The difference between BI and FPM

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Inside this document

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Introduction

The term Business Intelligence is often ambiguous. In mainstream contexts, it can simply mean 'knowing something about your business,' but Business Intelligence also refers to a category of software products that are used to display and analyze numerical information, including charts and graphs.

Prophix's Financial Performance Platform is used to simplify and transform processes in the Office of the CFO. This whitepaper shares Prophix's position on Business Intelligence and how Business Intelligence complements our Financial Performance Platform.

This document is intended to be an educational document for finance leaders, especially those who work for mid-market companies and government agencies.

Please note: Throughout this whitepaper, we use the term Financial Performance Management (FPM) software to refer to software that supports the Office of the CFO. This type of software is also commonly referred to as Corporate Performance Management (CPM), Enterprise Performance Management (EPM) software, or as a Financial Performance Platform.

Difference between BI and FPM

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Difference between BI and FPM

In the current software landscape, Business Intelligence (BI) is often confused with Financial Performance Management (FPM). While BI enjoys greater recognition, FPM not only integrates typical components of BI for comprehensive data analytics, but perhaps more crucially, it encompasses a range of financial and operational applications for financial planning & analysis, reporting & analytics, and financial close and consolidation.

Historically, FPM was perceived as a subset of BI, particularly in Europe, leading to ambiguity in discussions surrounding these terms. BI, having emerged earlier, concentrates on diverse data analytics across multiple business areas. However, it's essential to note that BI is typically a read-only activity, employing a generic set of tools without specific inherent domain context.

On the other hand, FPM, which developed later, specializes in managing financial and operational processes such as budgeting, planning, and reporting. Unlike BI, FPM includes a significant amount of data contribution, manipulation, and reporting – all within a financial context.

This specialization has allowed FPM to carve out its unique space within the broader BI landscape.

So, while BI laid the groundwork for comprehensive data analysis, FPM distinguished itself by focusing on financial and operational aspects, proving that it's much more than just another facet of BI.

Over time, industry experts redefined BI and FPM, establishing them as two separate software categories with some overlapping features. Like those industry experts, Prophix views FPM and BI as distinct software types, each offering different capabilities and functionality. Understanding their differences supports an organization in making informed software choices that align with their specific needs and investment goals.

A prevalent misconception is equating similar data presentation in both software categories as making them the same category. However, successful software adoption relies on how users perceive and interpret data, often outweighing how the data appears on-screen.

Both BI and FPM use interfaces with charts and graphs. Components in FPM software, particularly those displaying strategic information like key performance indicators (KPIs), can resemble "true BI" functionality. This similarity prompts questions about the differences between FPM and BI and which suits a company's needs best.

What is FPM?

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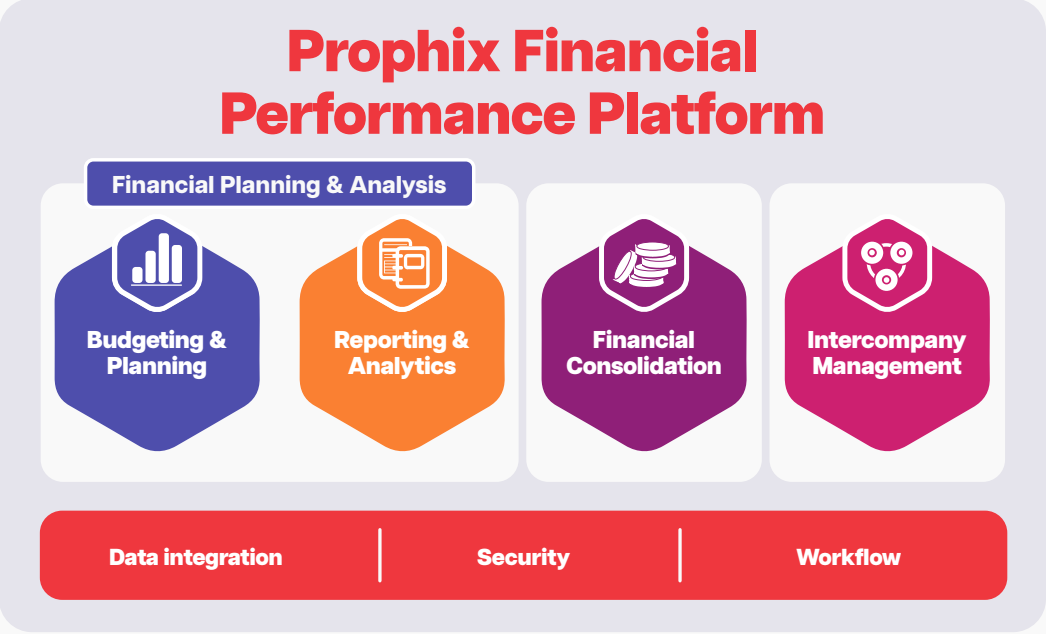
What is FPM?

