In an effort to effectively address regulatory and competitive pressures, financial institutions are turning to sophisticated analytical systems for business decision-making. All business lines including Marketing, Risk and Finance need specialized analytical platforms that address unique needs of each business, but at the same time analytical outputs cannot be disconnected from cross-functional business process needs. Implementing analytical systems that drive line of business needs while catering to the enterprise cross-functional analytical needs is extremely challenging.

The Oracle Financial Services Data Foundation allows institutions to quickly implement specialized Finance, Risk & Marketing analytical applications in order to drive line of business control and performance. Cross-functional needs are supported by leveraging the unified and conformed reporting data model with proven coverage from real-world use in analytics. Complex data sourcing needs are addressed out-of-the-box by the comprehensive data platform that manages sourcing and provisioning for all Oracle Financial Services Analytical Applications.

When coupled with Oracle Exadata infrastructure, the Oracle Financial Services Data Foundation helps line of business heads and business aligned IT departments drive business satisfaction to even greater levels, with unprecedented performance, responsiveness, scalability and manageability.

Deep, Proven Domain Expertise in Banking
Oracle’s recognized leadership in financial services demonstrates an unparalleled depth and breadth of analytical expertise to help institutions address the variety of regulatory requirements and management directives facing the industry today.

Oracle Financial Services Data Foundation leverages this domain expertise to deliver a ready-to-deploy, end-use proven, practical platform for managing analytical application data. The platform has three key differentiating features:

- **Comprehensive financial services physical data model**: based on over fifteen years of implementation and “real world” experience from around the globe, the physical model addresses both data sourcing/provisioning and results/outputs needs. Institutions can leverage this data foundation to deploy their analytical data warehouse in a fraction of the time typically required to develop a warehouse from a conceptual or logical data model.

- **Integration with an industry-leading analytical application infrastructure**: The unified platform of application frameworks helps manage the end-to-end lifecycle of data within the warehouse. These frameworks provide full-lifecycle metadata management, business-driven data quality checks, reconciliation with the GL, data mart management and workflow capabilities among others. Advanced capabilities are available to provide institutions with the ability to develop and deploy advanced computational models and support stress testing and scenarios.
KEY BENEFITS

• Fully supports all key analytical use cases for Financial Services in Risk, Compliance, Customer Insight and Performance Management.
• Immediately deploy new and advanced analytics with unprecedented ease.
• Simplify ETL and achieve the shortest possible load times and batch windows
• Provide the fastest possible query performance across all business domains
• Eliminate accuracy and consistency issues with contextual data quality checks
• Eliminate inconsistencies across ledgers, books and marts for confident and auditable reporting
• Provide the capability to handle high-volume, what-if computations across all business domains
• Easily meet emerging or changing cross-functional business and regulatory mandates
• Reduce the complexity and cost of maintaining multiple data marts
• Enables consistency, transparency and auditability across all analytical domains
• Ensures compliance with BIS Principles for effective risk data aggregation and risk reporting

A highly optimized and tuned Oracle a physical infrastructure ecosystem consisting of Oracle database running on Oracle Exadata Engineered Machines. The tight integration between the Oracle Financial Services Data Foundation and Oracle database machine not only ensures that the platform takes full advantage of built-in analytical capabilities and performance enhancing features of the underlying database ecosystem, it also allows line of business IT departments to rapidly deploy functional warehouses that fully meet enterprise IT standards.

The combination of these features makes Oracle Financial Services Data Foundation a comprehensive, unified, open and extensible analytical platform that not only meets the reduced time-to-market needs for today’s analytical application deployments but also is ready for the unknown regulatory and business challenges of the future.

Readily Deploy a Pre-built, Comprehensive and End-use Proven Data Model for Financial Services

At the heart of the Oracle Financial Services Data Foundation is the physicalized data model. Unlike other industry data model offerings, Oracle Financial Services’ data model is pre-built, readily deployable and provides distinct, well defined areas that address the primary data modeling needs of financial institutions, including:

1) Data Sourcing and Provisioning: The data model provides a comprehensive set of entities and attributes that can capture data from multiple source systems and business processes across all key Financial Services industry sectors including Banking and Capital Markets.

Oracle Financial Services Data Foundation allows institutions to capture data at the most granular event level covering both financial and non-financial events, and also provides detailed definitions for a comprehensive set of banking book and trading book instruments. Additionally, it has detailed structures for reference data related to Customer, Product, Organization, etc.

![Data Model Diagram](image)

Figure 1: Shared Sourcing Model Segments Data Based on Analytical Needs

Moreover, the model clearly maps every single attribute to its possible analytical end uses. In doing so, it considerably reduces the initial effort involved during data warehouse development by clearly focusing the exercise of mapping source data on end use.

2) Reporting and Business Intelligence: The data model provides a fully conformed, granular and comprehensive area for results and outputs from analytical processing. The results area is fundamentally designed to cater to emerging cross-domain reporting and BI needs for Financial Institutions. For example, the ability to combine granular, account level customer profitability data with Economic Capital outputs from risk computations offers organizations the ability to deliver on Risk Adjusted Performance Measurement (RAPM) that would traditionally require additional data integration across analytical and functional silos.

The results area enables financial institutions to gather results across different analytical processes into a unified reporting store. This eliminates the common, hard-to-tackle problem of data mart analysis within the warehouse.
proliferation, where different business communities produce conflicting reports by building data marts that are not conformed.

