Progress® OpenEdge®

OpenEdge Advanced Security

WHITEPAPER

Satisfy industry demands, enhance application and data security and meet regulatory compliance with OpenEdge Advanced Security.

Applications that are trustworthy and safe are essential for enterprises in today's digital world. As a result, there are strict security requirements for all business applications across a wide range of industries and enterprises globally.

Security is top of mind for many organizations, especially if they are in highly regulated industries such as the public sector, finance, insurance and healthcare. Keeping their mission-critical information consistently secure and protected is a must for their business operations.

With these customer concerns in mind, the Progress team introduced OpenEdge Advanced Security.

What Is OpenEdge Advanced Security?

Advanced Security allows customers to have the tools they need to strengthen the security posture of their OpenEdge applications. This product includes dynamic data masking, hardware security module (HSM), JSON web encryption (JWE) and transparent data encryption (TDE). Together, these tools offer robust application security for your critical applications.

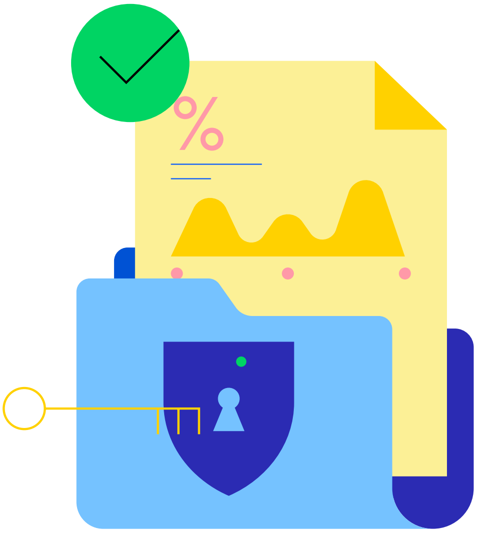
OpenEdge Advanced Security provides the additional level of security that enterprises need. Let's take a deep dive into the four main features within the OpenEdge Advanced Security package:

1. Dynamic Data Masking (DDM)

Dynamic Data Masking supports compliance with data regulations by allowing users to mask fields from unauthorized users. DDM helps administrators maintain data privacy and protection, meet regulatory requirements and safeguard sensitive information. With dynamic data masking, you can track DDM activities, changes and rule management, control sensitive data access using authorization tags and alert DB clients about DDM schema changes.

Key capabilities include:

- Masking fields from unauthorized users to promote compliance with data regulations
- Supporting administrators in maintaining data privacy and protection
- Tracking DDM activities, changes and rule management
- Controlling sensitive data access using authorization tags
- Alerting DB clients about DDM schema changes



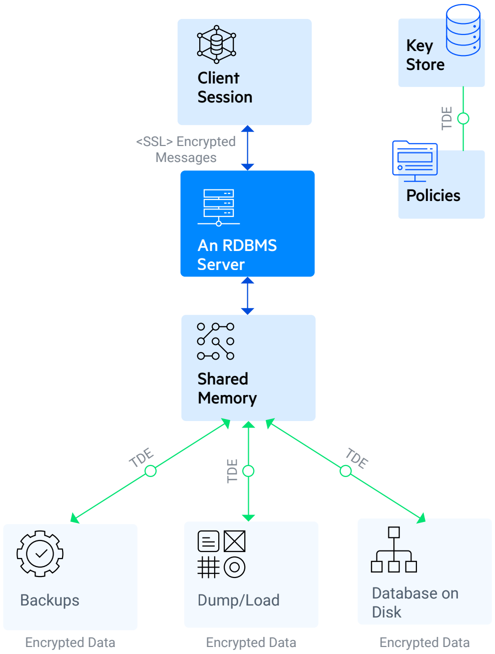
2. Transparent Data Encryption (TDE)

OpenEdge Transparent Data Encryption helps you provide privacy for sensitive data in your application, whether your business is in retail, financial services, healthcare (HIPAA requirements) or any other industry that handles sensitive data. These requirements drive many software initiatives related to sensitive data. Employing this OpenEdge feature helps you protect your data on disk, in backups and even in binary dump files. Best of all, OpenEdge Transparent Data Encryption requires no changes to your application, user procedures or DBA management processes. This means the costs to your production operation are truly minimized.

Growing data confidentiality needs are reflected in growing TDE security requirements. TDE provides data confidentiality through industry-standard encryption ciphers and security key protection and storage to help resist attacks.

Key capabilities include:

- Controlling access to stored private data, or "at rest"
- Executing at full speed with less than 2% performance degradation while encrypting and decrypting



3. Hardware Security Module (HSM)

Hardware Security Module (HSM) is an enterprise-scale physical computing device that helps protect and manage digital keys, performs encryption and decryption functions for digital signatures and provides strong authentication and other cryptographic functions.

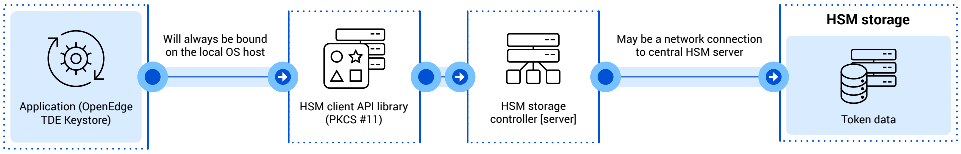
This feature allows you to store all your keys on your server, where users may access them to do their vital business tasks in a secure location.

HSM builds on the encryption capabilities provided by Transparent Data Encryption (TDE). Because TDE handles the encryption of data at rest, HSM extends this protection by providing highly secure, tamper-resistant storage and management for the encryption keys themselves. In other words, TDE enables encrypted data storage-HSM manages the keys to unlock that data with the highest level of security.

Numerous industries require the highest level of security when storing and using cryptographic keys. HSM supports this with:

- Tamper-resistant hardware
- Key storage, protection and accessibility to only authorized users
- Keys do not need to be loaded into the web/application server

Progress
OpenEdge® TDE


Application (OpenEdge TDE Keystore)
Will always be bound on the local OS host
HSM client API library (PKCS #11)
HSM storage controller [server]
May be a network connection to central HSM server
HSM storage
Token data

4. JSON Web Encryption

With JSON Web Encryption, users can communicate JSON-formatted data securely in a tamper-proof container. The ability to recognize users enables the establishment of certificates that limit who can and cannot access applications. This can be utilized for tasks like application login validation.

There are standards to safeguard user identification in business applications. These measures would be used by organizations to: keys to unlock that data with the highest level of security.

- Confirm who is who when trying to access and use varying business applications and data
- Make sure that information is only visible to those who are permitted to view them

Interested In Learning More?

OpenEdge Advanced Security is available for OpenEdge versions 12.6 or later. With this security add-on, you can feel even more secure with your Progress OpenEdge applications.

Check out **Advanced Security** and get started today!

About Progress

Dedicated to propelling business forward in a technology-driven world, Progress (NASDAQ: PRGS) helps businesses drive faster cycles of innovation, fuel momentum and accelerate their path to success. As the trusted provider of the best products to develop, deploy and manage high-impact applications, Progress enables customers to build the applications and experiences they need, deploy where and how they want and manage it all safely and securely. Hundreds of thousands of enterprises, including 1,700 software companies and 3.5 million developers, depend on Progress to achieve their goals—with confidence. Learn more at www.progress.com

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