



SAS® Real-Time Decision Manager

Boost profitability and improve customer experiences using automated decision processes enhanced by real-time analytics

What does SAS® Real-Time Decision Manager do?

SAS Real-Time Decision Manager combines SAS Analytics with business logic and contact strategies to deliver enhanced real-time recommendations and decisions to interactive customer channels such as websites, call centers, point of sale (POS) locations and automated teller machines (ATMs).

Why is SAS® Real-Time Decision Manager important?

SAS Real-Time Decision Manager helps you make smarter decisions by automating and applying analytics to the decision process during real-time customer interactions. By successfully meeting each customer's specific needs at the right time, the right place and in the right context, your business can become more profitable.

For whom is SAS® Real-Time Decision Manager intended?

SAS Real-Time Decision Manager provides distinct capabilities for marketers who define communication strategies, executives who need reports on marketing effectiveness, business analysts who model and predict customer behavior and campaign managers who create target customer segments.

Overview

As competition stiffens, organizations find they need to shift from a strategy focused on product differentiation to one focused on enhancing the customer experience. Successfully implementing this strategy creates a unique and sustained competitive advantage, enabling rapid response to changing market dynamics. Innovative, interactive marketing tactics such as real-time decision making can prompt significant improvements in sales and retention, revenue and profitability, and overall customer experience.

In the past, implementing real-time decision making was difficult and resource-intensive. First, business users described requirements to IT staff, who then spent weeks or months "hard coding" business and analytical logic into applications. The lengthy process and frequent miscommunications caused many missed opportunities and incorrect executions. By the time everything was implemented, market conditions and customer needs had often changed – so the process had to start over again. Problems were magnified when multiple channels were involved, because that meant coordinating both strategy and timing.

SAS Real-Time Decision Manager enables organizations to keep pace with market and customer demands – without overtaxing IT resources. Combining SAS Analytics with business logic and contact strategies, the software delivers intelligent, real-time recommendations to multiple, interactive channels such as websites, call centers, POS and ATM locations. The software can recommend next best actions and make analytically based decisions about credit

authorization, fraud analysis, complaint handling and more. By meeting each customer's needs at the right time, the right place and in the right context, your business can become more profitable.

Key Benefits

- Boost profitability by automating the decision process.** Access and analyze critical, up-to-date information during decision cycles to determine which choices are optimal for your business. The solution provides faster, more accurate decisions about customers during real-time interactions – even in high-volume environments like call centers and Web applications. Automated decisions are repeatable and reusable to improve cycle time.
- Meet customer needs – right time, place and context.** Real-time analytics provide insight during customer interactions and help ensure that each interaction is relevant. Through a single solution across all channels, the software recommends the best action for each customer. Immediate decisions can be made based on analysis of current and historical customer data, the customer's preferences and past decisions – combined with information obtained during real-time interactions.
- Reduce dependency on IT resources.** Business users can construct and modify the automated decision process without IT assistance, including incorporating SAS analytical models into decisions. They can also coordinate interactions across multiple channels by accessing customer interaction data from other solutions, such as SAS Marketing Automation.



Solution Overview

SAS Real-Time Decision Manager automates and enhances the decision-making process for high-volume, customer-facing systems and helps organizations execute strategies across channels in a consistent, focused manner. Business users construct decision processes in an interactive, visual environment. As they build decision processes that utilize various data sources, business users can apply advanced analytic techniques and business logic. As a result, customer-facing employees can quickly make decisions that enrich the customer experience and increase profitability.

Next best action

With SAS Real-Time Decision Manager, you can make “next best action” an integral part of your marketing strategy. This is important, because deployment of next best action can achieve much higher response rates than standard outbound promotions. Next best action requires asking questions such as: What approach will maximize the customer relationship when contact occurs? Is selling more important than retention? Is risk management more important than selling? Is the next best action ever no action? Once these questions are answered, highly granular differentiation is enabled through further segmentation, determination of offer eligibility and prioritization – all using analytical insight, which forms the basis for delivering a wide variety of customer propositions.

