

# Lean Integration for the United States Air Force

“[Lean Integration] isn’t just theory, [it] actually does work. We’ve seen it consistently. When you apply this waste-elimination kind of mindset, you should reduce cycle time by 90 percent, and improve productivity by about 50 percent on average.”

– John G. Schmidt and David Lyle, *Lean Integration: An Integration Factory Approach to Business Agility*

## Reduce Costs and Increase Speed to Results

The mission of the United States Air Force IT organizations is clear and unwavering: support the war fighter and deliver results throughout all domains. Yet this mission faces such resource challenges as limited manpower and shrinking budgets.

### New Technology Presents New Challenges

Another set of challenges arises from an expanding field of new technologies and technology requirements such as:

- Cloud computing
- Smart devices
- Modernization efforts
- Consolidation mandates
- Cyber threats and other security issues

Unleashing the power of new technologies on and off the battlefield can only happen when resources—including dollars, manpower, and capacity—are made available. And this demands a new approach to managing data.

### New Challenges Demand a New Approach

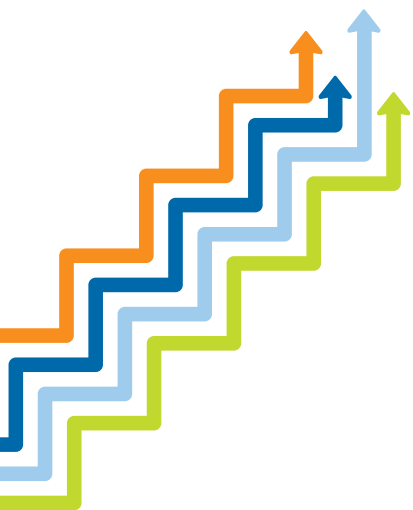
Lean integration is this new approach. It is based on proven lean manufacturing methods that synchronize people, processes, and materials to eliminate wasted effort and resources. Lean integration is a combination of lean data management and agile data integration.

Lean integration extends proven lean methods to data quality and data integration by applying leading-edge technology to transform organizational processes through automation and reuse. Lean data integration principles can transform costly IT chaos and complexity into a lean and agile, data-driven enterprise.

### The Informatica Platform Drives Lean Integration

The technology that can drive this transformation is the Informatica® Platform, the leading enterprise data integration platform. This open, unified, economical, and comprehensive data integration platform has been used in United States Air Force and other similar defense IT environments to streamline IT chaos and complexity, reducing costs and accelerating time to value for the warfighter. The Informatica Platform enables the United States Air Force IT operations to employ lean integration principles to:

- Reduce operations and maintenance (O&M) costs
- Achieve cloud and big data goals
- Develop higher quality and lower cost interfaces
- Provide faster access to information
- Increase situational awareness



## Lean Integration

Based on proven lean manufacturing methods, lean integration is a combination of lean data management and agile data integration. Lean integration extends proven lean methods to data quality and data integration by applying leading-edge technology to transform organizational processes through automation and reuse.

Let's examine how lean integration—both lean data management and agile data integration techniques—can be in the context of IT operations in the United States Air Force.

### Lean Data Management

Lean data management principles can help the United States Air Force control costs in the face of burgeoning data volumes and shrinking budgets and create a more streamlined, nimble, prepared, and informed organization. These principles establish best practices for eliminating the IT resource waste associated with aged or redundant data. By adopting lean applications, lean data stores, and lean applications portfolio policies, United State Air Force IT organizations can:

- Reduce O&M costs and improve performance with lean and secure applications
- Leverage cloud and big data strategies to support enhanced integrations
- Reduce the complexity and expense of building and integrating applications

### Agile Data Integration

Supporting mission-critical activities and war fighter programs demands that data be accurate, easy to analyze and aggregate, and—most importantly—timely. Agile data integration ensures the speed, accuracy, and usability of data. By employing agile data integration techniques, United States Air Force IT organizations can:

- Produce better data and faster results through enhanced collaboration
- Create an event-driven architecture that improves and accelerates decision making
- Dramatically improve situational awareness through intelligence gathering

---

### Netherlands Ministry of Defense Modernizes Systems



- Saved \$65 million annually
- Transformed peacekeeping operations
- Standardized data migration methodology

The Netherlands Ministry of Defense needed to migrate more than 50 legacy army, air force, navy, and military police information systems into a single ERP system to improve governance, reduce risk, and support compliance; increase efficiency and reduce defense costs, and quickly deliver high-quality data to enhance decision making.

The Netherlands Ministry of Defense turned to the Informatica Platform to create a standardized data migration methodology for greater efficiency and enhance collaboration among IT and business users. As a result, the ministry transformed the materials management and logistics of peacekeeping operations. It saved \$65 million annually in development and maintenance costs.



*“Informatica PowerCenter has let us quickly adapt our infrastructure to handle complex file data integration with our enterprise data warehouse with no disruption to our core business processes, and without the time and expense of deploying a new platform. It also allowed us to move to a more real-time model thus improving service to our servicemen and women.”*

