

transforming

Operational Support Systems

Experts in continuity and change



Your business technologists. Powering progress

Atos

OSS: the illusion of unity

Over the last five years, Atos has carried out over forty major OSS projects for telecommunications clients. Two clear messages jump off the page as a result of this experience. Firstly, we know that every communications service provider can radically reduce operating costs and boost agility by rationalizing OSS. Secondly, we realize that no two providers share the same status quo.

But maybe we shouldn't even use the term OSS. Just by giving this massively diverse set of essential business systems a single name we create an illusion of unity which every telecommunications professional knows to be false.

Sure, it's convenient to have a name, but let's remember what lies behind it - especially when considering what lies ahead.

► **Functions:**

OSS spans a wide range of functions including inventory management, service activation, mediation, capacity and fault management. The list goes on. Even if business logic demands a high degree of integration and interoperability between these functions, and between the corresponding business support systems, you know that the operational reality is often very different.

► **Histories:**

Different OSS functions have different histories. With communications providers seeking to expand into new geographical and business areas, every merger or acquisition adds to the complexity of the mix.

And no acquisition is ever going to be blocked because due diligence reveals a lack of interoperability between operational support systems.

► **Foundations:**

There is inevitably a massive diversity across the technology and partnership mix at play in the realm of OSS. Although there are many strong players, none can claim unrivalled dominance. There are no de facto, supplier-driven standards in the world of OSS - although, fortunately, we do have the eTOM model as a universally accepted functional guide to process interoperability.

So why change?

The imperative of OSS change is driven above all by cost and agility. Entirely new players in the business and consumer communication markets have emerged rapidly over the last five years, and every established telecommunications company recognizes the threat.

Cost

The new Over-the-Top players simply do not carry the process or network costs of the established telco. When fighting to sustain profitability in the face of declining voice margins, telcos must drive costs out of OSS. The greater the diversity across OSS, the higher the ongoing management and operations costs. Atos will normally set a savings target of between 25-50% for every OSS engagement.

Even more importantly, however, telcos must ensure that their OSS investments are able to help identify cost reduction opportunities across the enterprise. By optimizing field service allocation for the mobile workforce, for example, you will reduce cost and boost productivity.

Agility

The quicker you move, the sooner you get to take advantage of opportunity. You must, however, ensure that decisions are formed on the basis of hard evidence if you are going to minimize risk. When OSS investments are fragmented according to function, geography, business unit and technology, the speed with which you can aggregate and use business intelligence is severely compromised. If, on the other hand, you can generate intelligence in real-time that your competitors are taking weeks or months to process, your business is going to surge ahead.



For every telecommunications company, Operational Support Systems pose a dilemma: although OSS transformation promises increased agility and cost-effectiveness, the very real burden of legacy and continuity can discourage the prospect of far-reaching change.

Transformation and legacy in balance

Many Atos telecommunications clients have been building reputation and client relationships since pulse-dial was the norm. These are companies that have embraced the revolutions of mobility, of rich media communications, ubiquitous internet access and social networking, while continuing to manage consumer and business relationships that in many cases have lasted a lifetime.

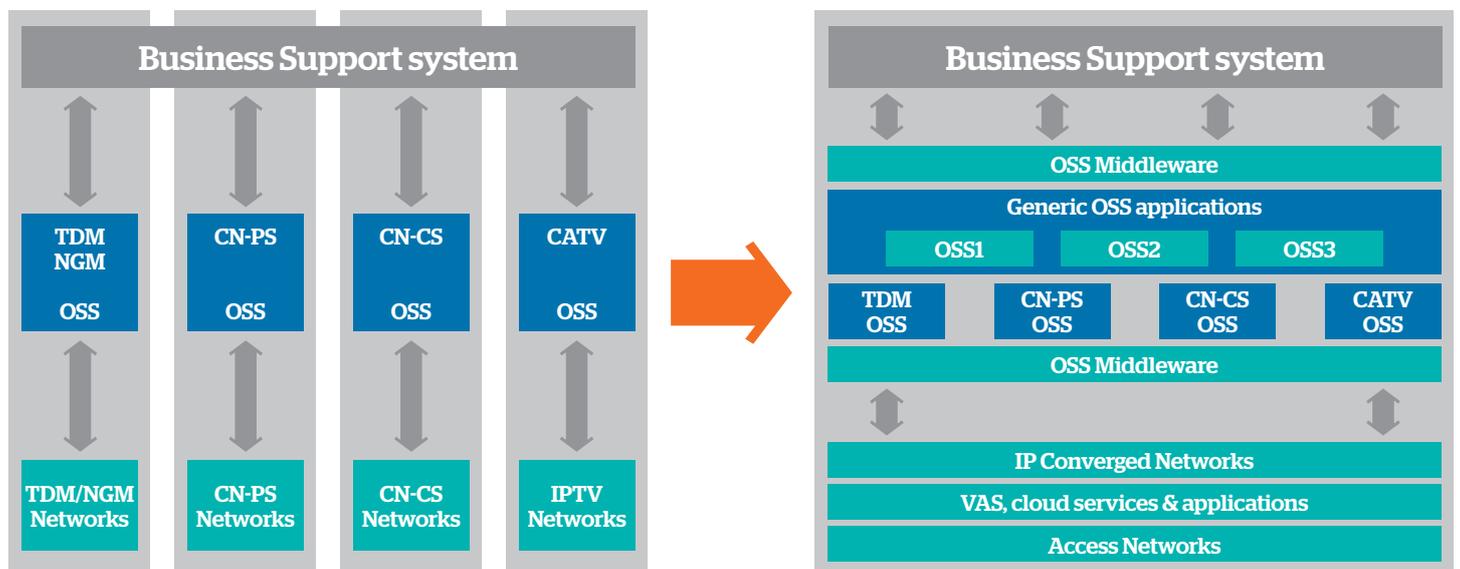
When you engage Atos to rationalize and transform your current OSS landscape, we understand just how essential it is to manage continuity, transition and legacy from the start. Every OSS transformation initiative will be built around detailed analysis of your existing conditions; of emerging best practice; and of quantifiable projections of business and commercial gain.

