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THE CRITICAL ROLE OF THE ENTERPRISE PRODUCT CATALOG

COST, TIME-TO-MARKET AND THE CUSTOMER EXPERIENCE

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1. PRODUCT CATALOG – BUSINESS CHALLENGES

Today's competitive and saturated environment means that service providers' success more and more depends upon their ability to:

- > Rapidly bring new products and services to market
- > Create attractive bundles within, and across, traditional lines of business
- > Deliver an optimal and *intentional customer experience*[™]

As mobile, fixed, broadband and content services converge, service providers have become providers for an entire range of communication and entertainment services, with customers demanding real added value within these expanded market offerings. This is difficult to achieve when product and service definitions are inconsistently scattered among disparate systems. And the accelerating rate of product launches, combined with the ongoing pressure to reduce operational costs, places even more stress on organizations.

Currently, services are offered in countless combinations, with price, discount and promotional elements on one or more devices, spanning multiple lines of business. Combining those offerings into a pre-packaged, high-value bundle is a crucial challenge which is already proven to have an impact on customer 'stickiness', and churn rates.

Service providers are actively bundling the services that they currently offer. The first step they are taking is to package existing products and services in new bundles with increasingly sophisticated segmentation activities. This adds a further level of complexity to bundling strategy.

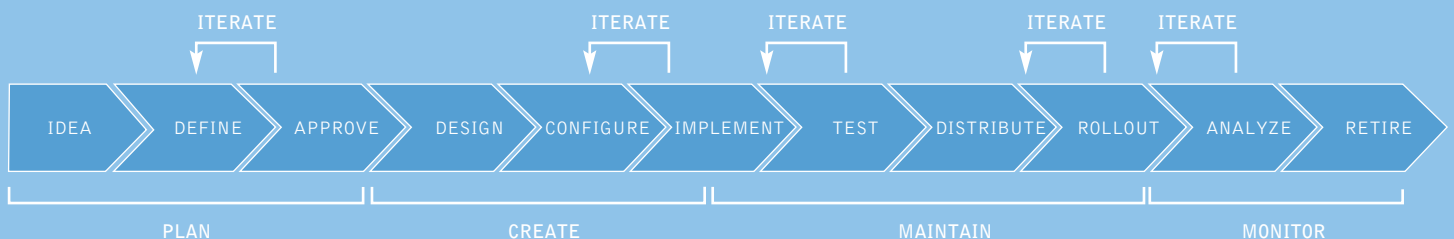
Although IT systems are growing in size and organizations are changing at an incredible rate, business processes are not keeping up with these changes. The product lifecycle is one of the major horizontal processes that cross the organization. And it's becoming increasingly clear to companies that, in order to move from a product environment that is complex and fragmented to one with centralized product management and a simplified product portfolio, they need to improve their product lifecycle (see figure 1).

It is important to note that product catalog management challenges a company's organizational skills, as much as its operational skills.

New and traditional services, such as MMS, WiFi, text messaging and voice, are designed and configured via multiple OSS and BSS systems and applications. And not only do providers have different systems for each line of business, but as a result of industry consolidation, many service providers possess multiple systems within each line of business. In fact, it's not unheard of for major service providers to have over 150 product catalogs!

Many companies have added product catalogs because of mergers – with each one structured differently, even down to a regional or state-focused level. Sometimes, each catalog contains different variations of similar products, but they often require vastly different methods for updating or adding product definitions. Visibility, both into and across the catalogs is usually poor, and this sometimes causes product managers to create similar or even duplicate products to ones that already exist in the system. This further adds to the large number of products in the catalog.

FIGURE 1:
STREAMLINED PRODUCT LIFECYCLE PROCESS



Why do multiple product catalogs cause problems for providers?

- > Multiple catalogs increase the complexity of systems and operations leading to serious implications for cost and change management
- > System and product decentralization creates revenue leakage
- > It causes a dependency on employees with scarce skill sets to make changes with proprietary formats
- > It is difficult to exchange information across an organization in a timely fashion
- > Rigid catalogs force a company to adapt its business processes to the catalogs' respective business models, instead of the catalog supporting the providers' business

Some of today's service providers have tens of thousands of products in their respective product catalogs. It is likely that a significant percentage of these products generate very little revenue, and some may even be dormant. Some products remain in a catalog solely for regulatory reasons such as a mandate that companies cannot stop offering a product if even one customer is still using that product.

