SSO and identity-based licensing for multiple online applications

Trimble Business Solutions (formerly Tekla) is a global software company, delivering desktop, web and mobile versions of its applications to hundreds of thousands of customers worldwide.

This customer base includes consumer, small and medium-sized businesses (SMBs) and Enterprise users.

The Challenge

Trimble had developed a number of online applications to support its core desktop software product, 'Tekla Structures'.

Trimble had the dual challenge of making it easy for its customers to access it online products but also maintain control of which customers could access which specific applications, in accordance with what they had licensed.
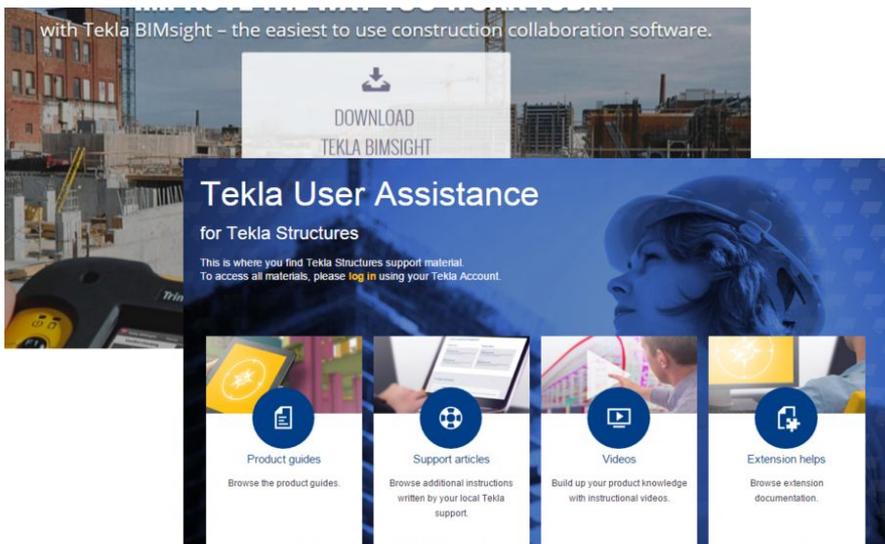
Trimble required a solution that could accurately reflect the complexity of licensable product lines available to each customer segment. Trimble also required the same solution to support the Enterprise use-case, with its more demanding security considerations and more complex licensed application combinations, accessed by specific business units of a corporate customer using their existing corporate IDs.

Industry
Software

Challenge
To provide SSO capability across five web applications and one desktop application as well as flexible, identity-based licensing to govern user access to all digital content

Solution components

10Duke Identity Provider

10Duke Entitlement Service

10Duke Reporting Service

Delivery timeframe
8 weeks

Coverage
Worldwide

Key stats
› 75,000+ users
› 5 connected web applications
› 275,000 license checks per day

Website
www.tekla.com

The Specific Problem

In order to achieve its business objectives, Trimble wanted to implement a single Identity Provider (IdP) to provide both a Single Sign-On (SSO) and Single Sign-Out capability for its product suite, including not only web applications but also its core desktop application.

This IdP needed to also support an enterprise customer use case which required that corporate customers would be able to access Trimble's applications using their existing corporate identities. This would in turn require Microsoft Active Directory (AD) and Microsoft AD Federation Services (ADFS) integration.

Crucially, Trimble wanted to be able to use one IdP to serve all of their customer segments, from consumers to corporate customers.

In addition to this complex SSO requirement, Trimble required a dynamic licensing capability that could accurately reflect and manage the broad range of product packages that Trimble sold to its customers.

Flexnet, the incumbent licensing solution, didn't offer the required degree of flexibility and was poorly suited to online products.

Trimble needed a solution to give them a single view of the customer and govern access control to users based on the version of application they had licensed. This single view of the customer could then help Trimble encourage and promote customer migration up their product chain from free to premium applications.

