

Data Access Enforcer for Siemens Teamcenter

Control Global Data Access from Anywhere



OVERVIEW

Siemens Teamcenter is a product lifecycle management (PLM) solution that connects people and processes, across functional groups and business units, to allow organizations to collaborate and innovate efficiently. Success often hinges on the ability to share information quickly and easily across organizations and geographies. This includes sharing bills of material (BOMs), product designs, and more, both internally and externally (e.g., with contractors, suppliers, and partners). However, challenges abound when striking a balance between giving stakeholders access to sensitive data on one hand and the need to protect business critical data while adhering to applicable compliance requirements on the other. In semi-structured data environments like Teamcenter, it is important to protect both the structured and unstructured components of the data.

THE SOLUTION

NextLabs Data Access Enforcer for Siemens Teamcenter (DAE for Teamcenter) provides dynamic data-level security controls and fine-grained data access governance for structured data in Siemens Teamcenter. This complements the protection provided for unstructured data by SkyDRM for Teamcenter (also known as Teamcenter DRM). Through NextLabs' patented Dynamic Authorization platform, organizations can leverage attribute-based policy and centralized policy management to improve their security and compliance posture for Siemens Teamcenter. DAE for Teamcenter enforces policies based on the identity of the Teamcenter user and is data model aware so it can enforce data-level security controls - such as field-level data masking and record level data segregation and monitors data access activity directly from within the data access layer of Siemens Teamcenter.

DAE for Siemens Teamcenter prevents unauthorized access to structured data in Teamcenter through fine-grained data-level security controls, protecting data and addressing compliance requirements at the same time. DAE for Teamcenter enables employees and external partners to share critical information and collaborate in business processes to improve workforce productivity and business agility.

THE BENEFITS

DAE for Siemens Teamcenter provides the following benefits:

- Externalize authorization management to simplify and reduce the time spent on administering access control policies
- React more rapidly to changes in business requirements, market conditions, or regulatory environment with policy changes that can be made without code changes or application downtime
- Lower your total cost of ownership by leveraging your existing investment in the NextLabs platform
- Reduce the cost of compliance through more efficient and cost-effective monitoring and auditing of your data

Key Features

Feature	Detail
Real-time enforcement of attribute-based access policies	Access to data based on policies that examine attributes of data being accessed, context of requests, and user identity. DAE dynamically applies policies, factoring in changes in attributes of data or user to enforce fine-grained entitlement and security controls to data regardless of business transaction. Rules are validated in real-time when a user attempts to access data, then granting access.
Field-Level Data Masking	Given the growing importance of data privacy and the various requirements mandating the protection of sensitive data, such as personally identifiable information (PII), customer data, technical data, financial data, etc., the need for data masking is as crucial as ever. DAE ensures that users can only view the fields on the record to which they have been granted access, the value of the field will be masked for those fields that users are not authorized. It uses policy-driven approach to mask the data in the unauthorized fields based on attributes. These centrally manage policies define masking patterns and rules to determine who, what, when, where, and why to mask field(s) in real-time.
Format Preserving Encryption (FPE) Data Masking	Elements in the DB data store can be masked at rest such that the masked data preserves the length and format of the original data, making the masking non-obvious to unauthorized users and maintaining application dependencies. Masking can be reversed to allow authorized users to view the original data. DAE for Teamcenter includes a built-in FPE library or can integrate with 3rd party encryption tools. DAE's Bulk Obfuscation Tool (BOT) makes applying FPE masking at rest consistent and straightforward across all affected tables and fields pre- and post-implementation of DAE.
Record-level Data Segregation and Filtering	DAE ensures users can only view records or data to which they have been granted access. Authorization can be based on the industry, location, department, position, project assignment, or any attribute of the user, which can be compared against attributes of an entity or record such as sensitivity, transaction type, etc. For example, you can filter data in BOMs to only show data components a user is authorized to view.
Granular DML actions	Block by operation (e.g., Insert, Delete) such that users cannot insert a record into a table or delete a record from a table if they are not authorized to do so.
Centrally Managed Policies	Authorization policies can be centrally managed and reviewed across all an organization's applications, substantially reducing administration costs.
Centralized Monitoring and Auditing	DAE tracks and stores user activities and data access across all applications in a central audit server, simplifying compliance management. Analytics for user behavior and access patterns are provided via dashboards, reports, and automated monitoring facilities.
Out of the Box Integration	DAE for Teamcenter integrates with both Oracle and SQL Server databases, allowing Siemens Teamcenter instances connecting to either Oracle or SQL Server databases to use DAE without any custom code required.

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>.