Cable companies also face significant product catalog challenges, since an operator might have 400 channels, each constituting a separate product, with infinite possibilities of different premium packages. This can constitute overload for consumers and represent a burden on the system.

1.1. CHALLENGES OF BUNDLING

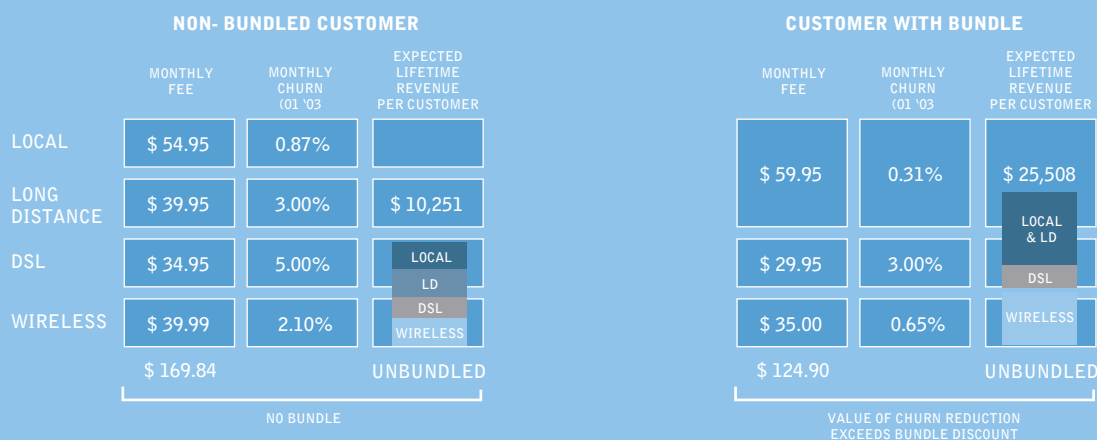
"Bundling" is posing a tremendous challenge for today's service providers. Currently, phones are intelligent devices that allow users to take pictures, film movies, chat, browse the Internet, mail friends and watch streaming video. So the more functions that service providers can offer via their phones, and the more robust their supporting service plans, the better.

As service providers start to offer blended network services, they are becoming the providers for the entire range of communication and entertainment services for individuals, households and businesses, too. And as recent history has shown, combining those separate offerings into one pre-packaged, high-value bundle is the most effective way for companies to maximize their revenues from these offerings.

A decade or so ago, fast-food chains discovered the concept of combining their offerings at a discount. At the risk of losing money, they launched these 'value combos', and they've been richly rewarded for this initiative. Customers appreciate the fact that the chains anticipate their preferences and that they can still enjoy what they want, at a greater perceived value – thanks to the discount. The burger chains are now selling more products – who would refuse French fries when they already come with the meal as part of a package? It's a 'win-win strategy' that has expanded to other industries, including telecommunications, with similar success.

Thanks to bundling, a service provider's product line is now much more than the old 'price-plan-plus-device'. Today, we see services in countless combinations with price, discounts and promotional elements, mapped to one or more devices spanning multiple lines of business. And although it means that service providers' business has become more and more complex, it's clear that success in today's market relies on bundling.

FIGURE 2:
BUNDLING AND PACKAGING INCREASES LIFETIME VALUE
SOURCE: SMITH BARNEY, MERRILL LYNCH, BOOZ ALLEN ANALYSTS



The majority of service providers are now actively deploying bundling strategies. Customers perceive that they are getting more value from the bundled services since the bundled price is typically less than the total of all the service prices when purchased separately. And research indicates that if a customer purchases multiple services from the same service provider, then that customer is much less likely to leave that service provider. The inconvenience of disconnecting multiple services and re-subscribing with one or more new providers, as well as the perceived savings from the promotional bundled prices, creates a barrier against churn that is just too high for most customers; and this effectively increases customer lifetime value (see figure 2).

To succeed in a tough market, service providers need to deliver the correct package of products and services to the correct people, at the correct time. And as if that isn't enough of a challenge, service providers must also:

- > **Expand their offerings and market initiatives** (including pricing promotions) to include new services with greatly accelerated time-to-market (weeks or months, and not years) and with greater perceived value
- > **Create attractive bundles that successfully span lines of business.** The traditional silos created for each line of business makes this kind of alignment more difficult than it might initially sound
- > **Anticipate and respond to demand** (including turning off unprofitable services as quickly as possible) in a rapidly changing market

1.2. SHARING INFORMATION WITH PARTNERS, AND WITHIN AN ORGANIZATION

Many different systems within a service provider's organization require information from a product catalog – including billing, CRM and order management systems – but it's often quite a challenge deciding which of these product areas will be the controlling one. Sometimes different areas are left with different parts of a catalog, leading to a serious lack of synchronicity which hampers the flow of information to different departments within an organization.

