



SAS® and Amdocs Solution for Communications

Get the most out of your data to improve all aspects of the customer experience, business performance and profits.



Overview

Amdocs is the world leader in business and operational support systems, providing communications service providers (CSPs) with the best portfolio of products that touch every aspect of the customer experience – billing, CRM, ordering, self-service, digital content delivery, network capacity management, service fulfillment and service assurance.

At SAS, our core competencies are in business analytics, customer intelligence and risk management. Our software is in use at more than 200 CSPs that are getting more value from their enormous volumes of data.

SAS and Amdocs have partnered to develop a comprehensive data model covering all major business areas and entities defined by the TM Forum SID model. The Amdocs analytical connector enables SAS advanced analytics processes to use data from the Amdocs Customer Experience Systems to return analytical results to enable fact-based decision making.

Challenges

- **Confusing and unsuitable offers.** The number of options available can cause customer confusion and may lead to the belief that a different rate plan is more suitable.
- **Ineffective segmentation/profiling.** Customer segments are infrequently updated and complex behavior patterns are hidden in volumes of data across multiple systems.
- **Identifying payment risks.** It is difficult to cluster subscribers into groups based on willingness and/or ability to pay without real-time profiling.
- **Identifying market influencers.** Increasingly, consumer purchase behavior and loyalty are influenced by friends and acquaintances.
- **Quick response to changes in customer sentiment.** Understanding the Web traffic generated by specific social media activities or assessing the tone of references to a brand or product doesn't go far enough in developing insights.



“Combining the Amdocs Customer Experience System with powerful business analytics from SAS can enable communications service providers to transform themselves into a more customer-centric organization.”

Ari Banerjee
Senior Analyst
Heavy Reading

The SAS® and Amdocs Solution

The SAS and Amdocs offerings provide:

- **Reduced implementation risk.** Amdocs and SAS have the software assets, integration experience and track record to deliver solutions within budget and expected time frames.
- **Lower total costs of ownership.** The demonstrated integration with Amdocs provides a proven application platform designed to reduce the overall costs of implementing the solution.
- **Faster time to market.** Amdocs and SAS can provide the solution today, minimizing customization. This turnkey packaged approach creates differentiated capabilities that address business needs now.

Benefits

CSPs capture enormous quantities of unique and varied customer data; however, they lack this insight. There are call detail records (CDR), applications data, trouble tickets and external data, as well as data from sales, marketing and billing. There is customer data, network performance and financial data. However, rarely do CSPs take full advantage of this data. Too much data is not integrated or analyzed sufficiently to be of use to CSPs. We help CSPs get the most out of their data to improve all aspects of the customer experience, business performance and profits. With SAS and Amdocs, CSPs can increase customer revenue, prevent churn, improve campaign ROI and optimize network, service and IT resources.

Grow Customer Revenue

Increase ARPU by gaining an integrated view of the customer, creating more targeted and granular customer models and implementing effective campaigns.

- **Gain a holistic view of the customer**
Create a unified customer view across business units such as customer service and marketing, across services such as fixed and wireless, and eliminate duplicate customer records and trouble tickets.
- **Develop more effective customer models**
Target profitable prospects for cross-sell and up-sell and develop effective contact strategies by creating segments that incorporate attitudes, predicted preferences and degree of social influence.

Keep Profitable Customers

Improve the experience and retention of profitable customers by analyzing these customers and why they churn, prioritizing their issues and implementing more effective retention strategies.

- **Proactively respond to churn**
Identify customer behavior that might indicate churn so you can successfully implement a retention campaign.
- **Determine profitability**
Quantify customer value and focus on developing relationships with the most valuable customers.

Improve Campaign Return on Investment

Use customer insights to understand and segment customers, manage and automate campaigns and select the optimal mix of offer, customer and channel.

- **Implement specific policies**
Create policies that are consistently managed and incorporated into each campaign.
- **Optimize campaign ROI**
Optimize ROI for campaigns, taking into account price, channel capacity, budget, offer, etc. while ensuring campaigns meet objectives.

Optimize Network, Service and IT Resources

Prioritize resources in areas that have the most impact on the customer experience by identifying customer issues, analyzing performance and costs, forecasting demand, and optimizing resource allocation and planning.

- **Understand the impact of network issues**
Gauge the impact of network issues/failures on the customer's experience.
- **Forecast traffic demand**
Accurately foresee various services and traffic demand at the element level.
- **Prioritize repairs and customer issues**
Better understand root causes of events and their impacts to prioritize repairs and service issues.

Capabilities

Whether your need is to grow customer revenue, prevent profitable customers' churn or optimize resources, SAS provides the strongest, most wide-ranging analytical capabilities supporting the communications industry and is aligned with Amdocs' Customer Experience Systems (CES) portfolio.

Integrate the Customer View

- **Data management:** Extract, cleanse, transform, conform and integrate virtually all internal and third-party data sources, including structured and unstructured data (such as email, voice mail and call center records). This capability was developed in close collaboration with Amdocs.
- **Analytics architecture for communications:** Use a comprehensive, customizable and scalable data model that enables CSPs to include data from across multiple systems and service lines (fixed, mobile, broadband, cable, TV, etc.) for use by analytical applications. To protect the CSP's investment, the analytics archi-

ture is aligned with the TM Forum Information Frameworks – also known as the Shared Information Data (SID) model, the industry standard. The output is fed to Amdocs' CES.

