OSS Managed Services – A New Business Model for Service Providers
Contents

Executive Summary.................................................................3
The Current Environment: Riddled with Challenges................3
Why Outsourcing OSS Should Be Considered ......................4
Three Ways to Approach Outsourcing OSS.............................5
Key Success Factors for Choosing a Partner ............................7
Specific BSS/OSS Managed Services Expertise .....................8
Final Considerations.............................................................8
About Amdocs Managed Services ........................................9
1. Executive Summary

According to analyst firm Informa Telecoms and Media, today, time to market and cost control pressures are leading service providers to consider outsourcing their Operations Support Systems (OSS) and business processes. Although OSS is a fundamental contributor to profitability, an increasing number of service providers are concluding that aging systems, coupled with poor integration with other systems and demand for new services and applications, are making it more and more difficult to cost-effectively manage OSS internally.

Until now, service providers have resisted outsourcing OSS because it was considered too important and functionally strategic to entrust to a third party. Many systems have been internally developed and are incompatible with modern commercial off-the-shelf products. However, in-house systems built many years ago increasingly cannot keep up with today’s rapidly evolving technological changes and accelerating growth in new services. Those pressures, combined with the realization that they must do more with their OSS in order to remain efficient and competitive, has led many service providers to consider the outsourcing of OSS as a viable alternative. It is increasingly apparent that yesterday’s model of an in-house OSS is becoming unsustainable from both cost and performance perspectives. This paper provides an overview of why service providers should explore an outsourced OSS approach in order to better address top line growth, cut costs, increase business efficiencies and improve the customer experience.

2. The Current Environment: Riddled with Challenges

It’s not easy being an operator today – in addition to the usual intense, competitive environment, new services and applications are increasing the demand for network capacity at an extremely fast rate. Time to market and cost efficiency is the name of the game, and in many cases, current in-house OSS cannot support those demands. In addition, industry consolidation has led to the need for certain OSS to be shared across several operators. The result? Many legacy systems cannot be successfully integrated with the systems and business processes of other operators.

Service providers have been reluctant to outsource their OSS because it has always been considered a mission-critical function, and central to the operations of the company – something they felt couldn’t possibly be outsourced effectively. However, this is beginning to change as operators are under increased pressure to do more with their OSS in order to contribute as much as possible to the bottom line. That, along with time to market pressures and the advent of new tools and techniques, has made it imperative to consider a new approach.

Service providers are now recognizing that by outsourcing OSS, they can improve efficiency and achieve operational excellence by reducing costs and time to market while focusing on their core business of developing, marketing and delivering telecommunications products and services.
3. Why Outsourcing OSS Should be Considered

Service providers today realize that an OSS managed services approach may be the best way to achieve aggressive business targets of cost reduction, effective growth and innovation support and customer experience enhancement. A managed services approach also gives operators the ability to exclusively focus on their core business of sales, marketing and network services innovation. In addition, service providers can leverage ongoing vendor system and business process development (as well as regular system upgrades) for results-driven execution.

One key advantage of outsourcing to a third-party managed service provider is the ability to overcome many of the internal organizational barriers to change that large service providers face during OSS modernization and transformation. By outsourcing the management of OSS and business process optimization under a governance program regulated by service level agreements, end-to-end operational process improvements can be implemented more effectively.

Operators went through a similar dilemma in the past when they considered outsourcing the Business Support Systems (BSS) and Network Management functions. Because that experience was positive in terms of business benefits, they realize it can work in the same way for OSS. Since the baseline success factors for OSS are very similar to the baseline success factors for BSS and Network Managed Services, similar outsourcing best practices can be applied to OSS Managed Services.
4. Three Ways to Approach Outsourcing OSS

There are three main approaches to outsourcing OSS:
- As part of a broader network outsourcing activity
- As an OSS standalone managed services offering
- As a combined BSS/OSS Managed Services approach