Similarly, partner organizations often find it challenging to share and exchange information via product catalogs. One example of the difficulty of coordination in today's market can be seen regarding ring-tones. Ring-tone prices are frequently changed, in order to capitalize on the 'hot' new ring-tones. Organizations must make frequent updates in their respective product catalogs, and also need to constantly ensure that they coordinate these updates with their partners.

1.3. TIME-TO-MARKET

While in the past, service providers had the luxury of rolling-out new products over a period of years, today's competitive market demands that service providers release new products within a few months, and sometimes in only a matter of weeks. And any delay in that timeframe will probably seriously impair the success of the newly-released product, as well as consequential customer relationships.

1.4. PRODUCT LIFECYCLE MANAGEMENT

The dynamic changes to products, the excessive product portfolio and the proliferation of product data across different systems that are maintained by different users make the task of product management extremely challenging. In many cases, companies are creating or duplicating new products when they already have similar items in their product repository. The main cause of this is the lack of control and management tools for the vast product repositories that service providers typically maintain. In fact, **product lifecycle management (PLM)** is fundamental in product-centric industries, and it forms the backbone for the process of product development. If service providers will be able to leverage similar methodologies, then they'll be able to streamline the process of product development with other business processes – enabling true integrated customer management (ICM). Some of the challenges that a well-defined process can resolve include tracking product performance, targets and goals, product modifications, and product retirement. And the biggest challenge would be gaining control over time-to-market, which includes gaining clear visibility into the progress of the new product introductions, and their synchronization with campaign launches.

One of the costly sub-processes is new product introduction, and below is a sample of indicators to illustrate the costs associated with this process:

- > **Service launches** – The rate of new services launched in a year is increasingly accelerating. While in the past it was only few per year, service providers now launch several dozen new services every year. And the forecast for the future is for nearly 500, which means almost two per day
- > **Time to market** – New product introduction takes between two weeks to over 12 months, depending mainly on the type of network elements involved
- > **Resource investment** – A new product introduction project involves 10 to 20 people (50 role types)
- > **Data errors due to product inconsistencies** – These can generate revenue losses of approximately 1%

2. SHIFT FROM SOLUTIONS TO OFF-THE-SHELF PRODUCTS

In the communications market, several leading service providers have attempted to consolidate their product catalogs through customized solutions either developed in-house, or with system integration partners. These were mostly “one-off” projects, such as installing patches so that one system would be able to communicate with another. The effectiveness of such projects was usually very limited, and often created a growing skepticism and conservatism toward centralizing product catalogs.

Testimonials from several major carriers who undertook internal IT projects in the early 2000s indicate that they assigned their best resources to handle the task. However, after 24 months and millions of dollars of investment, these companies ended these projects at almost the same spot that they started at – with yet another product silo that required high maintenance and ongoing investment in order to meet the organization’s requirements.

Technology and standards are now also playing their part due to initiatives coming from organizations such as the Tele-Management Forum (TMF) (for example, SID and eTOM), as well as tools for master data management.

2.1. AN ENTERPRISE PRODUCT CATALOG IS THE ANSWER

The answer to the shift away from complex solutions toward off-the-shelf products is an *enterprise product catalog* – a product that fits the complex environments and product structures of service providers.

