**hp IQ Center**

# ODS design and implementation

building real-time solutions for Oracle® databases.

**benefits of the operational data store (ODS) solution from the new hp:**

- Provides a real-time, integrated view of enterprise data
- Helps you close the loop on business processes.
- Allows you to manage growing volumes of information in real time.
- Reduces management costs with single-system access
- Enables real-time decisions based on up-to-the-second information

### real-time access to a common Oracle database

When your customer information is contained in different information systems, it's difficult to be responsive. If you want to access your latest customer data – regardless of where it's stored – Hewlett-Packard is ready to help you create an integrated, *real-time* view of your enterprise with a single common database.

HP offers real-time solutions for Oracle databases that use an Operational Data Store (ODS) to provide high-performance, sustainable levels of service for your real-time business needs. This approach supports a mixed workload of database transactions including high-speed inserts, On-Line Transaction Processing (OLTP) operations, and Decision Support System (DSS) queries.

To ensure these real-time solutions meet the unique requirements of your business, HP offers an *ODS Design and Implementation Service*, which is delivered by the HP IQ Center in conjunction with the Hewlett-Packard Services organization. HP can design and build an Operational Data Store for you on Oracle *9i* Real Application Clusters or Oracle *8i* databases using its Real-Time ODS Manager

### hp real-time ODS manager

The Real-Time ODS Manager is licensable, patent-pending software that provides transaction management and database management plus application interfaces based on industry standards to achieve high-performance service levels for data transactions. The ODS Manager provides two well-documented APIs including a CORBA C++ compliant interface and an Enterprise Java Beans (JAVA 2 Enterprise Edition) API.

The ODS Manager supports three classes of transactions: high-speed inserts, OLTP, and Decision Support System queries. The unique software included in the ODS Manager is a high-speed exchange process that provides a sustained level of performance for inserting transactions. The exchange process is tunable based on parameters set by the operator to optimize the performance of inserts and queries. The query table in the ODS is designed for rapid queries, whereas the exchange process is designed for rapid inserts, thus providing the best support for mixed workloads.

### what is an operational data store?

A real-time Operational Data Store (ODS) is a set of detailed information collected from databases dispersed throughout an enterprise. An ODS supports the *time-critical* operational requirements of the business bridging information gaps by:

- Creating an environment tuned to information delivery
- Containing data at detailed transaction levels
- Synchronizing information across all relevant source systems
- Maintaining a unified state of business operations

This provides an integrated, up-to-date view of business information that can be readily accessed by those who need it, when they need it.

### who can benefit from ODS design and implementation services?

Any organization that needs real-time access to customer information, or wants to offer its customers real-time access to their account data can profit from an HP ODS implementation. Hewlett-Packard has many years of experience assisting customers and application partners with software and hardware systems, and a wealth of technical expertise and project experience.

Traditionally, IQ Center service customers have already defined their goals and objectives. They know what they want to achieve and, once informed of the service availability, recognize the value of having IQ Center guidance and assistance in their projects.

The application developer defines transactions for the ODS Manager in a map file. This file contains the SQL statement to be used and the class, type, and priority of the transactions. Transaction definition and mapping simplifies the data required to be transferred in client-server communications. It also enables the ODS Manager to sustain high-level performance for the insert transactions by deferring lower priority transactions using the transaction priorities which are time delays set by the user.

## ODS design and implementation service objectives

The objectives of the ODS Design and Implementation Service are:

- Develop a project plan for designing and implementing an ODS
- Confirm the mixed workload requirements
- Design and document the ODS schema to support key business applications
- Specify the data loading and updating procedures
- Define the ODS parameters to achieve the specified performance levels
- Implement and load the ODS
- Tune the implementation as required to meet the performance requirements
- Validate the implementation
- Oversee training

The IQ Center and Hewlett-Packard Services have a large team of architects, software system engineers, and technical project managers to assist your IT organization. These engineers are fully qualified to help you evaluate your objectives and chart the most efficient, effective real-time database implementation. They have the in-depth experience, technical expertise, and an understanding of the operational aspects of large-scale, business-critical enterprise applications.

The HP IQ Center is co-located with software engineering groups and has 30,000 square feet of lab space where application environments can be created and where an ODS or other real-time solutions can be tested, validated, and fine-tuned for optimum performance.

## ODS service activities

The IQ Center team uses the Hewlett-Packard Services Architecture Methodology to ensure that the requirements of everyone in your organization with a stake in this solution are considered. The team, led by an HP Solution Architect, begins by reviewing your business objectives to determine the full scope of the project. This initial effort results in a Statement of Work defining the deliverables and activities of the project, which include:

- *Project planning* to specify the tasks and resources required to design, implement, and install an ODS and real-time solution. The project plan will include specific milestones and customer reviews.

- A *detailed requirements document* identifying the real-time business, operational, and technical requirements.

- Developing *ODS database design and schemas* that address the documented requirements.

- Establishing *ODS load and update procedures* based on the data sources required and any software necessary to load the ODS.

- *Installing the ODS Manager and set-up Oracle software* to load the initial data using the ODS load and update procedures. Start-up and shutdown scripts for the ODS are also developed at this time.

- *Document design and implementation procedures* to deliver a written description of all development decisions made for your unique solution.

- *Acceptance testing* to demonstrate that the functionality and performance of the ODS and ODS Manager meets, or exceeds, the documented requirements.

- *User training* seminar (for up to 10 students) to review the ODS project including: original requirements; ODS design and implementation; the data load/update procedures and their functionality; and use of the ODS Manager.

## supplemental services

Beyond the ODS Design and Implementation Service, the IQ Center offers a suite of supplemental services that can help you with any future IT project.  These services include:

- Proof of concept, benchmarking, and performance analysis
- Prototype solution development
- Platform migration
- Application and solution integration
- Application testing methodologies
- Performance tuning, optimization, and capacity assessment
- Design of scalable and high-availability configurations

## IQ Center support

Throughout all the phases of ODS design and implementation, you can count on the expertise and support from the solution engineering professionals at the IQ Center.  Our solution engineers work with your IT staff – as well as Hewlett-Packard delivery partners and Hewlett-Packard Services – every step of the way, defining and prioritizing the business and technical goals of the project.

## contact the IQ Center

To find out more about the ODS Design and Consulting Service from the IQ Center:

- Engage the IQ Center by calling **+1 (978) 506 6000** between 8 AM and 6 PM Eastern Time, Monday through Friday
- Contact the center at **iqcinfo@hp.com**
- See our public website at **http://www.compaq.com/iqcenter**