

This FAQ provides answers to Frequently Asked Questions pertaining to the Oracle Personalization Product.

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1.0 What is OracleAS Personalization?

OracleAS Personalization is part of Oracle Application Server 10g Enterprise Edition — the industry's most complete and integrated application server — providing real-time personalization for e-business sales channels, such as Web Stores, application hosting environments and call centers. OracleAS Personalization provides an integrated real-time recommendation engine that is deployed via Oracle Application Server.

By delivering real-time personalization via OracleAS and Oracle Database 10g, OracleAS Personalization delivers powerful, scalable real-time personalization for customer "touch points." This enables e-businesses to deliver tailored, 1:1 customer experiences that will turn browsers into buyers.

OracleAS Personalization uses data mining technology to sift through the reams of e-business data generated from customers' clicks, transactions, demographics, and ratings data gathered from Web sites. Oracle Personalization is designed to meet the challenges of vast amounts of Web data and yet enable the personal, 1:1 relationships that e-businesses require in order to compete today. Because it benefits from the scalability of Oracle Database 10g, OracleAS Personalization can analyze large volumes of customer data while preserving the uniqueness of individual customer relationships.

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2.0 Why would a business benefit from using OracleAS Personalization?

Today's e-business must compete by maintaining personal, one-to-one relationships with their Web customers — both registered customers and anonymous Web visitors. OracleAS Personalization helps companies provide true 1:1 relationships over the internet by providing e-customers with customized product recommendations, ratings of the likelihood that the customer will "like" the recommendations, and improved site navigation based on their interests and profiles.

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3.0 What is the target market?

Business-to-consumer and business-to-business customers and Application Service Providers (ASPs), who need to personalize their customer "touch points" to support business-critical operations will gain a competitive advantage from OracleAS Personalization's ability to deal with both explicit (purchases, ratings and demographic information) as well as implicit information (mouse clicks and pages visited).

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4.0 What types of scenarios does OracleAS Personalization address?

OracleAS Personalization provides real-time recommendations and answers to questions such as:

- * Which items is this person most likely to buy or like?
- * People that bought or like this item are likely to buy or like which other item(s)?
- * How likely is this person to buy or like this item?
- * Which items is this person most likely to buy or like given he likes or is buying another item?

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5.0 What is the OracleAS Personalization architecture?

OracleAS Personalization uses SQL queries for obtaining scores, which can be executed in real-time or batch mode. Recommendation engines serve OracleAS Personalization's real-time recommendations to Web sites across the enterprise.

OracleAS Personalization's predictive models may be rebuilt on a periodic basis — e.g. daily, weekly, monthly — and deployed to the recommendation engines when they have completed. OracleAS Personalization allows users to create "recommendation engine farms" that are comprised of many recommendation engines serving customized recommendations to the Web site. This architecture is extremely scalable for high-traffic sites. OracleAS Personalization and Oracle Database 10g store the predictive models in memory to handle the high traffic and speed requirements associated with e-commerce sites. Transactional Naive Bayes and Predictive Association Rules data mining algorithms find hidden patterns and customer profiles that drive personalized recommendations.

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6.0 What are OracleAS Personalization's key differentiators?

1. [Real-Time Recommendation Engine Deployed on OracleAS](#)
2. [Model Building Embedded in Oracle Database 10g](#)
3. [Data Mining Technology](#)

Real-time Recommendation Engine Deployed on OracleAS

OracleAS Personalization dynamically serves personalized recommendations (such as products, content, and navigational links) in real-time based on a registered customer's or anonymous visitor's explicit (transactions, purchases, ratings, and demographic data) and implicit (mouse clicks, pages visited, and banners viewed) information.

- **Handles Anonymous Visitors, "Sessions," and Navigational Data**
OracleAS Personalization can make informed recommendations based upon implicit customer information (the pages visited, banners viewed, and mouse clicks). OracleAS Personalization can deal with anonymous visitors because it tracks "sessions" and navigational data. It can take as input Web pages and banners visited and use that information to suggest recommendations or to improve site navigation. OracleAS Personalization can also integrate with applications that do not have session management by creating its own session IDs to track visitor activity.
 - "Anonymous visitor" example: Recommend books about national parks and outdoor cooking to anonymous visitors who are currently viewing cycling and skiing Web pages.
 - "Registered customer" example: Recommend home exercise equipment to people who bought sneakers and winter jackets.
- **Single Administrative GUI**
OracleAS Personalization allows you to build, tailor, manage, and deploy many recommendation engines enterprise-wide from a single administrative interface. Additionally, it supports scheduling the deployment of multiple recommendation strategies for different campaigns or time (such as holiday) periods, or to capture and model behavior for specific events, via an events scheduler.

Model Building Embedded in Oracle Database 10g

OracleAS Personalization is completely embedded within the Oracle Database 10g infrastructure, for power, scalability, and minimization of data redundancy. Rather than extracting the data to an external data mining server, OracleAS Personalization collects the data, stores the data, and builds predictive models — all within Oracle Database 10g— and then deploys real-time recommendations on OracleAS.

- **Scalability**
Because it benefits from the scalability of Oracle, the world's most powerful database and application server for e-business, OracleAS Personalization analyzes large volumes of customer data while preserving the uniqueness of individual customer relationships — delivering personalized recommendations in real-time.
- **Complete, Integrated Solution**
OracleAS Personalization combines customer information from a variety of sources, reduces data movement and redundancy, and provides a 360-degree customer view to better understand and satisfy customer needs. Because this information is in Oracle Database 10g, it is available for all other Oracle applications and users.

Data Mining Technology

Powerful data mining technology embedded in Oracle Database 10g automatically discovers individualized behavior patterns to generate highly accurate personalized recommendations in real-time.

- **Tunable**
OracleAS Personalization provides access to advanced, tunable modeling and recommendation parameters via an API, for Java application developers.
- **Recency factor**
OracleAS Personalization handles current session behavior separately from historic data, enabling a merchant to assign them different weights. In contrast, traditional collaborative filtering techniques cumulate implicit ratings over time — for example, a browsing session 3 years ago would be given the same weight as a current browsing session of the same visitor.
- **Personalization Index**
OracleAS Personalization provides the ability to tune recommendations from the expected recommendations to "surprise" recommendations. Rather than always recommending the obvious, this allows Web sites to provide alternative recommendations that may be of more value to the customer. Personalization Index settings can be uniquely set for individual visitors or different areas of the Web site.
- **Current "session" vs. historical behavior**
OracleAS Personalization offers the flexibility to weight recent activity more heavily than past purchases and to make other adjustments at the API level to provide fine-tuned recommendations for each visitor.
- **Automated**
OracleAS Personalization provides automated predictive model building, model deployment, and performance reporting.

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7.0 Does OracleAS Personalization have an API?

Yes. The OracleAS Personalization API allows e-businesses to offer real-time personalization to their registered customers and Web visitors for any Java Web site running on OracleAS. The OracleAS Personalization API allows customers to instrument their Web sites to collect customer "click" data. This API eliminates the need to sift through mountains of noisy click=stream data.

OracleAS Personalization's flexible and tunable recommendation API enables applications to deploy a variety of recommendation strategies. The API allows the application developer to specify various model-tuning parameters. Hence, the real-time recommendations can be tuned to support the needs of a variety of "customer touch points."

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