Financial Performance Management (FPM) is a systematic approach to managing, analyzing, and enhancing an organization's financial and operational health and performance. It involves a combination of applications, capabilities, and supporting functionality for the following:

- Financial planning, budgeting, and forecasting
- Financial, statutory and management reporting
- Financial consolidation and close
- Operational planning and analysis
- Strategic planning and analysis

Prophix mirrors this definition within our Financial Performance Platform.



Most of these applications stand apart from typical BI software. However, it's important to note that when an FPM application showcases strategic metrics and key performance indicators, the result can bear a resemblance to traditional BI software.

In fact, one might argue that Business Intelligence, particularly with its built-in financial focus and context, is essentially a subset of the capabilities encompassed in FPM platforms. This perspective further underlines the robustness and breadth of FPM, extending beyond traditional BI parameters to offer a more comprehensive and financially nuanced toolset.

What is BI?

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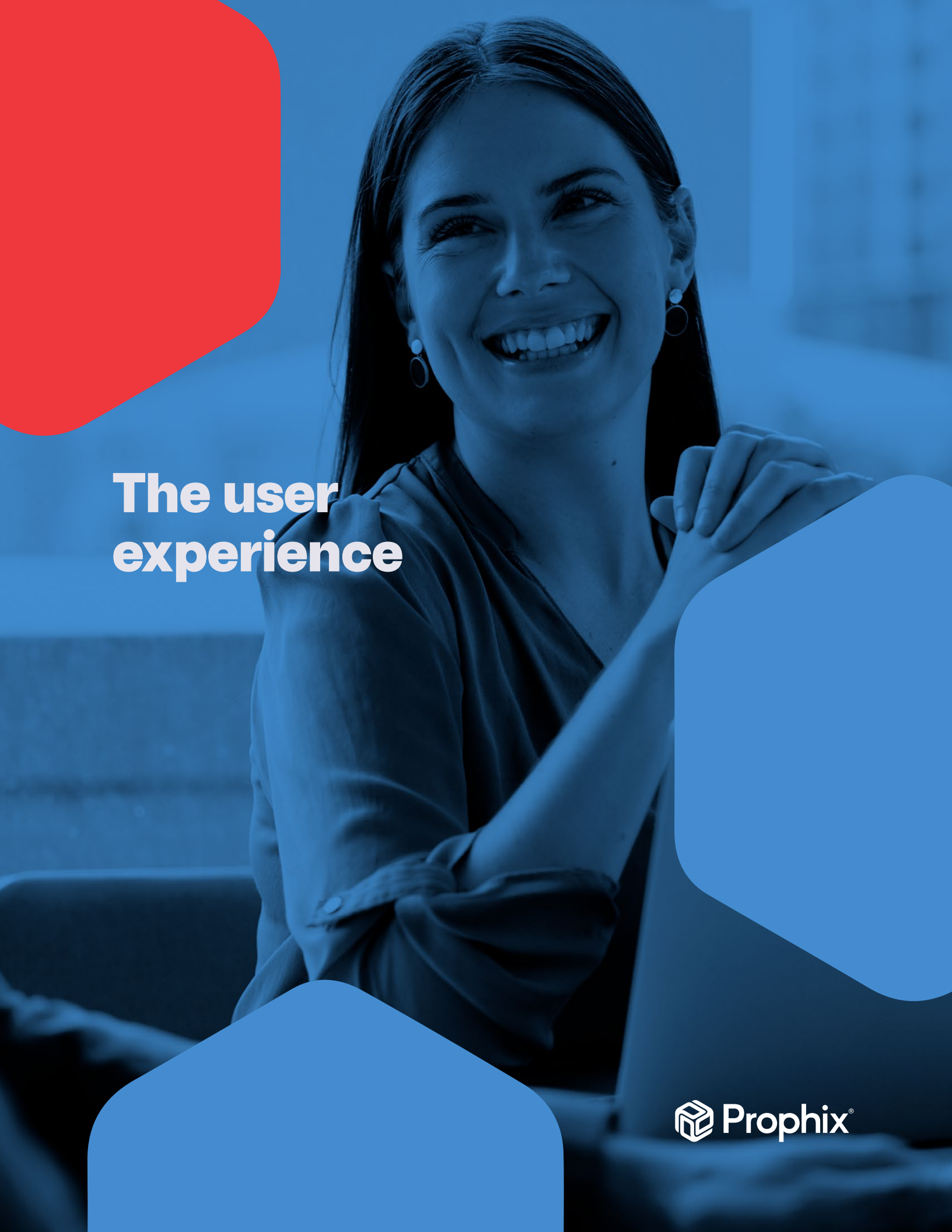
What is BI?

