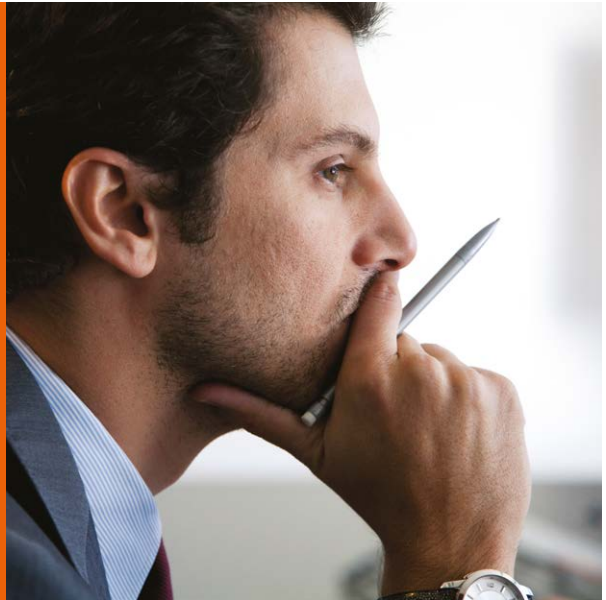# d

data center services

optimizing data centers:
## informed, impartial and focused.

AtoS

In every public and private sector organization, success and sustainability are now information-driven.

It's true for financial services and retail companies as they turn understanding of their customers' digital behavior into new and compelling propositions. It's true for energy and utility companies with their new reality of smart-grids. It's true for public administrations and healthcare service providers, striving to turn a lifetime of patient records into actionable insight for a better quality of life.

The information that organizations exploit to build and deliver these new propositions grows continually under the growing flow of social, mobile, transactional and machine-to-machine data.

But you can't make data the new star, without taking a serious look at the Data Center...
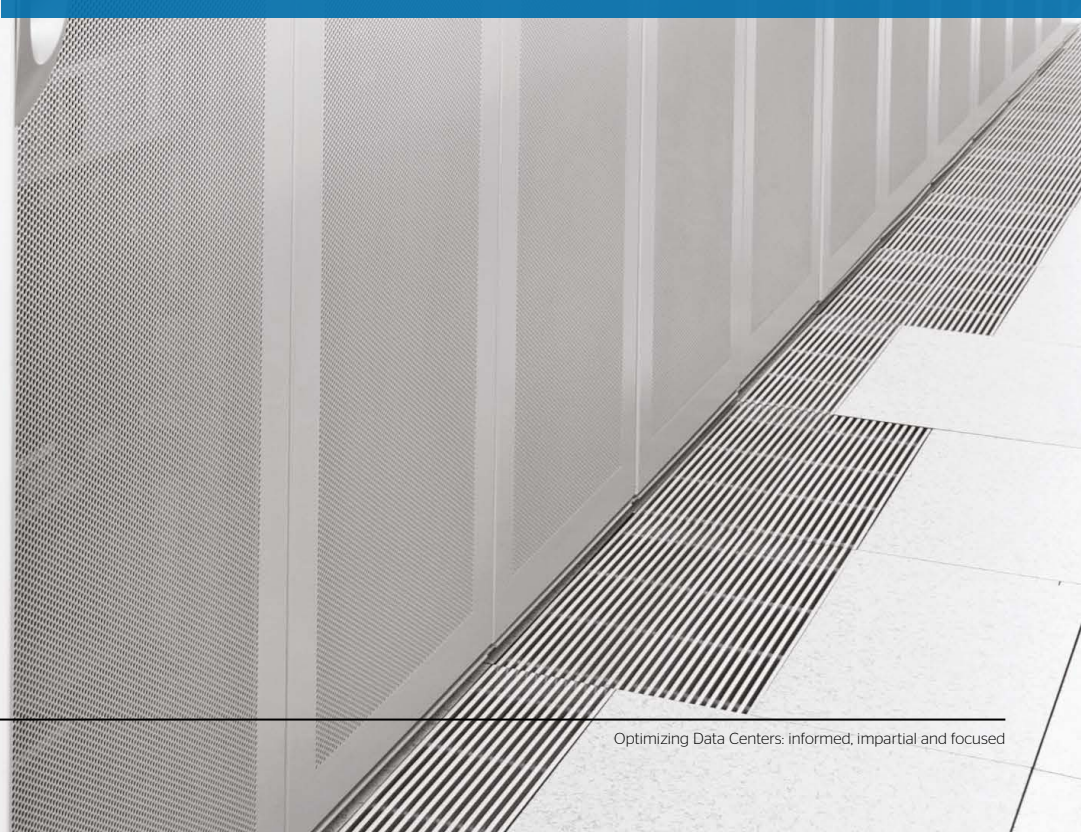
Data Center diversity

Data Center policy and practice is as diverse as the history of business computing itself. What is right for one organization won't necessarily work for another. Now that every company is coming to recognize the absolutely strategic value of its own digital data profile, there is a corresponding need to examine and optimize the Data Center itself.