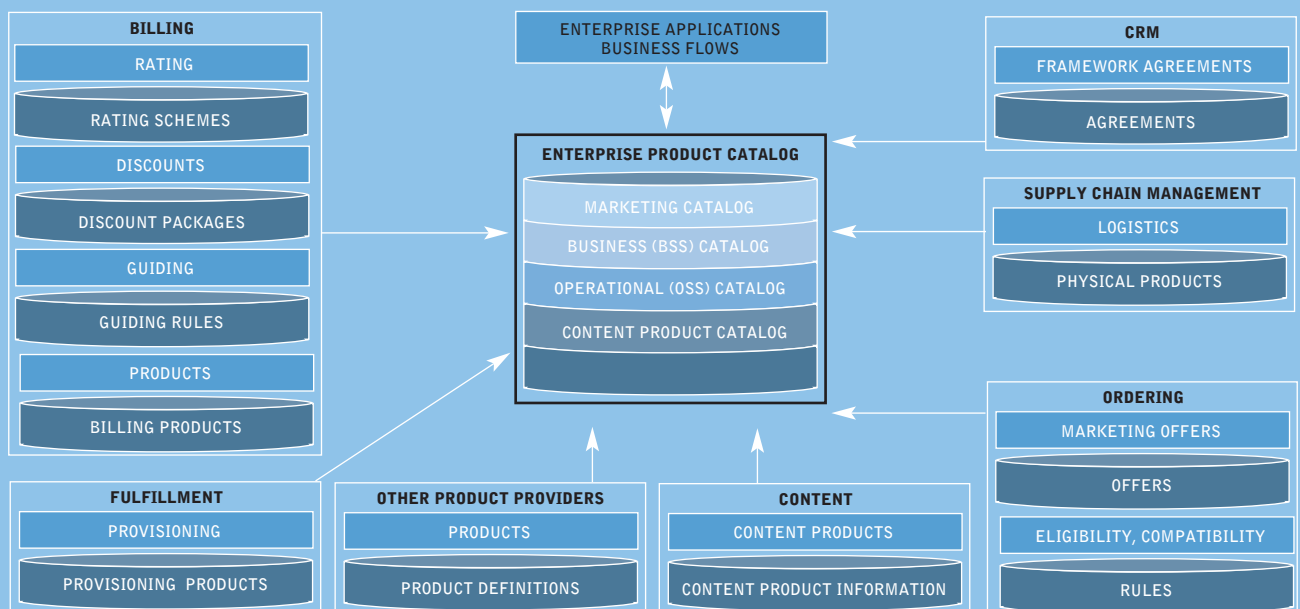
An enterprise product catalog provides the central point from which service providers can define, blend, bundle, price and retire their service offerings. Capabilities include:

- > Access for all systems where master data is stored (back-end, front-end and partners)
- > Management of system performance for simultaneous bulk, volume, and real-time processing
- > Maintenance of adequate data quality while both the volume of data, and a company’s dependence on that data to run the business, increases

Functional requirements for service providers’ specific product catalogs include:

- > One master repository for all product information in order to provide a single point of view and a single point of entry
- > Version and release management controls

FIGURE 3:
ENTERPRISE
PRODUCT
CATALOG –
CONCEPT



- > Support for a product meta-model, including:
 - > Definition of common, enterprise-wide, product attributes used by business and IT units, such as marketing, sales, IT and logistics
 - > Services and technical definition
 - > Product documentation such as marketing materials and brochures.
 - > Complex pricing information
 - > Flexible packaging and bundling
 - > Business rules, such as eligibility and compatibility rules
 - > Equipment, accessories and bill of materials
- > Support for all lines of business (current and future), including efficient and easy transformation to next-generation platforms
- > Integration and interface capabilities, including:
 - > Automatic distribution of product data to any system in various formats
 - > Propagation of product information via services to various consumers
- > Product lifecycle management, including launching and retiring services
- > Sales configuration
- > Access from various sales channels
- > Support of product data analysis

2.2. AN IDEA WHOSE TIME HAS COME

The enterprise product catalog is grounded on the principles of **product information management (PIM)**, which first emerged in the retail and manufacturing industries. PIM software ensures that the entire enterprise, including employees, customers and suppliers, is working with the same, updated product data. Typically, it consolidates and organizes data stored in other applications, such as ERP and CRM systems.

Analysts predict that the worldwide PIM software market will total \$1.6 billion by 2008, with demand currently highest in North America and Western Europe, respectively.

2.2.1. THE RETURN ON INVESTMENT FOR CENTRALIZED PRODUCT CATALOG MANAGEMENT

A recent survey¹ conducted for the retail market regarding product information management identified the following figures:

- > 25 % average improvement in business benefits
- > 24 % average cost reduction

These benefits hold the potential for significant and rapid return on investment (ROI). In the survey, 63 percent of businesses experienced increased sales resulting from an improved relationship with retailers. Meanwhile, 59 percent reported reduced logistical costs through better replenishment planning. Another 60 percent said that time spent by clerks, or warehouse personnel, correcting discrepancies or errors, was significantly reduced.

