Information on the Ground Keeps Aircraft in the Air

Supply Chain Sustainment

Putting Maintenance and Operations Data to Work

Every commercial aircraft and its maintenance, repair, and overhaul (MRO) organization faces the same challenge: to provide safe, dependable, quality services. And as important as MRO is, the greatest financial impact of MRO may well come from keeping aircraft out of repair shops, keeping aircraft utilization high, and increasing revenues and profits from newly found time for flying.

Airlines and their MRO providers, with high-value aircraft flowing over a wide network, must constantly strive to keep those aircraft running and out of maintenance facilities. More often than not, MRO organizations find themselves in the middle, between mission planners who demand the most available hours and operations groups who must juggle schedules when unplanned maintenance needs arise.

But how do you maximize flying time – at the lowest MRO cost? How do you uncover, and exploit, available opportunities to maximize your resources? You can start by using information you already have.

And that requires a 360-degree view of your business. Beyond anticipating work that needs to be completed, or which parts and how many hours are required to complete the job, you need access to a wide range of metrics. Where are there unproductive resources? Where is there excess aircraft time? Where are mechanics waiting for parts? Which maintenance tasks could be staged differently? Without metrics you can't answer those questions. Because you can't manage or improve what you can't measure.

Most MRO organizations today are rich with information. The problem is that, all too often, they can't put their data to work. Why? Because data is scattered in purpose-specific applications throughout the MRO enterprise. Each business function, such as reliability or maintenance, collects data using its own business rules, combining it with reference data according to its needs. Inevitably as the organization struggles to make more aircraft time available with fewer resources, it is analyzing data made incompatible by the inconsistent application of business rules and loss of detail.

Regardless of whether you have an ERP or point based MRO solution, analytical requirements often necessitate retaining detailed historical MRO data joined with data from external systems. A database environment dedicated to complex analytics addresses these requirements and reduces the burden on your operational engine allowing you to leverage the full potential of your MRO application.

That's where Teradata Corporation, BearingPoint,® and Business Objects® can help. Together, we can show you how to consolidate data into a single data warehouse, with consistent business rules and fully integrated with operational, financial, and reference data. We can show you how to access your collected information to develop more precise understanding of MRO performance and identify the levers that make more aircraft time available. It's all part of a Supply Chain Sustainment solution that puts the exact details of your maintenance event information in the hands of analysts and provides a business intelligence environment for decision support.

Make Better, Faster Decisions

This Supply Chain Sustainment solution can provide clearer visibility into your MRO supply chain, allowing your key personnel to ask more insightful questions, with more precision, in specific areas of maintenance management. That means people anywhere in your enterprise can make better, faster decisions for:

> Increased asset utilization, with improved readiness, increased flexibility, and availability.

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- Inventory reduction, with improved in-stock availability, higher turns, and better vendor management.
- Higher labor productivity with better accountability and improved coordination.

Supply Chain Sustainment can help you reduce the lifecycle costs and increase the effectiveness and profitability of your aircraft support activities, no matter how many legacy systems, maintenance locations, or assets you have. It helps you reduce the time you spend to maintain data and helps increase users' access to information.

A Platform Designed for Analytics

Keeping mission critical assets available and on schedule is challenging enough. But responding to a wide spectrum of maintenance problems, from mission critical to deferrable and preventative tasks, makes that challenge even more daunting. With high opportunity costs of out-of-service assets, high activity volumes, and other variables, how can you find business improvement opportunities and have confidence in the initiatives you undertake?

The answer is in your ability to manage and resolve maintenance events. Maintenance events consume resources, but they also contain critical information for finding waste, identifying underutilized resources, and uncovering hidden asset time. Many maintenance organizations diligently capture detailed information at every facet of the MRO service chain, however, are unable to link maintenance event data across the chain.

With Supply Chain Sustainment, you'll be able to retain event-based data from your ERP or legacy systems and combine it with data from other operational systems, including those of your suppliers. You can combine data into meaningful trend analysis for the specific events and resources you need to optimize. Just as important, you'll be prepared for MRO's ongoing ROI balancing act: responding to maintenance events with near-real-time analysis that delivers detailed and context data to help manage the cost of maintenance procedures.

Get There Faster

You're already faced with collecting data in your MRO operation. You don't need the added burden of building a business intelligence infrastructure. So we've done that for you. A Teradata system and the Teradata® Travel logical data model (LDM) show you how to get Supply Chain Sustainment up and running in a fraction of the time it would take to build your own solution.

The Teradata Travel LDM delivers the functionality and flexibility you need to move data without requiring you to build a costly new data mapping system. A comprehensive, flexible blueprint for organizing data in your Teradata system, the Teradata Travel LDM is built around the aviation industry ATA Spec2000 to capture the details of your purchasing, maintenance, reliability, and inventory management data.

Teradata also offers an Enterprise Data Warehouse Roadmap tool (EDWr) to capture your business improvement opportunities and to show you where your data needs to be aligned for precise decision analysis. It's also a common language that your business and IT departments can use to map business reporting metrics into the warehouse.

The Teradata system, the functional platform of the Supply Chain Sustainment solution, makes it easy for business intelligence tools to access your data. It also provides a powerful capability for each functional user group to create tailored views of its data, without creating multiple copies that are difficult to maintain and that inevitably acquire conflicting business rules. Engineers, financial analysts, and executives can obtain the data they need, each with a single, consistent view of the people, parts, and activities addressing your maintenance events.

About the Partners

Teradata has been leading the technological evolution of data warehousing and decision support for more than 25 years, helping organizations in industries as diverse as retail, transportation and logistics, financial services, telecommunications, travel, government, and e-commerce

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Teradata Event-based Maintenance Management

You can begin building for your future with Teradata, where we've established a complete infrastructure for event-based maintenance management. We've tailored our industry logical data model and the Teradata enterprise data warehouse roadmap for managing the most critical business improvement opportunities in aircraft maintenance management:

> Readiness for scheduled flying
> Reliability and maintenance planning
> Purchasing in inventory management
> Aircraft, engine, and component overhaul
> Warehousing and distribution logistics

With Teradata Database's unique capabilities, you can ask questions of your data that you could never ask before. Let us show you how you can link together the details of your maintenance events with data from the rest of your business to create actionable improvements.

create a single source of data. Teradata has a heritage of technology, global support services, and industry knowledge unmatched anywhere.

BearingPoint, Inc. is one of the world's largest providers of management and technology consulting services to Global 2000 companies and government organizations in 60 countries worldwide. Based in McLean, Va., the firm has approximately 17,500 employees and major practice areas focusing on the Public Services, Financial Services, and Commercial Services markets. For nearly 100 years, BearingPoint professionals have built a reputation for knowing what it takes to help clients achieve their goals and working closely with them to get the job done. For more information, visit the company's website at www.BearingPoint.com.

Business Objects supplies the business intelligence (BI) layer of Supply Chain Sustainment. Business Objects is the world's leading BI software company with more than 35,000 customers, including 80 percent of the Fortune 500.

Together, we've developed an MRO/Supply Chain solution that:

> Delivers a single repository of maintenance event data, complete with history and detail.
> Provides a flexible business intelligence platform, tailored for the needs of operational, financial, and executive users.
> Builds on the accumulated experience of large MRO implementations.

For More Information

To learn more about how the Supply Chain Sustainment solution can provide a single view of your MRO environment that uncovers new opportunities to maximize aircraft uptime and achieve optimal resource usage levels, contact your Teradata representative or visit Teradata.com.

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