure through correlations between IT, energy and cooling systems behavior

DCIM enables you to establish real-time and immediate active management, and delivers real-time integral reporting, verifiable lower emissions, optimal efficiency and maximum processing output. Furthermore, this real-time information can be accessed over the network remotely without the need to physically access the data center itself, allowing you also to manage your fleet of data centers globally.

Mobile Data Centers

Does your organization need a flexible, versatile and reliable IT infrastructure? Atos offers a Mobile Platform as a Service (MPaaS) from a MPaaS-data center unit which has been developed together with Siemens. This innovative solution is ideal for remote sites and extreme conditions. The Mobile Platform as a Service data center unit can be used either temporarily or permanently, for instance when building a data center is not financially feasible or practical. The MPaaS-data center unit offers a high performance private infrastructure anywhere in a ruggedized data center unit. Mobile Platform as a Service gives you a turn key and reliable infrastructure that seamlessly links up with your existing IT.

Mobile Platform as a Service is a turn key solution for a high-quality data center, housed in an easily transportable, robust TIER II twin data center unit. The MPaaS-data center unit comprises a complete, standardized IT infrastructure - flexible, secure and supporting server virtualization. Flexible in both location and applicability, highly secured and fully set up to maximize virtualization of servers and workplaces.

The IT is fully integrated with the physical accommodation, including power supply, climate control and security. Moreover, the MPaaS-data center unit is equipped to withstand extreme conditions and inhospitable environments. In other words, a plug & play solution that can be extended with a wide range of services from VoIP to office automation, from advanced identity & access management to virtualization of workstations, servers and applications.



Supporting more sustainable operations - creating the firm of the future



Atos has a long history of social and environmental engagement. In the current market conditions, Atos believes even more that it is important to continue its efforts as well as strengthening and implementing the Group's global vision and strategy for sustainability.

In 2009, Atos was the first IT company to join the Global Reporting Initiative (GRI) G3 guidelines, a worldwide standard for reporting on corporate responsibility, and our first corporate responsibility report was rated Application Level B+ in accordance with the GRI reporting criteria.

Atos' second Corporate Responsibility report, published in 2011, was rated Level A+. A+ is the highest level qualification from the GRI, requiring entire management disclosure on sustainability performance standards and assurance by a third external party.

Among the many significant achievements recorded in the report were the Group's 16% reduction in its global carbon footprint since 2008 at comparable scope, and its decision to offset the carbon emissions of all its data centers worldwide, thus becoming the first international IT group to offer Carbon Neutral hosting services.

Siemens - Understanding how to make Data Centers work efficiently

Whether fully owned or outsourced, data centers are critical facilities for the vast majority of businesses. But from managing complexity to improving energy efficiency, and meeting security and business regulatory requirements, data centers face many challenges. And protecting critical data is as important as ensuring uptime and availability of service.

Siemens' integrated, tailored solutions and services efficiently detect and respond to a wide variety of events that can threaten a data center's business continuity and profitability - all in compliance with regulatory requirements. Our one-stop-shop solutions fully integrate:

- ▶ **Turnkey solutions**
- ▶ **Medium and low voltage power distribution**
- ▶ **Fire detection, evacuation and extinguishing**
- ▶ **Access control, video surveillance and intrusion detection**
- ▶ **Building automation and energy management systems**

Furthermore, Siemens' extensive service concept - covering system design, installation, maintenance, extensions, and modernization - ensures maximum system reliability and availability throughout the entire systems' life cycle, providing optimal return on investment.

Why Atos? Working together to accelerate progress

As business technologists with over 30 years of history and a presence in more than 48 countries, we have built up a deep understanding of the challenges and business opportunities facing enterprises today.

Our strong industry heritage gives us the understanding and the flexibility to adapt easily to our clients' culture and way of working wherever they are in the world. Everything we do - advising, designing, implementing, integrating, coordinating and managing - we do with a unique talent for technology and a deep understanding of our clients' business.

At the intersection of technology, people and business, we believe there are insights and innovations that can lead to positive steps forward. We want to contribute to a future where businesses demonstrate responsibility towards society and the environment, and technology is used to improve people's lives.

Global Capabilities

- ▶ **Vast experience in Data Center Consolidation, Virtualization, Optimization & Transformation projects**
- ▶ **ICT moving accumulated experience over the last 10 years with more than 800 ICT projects**
- ▶ **Global capabilities at DC Managed Services:**
 - **130,000 managed server instances**
 - **13 Global Data Centers and 80 Local / Regional Data Centers**
 - **93,000 sq meters of Data Center**
 - **A highly-virtualized environment**
 - **110 PB of storage, distributed in online and offline storage**

Our Data Center services are focused on enabling business strategy and value through advanced technology and high value consulting services.

Atos has extensive, proven integration and implementation experience on a global scale. We are also independent from IT hardware and any data center tooling vendors and widely employ 'off the shelf' products.

Here Atos' knowledge and experience of data center/IT operations is unique in the market.

About Atos

Atos is an international information technology services company with annual 2011 pro forma revenue of EUR 8.5 billion and 74,000 employees in 48 countries. Serving a global client base, it delivers hi-tech transactional services, consulting and technology services, systems integration and managed services. With its deep technology expertise and industry knowledge, it works with clients across the following market sectors: Manufacturing, Retail, Services; Public, Health & Transports; Financial Services; Telecoms, Media & Technology; Energy & Utilities.

Atos is focused on business technology that powers progress and helps organizations to create their firm of the future. It is the Worldwide Information Technology Partner for the Olympic and Paralympic Games and is quoted on the Paris Eurolist Market. Atos operates under the brands Atos, Atos Consulting & Technology Services, Atos Worldline and Atos Worldgrid. For more information, visit: atos.net

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