BI is an industry acronym for Business Intelligence, which has multiple definitions depending on the software vendor.

However, software applications in the BI space are usually designed to give users access to data in an unstructured interface. To understand the difference between BI and FPM, it is important to understand that the user experience defines the nature of a ‘data viewing’ application.



The user experience

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The user experience

User experience of an application is dictated by its Graphical User Interface (GUI). As far as GUIs for data-viewing applications are concerned, there is a continuum from unstructured (where the software is highly flexible and gives users the ability to modify what they see) to structured (where users view screens that are pre-defined with limited ability for changes). Each approach has its advantages and disadvantages.

Unstructured applications

Unstructured applications are true Business Intelligence products that have built-in functionality to enable users to create their own queries and find the data they need. This type of software is likely to include components such as:

- Accessing data over the internet with an easy-to-use interface
- Displaying data both numerically and graphically
- Assuming a structure for data as a basis for data navigation so that it can be automatically subtotaled
- Drilling down on numerically and graphically displayed data
- Pivoting displays so that rows and columns in a table can be swapped
- Sorting the information being displayed and using this as a basis for selecting data
- Saving data views so they can be displayed later

The prevalence of these types of BI applications indicates that unstructured BI is becoming more common and widely accessible.

When leveraging an existing suitable data source, one advantage to an unstructured BI application is that these tools usually require minimal implementation and enable users to view information immediately. However, there are risks associated with these applications.

Users may need training to get the full benefits from BI software. Other considerations include the difficulty in creating a suitable data source and the ease and quality of sharing physical reports. Some web-based applications have limited printing capabilities as they are designed to be online-viewing experiences.

While most unstructured applications are BI in nature, an FPM application like Prophix can function in an unstructured manner that is as good or better than most unstructured BI products. Users can drill down on data, select the data to be viewed and access analytical tools to compare data. Users with appropriate security privileges can also use this BI style interface to enter data and adjust imported data.

Structured applications

These types of applications for viewing data serve specific purposes. 'Structured' implies that users have limited functionality and are guided by the solution to see what is important to the organization. Often marketed as 'scorecards', they are considered FPM applications rather than BI. Because they display data graphically, they are often mistakenly labeled as BI, highlighting the need to understand the distinction between the two.

These products often align with management paradigms like Balanced Scorecard or Six Sigma and primarily showcase strategic data like KPIs. By definition, a structured application limits users to specific data views of the most relevant KPIs. They not only display data but can also offer detailed explanations as to why a KPI is important. Most of these structured applications also include methodologies for the selection and definition of a company's strategic KPIs, to establish relationships between KPIs, and enable algorithms to be defined for reporting on aggregated KPIs.

Other examples of off-the-shelf structured applications include dashboards (which simply display KPIs using data visualizations) and scorecards. Scorecards are essentially variance reporting where variances are color-coded based on rules that need to be pre-defined, sometimes called Red and Green (RAG) analysis. Scorecards can also include exception reporting, where big differences are identified and displayed.

In the past, these products have been expensive to buy and implement, but that is changing. Both dashboards and scorecards tend to bridge the gap between structured and unstructured BI, but since they require rules for what data is displayed or how the color-coding works, they still have some structure.

Assessing costs of KPI selection in BI systems

When implementing an application, it may not be obvious what data to make accessible to users. To help choose appropriate KPIs, many large companies hire a consultant (who may have experience in a vertical market or in the capabilities of a specific software product) to help decide which strategic, forward-looking KPIs are most relevant to the organization. While KPIs will naturally change over time as senior management revisits which KPIs are important, the risk is that if a system displays the wrong information, it's no longer viewed as a trusted source and confidence in management declines.

Structured data viewing applications can be expensive. The costs associated with any multi-user software platform consist of subscription costs and implementation services. Structured systems tend to be significantly more expensive than unstructured BI in both these areas. Because of this, a structured solution requires a high level of commitment, especially for mid-sized companies where resources may be limited.

Structured solutions can be either off-the-shelf or custom built. Solutions that are off-the-shelf have historically been sold mainly to large companies and may be an expensive purchase.

Custom-built solutions can take time to implement. With a custom-built system, anything is possible, but many mid-sized companies find the costs of that approach prohibitive. However, custom solutions can be built with an integration application to bring down costs.