– Stan Ferguson, Chief, Data Management Division,  
United States Defense Commissary Agency

| LEAN  |   |   | AGILE   |  |   |
|---|---|---|---|--|---|
| Reduce O&M Costs  | Leverage Cloud and Big Data   | Create Higher Quality, Lower Risk Interfaces  | Accelerate Access to Information  | Create Event-Driven Architecture   | Enhance Situational Awareness   |
| <ul style="list-style-type: none"> <li>Retire stale or inactive data and applications and reduce costs</li> <li>Manage retired data and applications for reporting, search, and compliance</li> <li>Monitor application growth to prevent data explosion in applications</li> </ul> | <ul style="list-style-type: none"> <li>Reduce complexity and risk of big data processing (Hadoop)</li> <li>Reduce cost and risk of moving to cloud</li> <li>Integrate cloud and ground systems</li> </ul> | <ul style="list-style-type: none"> <li>Profile data quality in legacy applications before migrations</li> <li>Synchronize and manage data interfaces and metadata between legacy and future</li> <li>Create an SOA-compliant application to integrate data for mission</li> </ul> | <ul style="list-style-type: none"> <li>Onboard and disseminate new data sources more quickly</li> <li>Centralize data profiling, data quality and data delivery to common platform</li> </ul> | <ul style="list-style-type: none"> <li>Push critical information in real time based on events affecting mission</li> <li>Incorporate geo-spatial awareness, time dominance and alert across multiple data streams</li> </ul> | <ul style="list-style-type: none"> <li>Acquire, correlate, and fuse disparate data sources</li> <li>Automate data links, centralize metadata and tagging</li> </ul> |

Lean data management and agile data integration principles are used in a variety of United States Air Force IT organization scenarios to reduce costs and increase time to value.

### Air Force Knowledge Services: A Single Data Warehouse



**U.S. AIR FORCE**

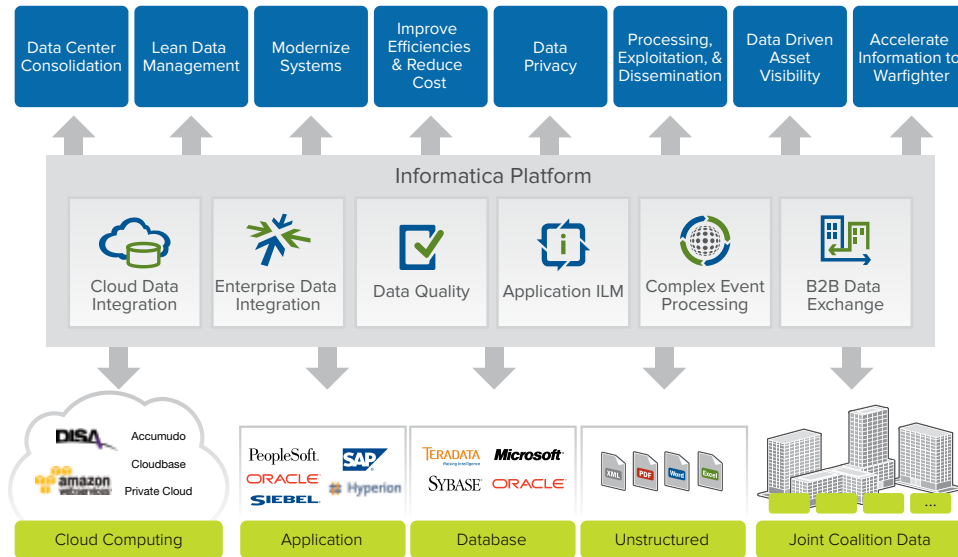
- Recouped \$300,000 in one week
- Identified \$600M in excess parts
- Reduced reporting time to 1 hour

The United States Air Force relied on the Informatica Platform to create Air Force Knowledge Services, a single data warehouse used to manage a global fleet of thousands of aircraft, missiles, and satellites.

Data from 26 discrete source systems and databases was accessed and integrated to improve the speed and availability of data in the warehouse. Reporting time was drastically reduced from six months to less than an hour. End users were able to generate approximately 20,000 reports a week. As a result, more than \$600 million in excess parts was identified and in one week \$300,000 in excess equipment expenses were recouped.

# The Informatica Platform

The Informatica Platform is the leading-edge technology for lean integration. This unified platform is built upon shared data services, metadata, and data rules. These capabilities reduce costs through reuse, consistency, and transparency. They also reduce the impact of continual change.



The Informatica Platform, the leading platform for lean integration, is built for change and integration with all data and all hardware, software, and technology standards.

The Informatica Platform is built for change and integration with all data, hardware, software, and technology standards. It provides universal data access, Interoperability, and open APIs and SDKs. It cuts development and maintenance costs by 50 percent or more and reduces the cost of IT change. It also boosts productivity, reduces outages, and reduces IT risk.

With the Informatica Platform, United States Air Force IT organizations can:

- Safely retire legacy systems and applications while still meeting data retention requirements
- Take advantage of new cloud computing economics by accessing and integrating any data easily and securely, and by provisioning integration services with a wide range of SaaS connectors and templates
- Create, manipulate, and manage very large data sets (e.g., terabytes or even petabytes) and storage facilities
- Deliver authoritative and trustworthy data to all stakeholders, projects, and data domains and for all projects and business applications—on premise or in the cloud—in real time

## ABOUT INFORMATICA

Informatica Corporation (NASDAQ: INFA) is the world's number one independent provider of data integration software. Organizations around the world rely on Informatica for maximizing return on data to drive their top business imperatives. Worldwide, over 4,630 enterprises depend on Informatica to fully leverage their information assets residing on-premise, in the Cloud and across social networks.



Worldwide Headquarters, 100 Cardinal Way, Redwood City, CA 94063, USA  
 phone: 650.385.5000 fax: 650.385.5500 toll-free in the US: 1.800.653.3871  
[informatica.com](http://informatica.com) [linkedin.com/company/informatica](https://www.linkedin.com/company/informatica) [twitter.com/InformaticaCorp](https://twitter.com/InformaticaCorp)

© 2013 Informatica Corporation. All rights reserved. Printed in the U.S.A. Informatica, the Informatica logo, and The Data Integration Company are trademarks or registered trademarks of Informatica Corporation in the United States and in jurisdictions throughout the world. All other company and product names may be trade names or trademarks of their respective owners.