

Managing Information Risk to Improve Compliance, Enhance Security



Imagine a solution that can help automate export control, secure engineering and supply chain collaboration, as well as improve the security of critical SAP® data. Now imagine it can be managed centrally, with a seamless end-user experience.

NextLabs Application Enforcer, an SAP-endorsed business solution for information risk management, makes this vision a reality. It extends SAP authorization concepts to provide contextaware and policy-based access control to critical data, helping customers enhance compliance, reduce the risk of data breach and wrongful disclosure, and enable secure partner collaboration.

GLOBAL COLLABORATION CHALLENGES

In the United States alone, the Department of State has levied more than \$100 million in fines for International Traffic in Arms Regulation violations since 2010.

As organizations take their business global, they quickly encounter multiple roadblocks to successful global collaboration. For example, take the case of a multinational manufacturer of aircraft engines seeking to expand its business further into the defense market. Strict regulations, such as the U.S. International Traffic in Arms Regulation (ITAR), the German Federal Office of Economics and Export Control (BAFA) regulations, and the UK Export Control Act (ECA), govern how defense-related technical data must be handled. In light of these mandates, the company would have to task its compliance officers with developing a strategy that meets the export regulations of its target markets.

These officers would need to answer a number of practical questions, including:

- How can we ensure that critical SAP® data related to the new defense products is accessible to all authorized users but not inadvertently shared with foreign employees?
- How can we ensure that all exports of technical data are properly recorded?

Unlike in the case of shipping physical goods, controlling access to technical data can be challenging. Traditional role-based access controls do not effectively control access to data, leading to potential compliance violations that could incur enormous fines.

Export compliance is not the only challenge this engine manufacturer faces. To maximize competitive advantage and reduce cost, businesses are increasingly dependent on an extended supplier and contractor network. Products are often designed and manufactured in collaboration with global partners to leverage best-in-class capabilities.

How can companies both enable the global sharing of data necessary for designing best-in-class products while also safeguarding vital corporate intellectual property and meeting various regulatory requirements? How can companies protect partner intellectual property in compliance with information sharing agreements? How can they share demand forecasts and production schedules with suppliers to increase visibility while maintaining confidentiality?

With a single SAP software instance providing global shared services, critical data of this engine manufacturer is potentially accessible anywhere, from any device, across an entire global user base. While this broad accessibility helps drive collaboration, it also increases the risk that critical SAP data could be shared with or accessed by unauthorized users, compromising security or violating export or data privacy laws.

To add to the challenge, this engine manufacturer has offshored its IT and help desk operations. While offshoring streamlines business operations, it also increases the risk that administrative offshore employees or contractors could violate data privacy or export regulations. According to a 2010 study by the Ponemon Institute, the average cost of a data breach is US\$7.2 million per incident.

MANAGING INFORMATION RISK

NextLabs Application Enforcer is an SAP-endorsed business solution for information risk management. It works with SAP solutions to help automate electronic export control, secure engineering and supply chain collaboration, and enhance data security – enabling the provision of global shared services and harmonization of business processes (see Figure 1).

With the SAP Global Consolidation solution, companies can enjoy the following benefits.

The Application Enforcer provides the following key capabilities:

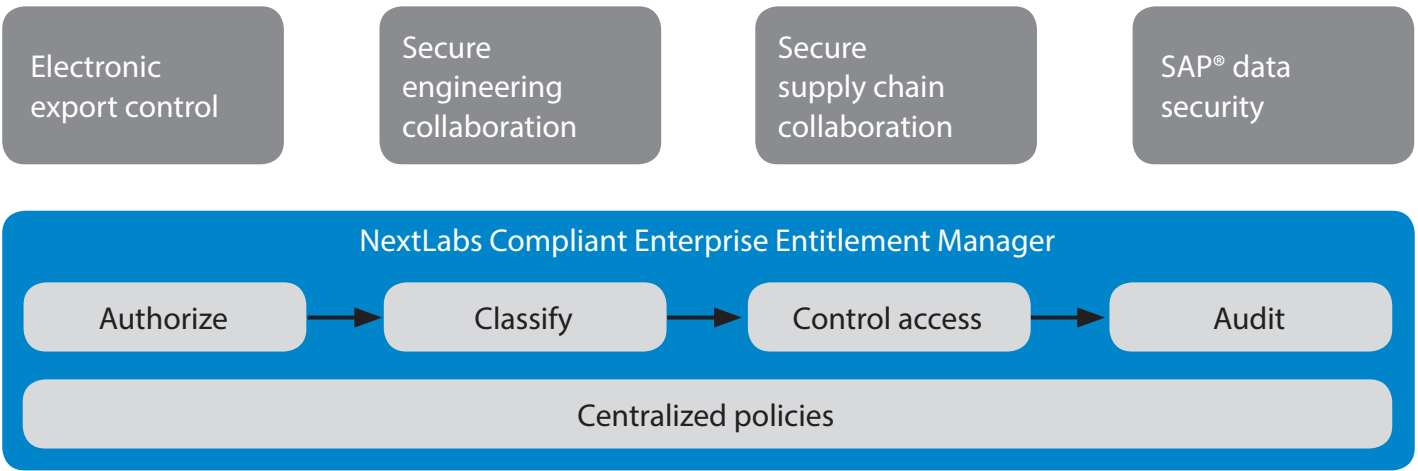
Authorization: Transforms licenses and legal contracts into data-level authorizations

Classification: Simplifies classification of SAP data for proper control of data access

Access control: Extends SAP authorization concepts beyond context and role to provide fine-grained access control based on attributes such as nationality and location

Audit: Provides an audit trail on the usage of and access to critical SAP data and facilitates compliance reporting

Figure 1: Global Process Coordination with the Entitlement Manager



Built-in policy sets help businesses secure critical data access and comply with cross-border jurisdictions. Businesses can leverage these best-practice policy sets to:

- Automate electronic export control and comply with export regulations such as the U.S. ITAR and Export Administration Regulations (EAR), German BAFA, and UK ECA. The solution actively enforces export controls by understanding the complex business-context variables for appropriate technical data handling and disclosure.
- Facilitate the agile collaboration required for global product development, while improving intellectual property security. The Application Enforcer automatically classifies intellectual property throughout its lifecycle and allows companies to centrally define standards-based policies authorizing access to intellectual property. These authorization policies are then enforced and tracked as engineers and design partners collaborate. Information barriers can be effectively maintained to avoid conflicts of interest and prevent wrongful disclosure.
- Facilitate the agile collaboration required for a responsive supply network, while protecting confidentiality of sensitive demand data, production schedules, and manufacturing intellectual property. The Application Enforcer helps ensure that supply and demand data (such as volume forecasts or production schedules) and manufacturing intellectual property (such as manufacturing bills of material, or BOMs) are properly classified. It automatically controls access to this data in accordance with customer, supplier, and contractor information-sharing agreements and corporate intellectual property protection mandates.
- Enhance security of critical SAP data to help companies meet their compliance and security needs as they provide greater mobility and more global access to shared services. Centralized policies control who can access what data based on fine-grained attributes such as sensitivity of content, location of access, identity of user, and citizenship of user. Policies can also enforce data segregation to ensure that data is stored in appropriate locations in compliance with national data-privacy laws or export regulations. In addition, policies can further control privileged-user access so that global IT and help desk personnel have the right system access while restricting their data-level entitlements.