We do not push simple "out with the old and in with the new" approaches - these are neither desirable nor realistic for our clients. Most telcos

have been continually refining and reviewing their OSS investments over many years and where, for example, relatively recent initiatives are delivering value then it would be crazy not to continue to exploit it.

Transformation objectives

For most telcos, OSS investments today are still siloed according to their underlying service networks. Although the historical reasons are clear, this state is no longer fit for purpose in present or future telecommunications landscapes.



The siloed OSS model which is still the norm for most telcos is both costly to maintain and inhibits the easy generation of intelligence so essential to all future business development and process optimization.

By transforming to a Service Oriented Architecture which is independent of the underlying service networks you gain immediate and significant business and operational advantages:

- ▶ The cost and complexity of maintaining and managing network-specific OSS is eliminated.
- ▶ Switching to a "plug-and-play" OSS architecture boosts IT productivity, making it possible to share common applications and to establish efficient interfaces with essential business systems such as CRM and billing.
- ▶ The new joined-up view increases operational intelligence, radically improving the efficiency and focus of all planning, resource allocation and change management.

With around 35% of all telecommunications IT spend consumed by OSS and BSS, the scale of the promised savings and service improvements is significant.

Scale, scope and security

All change involves risk - and for any telecommunications company keen to transform a traditional siloed OSS practice to an agile and cost-effective service model, the risk of doing so must be minimized.

Most importantly, there can be no risk of service break to your customers: when it is so easy for customers to switch loyalty, you cannot afford to give them the smallest reason for doing so. (We have all seen how breaks in service availability have permanently damaged the reputation of new service providers in recent months.)

With a team of over 9,000 dedicated telecommunications business technologists, Atos is resourced to manage all aspects of even the largest and most complex OSS transformations. Throughout initiatives of this kind, Atos will work in close partnership with your own highly-skilled IT teams.

We appreciate major transformation projects can stretch your resources to the limit. With this in mind, Atos is able to offer parallel legacy management options - using our resources to ensure the smooth running of essential systems right through the transition period and until such time as they are ready for transformation and decommission.

Legacy management is no small commitment. Systems can often run in parallel for periods of five years and more, and Atos offers both pure application management and full scope outsourced service delivery, as required.

Full scope OSS

One of the reasons that Atos is confident in its ability to undertake the most challenging of transformation projects is the depth of our expertise across the full OSS landscape, backed with a solid understanding of the commercial, technological and social characteristics of the telecommunications sector.

Our specific knowledge in OSS spans all four functional domains:

Fulfillment

- ▶ Provisioning and activation

Assurance

- ▶ Managing service quality and resource performance
- ▶ Fault management and monitoring

Operation Support

- ▶ Inventory and resource management
- ▶ Workforce management

Billing & Revenue

- ▶ Mediation

This domain expertise does not exist in isolation. The relationships between business and operational support functions, for example, need to be constantly considered in all OSS project engagements.

Our clients are also keen to make individual OSS project engagements an opportunity for shared best practice across their international operations.

Similarities and differences

No two telecommunications companies are the same. Some can trace their roots back to the days of state monopoly while others have grown entirely in a climate of deregulation. Some are still very network-centric, owning sea cables and satellites and selling associated services to third party players. Others own no network resources, and live entirely through the cost and differentiation of consumer offers and the differentiating efficiency of their operational models.

