



HP Neoview enterprise data warehousing platform



Information. It's the lifeblood of your enterprise and the key to competitive advantage. Thanks to modern technology, you're generating more and more critical business and customer data. Mountains of it.

A demanding proposition

Enterprises that focus on making use of this information to gain a competitive edge have come to rely on data warehousing as the foundation of their business intelligence (BI) efforts.

Even leading companies with mature and sophisticated BI initiatives are struggling to leverage their information in a timely and cost-effective manner. System complexity, enormous data volumes, and high-performance demands make it difficult to meet the data warehousing/BI goals of the enterprise and keep up with escalating user demand. Many companies have invested millions of dollars and countless staff hours in high-end BI systems, without the required return on investment.

Some corporations have experienced initial success in the early stages of an enterprise data warehouse (EDW) implementation. Even these organizations, however, often find that achieving incremental value or return on investment (ROI) is unattainable for follow-on project stages, as the size and complexity of the system grows. Many corporations have found that the time required to realize the benefit of critical BI projects is far too long, and they cannot access or capitalize on fresh information in a timely fashion. Achieving the benefits promised by BI solutions has proved elusive—until now.

The future of business intelligence from HP

The new HP Neoview enterprise data warehousing platform represents the next generation in enterprise data warehousing. It runs on HP's innovative and reliable infrastructure and provides the scale, simplicity, and trust that make business intelligence usable by everybody—at a fraction of the cost of legacy product offerings. The Neoview platform is unique in providing this combination of enterprise-class capabilities, low cost, and ease of use.

The platform in action

An excellent example of the Neoview platform's ability to take on the most complex data warehousing challenges is its central role in HP's billion-dollar IT transformation, which will continue to roll out over a period of several years. The Neoview platform is being used to build a "single version of the truth" enterprise data warehouse for thousands of HP decision-makers.

HP is consolidating more than 700 data warehouses and data marts onto a single Neoview enterprise data warehouse. The system will rapidly grow to encompass all former BI and data warehousing activities, providing 50,000 users with access to the same global information. HP is combining its leading Neoview platform technology, BI expertise, and best practices learned from this ambitious project to assist customers in successfully implementing their own challenging data warehousing projects.

Companies can rapidly build their enterprise-wide data warehouse on the Neoview platform, or they can nondisruptively add the Neoview platform to their current BI data warehouse infrastructure. Customers continue to use their preferred query, analytical, and reporting tools. And to load data onto the Neoview platform, they can use their current data integration and extract, transform, and load (ETL) tools. All the benefits of the Neoview platform can be realized without costly retraining, relicensing, or loss of investment.

The Neoview platform is an integrated system that provides the dependability, performance, and functionality to meet high-end enterprise data warehousing needs while reducing system management overhead.

It is built on a technology base that has been proven in demanding environments, and is offered on a redeployable, off-the-shelf hardware platform that is standard in most IT environments.



The Neoview platform

- Is a tuned and balanced system that is delivered preconfigured, preinstalled, and tested for fast deployment
- Delivers high-performance response to ad hoc queries without relying on indexes, summary tables, and precomputed aggregates
- Eliminates bottlenecks, which limit scalability, maintaining an I/O-processor balance that delivers consistent and predictable performance
- Includes unique capabilities that support a complex environment of mixed queries, continuous data loading, and updates
- Includes built-in fault tolerance at no additional cost or management overhead
- Preserves existing tool and infrastructure investments
- Provides a complete, integrated software and hardware platform from a single vendor with the expertise to help you achieve your business goals with the lowest possible risk

This unique combination of benefits makes the Neoview platform ideal for organizations that want a high-performance EDW on a low-cost standard platform. It is available from an established full-services vendor and will allow you to reduce cost, reduce risk, and meet your business needs over time.

EDW capabilities

The Neoview platform delivers the full range of capabilities expected of an enterprise data warehouse: massive scale, complex mixed database workload, high concurrency, very complex query handling, and 24x7 availability.