1. Source: The Yankee Group, 2005, "The Cost of Waiting: Building the ROI Case to Implement Product Information Management Now" by Jason Corsello

FIGURE 4 (SOURCE FOOTNOTE 1 - SEE ABOVE)
WHAT CONSEQUENCES OR COSTS WILL BE MOST SIGNIFICANT FOR YOUR ORGANIZATION IF IT DOES NOT IMPLEMENT A PIM SOLUTION NOW?

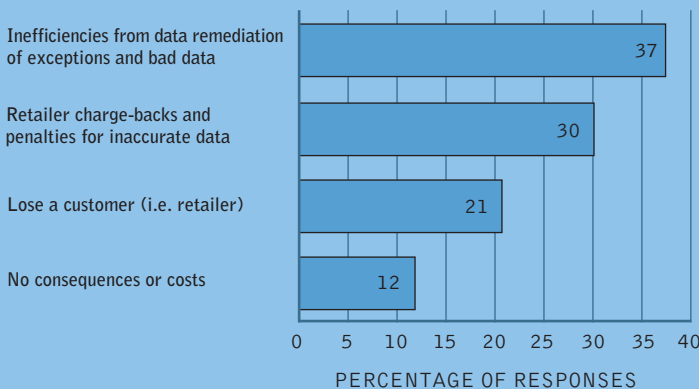
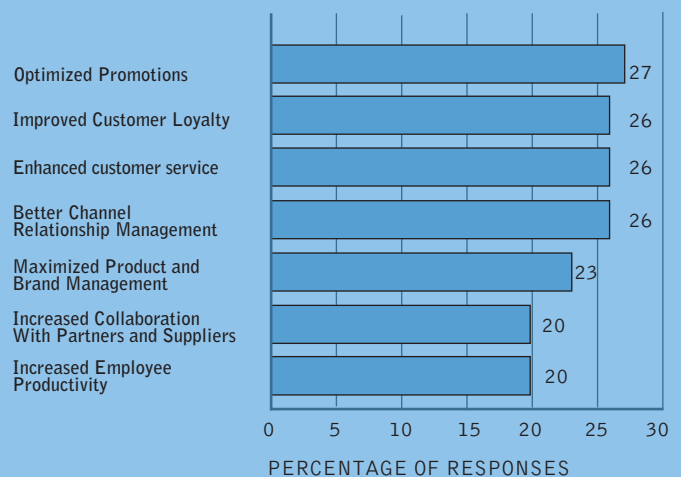


FIGURE 5 (SOURCE FOOTNOTE 1 - SEE ABOVE)
PIM YIELDS 25% AVERAGE IMPROVEMENT IN BUSINESS BENEFITS



3. BUSINESS BENEFITS OF THE ENTERPRISE PRODUCT CATALOG

Business success in this highly-competitive environment means addressing several important challenges, including:

- > Reducing time-to-market for new products and services
- > Creating attractive bundles within, and across, traditional lines of business
- > Delivering an optimal and intentional customer experience

An enterprise product catalog will assist service providers in coping with these challenges by enabling them to bring the right products, services and bundles to market, at the right time. It will provide:

- > Enhanced operational simplicity and efficiency
- > Improved market offerings
- > Improved business efficiency through sharing information
- > Accelerated time-to-market
- > Optimized product lifecycle management across the organization
- > Enhanced ability to structure and deliver the correct customer offers

3.1. OPERATIONAL SIMPLICITY AND EFFICIENCY

The implementation of an enterprise product catalog will provide synchronization that ensures consistency, as well as eliminating the operational barriers arising from disparate and inconsistent product catalogs. Strong versioning and access control mechanisms also enhance auditing and control capabilities for effective collaboration across the entire organization.

Enterprise product catalogs act as a central repository which is shared between billing, CRM and content revenue management applications. They also feature import and export capabilities based on the industry-standard XML format. This enables interoperability with other systems, and facilitates integration into service providers' existing heterogeneous environment.

The implementation of an enterprise product catalog allows service providers to trade their synchronicity problems for a single user interface and a common repository. They also gain a consolidated view of products across the enterprise, BSS and OSS systems which improves operational efficiency and reduces overhead costs. And improved visibility of both products and their profitability will be achieved by integrating with key enterprise assets, such as marketing intelligence and the data warehouse.