How would you describe the roots of your organization's Data Center practice and positioning?

Organic by nature	In some organizations, Data Center practices and investments have grown in a reactive and relatively uncontrolled manner – there's a lot of local autonomy, and as long as costs are controlled and there are no security issues, everybody is more or less happy.
Centralized by culture	Where there is a deep mainframe heritage, people are more accepting of strongly centralized Data Center and infrastructure services. It's a great foundation for cloud too.
Critical actions only	All investment must be categorically cost-justified – and that is as it should be – but it does mean that Data Center transformations are likely to be blocked while lower-cost patches are approved.
Ownership only	This organization remains committed to ownership and is building new Data Center resource as a result. Sensitivity to compliance and security particularly influence this choice.
New perimeters	Due in part to early adoption of cloud, this organization is already comfortable with buying third-party Data Center services 'as-a-service' – especially where data location is not subject to regulation and compliance conditions.

For most Data Center professionals, your business reality probably reflects a mixture of some (or even all) of these scenarios – and more besides.

Atos wants to consider the potential benefits of sharing ideas and best practice in Data Center design and management.

So why do we start with this portrait of diversity?
Because the value of any conversation we may have together will be determined by our ability to understand the forces that have shaped your own Data Center practice to date – and the forces that will influence its future direction: it's not just about 'now'. And what's right for your peers may not be right for you.

Getting IT 'right' is always about balancing the benefits of standard approaches and industrial delivery on the one hand, with a genuine respect for bespoke configuration on the other. Helping our clients identify and articulate this balance lies at the heart of the Atos approach to Data Center consultancy.

Common Objectives

Despite the many characteristics that make your Data Center landscape different from everybody else's, most of us still share three common objectives.

This is a real over-simplification – but even if we just keep these three in mind in all our business discussions, we can be certain of making sure that they are profitable and worthwhile.

01. Cost	Even though procurement teams care deeply about partnership – the question, "How can you do it cheaper?" is never far below the surface.	**All contributing directly to performance, efficiency and business agility**
02. Reliability	We must challenge bespoke – accepting it only when it adds value. Difference consumes resources. Achieving consistency through industrial best-practice liberates resource and budget so that they can be used to add real value.	
03. Sustainability	Sustainability is not just about the environment – although in many organizations the Data Center now represents a sizable slice of corporate energy use. Sustainability is also about long-term social responsibility and economic health – and you cannot exploit new data opportunities unless the engine room is fit for future purpose.	

What's the proposition?

The Atos proposition is straightforward. We have a team of highly experienced Data Center experts. Their expertise is available to clients who wish to review their own Data Center estate, and specifically to ensure that when the Data Center is an 'owned asset', operations match the very best in industry practice to maximize the investment.

Before, during, after...

When is the best time to bring in the Atos Data Center optimization consultants? There are no right or wrong answers.

▶ If you are engaged in any strategic review of Data Center strategy, then Atos can provide valuable independent insight

▶ If you're conducting due-diligence as a result of either mergers and acquisitions or business carve-out, we can provide clear assessment of the implications and possible action plans for the Data Center estate

▶ If there has been a security breach or sudden degradation of service, then forensic teams can provide emergency analysis and propose appropriate and practical remediation

▶ If you have made a significant investment in storage or computing power and performance has not met your expectations, then we can help you find out why.

Atos routinely works with technology leaders from right across the Data Center, cloud and infrastructure domains – so if you are engaged with other IT or service providers, we are completely comfortable contributing in wider team engagements.

A Data Center optimization consultancy with Atos will typically span three areas:

Current state analysis

We will look across your entire Data Center estate and use peer comparison and industry best-practice indicators to give you a candid assessment of current Data Center practice and performance.

This analysis will be primarily focused on Data Centers you own and operate. We can also include Data Centers and services you source from third parties.

We will agree the perimeter together. You may choose to focus on a specific geography or business operation.

It can be a good idea to start with the 'world view' – building a total portrait, before drilling down into the detail.

We do understand, however, that if a particular Data Center or cluster is an immediate cause for concern, then that may be the place to begin.

Strategy and roadmap

Our Data Center experts are well-positioned to provide an authoritative second-opinion on all aspects of Data Center strategy and implementation.