Highly available and real time

As more data is concentrated into the data warehouse, and global users depend on the ability to query the data around the clock, there is no extra time for dedicated data loading or updating of tables, indexes, aggregates, and summarizations. The Neoview platform is designed for 24x7 data availability and is unique in its ability to perform significant updating and loading of data, while all queries continue to run and meet their service-level agreements (SLAs).

Massive power

With hundreds, thousands, or tens of thousands of users submitting queries to a central Neoview platform, massive power and scale are critical success factors. A Neoview platform delivers the aggregate power of up to 256 Intel® Itanium® 2 processors, with 2 TB of memory and 96 TB of user storage.

Complex mixed database workload management

A true EDW is required to manage a complex mix of queries, data loading, and updating simultaneously while meeting SLAs with thousands of users. The Neoview platform provides fine-grained monitoring and control of all concurrent tasks with an easy-to-use graphical user interface that allows you to observe and manage workload and priorities.

High concurrency

The Neoview platform has the ability to handle the processing of large numbers of simultaneous users and their rapidly changing query demands.

Complex query handling

Enterprise data warehouses do more than scan very large tables. They are also called upon to process extremely complex queries that scan, join, and apply computation to large numbers of tables in the system. Some challenging queries are required to perform 15-way, 20-way, and even 30-way joins. With a 15-way join, more than 1.3 trillion different join orders are possible. The Neoview platform's Parallel Query optimizer can intelligently reduce the possible join orders to one finely tuned query plan. HP's internal Neoview platform performs 20-way joins on a daily basis, on huge tables, in as little as 42 minutes.

Exceptional price/performance

Standards-based components

HP has brought together outstanding hardware and software components to create a superior combination of performance, reliability, scale, and cost for enterprise data warehousing. Hundreds of high-performance Intel Itanium 2 processor-based servers are transparently clustered within the Neoview platform. A proven, massively parallel DBMS and system software virtualize all resources and focus their aggregate power on data warehousing.

High-performance Fibre Channel disk modules provide massive bandwidth between the data and the processing hardware. The servers and storage hardware are standard components, produced in high volume to meet the demands of HP's UNIX®, Linux, and Microsoft® Windows® system-based server lines. As a result, the Neoview platform delivers enterprise-class data warehousing at a significantly lower cost than legacy EDW systems.

Simplicity

Minimal data warehouse administration requirements

The Neoview architecture delivers five to ten times more power per gigabyte of data than that of current data warehouse solutions. Much of the need for nightly indexing, aggregation, and summarization is eliminated by the system's ability to overpower the data, and perform aggregations on the fly



and parallelize huge scans without bottlenecks. The Neoview platform can store detail data and allows you to access it quickly without having to rely on a high-maintenance structure of indexes and summary tables or performance tuning.

Minimal systems management

HP will take responsibility for all Neoview platform hardware and software monitoring, upgrading, patching, and replacing. You do not need to learn or support a new operating system or learn the details of a new DBMS system. A simple graphical user interface allows you to modify the data model by adding and deleting indexes, tables, and partitions. The system is delivered fully configured, preintegrated, and tested by HP. The Neoview platform is a single-vendor solution with just one point of accountability.

Empowered users

Because the Neoview platform can support many simultaneous users running a wide range of queries in real time, organizations can also use the platform for line-of-business workers performing operational tasks, empowering them to make the right decisions at customer touch points.

The Neoview data warehousing platform provides you with 24x7 availability and immediate benefits, such as complex query handling.

Rapid time to benefit

Companies that deploy Neoview platforms for large-scale data marts and enterprise data warehousing can start reaping the benefits of the new platform in the time it takes to load their data.

Quick implementation process

Production can begin in a fraction of the time that was necessary for previous approaches. The complete hardware and software stack and parallel DBMS are preconfigured and tested before delivery. Once the Neoview platform is up and running, data loading can start immediately after the data model is established. The Neoview loader provides fast integration into existing ETL environments and can load terabytes of data in a single day.

