

PRODUCT SHEET

Data Warehouse or Direct Connection?

Updated July 2025



CREATING A COMPREHENSIVE DATA LIBRARY

The Benefits of a Data Warehouse

Many businesses need the ability to extract data from multiple business systems and combine it into accurate, up-to-date, and uniform data sets. Depending on your tech stack and reporting needs, this data collection process may be relatively simple, or it may require coordination between several systems.

A Data Warehouse as a Well-Organized Library

Think of each data source like a book, each with critical knowledge (data) you need to collect, study, and combine with other research insights from across your business.

A Data Warehouse allows you to build a single, well-cataloged library, full of the books, or pieces of data, you rely on for business insight. Inside your data warehouse, books are organized neatly into sections, or data models, and your users can find everything they need in one place rather than going directly to multiple bookstores, online stores, and publishers – aka data sources – to track down the titles they need. Even better, the books are all formatted in the same way, which makes it easy to combine information and add new sources without disrupting daily reporting operations. By combining all your insights in one place, a Data Warehouse solution ensures that all users are working from the exact same data – creating a single source of truth to guide your organization.

Historical Data: The Archive of Your Data Warehouse

These “Libraries” even include historical information, much like the archive at an academic library, allowing you to conduct historical analyses, monitor trends, and inform forecasting with highly accurate information.



The Challenge of Direct Connections

On the flip side, **analyzing data through Direct Connection is much like tracking down each book, or data stream, one by one.** This setup requires you to visit several locations to find the information you need and can pose a challenge if you need to combine research findings from multiple books.

While you can access insights from a single source quickly and easily, the challenge of combining your findings is exceptionally difficult due to inconsistent formats – or data structures – across sources. When two or more people attempt to report on and merge data from various sources through direct queries, you may end up with multiple conflicting versions of the truth. So which one is right for your business?

Data Warehouse vs. Direct Connection: Which is the Best Fit for Your Reporting Needs?

Direct Connection	vs.	Data Warehouse
Query data from each source one by one, limiting your ability to implement consistent business logic across all reports and dashboards.	 DATA INTEGRATION	Connect to, extract, and bring together data from multiple sources, including your ERP, payroll system, CRM, website, external market data, etc.
Limited data transformation options are balanced by instant insight directly from the source.	 DATA QUALITY	Data is cleaned, deduplicated, and consolidated into a uniform database.
Get low-latency access to the latest insights in real time, but risk losing important information if the source system doesn't store historical data.	 DATA CONTINUITY	Leverage continuous data access to conduct trend analyses, create historical comparisons, and improve data reliability.
Doesn't require ETL processes, which simplifies system architecture and minimizes the time and effort required to move data.	 COMPLEXITY	Requires time and effort to extract, transform, and load data, but also supports advanced queries, aggregations, and joins.
Piece together reports from each direct connection in attempts to assess performance. Risk gaps in datasets and operational visibility.	 DATA VISIBILITY	Create a single version of the truth by combining data from every data source into a complete, up-to-date picture of your performance.
This approach enables real-time analytics but might affect the performance of the business application as you query the systems directly.	 SYSTEM PERFORMANCE	Data is optimized for reading and aggregating, which yields fast query performance without straining your BI solution or data sources.
Real-time reporting on a relatively small dataset from one or two sources.	 BEST FOR	Advanced reporting across multiple sources and business areas.

If we're looking at things through the analogy above, it's easy to see that not everyone needs a Library card. Access to just a couple of books, aka a Direct Connection, works perfectly well for businesses that rely on real-time insights from a small number of data sources. These systems are relatively simple and cost-effective, and they reflect the latest changes in your data right away, ensuring you always have the latest information.

Direct Connection: Time-Consuming and Error-Prone

But think about the time and effort it would take to combine digital excerpts from an eBook with written notes from a paperback book and recordings from an audiobook into one clear, easy-to-read research paper. You may subscribe to reading lists or publishers to get the latest publications, but you still have to manage each of those subscriptions separately. For organizations with many subscriptions — aka data sources — to report on, it's often worth investing in a dedicated data warehouse.

Choosing the Right Solution for Your Organization

At the end of the day, the best choice for your reporting needs depends on your size, business environment, and the number of data sources you rely on for timely insights. **Direct Connections are ideal for organizations that rely on real-time analytics and don't need to restructure their source data before conducting basic analyses and calculations.**

When a Data Warehouse is the Best Option

If your organization's data resides in a variety of structures and sources, such as an ERP, CRM, payroll system, POS system, etc., **a Data Warehouse is the best option for multi-source analysis that's efficient without compromising data quality or requiring tedious manual data processing.** It also ensures that your data is structured for reading and aggregating, allowing for fast query performance and advanced analyses.

TARGIT's BI Solutions: Seamless Data Integration

At TARGIT, we help our customers develop modern, end-to-end BI solutions with data warehouses. The solutions can be run on-premises, in the cloud, or in a hybrid environment, enabling them to seamlessly pull data from every business system in their tech stack.

A Smooth Analytics Experience

The result? A business intelligence (BI) solution that supports a fully integrated data warehouse or the option to leverage your own — so you can enjoy a seamless analytics experience.

Benefit from a centralized, streamlined system designed for precision. TARGIT offers cohesive data management to define a single source of truth for all your data needs. With faster performance, consistent data quality, and robust security, our flexible and scalable solution supports your business growth while saving time and resources.

See how our efficient and comprehensive BI system can give you reliable insights that inform critical decisions and elevate your strategic advantage.

Precision and Performance with TARGIT

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Elevate Your Strategic Advantage

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AT TARGIT, we leverage decades of industry expertise to help our customers realize the full value of their data. We give business users the tools they need to extract actionable insights that inform decisions, increase productivity, and improve profitability.

Our BI and analytics platform, TARGIT Decision Suite, combines an intuitive, user-friendly frontend with a robust backend designed for growth. TARGIT integrates with various other tools and pulls data from multiple sources to support your dealership's entire data ecosystem.

With over 130 dealer implementations and 90+ years of industry experience from our consultants, TARGIT is the leading business intelligence solution for heavy equipment dealers.

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