<table>
<thead>
<tr>
<th>OSS MGS Approach</th>
<th>Description</th>
<th>Pros</th>
<th>Cons</th>
</tr>
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<tbody>
<tr>
<td><strong>As Part of a Larger Network Outsourcing Activity</strong></td>
<td>Most common form of telecoms outsourcing&lt;br&gt;Usually done by NEPs (Network Equipment Providers)&lt;br&gt;Includes the outsourcing of the network itself, network and field maintenance, network operations center (NOC), BSS/OSS systems and processes</td>
<td>Ties all services under one managed services agreement&lt;br&gt;One vendor to deal with&lt;br&gt;Synergies when specifically outsourcing planning with network</td>
<td>Very expensive – usually in excess of $1B over 5 years for a Tier 1 operator&lt;br&gt;May lack management focus and expertise on the OSS – specific systems and processes&lt;br&gt;NEPs do not have the same depth of knowledge in OSS as an OSS vendor providing OSS managed services&lt;br&gt;Different types of expertise – network vs IT; assets focus vs. customer focus</td>
</tr>
<tr>
<td><strong>Standalone OSS Managed Services</strong></td>
<td>Best for service providers wishing to outsource operations systems and processes to a specialized OSS managed services provider with core expertise in operations systems</td>
<td>Reduced risk of outsourcing systems and processes managed by an OSS expert&lt;br&gt;Works well for specific services such as inventory management or small managed transformation projects&lt;br&gt;OSS transformation-managed services multi-vendor approach</td>
<td>Cannot always isolate OSS managed services without BSS, such as in order-to-activation processes</td>
</tr>
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<td><strong>BSS/OSS Managed Services</strong></td>
<td>Focused specifically on business / operations systems and processes themselves&lt;br&gt;May include customer care and ordering, billing, service management, inventory, service fulfillment and assurance&lt;br&gt;Business Process Outsourcing (BPO) (e.g. order to activation)</td>
<td>Close BSS/OSS relationship enables full end-to-end systems and process management&lt;br&gt;Ensures a more seamless control of operations functions and greater visibility across customer, services and network information&lt;br&gt;Can include full hosting of communications services such as Business VoIP&lt;br&gt;Very similar expertise – high volume, mission-critical systems, IT oriented, customer experience focus&lt;br&gt;Horizontal approach to managed services; ability to leverage vendor scalability</td>
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Because BSS and OSS have many functions in common, both can be successfully outsourced via a managed services approach.

<table>
<thead>
<tr>
<th>Function</th>
<th>BSS</th>
<th>OSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real-time and batch processes</td>
<td>Prepaid, Postpaid Billing</td>
<td>Service Provisioning, Network Build</td>
</tr>
<tr>
<td>Modelling and managing complex data</td>
<td>Customer Information Hub</td>
<td>Network Resource Modelling</td>
</tr>
<tr>
<td>Supporting huge transaction volumes</td>
<td>CDR collection, Rating</td>
<td>Fault Management</td>
</tr>
<tr>
<td>Handling of mission-critical tasks</td>
<td>Customer Care</td>
<td>Service Fulfillment</td>
</tr>
<tr>
<td>Fallout Management</td>
<td>Ordering, Billing</td>
<td>Service Fulfillment, Trouble Ticketing</td>
</tr>
<tr>
<td>BPO</td>
<td>All products</td>
<td>Inventory Management, Network Asset Life-cycle Management, Data Integrity Management, Service Fulfillment</td>
</tr>
<tr>
<td>Database Management</td>
<td>All products</td>
<td>All products</td>
</tr>
<tr>
<td>Hosting</td>
<td>All products</td>
<td>All products</td>
</tr>
<tr>
<td>Testing</td>
<td>All products</td>
<td>Inventory, Fulfillment, Activation</td>
</tr>
<tr>
<td>Infrastructure, systems and operations</td>
<td>All products</td>
<td>All products</td>
</tr>
<tr>
<td>Transformation methodologies</td>
<td>All products</td>
<td>All products</td>
</tr>
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5. Key Success Factors for Choosing a Partner

When selecting a company to partner with for an OSS Managed Services solution, service providers must ensure the partner has the right experience, skills and know-how to maximize the chances for success. Key success factors the chosen partner should possess include:

Broad-based experience in addressing the needs of service providers:
- Reducing total costs
- Improving efficiencies of the end-to-end Network Operations Lifecycle
- Possessing specific business process know-how
- Embracing a focus on the customer experience

Demonstrated ability to:
- Show how the outsourced OSS solution aligns with Information Technology Infrastructure Library (ITIL) and TeleManagement (TM Forum) eTOM best practices
- Provide past successes in executing complex transformation programs with minimal risk and maximum ability to predict results