Nondisruptive addition to existing corporate data warehouses and data marts

The Neoview platform can be rapidly integrated into an existing data warehouse or BI infrastructure. Your current BI and reporting tools can be used with the Neoview platform. All of the major ETL and analytics and reporting solutions have been tested and work with the Neoview platform. Time-consuming and costly retraining, relicensing, and redevelopment of standards-based intellectual property (IP) are unnecessary for Neoview platform implementations.

Supported by the world's largest technology vendor

The Neoview platform is backed by HP's world-class BI services and support teams. Your investment is protected by HP's long-term viability, continuing advances in technology, broad spectrum of partners, and global scope.

Worldwide technical support

Even though the Neoview platform's inherent self-healing capabilities and simplicity greatly reduce the need for technical support, HP monitors, upgrades, and repairs Neoview platform installations wherever they may be. If a component fails, HP Services is automatically notified and an HP support person is dispatched to the site with a new component.

The right start

Even before the Neoview platform is shipped, HP experts work with you to plan the ETL, data loading, and environmental details of the installation. The system is delivered preconfigured, preinstalled, and tested. Upon arrival of the equipment, HP provides setup and initialization services, as well as customer orientation to help ensure productive use of the system from the first day.



Accelerated success

HP can help you achieve your data warehousing and BI goals. Leveraging HP's enterprise data warehouse expertise and industry best practices, an HP consultant will work with you to understand, design, and document the solution that best meets your business requirements. HP has developed a set of services exclusively for the Neoview platform built around the proven Solution Lifecycle (SLC) process. This process helps you achieve high productivity and performance by addressing your specific needs at five distinct phases (plan, design, integrate, install, and manage) and then designing your BI solution based on them.

In addition, HP Financial Services (HPFS) stands ready to provide financing that can help reduce your total cost of ownership (TCO). By avoiding large up-front payments and spreading payments out over time, you can better align the system cost with business benefits. This approach also helps reduce maintenance costs, facilitate timely technology upgrades, and avoid disposal risks and costs. To help with the transition to the Neoview platform, sale-leaseback options are also available, as are asset recovery services.

Production-ready business intelligence solutions

HP provides complete BI solutions in specific vertical industries that bring immediate benefit to companies while reducing implementation risk. These solutions deliver proven data models, ETL strategies, analytics applications, and reporting and visualization tools. HP and key vertical industry partners work with you to rapidly customize the solution to your exact needs. There is no need to reinvent optimized data models, reports, or analytics.

Communications—HP Oneview is a preintegrated, yet highly customizable, analytical customer relationship management (CRM) solution for network service providers. It allows providers to gain a comprehensive understanding of their customers, enabling them to acquire, retain, and increase their customer base. The solution helps communications enterprises retain profitable customers; target customers by planning, executing, and analyzing multichannel campaigns; uncover previously unknown patterns using data mining capabilities; measure user calling patterns to determine user behaviors; and more. With the Neoview platform as the data warehouse, the HP Oneview solution can easily handle the most challenging, high-volume demands of even the largest communications companies.

Financial services—The turnkey HP Risk Management Solution is a preintegrated, packaged set of application components, data model, solution architecture, and consulting and implementation services, based on the Neoview platform. Key features include prepackaged reports and an executive dashboard. The solution provides a financial institution with the real-time, comprehensive, enterprise-wide information needed to satisfy enterprise risk management (e.g., Basel II) regulatory requirements, making it possible to lower reserves to the legal minimum. Benefits of HP's Risk Management Solution include fast time to implementation, best practice risk management, proven Basel II compliance, enhanced brand reputation, potentially fewer regulatory agency visits, and positive return on investment.

The new HP Neoview platform empowers decision-making and action taking by integrating “information at rest” with “information in motion” for everyone in your enterprise.