We can (and do) prepare and maintain detailed Data Center strategic plans if desired. Most of our clients, however, have already invested significant time and effort in the development of detailed Data Center strategies.

Inviting Atos to engage in joint review can be immensely valuable – an external view can expose hidden points of vulnerability and risk.

Even more importantly, this external review can reveal areas of opportunity – often as a result of emerging technologies and practices. The rapid rise of software-defined networks and database technologies, for example, will now feature in most Data Center strategic plans.

But more important than any advance in technology is the ability to keep your Data Center service provision one step ahead of your overall enterprise business demand.

Forensic examination

Our third focus area takes you right down to the detail of performance and operation at a machine room level.

When undertaking a deep dive forensic examination of a single Data Center, we will make full use of our highly-advanced toolsets and processes.

These bring together IT and facilities management metrics to provide a real depth of operational intelligence – monitoring bit streams and mapping thermal flows.

Environmental and sustainability impact is naturally high on the agenda here, and Atos Data Center optimization consultants will provide detailed proposals for actions to minimize energy consumption.

Even though the forensic examination will normally be focused on a single Data Center, you can exploit these learnings to good effect across the entire Data Center estate.

Peers not professors

Atos Data Center consultants are keenly aware that they are not engaged to preach. They will work with you as peers, ensuring the free and intelligent exchange of information needed to produce results which are relevant and directly applicable to your specific data center challenges.

As dialogue develops, we will identify areas in which even greater depth of knowledge is required. In these instances, your consultant will plug into the wider Atos network to source the specific skills and experience required.

If, for example, your organization is pursuing independent certification for environmental sustainability, then we can call on members of the Atos green team – business technologists who have been involved in our achieving GRI A+ status for four consecutive years – recognized as the gold standard in sustainability reporting.

In short, when you engage with Atos, we will present ourselves as highly-informed peers, ready to help you test ideas and explore new avenues in Data Center operations and strategy.

Look don't see?

Your CIO team may have a clear vision for the future of Data Center practice – but how well do the rest of the senior business influencers in your enterprise really understand the imperatives?

Does the senior team buy into a vision of an enterprise which can be transformed by new digital relationships with customers – an enterprise in which near-zero application latency translates directly into quality of customer experience, for example?

Without this understanding, Data Center transformation will continue to be met with indifference – as just another request for money for more hardware.

If it's a challenge in your company to get budget released because people look at the reality they know without seeing what it means for their enterprise future – Atos can help you build the business message too.

Why Atos

Every Atos Data Center optimization expert has years of practical experience – helping clients meet the most demanding Data Center challenges on real-world projects. As managers of one of the largest private Data Center estates in Europe, Atos is also happy to share its own experience of continuous process and technological innovation.

There is no shortage of Data Center expertise in the world, but few organizations offer the Atos mix of independent vision and practical experience.

Atos is not driven by the need to sell hardware or to construct new Data Centers. Our focus is strictly on helping you make the very best of your Data Center investments, and to ensure that those investments can be used to ensure future-readiness in the face of changing business requirement.

We do sell Data Center outsourcing services, and our provision of cloud-based services is an important part of our business mix. Many of our clients pursue Data Center strategies which exploit hybrid models of owned and outsourced service – and we can certainly offer these end-to-end capabilities where appropriate.

Public cloud services are currently growing by 25% per annum, against on premise private cloud growth of around 4%. But despite these very different growth rates, the world market value of the latter is a staggering $2 trillion against the former $44 billion.

So what does this mean for you?

If your situation is more or less equivalent to that of your peers, it means that your current and continuing investments in Data Center assets continue to outstrip external 'as-a-service' spend. And this in turn, creates enormous pressure to ensure that continuing investment is managed to best effect – and for every organization must be measured in terms of fitness for purpose.

Fit for the future

Atos is independently recognized by industry analysts as both a visionary and an expert in delivery of advanced Data Center services.

The skills and experience which have earned us this recognition are made directly available to clients through Data Center optimization engagements.

But ensuring that your own Data Center practices are fully fit for future purpose cannot be achieved in isolation: you will only reach the desired standard of excellence if you look at what makes your context unique.

	Challenge	Atos viewpoint
Sector	Are you a retailer, a manufacturer or a financial service provider? Although many aspects of Data Center best practice are common across all sectors – different specialties face different challenges – not least in regulation and reporting.	Atos will ensure that we bring the right sector-specific skills to the engagement. This is particularly relevant when considering data location restrictions and compliance obligations.
Parallel initiatives	Data Center transformation is often part of a bigger story. It may be influenced by SAP consolidation, for example, or by a dramatic rise in real-time data from sensors or mobile devices.	Atos is good at context and implication. Because we are actively managing multiple virtualization and data analytics projects, for example, we know how to place Data Center optimization in context.
Legacy	Legacy is about more than walls and boxes – and it's different for every enterprise. You need to maximize the useful life of legacy investments, but even more importantly, you need to respect and benefit from the skills of your own data professionals.	Our track record in helping clients manage legacy is exceptional. These are the same rules we apply to ourselves. We have, for example, rationalized our own global network of Data Centers boosting performance and reducing cost while retaining and developing key skills.

