



Jumpstart business intelligence solutions

HP Integrity-based data warehousing/mart reference configurations from HP and Microsoft



Too much data—not enough information

Countless organizations like yours face many growing concerns, including how to simplify your business environment, how to leverage your investments for highest return, and how to maintain your user service level agreements (SLAs). Another concern of particular importance—one that has moved to the top of the list, is how to save costs by harnessing silos of information across the enterprise or by consolidating existing business intelligence (BI) infrastructures—how much hardware is needed to support your users' workload while maintaining your SLAs?

Simplify and consolidate with HP and Microsoft

HP and Microsoft® understand the challenges you face, and we have the answer: create reference configurations for common BI deployments that allow you to improve the use of data assets spread across your organization. Leveraging this technology helps speed business decisions and delivers better business results. Based on detailed analysis of combinations of CPU, memory, servers and storage for a wide range of BI implementations and mission-critical workloads, these reference configurations define what you need to purchase to address your unique business needs—while staying within your budget. Data warehousing/mart reference configurations from HP and Microsoft help you:

- Harness and consolidate data across multiple systems and platforms—turning data into intelligence
- Make better decisions in less time

- Deliver mission-critical information to the right people, at the right time, in an easy-to-use format
- Track your organization's performance against key business goals and financial targets
- Control mounting costs of storing and managing ever-growing volumes of data

HP platforms

HP/Microsoft data warehousing/mart reference configurations include these industry-leading HP products:

- **HP Integrity servers** – mission-critical servers that provide high scalability (up to 128 cores or by using multiple partitions running Microsoft® Windows®), flexible capacity and simplified management for your most demanding BI workloads; HP and Microsoft are pleased to offer these reference configurations on highly scalable and highly available dual-core Intel® Itanium® processors
- **HP StorageWorks storage solutions** – high performance and high scalability; comprehensive range of reliable, cost-effective data storage and protection solutions
- **HP Systems Insight Manager management software** – foundation for the HP unified infrastructure management strategy; multi-operating system (OS), management product that supports HP Integrity servers and HP StorageWorks arrays
- **HP Integrity Essentials management software** – integrates with HP Systems Insight Manager for even broader management capabilities

Microsoft®



Microsoft technologies

Each HP/Microsoft data warehousing/mart reference configuration includes the following standards-based software components from Microsoft:

- **Microsoft SQL Server 2005** – enterprise-level data management and analysis; trusted platform that supports the highest performance, availability and security to run your most demanding BI workloads; includes built-in BI capabilities that help you turn insight into action
- **Microsoft SQL Server Reporting Services** – comprehensive, server-based reporting solution designed to help you author, manage and deliver

both paper-based and interactive web-based reports

- **Microsoft SQL Server Integration Services** – next-generation data integration platform that can integrate data from any source; provides a scalable and extensible extract, transformation and load (ETL) platform that empowers development teams to build, manage and deploy solutions to meet unique integration needs
- **Microsoft SQL Server Analysis Services** – unified and integrated view of all business data, as the foundation for all traditional reporting, OLAP analysis, key performance indicator (KPI) scorecards and data mining

Data warehousing/mart reference configurations



Item	0.5 TB	2 TB	10 TB
SQL Server data warehousing/mart (query workload against a relational online analytical processing (ROLAP) model)	Server/storage hardware <ul style="list-style-type: none"> • HP Integrity rx3600 Server with: <ul style="list-style-type: none"> • One 64-bit dual-core Intel Itanium 2 processor • 16 GB memory • 2 x 72 GB 10k disk (system drive) • 1 x DP 4 GB/s HBA • 1 x HP StorageWorks EVA4000 • 38 x 72 GB 15k disk Software <ul style="list-style-type: none"> • Microsoft Windows Server 2003 • Microsoft SQL Server 2005 SP2 	Server/storage hardware <ul style="list-style-type: none"> • HP Integrity rx7640 Server with: <ul style="list-style-type: none"> • Four 64-bit dual-core Intel Itanium 2 processors • 32 GB memory • 2 x 72 GB 10k disk (system drive) • 4 x DP 4 GB/s HBA • 2 x HP StorageWorks EVA8000 • 144 x 72 GB 15k disk Software <ul style="list-style-type: none"> • Microsoft Windows Server 2003 • Microsoft SQL Server 2005 SP2 	Server/storage hardware <ul style="list-style-type: none"> • HP Integrity rx8640 Server with: <ul style="list-style-type: none"> • Ten 64-bit dual-core Intel Itanium 2 processors • 128 GB memory • 2 x 72 GB 10k disk (system drive) • 12 x DP 4 GB/s HBA • 6 x HP StorageWorks EVA8000 disk arrays • 648 x 72 GB 15k disk Software <ul style="list-style-type: none"> • Microsoft Windows Server 2003 • Microsoft SQL Server 2005 SP2
Queries per hour	168 queries	168 queries	168 queries
Users	100 users generated 168 QpH – configuration sizes are more dependent upon query rate than the number of users	100 users generated 168 QpH – configuration sizes are more dependent upon query rate than the number of users	100 users generated 168 QpH – configuration sizes are more dependent upon query rate than the number of users
Database size	<ul style="list-style-type: none"> • 0.5 TB (500 GB) • 2 TB available storage (RAID5 DB) 	<ul style="list-style-type: none"> • 2 TB (2,000 GB) • 8 TB available storage (RAID5 DB) 	<ul style="list-style-type: none"> • 10 TB (10,000 GB) • 30 TB available storage (RAID5 DB)
Assumptions	<ul style="list-style-type: none"> • Balanced configuration • HP StorageWorks EVA4000 disk array was configured • HP StorageWorks MSA and XP disk arrays are also viable options • RAID5 was used for the database • RAID1 was used for the transaction log and TempDB 	<ul style="list-style-type: none"> • Balanced configuration • HP StorageWorks EVA8000 disk arrays were configured • HP StorageWorks MSA and XP disk arrays are also viable options • RAID5 was used for the database • RAID1 was used for the transaction log and TempDB 	<ul style="list-style-type: none"> • Balanced configuration • HP StorageWorks EVA8000 disk arrays were configured • HP StorageWorks MSA and XP disk arrays are also viable options • RAID5 was used for the database • RAID1 was used for the transaction log and TempDB

Your next step

Call your HP, Microsoft or SQL Solution Elite partner sales representative today to arrange an assessment of your business environment. Discover how leveraging the reference configurations to implement a data warehousing/mart solution from HP and Microsoft can transform your raw data into business intelligence—leading to a simplified business environment, reduced operating costs, enhanced system manageability and increased system flexibility.

For more information, visit www.hp.com/solutions/microsoft/sqlbi

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Microsoft