Health and life sciences—With its native ability to provide high-concurrency, real-time access to massive amounts of complex data, the Neoview platform provides an enabling core engine for economic and clinical research in the health and life sciences (H&LS) field, throughout public, government, provider, payer, and biopharmaceutical sectors. HP is an active partner driving the creation of 21st-century H&LS information systems, and is moving forward on multiple fronts to integrate the Neoview platform as a core system for the international H&LS ecosystem. This strategic initiative draws on a proven track record of thought leadership, infrastructure development, professional services, and solid partnerships spanning the full range of H&LS systems, software, and service providers on a worldwide scale.

Proven success

In addition to HP’s own advanced use of this technology, Neoview platforms are already helping many corporations implement challenging, high-ROI business intelligence solutions.

A major US retailer has installed a 128-processor Neoview platform as the data warehouse for its highly demanding merchandising BI system. The key fact table contains more than 28 billion rows of data, and 12,000 queries are run against it in a single morning.

The Neoview platform has proven itself to be more than capable for the task, at a much lower cost than traditional enterprise data warehouse solutions. The result is an improved ability to expand current applications, coupled with an increased capability to build new ones.

Another enterprise has installed a 64-processor Neoview platform to consolidate two existing data warehouses resulting from a recent acquisition. Each data warehouse has at least one fact table containing more than one billion rows. The customer worked with HP to test its query workload against a data warehouse sized to equal the consolidation of the two existing warehouses. The Neoview platform delivered a throughput increase of 500 percent over the previous system—even with the doubled workload—and at a lower cost than upgrading either legacy system. The company now has the power to add new high-value solutions, as well as consolidate all of its data marts onto the single Neoview platform.

Summary

The Neoview platform changes the landscape of enterprise data warehousing. For the first time, enterprise-class functionality and scale are combined with simplicity, rapid time to benefit, and commodity components. Combined with HP support and expertise, the Neoview platform enables companies to achieve their BI goals more quickly and effectively than ever before.

The massively parallel performance of the Neoview platform powers complex, ad hoc, and operational analysis of 100 TB scale data warehouses.

At the same time, reduced system complexity translates into fast implementation, with higher reliability, lower cost, and faster response time than current BI solutions.

The system is neither intrusive nor disruptive. The Neoview platform can be easily incorporated into existing IT environments by immediately using existing tools for ETL, analytics, reporting, and development.

Services and complete solutions from HP accelerate the success of Neoview platform customers and vastly lower the risk of even the most challenging BI initiatives.

The sooner we start, the better your business outcome will be

We're ready to use our vast resources and expertise to help you achieve better business outcomes. Let's start with a discussion about your business strategies, systems, and goals. To get the process started, contact your HP representative today. To learn more about the HP Neoview enterprise data warehousing platform, visit: www.hp.com/go/neoview

HP Services

HP includes the essential foundation services to provide quick installation and the correct configuration with each new HP Neoview platform:

- **Engagement management**—single point of contact to oversee system implementation
- **Readiness review**—IT environment and physical site reviews to enable successful operation
- **Solution design**—design and document a high-level solution that best meets your business requirements
- **Site evaluation**—HP installation specialist will work with you to evaluate and optimize your site for the Neoview platform
- **Factory integration**—transform the initial design documentation into a configured and pretested Neoview platform
- **Installation and startup**—onsite team to get your system functioning to your specifications
- **Orientation review**—system operations, maintenance activities, and support strategy review
- **Integrated hardware and software support**
 - **HP Proactive 24 Service**—proactive and reactive services to improve stability and availability across your IT environment
 - **HP Critical Service**—comprehensive support designed to help minimize the business impact of downtime

HP offers a portfolio of business intelligence and data warehousing services—from data modeling and data warehouse design, through design and implementation of extract, transform, and load (ETL) procedures, to reporting and advanced analytics—to help you maximize the Neoview data warehousing platform as part of your business intelligence environment.

For more information, visit: www.hp.com/services/neoview

© Copyright 2006, 2007 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel and Itanium are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

For more information, visit www.hp.com/go/neoview

4AA0-7932ENW Rev. 1, April 2007