Established expertise in:
- Network resource inventory and service activation systems
- Systems consolidation and integration
- Managed services project management

Comprehensive benchmarking services to:
- Measure current OSS status and room for improvement in each area
- Show the projected added value and return on investment (ROI)

By selecting the right partner for an outsourced OSS solution, service providers can reduce their costs, focus on their core business, grow their subscriber base and revenues, and modernize their systems – all while experiencing substantial savings.
6. Specific BSS/OSS Managed Services Expertise

To fully realize the benefits of an end-to-end BSS/OSS Managed Services solution, it is important that the partner selected have extensive IT-centric and telecom-specific experience including:

- **Order-to-Activation Managed Services** – Expertise in the end-to-end order-to-activation process for all service types including all related business process operations and hosting services
- **Inventory Managed Services** – Experience in handling the end-to-end inventory management process including data integrity management, network device type management, asset lifecycle management and inventory data cleansing and migration. In addition, the partner should provide application management services for all inventory systems as well as the related business process operations and hosting services
- **OSS Application Management** – Expertise that enables effective development and usage of the OSS across planning, fulfillment, assurance, inventory and workforce management systems according to business and operational requirements

In addition, to help service providers see the benefits from a BSS/OSS Managed Services approach, the partner should provide comprehensive benchmarking services to measure current OSS status and determine the desired improvement in each business area.

7. Final Considerations

Service providers today are increasingly concluding that an OSS managed services approach is a valuable and viable alternative to managing their OSS themselves. By outsourcing OSS, service providers can address top line growth and profitability by freeing-up resources in order to focus on their core business. Choosing the right partner with the right OSS managed services solution is paramount in order to mitigate the risk involved with outsourcing. Done correctly, a managed services approach to OSS can result in:

- Improved risk assessment and better cost control through a governance program
- Reduced lead time and shortened time to market when delivering new and innovative services
- Lowered total cost of ownership through operational efficiencies, quality improvements and business process optimization
- Improved system performance and availability
- Greater service quality and an enhanced customer experience

Leading service providers are exploring the OSS Managed Services approach because it offers a compelling alternative to internal solutions by lowering costs, increasing efficiency and delivering a superior operational environment for an enhanced customer experience.
8. About Amdocs Managed Services

Leading service providers worldwide have selected Amdocs Global Strategic Sourcing (GSS) to manage their BSS/OSS and service delivery infrastructure, applications and processes so they can focus and invest more on their business strategy – growth, new products, improving the customer experience and competing better. Amdocs’ managed services can achieve significant reduction in TCO through operational efficiencies and business process optimization.

Amdocs’ managed services approach consists of three main pillars – expertise, foresight and value:

- Expertise – Amdocs GSS offers customers unmatched industry experience and access to best practices gained by working with leading service providers across 60 countries. With over 25 years of experience, and thousands of telecommunications experts, Amdocs helps its customers gain access to a knowledge and experience base that is unparalleled.

- Foresight – Amdocs is totally dedicated to the communications industry. The company has a vision and strategy for the future, which drives its constant investment in R&D. Award-winning customer experience systems continue to set new standards for B/OSS innovation. Amdocs experts are regular speakers at industry events and forums and its employees participate and contribute to industry standards bodies. A global perspective combined with industry focus enables Amdocs to help customers prepare for the future.

- Value – Amdocs customers are able to leverage the company’s global software, systems integration and operations best practices for each customer engagement, from Tier 1 to greenfield operators, to enable best-in-class service levels.

Key top level metrics for OSS Managed Services:

- Shortened time-to-market for new products and services by over 50%
- Achieve network inventory accuracy of over 98%
- Reduce provisioning workload by 40%
- Reduce order fallout by 50%
- Activate over 50,000 subscribers per hour
- Cut 70% of wasted truck rolls

“CHOOSE A PROVIDER THAT CAN OUTSOURCE AS WELL AS TRANSFORM THE OPERATIONAL CAPABILITY. THE ABILITY TO IMPROVE PROCESSES AND SYSTEMS THROUGH TRANSFORMATIONAL OUTSOURCING CAN RESULT IN EVEN LOWER OPERATIONAL COSTS, IMPROVED OPERATIONS, AND HIGHER SERVICE LEVELS.”