Figure 2: Common Results Meets Analytics Needs Without Data Mart Proliferation

This allows institutions to easily meet current and emerging stress testing regulatory requirements for risk and performance measures under different economic scenarios. The structure of the results area provides for the seamless capture of analytical outputs such as risk measures and profitability metrics under both normal (baseline) and stress scenarios.

In addition to the pre-built, readily-deployable physical models for data sourcing and results outlined above, the Oracle Financial Services Data Foundation also includes the Financial Services Logical Data Model, a comprehensive reference model of the Financial Services Domain that allows customers to extend the physical models for specific use cases unique to their businesses.

Eliminate the uncertainty of deployment

Recognizing that the majority of time and effort in analytics projects is usually dedicated to sourcing and cleansing of data, the Oracle Financial Services Data Foundation includes the requisite data management processes and tools to reduce the cost and complexity of data sourcing and cleansing by:

- Easily identifying data attributes that must be sourced for specific analytical functions with the provided mapping of sourcing area table attributes to their possible analytical end uses.
- Addressing accuracy and consistency of sourced data with thousands of pre-built, financial services-specific, contextualized data quality checks.
- Eliminating inconsistencies across ledgers, books and marts through a formal and centralized GL reconciliation process for confident and fully auditable reporting.

Deliver Unprecedented Performance, Responsiveness, Scalability and Manageability with Exadata and “in-warehouse” Analytics

Unlike data management platform solutions from other vendors, the Oracle Financial Services Data Foundation is designed to run analytical applications and complex reporting processes within the platform. There are two key enabling technologies:

The foundational technology for this is Oracle Exadata running Oracle 11g with Advanced Analytics. Oracle Advanced Analytics delivers statistical analysis, predictive analytics, data mining and advanced numerical computations inside the database, eliminating data movement to external analytical servers. Combined with the highly scalable Exadata Engineered system, the resulting improvements in scalability, response and manageability ultimately lead to much reduced overall total cost of ownership for the warehouse. Benchmarks for liquidity risk calculations and stress testing are available.
Oracle Financial Services Analytical Applications Infrastructure (OFSAAI) builds on the foundational technology and provides an ecosystem of management and operational frameworks that performs all pre-requisite functions needed to run a Financial Institution’s critical analytical applications. OFSAAI provides the ability to:

- Rapidly implement models and computational engines from Oracle Financial Services Analytical Applications and/or any other third party. Fully open and extensible, customers who wish to develop and deploy their own analytical models and applications can simply reuse this set of frameworks, dramatically reducing the cost and time required to meet new analytical needs.

- Handle high volume, what-if computations across business domains to support enterprise level stress testing and scenario analysis.

Financial Services Analytical Applications Infrastructure

Fully open and extensible, customers who wish to develop and deploy their own analytical models and applications can simply reuse this set of frameworks, dramatically reducing the cost and time required to meet new analytical needs. All Oracle Financial Services Analytical Applications utilize this infrastructure to provide a true 360° view without the complexity associated with integration of multiple applications. Any third party analytical applications can be used with this infrastructure as well.

Leverage a Unified, Conformed and Pre-built “Ecosystem” for Comprehensive Financial Services Reporting and Business Intelligence

With the Oracle Financial Services Data Foundation, you can deploy a “self-service” business intelligence environment with all key business dimensions and vocabulary pre-built to help your business analysts get answers quickly and efficiently. Additionally, the platform enables you to provide the ability for users across the enterprise to combine results from multiple business areas to easily and securely support cross-functional analytics without costly and inconsistent mart proliferation.

Oracle Financial Services Data Foundation allows you to deploy a fully extensible system that meets tomorrow’s unforeseen new business intelligence demands without sacrificing analytics investments and effort already in place.

Comply with BIS Principles for Effective Risk Data Aggregation and Risk Reporting

Oracle Financial Services Data Foundation provides a unified environment that enables capture of data and storage of results across critical functional areas in a comprehensive and consistent manner in line with principles 2 and 4 of BCBS 239. Its customisation possibilities naturally ensure full
compliance with Principle 6 on adaptability. Together with Oracle Exadata running Oracle 11g and Advanced Analytics, it helps banks process data, perform complex calculations and deliver advanced reporting at high speeds and meet the demands on multiple stakeholders in a timely manner.

Oracle Financial Services Data Foundation’s unique design as a single source of truth for financial services institutions helps them achieve unified data management, improved data quality, extreme performance, consistent and accurate computations and comprehensive and flexible reporting in accordance with the BIS Principles for effective risk data aggregation and risk reporting.

**Ready for Analytical Applications**

Oracle Financial Services Data Foundation is pre-integrated and ready to work with over 30+ Oracle Financial Services Analytical Applications including award-winning solutions for Enterprise Risk Management; Governance, Risk, and Compliance (GRC); Enterprise Performance Management (EPM); and Customer Insight.

In addition to these industry-leading applications, third party or in-house developed solutions will similarly benefit from this common and unified approach.

**About Oracle Financial Services Analytical Applications**

Oracle Financial Services Data Foundation is part of the Oracle Financial Services Analytical Applications family of solutions for the global financial services industry.

The Oracle Financial Services Data Foundation underpins all Oracle Financial Services Analytical Applications. All available applications are built upon this common architecture consisting of the unified financial services data model, analytical computations and the industry-leading Oracle Business Intelligence platform.

Oracle Financial Services Analytical Applications include award-winning solutions for Enterprise Risk Management; Governance, Risk, and Compliance (GRC); Enterprise Performance Management (EPM); and Customer Insight for financial services.

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**Contact Us**

For more information about Oracle Financial Services Data Warehouse, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.