Real-time analytics

To use insight gained during real-time customer interactions and to ensure that each interaction is relevant, SAS Real-Time Decision Manager relies on real-time analytics to recommend the best action for each customer. By combining analytics with business rules, you can use both historical and real-time data to make the best possible decision about each customer. SAS Real-Time Decision Manager uses the SAS Analytics Platform to provide a wide array of analytic capabilities in the decision-making process – including customer lifetime value, propensity, attrition and credit risk modeling.

The screenshot displays the SAS Real-Time Decision Manager interface, which is overlaid on a web browser window showing the First Telco website. The interface is divided into several sections:

- Customer Profile:** Displays the name Peter Thorne and various status indicators like High Value, Bargain Hunter, and Available Credit.
- Customer Summary:** Shows key performance indicators: Conversation Rate (35%), Satisfaction (42%), Communication (68%), and Social Influence (24%).
- Recent Contacts:** A table listing recent interactions with date, channel, direction, outcome, and notes.
- Policy Summary:** A table listing product references, descriptions, purchase dates, and warranty expiry dates.
- Top Offers:** A list of recommended products such as Sony Bravia 40" TV, Sony Blu-Ray Player, and Sony Playstation 3 Slim, each with a 'Was' and 'Now' price and a 'Customer Interest' bar.
- Navigation and Tools:** Includes a 'Frequent Tasks' sidebar, a 'Running Tasks' section, and a 'Requested Status' dropdown set to 'Break'.

Date	Channel	Direction	Outcome	Notes
04/12/2010	Telephone	Inbound	Information pack sent out	Customer interested in Nikon CoolPix Digital Camera
02/15/2010	Self Service	Inbound	Warranty Extension	Customer wants to extend Warranty by 1 year on Ipod Touch
01/21/2010	Email	Inbound	Speakers Sold	Customer price checking Ipod Touch Speakers

Product Reference	Description	Purchase Date	Warranty Expiry
NL20-10MP	Nikon CoolPix i20 Red 10MP Digital Camera	04/16/2010	04/16/2011
AIT-B8	Apple Ipod Touch 8GB Black	02/07/2010	02/07/2012
AITS-B40	Apple Ipod Touch Speakers Black	01/21/2010	01/21/2010

Figure 1: SAS Real-Time Decision Manager can help make smarter offers and improve your customer's experience whether your customers interact through a Web browser or the call center. (Screen capture provided by SAS Alliance Partner Sword Ciboodle.)

Agile construction of decision processes

To reduce implementation and deployment time, SAS Real-Time Decision Manager provides a graphical user interface for constructing decision processes. This interface lets you design decision processes intuitively rather than through cryptic programming and rules. For example, you can construct processes by dragging and dropping a set of reusable, out-of-the-box tasks. These commonly used tasks are included with the software, but they can also be augmented with reusable custom tasks created from SAS code.

Enterprise-class performance

Even if the right decision is ultimately made, customer experience can suffer when decisions are not timely or consistent. SAS Real-Time Decision Manager is built on a multitier architecture with server clustering capabilities – so even high-volume, 24/7 enterprises can make intelligent customer decisions and deliver high-quality customer experiences every time. Failover and sophisticated error-handling capabilities guarantee that a decision will be delivered to the customer, even when there are complications during decision processing.

Key Features

Real-time analytics

- By using the comprehensive and integrated SAS Analytics Platform, real-time analytics provide insight to help inform interactions with customers.
- Analytics such as customer lifetime value, propensity, attrition and credit risk modeling can be implemented in a real-time, operational environment.
- Analytics can be combined with business logic to provide optimal decisions about the customer.

Enterprise-class performance

- Failover and error-handling capabilities ensure that a decision is delivered every time.
- Server clustering capabilities ensure decision deliveries even in high-volume transactional environments.

Agile decision process construction

- Decision processes can be rapidly constructed as diagrams, through an interactive graphical user interface that includes reusable, out-of-the box tasks.
- By sharing a common graphical user interface with SAS Marketing Automation, the software reduces the cost and effort required to manage inbound and outbound marketing.
- Integration with SAS Model Manager allows you to rapidly verify and deploy SAS algorithms for use in real-time decisions.
- Complex decision diagrams can be built by combining simpler “sub-diagrams” to use and share with other decision diagrams.
- Individual, group and role-based security is supported at the business process level.
- The SAS Management Console supports deployment of decision processes from design to test to production servers.