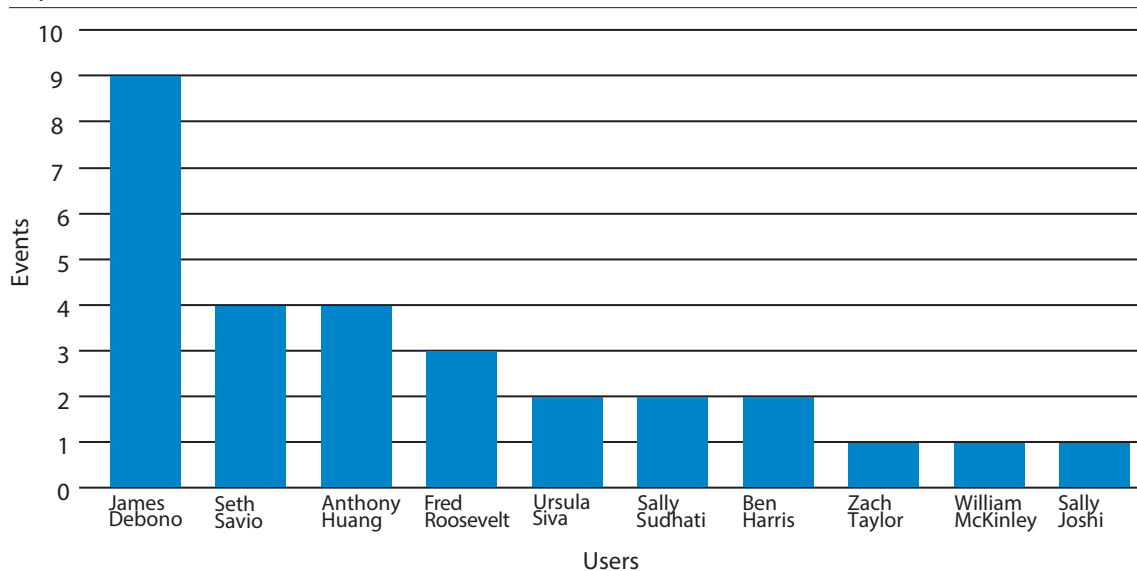
PROTECTING CRITICAL SAP DATA

NextLabs Application Enforcer is an SAP-endorsed business solution and integrates with the SAP ERP, SAP Product Lifecycle Management, and SAP BusinessObjects™ Global Trade Services applications to provide end-to-end information risk management. The Application Enforcer extends SAP authorization concepts to provide attribute-based access to SAP business objects such as materials, BOMs, routings, change masters, parts specifications, CAD drawings, and documents. It can leverage SAP roles and access control contexts and combine them with other attributes for dynamic authorization decisions.

The Application Enforcer can be configured to automatically classify critical SAP data by association or inheritance or based on location of storage. This greatly simplifies the task of data classification and helps ensure that program data is properly identified for effective access control throughout its lifecycle.

Finally, the Application Enforcer works smoothly through the SAP GUI and SAP NetWeaver® Portal component to enforce data access and sharing policies. The Application Enforcer can be extended to protect critical data after it is exported from SAP applications to provide end-to-end protection. Graphical reporting tools provide a complete audit trail of all authorization decisions (see Figure 2).

Figure 2: Tracking All Authorization Decisions with the Application Enforcer
Top 10 Denied Users in Past Month



IMPROVING SECURITY AND CONTROL

Global companies face challenges in export control, in protecting intellectual property in engineering and supply chain collaborations, and in securing critical SAP data against unauthorized access.

NextLabs Application Enforcer works with SAP solutions to provide the following benefits:

- Automate global trade compliance and lower compliance costs associated with various export control regulations, such as ITAR, EAR, BAFA, and ECA
- Protect intellectual property while enabling global design collaboration and prevent wrongful disclosure of design and engineering specifications in compliance with proprietary information exchange agreements and nondisclosure agreements

- Prevent data breach across the global supply chain and protect supply, demand, and manufacturing data in accordance with contractor and supplier agreements
- Enhance data security and minimize the risk of SAP data spillage and contamination
- Support proper data segregation in compliance with regulatory mandates and simplify compliance reporting through centralized logging of access

The Application Enforcer enables safe and secure global shared service functions while providing regional policy control. By providing fine-grained authorization with centralized management, the Application Enforcer enables global companies to automate export control, secure engineering and supply chain collaboration, and enhance data security.

NEXTLABS®

Zero Trust
Data-Centric Security



ABOUT NEXTLABS

NextLabs®, Inc. provides zero trust data-centric security software to protect business critical data and applications. Our patented dynamic authorization technology and industry leading attribute-based zero trust policy platform helps enterprises identify and protect sensitive data, monitor and control access to the data, and prevent regulatory violations – whether in the cloud or on premises. The software automates enforcement of security controls and compliance policies to enable secure information sharing across the extended enterprise. NextLabs has some of the largest global enterprises as customers and has strategic relationships with industry leaders such as SAP, Siemens, Microsoft, AWS, Accenture, Deloitte, Infosys, and IBM. For more information on NextLabs, please visit: <http://www.nextlabs.com>.

Zero Trust Data Security Suite