The chart below summarizes the types of BI applications available on the market, categorized by type of user experience. There is no market for unstructured custom-built solutions; they are typically too expensive for companies to develop. Off-the-shelf structured products have historically been the most expensive. Some structured solutions allow users to easily drill down to more detailed data using an unstructured BI interface.

	Custom built	Off the shelf
Structured FPM	• Medium cost • Operational in nature • Prophix Data Integration for displaying data from financial models	• Historically high cost and strategic in nature • Applications include balanced scorecards, six sigma and dashboards
Unstructured BI		• Medium cost • Many products available that can access data in Prophix

Data integration

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Data integration

The user experience heavily influences a company's choice of software for navigating and presenting information, but equally critical is the source of the data being displayed.

Most data displayed in both BI and FPM applications is internal to the organization. This happens because getting external data that's current and relevant is difficult. It is usually more cost effective to let users access freely available internet news or other information directly. While most information is internal, there is some limited and valuable external information available, such as information sold by an industry association that can be freely distributed within the purchasing company.

The data that is displayed in a data-viewing application depends on the nature of that application. For an unstructured BI system, users are usually looking at numerical data that comes from a company's systems with a minimal amount of manipulation or calculation. For a highly structured FPM application, data may need to be collected, calculated and/or manipulated before people see it. For example, if a KPI is "customer service calls per headcount," customer service call data may need to be collected from customer service managers while headcount may need to be read from a personnel system and manually adjusted before the KPI can be calculated.

Strategic KPIs are often not readily available electronically and require a system to collect the data from users throughout the organization. Prophix's Financial Performance Platform is an excellent application for collecting data from users on a regular basis. Prophix's functionality for collecting data includes workflows, automatic email reminders, commentary, approval processes, and data entry templates that can be distributed via email.

ETL and data warehouses

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ETL and data warehouses

When a company implements Business Intelligence, a common problem is the reliability of the data available.

There is a whole segment of the software industry devoted to extracting data from existing systems, transforming it for accuracy or consistency, and loading it into a database. These are known as ETL tools (for Extract, Transform and Load) and are typically marketed towards larger companies managing numerous legacy systems.

However, it's crucial to acknowledge that even mid-sized companies often have multiple applications they use to run their business. While it's true that Enterprise Resource Planning (ERP) systems can streamline data storage into a consistent format, reducing the need for ETL tools, ERPs are only one source of data. Many businesses also utilize Customer Relationship Management (CRM) systems like Salesforce, among other platforms.

Therefore, even if a company has an ERP, it may still be desirable to create a staging area to store data for consumption by a BI or FPM system. Directly accessing real-time production data can potentially cause performance issues with these systems, further emphasizing the importance of effective data management.

Larger companies started doing this in the 1970s and created data warehouses, which are corporate data stores of information; one of their uses can be as staging areas for BI and FPM applications. They were often very big, very complicated, and very expensive.

Later, the term data mart became fashionable for smaller data stores that do the same for departmental data. However, depending on a company's size, these are often too expensive. Creating a data warehouse or data mart is not a one-time exercise; it demands ongoing investment as new applications are implemented and the business changes.

Many mid-market companies use Prophix to create models containing data for BI applications. Prophix's Financial Performance Platform also has ETL functionality built-in, but with a user interface that is easy to use for finance leaders. Prophix can calculate metrics (e.g. revenue/headcount), it can be used as a mechanism for collecting data that is not available electronically and can create models for inputting, viewing, and analyzing data quickly and easily. Prophix does not claim to be an ETL product or a data warehouse tool, but one of Prophix's major strengths is that it can be used by finance professionals to implement business-focused BI applications with minimal need for IT expertise or involvement.

Where is the data stored?

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Where is the data stored?

Most software vendors will specify or recommend a specific database technology. It is important to understand the alternatives.

Unstructured 'true BI' systems usually display larger data volumes than FPM platforms. Therefore, good database retrieval performance is essential for the success of a BI application. The data being displayed in a data-viewing application usually comes from a database server. Some software vendors sell systems that, for performance reasons, maintain all data in memory, either on a server or on individual users' workstations. Currently, these architectures tend to be quicker than disk-based systems. However, solid state disk drives are starting to replace physical disks and this trend means that memory-based systems are losing their competitive edge.

Databases used for BI and FPM can be either relational or Online Analytical Processing (OLAP). Relational databases are excellent for transaction applications, such as accounting systems, while OLAP databases are excellent for fast aggregation and retrieval of numerical information. Most people are acquainted with the tabular nature of relational databases. OLAP systems are less well known, however, with the recent popularity of Microsoft's OLAP component (Microsoft SQL Server Analysis Services), the benefits of an OLAP approach are becoming more widely understood.