Analyze the customer experience

- **Customer analytics for communications:** Use precise and comprehensive predictive customer behavior models that address customer segmentation, churn prediction and propensity to purchase additional products. The output of this analysis to fed to Amdocs CES.
- **Customer link analytics:** Identify social communities based on relationships between customers, measure and segment customers based on social influence, and target customers based on changes within their social communities. Discover social networks between customers and uncover leaders, followers and other members within social communities.
- **Data mining:** Create predictive and descriptive models by uncovering trends and patterns in vast amounts of data from across the enterprise.
- **Real-time analysis:** Combine SAS Analytics with business logic and contact strategies to deliver real-time decisions and recommendations to interactive channels, such as the Web, call center and point of sale (POS).
- **Text analytics:** Maximize the value of information within large quantities of text by extracting, interpreting, mining and structuring information to reveal patterns, common sentiments and relationships among documents.

- **Cost and profitability management:** Create business process models to determine cost, profitability and drivers. Provide accurate cost and profit calculations based on the rule-driven allocation of expenses and revenue down to the individual transaction.
- **Social media:** Accumulate knowledge about relevant customer conversations by integrating a variety of pertinent online data across CRM systems, traditional news sites and social media forums, then preserving that rich content in an analysis-ready state. Tailor topics to your critical business issues by interpreting conversation data to address specific business decisions across market strategy, media planning, interactive/Web marketing, public relations and customer care.

Improve the customer experience, business performance and profits

- **Offer optimization for communications:** Efficiently determine the optimal offer for each customer in advance of a customer interaction. Perform complex calculations of individual customer bills under any number of price plans, giving operators a precise, analytically driven, prioritized list of offers that balance the customer's desire to reduce cost with the operator's need to maximize profits. Factor into campaigns multiple weighted objectives and constraints such as policies and budgets. Developed in conjunction with Amdocs, the output is fed to the CES.

- **Campaign management and automation:** Combine analytics with business logic and contact strategies to deliver real-time decisions and recommendations to interactive customer channels. Plan, test and execute inbound, outbound, multichannel and multi-offer marketing campaigns.
- **Forecasting:** Understand which key business drivers are having the highest impact on consumer demand. Test “what-if” scenarios such as price changes or promotions, and determine their likely effect on future demand. Analyze and forecast processes that take place over time. Identify previously unseen trends and anticipate fluctuations so you can more effectively plan for the future.
- **Optimization:** Identify the actions that will produce the best results, while operating within resource limitations and tight restrictions with a powerful array of optimization, project scheduling and simulation techniques. Consider more alternative actions and scenarios, and determine the best allocation of resources and the best plans for accomplishing goals.
- **Payment risk:** Effectively allocate resources in the credit and collections process. Reduce accounts receivable and days sales outstanding. Access and manage disparate data automatically to ensure accurate information, regardless of application, source, format or environment.

THE SAS® DIFFERENCE:

SAS’ proven software, services and best practices provide an integrated solution that delivers exceptional insights to improve the customer experience, business performance and profits. Amdocs is the market leader in CES innovation. Working together, SAS and Amdocs offer:

- **Superior data management.** SAS lets you extract structured and unstructured data from nearly any source and transform it, as well as from third parties and across business and service lines for a holistic customer view.
- **A communications-specific customer data model optimized for analytics.** An optional communications data model addresses segmentation, cross-sell/up-sell, churn, and product bundling optimization.
- **Powerful analytics.** Data and text mining and detailed segmentation/profiling help you understand and predict customer behavior.
- **Social influence analysis.** Identify social communities and measure social influence based on relationships between customers using role-based variables to enhance existing segmentation models and discover how best to target influencers.
- **Critical early-warning alerts.** Only SAS lets you establish triggers that automatically send early-warning alerts when a key customer’s behavior is about to change – so you can intervene early enough to make a difference.
- **Cost and profitability analysis.** Calculate cost and profitability of activities tied to campaigns as well as customer, channel and product profitability.

- **Forecasting.** Identify previously unseen trends and anticipate fluctuations so you can more effectively plan for the future.
- **Patented optimization.** Our patented algorithms are more precise, scalable across data volumes, flexible and can be applied to many business activities, such as marketing campaigns, resource planning and allocations. Multiple weighted objectives can be built in the model for optimal results.

SAS provides an evolutionary growth path that lets you address your most critical business issues first, then add new functionality over time as your needs change.

Learn more at sas.com/success.

Ensure Success with SAS’ Proven History and Leadership

- SAS is listed in the Leaders quadrant of Gartner’s 2010 *Magic Quadrant for CRM Multichannel Campaign Management*¹ and the *Forrester Wave* for cross-channel campaign management.²
- For eight consecutive years, *CRM* magazine has recognized SAS as the leading provider of CRM analytics.
- SAS Marketing Automation has been named Product of the Year for two consecutive years by *Customer Inter@ction Solutions* magazine.

¹ Gartner Inc., *Magic Quadrant for CRM Multichannel Campaign Management*, Adam Sarner, May 13, 2010.

² *The Forrester Wave: Cross-Channel Campaign Management, Q4 2009*, Suresh Vittal, December 14, 2009.



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