This diversity in core business focus is reflected in a similar diversity of IT practice and process maturity. Very often, this diversity is even found within the same organization, especially where international and commercial expansion has been driven by acquisition.

Commitment to best practice

Atos makes an unequivocal commitment to best practice in every OSS engagement. We will bring the full weight of our sector experience to each project, and where we are involved in multiple projects with single clients, we will ensure that all learnings are openly shared. Consistency is key to cost efficiency, agility and interoperability - and together we will continually address the challenge.

Resourced and ready

Atos has exceptionally strong resources available to help you gain the maximum business and operational benefit from your OSS investments.

Some 9,000 of the overall Atos team of 74,000 are specialized in telecommunications and media. Across the team, we are as rigorous in our use of the eTOM business framework for process analysis as we are in our use of ITIL for all corresponding IT service design and delivery.

Most importantly, as systems integrators we know how to partner - and this is particularly important in OSS where the range and scope of specialties is so broad. We are experienced in working with solutions and technologies from Amdocs, Comptel, Ericsson, HP, NetCracker, Oracle and TIBCO.

OSS Project Snapshot

Atos has completed over 40 OSS transformation and optimization projects in the last five years. In some cases, our involvement has been strictly as analysts and systems integrators. In others, we are engaged to run applications and complete processes as contracted-in partners. When working as a full service provider, we perform according to strict technical and business performance metrics.

Here are just a few examples of recent projects ...

Fulfillment	Activation	How to launch a self-service xDSL service in under 100 days? The Atos solution delivered fully automated end-to-end subscriber provisioning - including network activation.
Assurance	Monitoring	This client wanted to replace a highly heterogeneous customer monitoring environment with a clean open source solution, unifying network, server and database platforms at the same time. The Atos open source framework monitors 1300 individual application servers and 1200 network devices. End-to-end monitoring uses robots and probes. We have boosted resilience and slashed costs.
	Business Monitoring	Real-time business activity monitoring was required to track top-ups and report top-up failures. The Atos dashboard combines real-time data from Oracle and Tibco data streams, delivering focused and timely business intelligence.
Operation Support	Inventory Management	For this operator, nationwide inventory was spread across multiple local server clusters - tough to manage with questionable performance and results. The Atos migrated all data from 50 regional systems and 10 different application platforms to a unified solution delivering clean and reliable inventory profiles every time.
Billing & Revenue	Mediation	The pressure was on for this operator. With the number porting cut-off date specified by the national regulator, the operator needed to migrate a mix of third party and bespoke applications to a single mediation platform. Atos deployed a single MediationZone solution, replacing and rationalizing all legacy applications.

Global perspectives

Perhaps more than any in other industry, communications service providers understand global. Resource sharing and partnerships allow operators with an established base in one geography to gain coverage in another. The emergence of the MVNO model too has acted as a powerful stimulus to fast-track overseas development.

With international opportunity, also comes the need to navigate international regulation and compliance, along with the complexities of billing and taxation.

Atos is a global player and itself has a highly evolved global service delivery network – and this is an important asset for our telecommunications clients, many of whom are already seeking to benefit from international best practice and the leverage of company-wide frame agreements.

One characteristic of our global service delivery model has shown itself to be especially appreciated by our telecommunications clients: this is our ability to combine the intimacy of local expertise with the industrial strength of global application factories.

Next steps

In the superheated telecommunications market, every operator needs to dazzle with the power of its customer proposition. Whether business or consumer, every offer needs to appeal to the client's digital lifestyle, on the one hand, and their pocket on the other.

The way in which your products and services are offered is continually and rapidly evolving, and what is a stand-out winner one moment becomes commoditized the next. Add to this the arrival of new players whose market proposition is rooted in device intelligence rather than customer history, and we see a market in turmoil for the traditional operator.

But there is plenty of good news too, and operators are already fighting back using the potential of cloud delivery as a vehicle for transformation; taking advantage of Next Generation Intelligent Networks; by exploiting

their knowledge of local market and regulatory conditions; and by anticipating the impact of machine-to-machine communication in a world in which everyone and everything is connected.

The efficiency and interoperability of your Operational Support Systems becomes critical in this volatile climate. They are central to ensuring that networks are fit for rapidly changing purpose; they are central to all effective planning and forecasting; and ultimately, they are central to the creative and intelligent development of new market propositions.

Atos is ready to help you transform for the future of OSS; we are ready to ensure that all current investments deliver to their maximum potential; and we are ready to ensure that all legacy OSS investments continue to perform efficiently and cost-effectively.

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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 & Transport; 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.

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