A final requirement for Trimble was the integration of the new Identity Provider and licensing solution into its existing ecommerce engine. Purchases made were reconciled against entitlements granted so that new license purchases could immediately be reflected back to the customer and internal CRM systems in real time.

The Solution

Trimble chose the 10Duke Identity Provider and Entitlement Service to meet its complex authentication and authorisation requirements.

The 10Duke IdP was used to create a new common 'Trimble IdP' to underpin SSO access to all of the company's online applications by its customer base, including large corporate customers that required integration of the IdP with Active Directory and ADFS.

The 10Duke Entitlement service provided Trimble with a dynamic licensing capability to support usage-based billing and ensured the automated delivery of licenses and license renewals, rather than slower, more error prone manual license server configuration.

> " *10Duke really understood Tekla's business targets in this project and provided an excellent combination of skills and technology that enable us to provide a unique offering for the building and construction industry.* "
>
> *Panu Lassonen, Director, Structures Division, Trimble*

This identity-based licensing service also reflected complex customer entitlements such as certain applications being licensed for use on some, but not all, client types. For example, a Trimble customer could access a certain application via the web and desktop but would need an additional license to access the same application via their mobile device.

To deliver additional value, Trimble's new Entitlement service was integrated with its existing ecommerce engine so that customer purchases could be immediately and seamlessly updated to give a single, real time view of customer licensees and entitlements.

Implementation Method

Using a joint project team, led by Trimble's online architect, white-label versions of the 10Duke Identity Provider and Entitlement Service were licensed by Trimble and then customised to suit the specific Trimble business case.

Each Trimble online application was integrated to the (new) Trimble Identity Provider and the relevant Trimble product packages were configured in the Entitlement Service to provide an identity-based licensing capability.

Deployment Model

The 10Duke Identity Provider and Entitlement Service are delivered on a SaaS, white-label basis for Trimble from a 10Duke private cloud operating across Europe and North America.

Result

The use of the 10Duke IdP and the 10Duke ES provided a centralised identity and access management solution to sit at the core of the Trimble online service offering.

The solution required broad applicability across the product lines and was also required to support extremely complex authorisation scopes demanded by both consumer, SMB and enterprise customer use cases.

In spite of these very challenging requirements, the 10Duke Identity Provider and Entitlement Service provided Trimble with a robust, flexible and best-of-breed solution, including:

› A centralised cloud-based IdP solution supporting consumer, SME and Enterprise SSO requirements
› A centralised cloud-based entitlement service, providing identity-based licensing for consumer, SME and Enterprise customers
› Support for detailed authorisation scopes brought on by allowing access to Trimble's applications from within the Enterprise, including business units and project teams

› Integration with an ecommerce solution allowing granting, monitoring and enforcing entitlements based on online purchases and the dynamic delivery of licenses and license renewals
› Integration of the new Identity Provider and Entitlement service into back-office applications such as ERP and CRM
› Deployed of the entire solution to a private cloud, giving the flexibility and scalability required to cope with a fast growing product suite to customers worldwide

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Trimble.

Tekla Account

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Welcome to Tekla account

Tekla Corporation is now called Trimble. We continue developing Tekla software solutions and same people are there for you. Learn more: **www.tekla.com/evolution**

Log in or create a Tekla account to access **Tekla Downloads**, **Warehouse**, **Discussion Forum**, **User Assistance**, and **Campus**.

Please note that this is not the same account that the old Tekla extranet uses. To access all services, you should have a valid **Tekla Structures Maintenance contract**.

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More information for Tekla account administrators ›

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About 10Duke

10Duke provides a set of composable services, delivered as RESTful APIs, that cover capabilities such as Single Sign-On, federated identity management, content paywalls and metering, identity-based licensing, and cloud-based file management and conversion. 10Duke APIs have been used to create award-winning online applications for customers such as Rovio (Angry Birds), the Association of Tennis Professionals (ATP), the BBC, Trimble, Unilever, Arsenal Football Club, and Maserati.

Deliver more.