Olympics Data Centers

Every four years Atos sets-up, runs and then decommissions high-performance Data Centers for the increasingly information-intensive Olympic Games.

Start with the applications

Serious Data Center analysis demands discipline and structure – and it extends far beyond the walls and the razor-wire.

So where do you start? (Answer: the apps.)

In an enterprise where people understand that exploiting data is the key to differentiation, it's the apps that determine what you need to do now, and what you're going to need to do in the future.

Data Center performance directly affects business performance – and that means starting with people and not with racks and switches.

At the very start of our Data Center optimization engagement, we'll begin by examining how your customers and employees operate – and anticipating future trends :

▶ Does everything need to be 'mobile' – and if so what are the implications for caching and network provisioning?

▶ Performance doesn't mean 'instant everything' – when is near-zero latency essential and when is it an expensive luxury?

▶ How does social networking affect your employees working practices – and what do you need to provide in terms of online communication and collaboration as a result?

▶ Are telematics and machine-to-machine already beginning to impact – and what are the implications of a massive increase in real-time data generation and analysis?

We don't want to spend months talking about it – and you certainly don't want to spend months paying for it. But it does reflect our attitude to the Data Center challenge – for us to deliver real value, we need to ask "Why?" as well as "What?".

Partners matter

Atos has a highly-developed network of formal business partnerships with the companies whose technologies are redefining the Data Center. These partnerships add direct value to our Data Center optimization engagements in two ways:

01. They give you rapid access to specialized insight – particularly with regard to innovation and development. This helps you minimize the risk of surprise on your roadmap – and to set reasonable expectations with your colleagues and peers.

02. They allow you to bring disparate points-of-view into a single perspective – if we can get the experts on inline databases, flash storage and data analytics round one table, you are going to get the benefit of a coordinated point-of-view.

Of all Atos' partnership programs, perhaps the Enhanced Alliance is the most relevant here – bringing together the best brains from EMC, VMware, Cisco and Intel. Long-term partnerships with Oracle, Microsoft and SAP are also valuable here, and from an engineering perspective, Siemens.

Next steps

Now is a great time to take a cool look at Data Center practice:

▶ The big data beast is coming – with all the implications for volume, immediate retrieval and real-time analysis

▶ Mobility forces fundamental changes in business demand – with cloud delivery becoming the norm

▶ New industrialization – the days of artisan Data Center practice are almost over

▶ Environmental responsibility – Data Center energy consumption is more than a blip on the balance sheet

▶ The regulation radar – from both sector and civil perspectives, new data regulation hits everybody.

Over the last five years, Atos has undertaken its own massive program of Data Center optimization. This has been impacted by M&A activity which virtually doubled the size of our company. It's been influenced by our own adoption of 'zero e-mail' and enterprise social networking. It reflects our decision to continue to offer mainframe services 'on-demand' in parallel with massive investments in cloud and transactional processing services.

Our Data Center optimization consultants are ready and willing to share this exceptional depth of experience with you – and to ask how our experience can help your enterprise get the very best from your Data Center investments.

A 'one day discovery' session is a good place to start.

Be seen to be green

Cut the overall energy consumption of your Data Center estate by 20/30% and you give your enterprise a good news story. It's a great way to raise the team profile and achievement.

We can help you take it much further too. We are using the heat generated by one of our Data Centers in Helsinki, for example, to provide community heating in nearby apartment blocks.

We have flipped this round in Spain, where the Institute for Technology and Renewable Energy in Tenerife powers one of Europe's most powerful scientific super-computers using an extended array of solar panels.

About Atos

Atos SE (Societas Europaea) is an international information technology services company with 2013 annual revenue of €8.6 billion and 76,300 employees in 52 countries. Serving a global client base, it delivers IT services in 3 domains, Consulting & Technology Services, Systems Integration and Managed Services & BPO, and transactional services through Worldline. With its deep technology expertise and industry knowledge, it works with clients across the following market sectors: Manufacturing, Retail & Services; Public sector, Healthcare & Transports; Financial Services; Telco, Media & 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 & Paralympic Games and is quoted on the NYSE Euronext Paris market. Atos operates under the brands Atos, Atos Consulting & Technology Services, Worldline and Atos Worldgrid.

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