TM FORUM INSIDE LEADERSHIP,
“WITH EXPANDING DATA CONSUMPTION, OUTSOURCING’S A SMART CHOICE”
JAN. 2011
Case Study 1: The Benefits of Outsourcing Mission-Critical Functions

In the highly competitive Canadian wireless market, Mobilicity’s business model stands out for its operational and IT strategy: the company outsources virtually all of its mission-critical functions. Keeping only core selling and marketing functions, Mobilicity outsourced to the strongest vendor in each business area to achieve rapid time to market, cost-benefits, and business and operational excellence. One of Mobilicity’s major outsource partners is Amdocs for OSS. Mobilicity’s Billing Support Systems (BSS) and third-party sales and enterprise systems are all under one Managed Services umbrella with Amdocs Global Strategic Sourcing (GSS).

Challenges

- Aggressive time to market for new business; activate new customers quickly
- Rapid expansion strategy faced with intense competition
- Need to build an entire infrastructure to facilitate innovation for a competitive edge
- Achieve operational excellence and business agility while meeting compressed timeframes and cost-efficiency
- Requirement for highly experienced IT experts and proven resources

Solution

- Partner with Amdocs for ground-up development and ongoing management of the IT infrastructure [Billing Support Systems (BSS) and Enterprise Systems (ES)]
- Amdocs Delivery services deployed the industry-leading Amdocs billing, customer management and OSS products
- Amdocs Managed Services provides end-to-end management of Amdocs systems and third-party sales and enterprise systems including financials, content, fraud, reporting and data warehouse/Business Intelligence
- Access to 24/7 staff of Amdocs’ service provider experts with decades of experience

Results

- Rapid time to market for business launch with deployment in only five months
- Flexible and fast change and customization on an ongoing basis
- Activation of Mobilicity phone in less than five minutes (85 percent faster than the 40 minutes average for the competition) resulting in an enhanced customer experience
- Real-time rating
- Reduced service fulfillment operational costs
- Improved efficiency in legacy order-to-activation processes
- Lowering cost and gaining economy of scale by working with an established, global telecommunications partner
- Reliable billing and customer management systems that will grow as subscriber base and product diversity expand
Case Study 2: Preventing Fallouts that Negatively Affect the Customer Experience

Fallouts and errors are unfortunately a part of every order entry and transactional IT system. A robust order management process is imperative for the successful provisioning of services. Although service providers have invested significantly in B/OSS systems to automate these processes, many orders still fail to execute automatically and many tasks are carried out manually. Orders that do not complete on time can breach service level agreements (SLA) and adversely affect the customer experience.

Challenges

- Complexity of the order-to-activate process results in manual rectification of errors
- Manual correction requires multiple resources to handle large numbers of fallouts, increasing turnaround times and preventing scalability
- Fixes completed without a thorough understanding of possible side effects can cause other issues not immediately detected and possibly causing long-term effect on system stability
- Insufficient OSS fallout management functionality solution
- Amdocs order fallout management service minimizes the need for manual handling of fallouts and maximizes user efficiency to resolve fallouts that require manual intervention. The solution includes an expert multi-level team and dedicated fallout management software tools

Solution

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Results

- Quick resolution of failures so orders can proceed and complete successfully
- Reduces the amount of manual work and time spent on production issues
- Fallouts are handled by a dedicated team that understands and resolves them
- Advanced fallout management framework enables production support staff to automate end-to-end remediation of errors quickly and efficiently
- Errors are automatically escalated to the required level of expertise to be resolved
For 30 years, Amdocs has ensured service providers’ success and embraced their biggest challenges. To win in the connected world, service providers rely on Amdocs to simplify the customer experience, harness the data explosion, stay ahead with new services and improve operational efficiency. The global company uniquely combines a market-leading BSS, OSS and network control product portfolio with value-driven professional services and managed services operations. With revenue of $3.2 billion in fiscal 2011, Amdocs and its over 19,000 employees serve customers in more than 60 countries. Amdocs: Embrace Challenge, Experience Success. For more information, visit Amdocs at www.amdocs.com

Amdocs has offices, development and support centers worldwide, including sites in:

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- CANADA
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- UNITED STATES

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- CHINA
- INDIA
- JAPAN
- SINGAPORE
- THAILAND
- VIETNAM

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- FRANCE
- GERMANY
- HUNGARY
- IRELAND
- ISRAEL
- ITALY
- THE NETHERLANDS
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