Connectivity

- A standards-based, service-oriented architecture deploys SAS Analytics into high-volume, real-time computing environments.
- All types of data – including a customer’s historical information, market factors data and in-session information from real-time interactions – can be accessed to make an appropriate customer offer or communication.
- Contact and response history is collected and shared with SAS Marketing Automation, so both solutions access results of both outbound and inbound customer interactions.
- The software supports the SAS Customer Intelligence common data model and reporting infrastructure, enabling detailed reports with business intelligence tools.

Technical Requirements

SAS Real-Time Decision Manager is a multitiered, standards-based J2EE solution built on the flexible platform for SAS Business Analytics. No other marketing software product can match the performance, robustness and degree of integration provided by SAS.

Client Applications

Supported platforms

- Windows XP Professional and Vista Business
- Windows 7

Middle-Tier applications

Supported platforms

- Sun Solaris for SPARC, Windows 64-bit, AIX, Red Hat Linux
- Novell SuSE

Required products (included in package)

- SAS Real-Time Decision Manager Operational Mid-Tier 5.4
- SAS Real-Time Decision Manager Design Mid-Tier 5.4

Additional software required

- IBM WebSphere Application Server
- IBM WebSphere MQ

SAS® Application Server Tier

Supported platforms

- For SAS Real-Time Decision Manager Server:
 - Sun Solaris for SPARC
 - Windows 64-bit
 - AIX
 - Red Hat Linux
 - Novell SuSE
- For SAS Real-Time Decision Manager Metadata Server:
 - AIX
 - HP-UX Itanium: HP-UX 11iv2 (11.23), 11iv3 (11.31)
 - HP-UX PA-RISC: HP-UX 11iv2 (11.23), 11iv3 (11.31)
 - Sun Solaris for SPARC
 - Windows 64-bit

Required products (included in package)

- SAS Real-Time Decision Manager Server 5.4
- SAS Real-Time Decision Manager Metadata Server 5.4

Database Compatibility

SAS Real-Time Decision Manager 5.4 can connect to Oracle, IBM DB2, Teradata and Microsoft SQL Server using SAS/ACCESS® (included in the package).

Optional software

- SAS client and mid-tier require Java 5

Please contact your SAS representative with any additional questions about technical requirements.

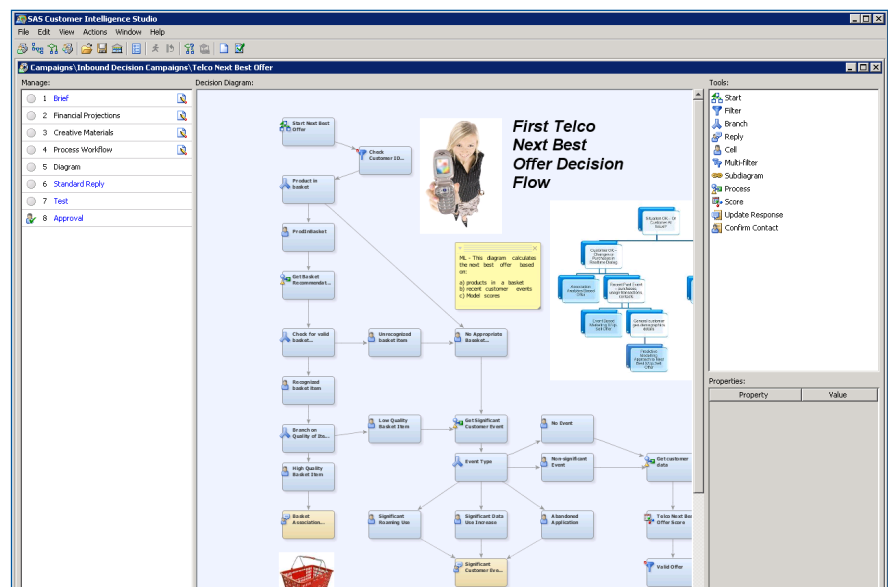


Figure 2: SAS® Real-Time Decision Manager allows users to build simple or complex decision processes using intuitive graphical interface.