3.2. IMPROVED MARKET OFFERINGS

Enterprise product catalogs help companies to optimize revenue generation by providing them with greater flexibility in defining offerings across multiple lines of business. This is possible due to advanced bundling, discounting and promotion mechanisms which allows service providers to tailor their offerings to match the specific needs of each customer segment. This helps to improve customer loyalty and profitability.

3.3. FASTER TIME-TO-MARKET

By streamlining the business processes associated with new product introduction, enterprise product catalogs can reduce the product development cycle by at least 40 percent, as well as greatly increasing service providers' agility. And by allowing service providers to respond quickly and efficiently with new marketing initiatives to changing market conditions, this offers them a much-needed competitive edge.

3.4. IMPROVED PRODUCT LIFECYCLE MANAGEMENT

Enterprise product catalogs allow service providers to create and maintain all the product data they need in order to support the product lifecycle, as well as to accommodate product information for other business processes such as ordering and self service, supply chain management, data warehouse and reporting (supporting product configurations, validations and various product other product attributes).

By adopting an enterprise product catalog, companies will directly improve their product lifecycle management and all key personnel will be aligned on an agreed-upon set of business processes. The enterprise product catalog ultimately improves product managers' efficiency and effectiveness.

4. TURNING PRODUCT LIFECYCLE MANAGEMENT INTO A REALITY

3.5. CUSTOMER CENTRICITY

Bundling is an excellent example of integrated customer management (ICM) in action – where putting products together delivers greater value to the customer, while achieving maximum value for the service provider. It also requires all three elements of ICM in order to successfully support effective and lucrative bundling:

- > **Customer centricity** – understanding customers' bundling desires
- > **Alignment** – coordination across all the different lines of business
- > **Agility** – of business processes and IT systems.

One of the most important benefits of the enterprise product catalog is that it enables service providers to dramatically improve the purchasing experience for their customers. It ensures that, no matter which customer touchpoint is being used – contact center agents, self-service or point of sale – only one single application (the enterprise product catalog) is needed to provide the required product information for all.

And if necessary, a more advanced enterprise product catalog also performs the run-time execution and evaluation of product data. This enables service providers to have self-service channels and points of sale which can function as online stores, which helps to shift customers away from contact centers and to help deliver the *intentional customer experience*TM.

In this way, the enterprise product catalog not only provides greater value for service providers, but also for their customers.

It's true that finding the right solution to fit your requirements for an enterprise product catalog is a critical first step. But this will not, by itself, solve the entire challenge of managing the product lifecycle. In reality, the product lifecycle is a very complex business process, which stretches across organizations, skill sets, and even geographies. So, in order to ensure that all the people and systems involved in the entire product lifecycle process are streamlined in the most efficient way for business success, service providers need to take a holistic approach and apply it across three aspects – people, processes and technology – all of which are common to complex data integration projects:

- > **People Alignment** – of business and organizational units, identifying the underlying job types and key stakeholders that impact the product lifecycle management business process
- > **Process Design and Automation** – bridging process complexities and enterprise barriers and using technology tools in order to streamline workflows.
- > **Product Catalog Rationalization** – rationalization of system and data prior to the integration to the enterprise product catalog. It also means eliminating the possibility of inherited inefficiencies, such as redundant and inactive products, and data errors. This ensures that the enterprise product catalog provides clean, high-quality data therefore making it the system of record for product information

The call for action linked to any enterprise product catalog initiative, must not just leverage the best product, but also needs to address these aspects to ensure a lower cost of delivery, accelerated time-to-market for new products and an enhanced customer experience.

FOR FURTHER INFORMATION REGARDING AMDOCS ENTERPRISE PRODUCT CATALOG, PLEASE CONTACT YOUR SALES REPRESENTATIVE OR SEND A MAIL TO: FOUNDATION@AMDOCS.COM

ABOUT AMDOCS

Amdocs combines innovative software and services with deep business knowledge to accelerate implementation of integrated customer management by the world's leading service providers. By delivering a comprehensive portfolio of software and services that spans the customer lifecycle, Amdocs enables service companies to deliver an *intentional customer experience*[™], which results in stronger, more profitable customer relationships. Service providers also benefit from a rapid return on investment, lower total cost of ownership and improved operational efficiencies. A global company with revenue of \$2.48 billion in fiscal 2006, Amdocs has over 16,000 employees and serves customers in more than 50 countries around the world.

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