OLAP databases are nothing new. They were previously called Multidimensional Databases and have been used in the enterprise software market since the 1970s. Prophix has had experience with OLAP technology since the early 1980s and supports the use of OLAP databases for planning and reporting solutions. Prophix has chosen Microsoft SQL Server Analysis Services (MSAS) as the OLAP database used in its software.

Generally:

- OLAP databases offer faster and more flexible reporting than relational databases.
- OLAP databases allow you to define more sophisticated built-in calculations that are part of the database instead of the program querying the database.
- Applications that use relational databases typically demand more understanding of data structures from end users who wish to report on the data.

For large-scale BI applications, OLAP databases usually have better performance than relational databases of similar size and scope. However, for smaller applications, relational databases can be adequate. There is even an industry term: Relational OLAP (ROLAP) for software that makes a relational database look like an OLAP database.

How does BI relate to Prophix?

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How does BI relate to Prophix?

Prophix has been involved with Financial Performance Management software and OLAP database technology for over 30 years.

Prophix embraces several core values. One of these is the superior functionality of OLAP databases over relational databases for both BI and FPM applications. This is especially true for BI where data volumes may be very large. The functional advantages of OLAP include:

- Speed of data retrieval
- More flexible report layouts in terms of what appears on the rows and columns of a report
- More sophisticated calculations and flexible data analysis that can be defined in an OLAP database

Microsoft SQL Server Analysis Services (MSAS) is an excellent OLAP database for both FPM and BI applications. MSAS has become the standard OLAP database in the industry. Because of the success of MSAS, there are many BI tools targeted at the mid-market that use MSAS as a database processing engine. These are becoming a commodity. It is Prophix's objective to interoperate with as many such BI tools as possible. Prophix is an excellent vehicle for creating MSAS OLAP models and importing data into those models so that BI tools can be used to view the data contained in them.

Prophix supports an open environment for its software. This includes:

- Prophix MSAS OLAP models being available to BI products for data reading.
- Integration with personal productivity tools such as Microsoft Excel and Microsoft Word.
- Report publishing through Adobe Acrobat PDF format files.
- Report distribution through email and/or Microsoft SharePoint integration.
- Custom development of structured BI solutions through Microsoft Power BI.
- Importing and exporting data through integration with Prophix Data Integration.

Prophix's Financial Performance Platform includes multiple FPM applications, and also contains the following capabilities for the development of a BI solution:

- Prophix enables finance leaders to create and maintain OLAP models, including importing structures and data.
- Prophix can be used for unstructured BI-type access to numerical data and includes analytical capabilities such as pivoting, drilling up and down, and delta analysis.
- Prophix enables non-IT professionals to calculate and maintain metrics in a Prophix model for use in BI applications.
- Prophix includes workflow capabilities for managing the collection of manually entered data for BI systems, including email collection using Excel spreadsheets.

While BI and FPM are separate software categories and Prophix has developed an FPM platform with multiple applications that are used by the Office of the CFO, this chart summarizes the BI market and Prophix's strategy.

Type of data viewing	Prophix strategy
Financial Performance Management	Prophix offers a FPM platform with multiple applications that are appropriate for the mid-market and meet the needs of the Office of the CFO.
Business Intelligence	Prophix builds databases that can be accessed by any BI tool capable of reading data from Microsoft SQL Server Analysis Services, with specific integrations available for Microsoft Power BI.

Conclusion

Understanding the differences between BI and FPM software is crucial to optimizing your financial performance processes.

BI software gives many users access to data in an unstructured interface and can help companies cope with increasing volumes of internal data. This type of software usually involves charting and graphical representations, such as charts and tables. However, BI software has limited calculation capabilities – though data can be manipulated as part of the process of importing data into the system.

In contrast, FPM software may have fewer users, but significantly more calculation and transformation capabilities and a structured user interface. It can act as a Business Intelligence solution, allowing you to analyze, plan, and report on your business performance.

By harnessing FPM and BI software, you can gain a holistic view of your performance, improve visibility and collaboration, and make informed decisions so you can drive your business forward.

About Prophix

Ambitious finance leaders use Prophix to drive progress. By improving the speed and accuracy of decision making, Prophix's Financial Performance Platform elevates the talents of finance teams to do their best work. Crush complexity, reduce uncertainty, and illuminate insights with access to best-in-class AI insights and planning, budgeting, forecasting, reporting, and consolidation functionalities. Prophix is a private company, backed by Hg Capital, a leading investor in software and services businesses. More than 2,500 active customers across the globe rely on Prophix to achieve organizational success. Additional information at www.prophix.com.

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