



OpenEdge 12

12.6 et au delà
Histoires de Releases

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Innovation Release



Long Term Support (LTS)
Release

OpenEdge 12 Résumé

12.0 Mar 2019	12.1 Sep 2019	12.2 Apr 2020	12.3 Oct 2020	12.4 Jul 2021	12.5 Feb 2022	12.6 Sep 2022
OpenEdge 12.0	OpenEdge 12.1	OpenEdge 12.2	OpenEdge 12.3	OpenEdge 12.4	OpenEdge 12.5	OpenEdge 12.6
Multi-threaded DB Server	Modify DB params, non-structural schema online	Modify Triggers, more DB params online	Online BI space management, defrag of MT & TP tables, app schema changes	Online Field Drop, Table Truncate	Index Fix speed, DB backup compression, online truncated LOB Move	Truncate DB storage area online & Index Fix improvements
AI streaming Replication	Extend/mark variable-length ai, bi and Extents as fixed	Auto DB reconnect on primary failure	Server-side JOINS – static queries NO-LOCK	PASOE deferred logging trace file	OOABL List Collections & Override a Property, Elvis Operator	HSM & JWE support
Server-side JOINS – For Each	Server-side JOINS – dynamic queries	Server-side JOINS – FORWARD-ONLY dynamic queries NO-LOCK	Methods as callbacks, new VAR statement	Default Area assignment, extend methods as callbacks	PDSOE new indexing of dependencies	OOABL SortedSet Collections
Server-side ABL Profiling		Enhanced ABL Profiler		OE Command Center (OECC): PASOE management	Kafka producer & consumer support	OECC clone PASOE instance, OpenTelemetry metrics for DB & PASOE
PASOE OAuth2 & SAML, and Docker container support		Search for string in MEMPTR variable				Pro2 improved auto-migration from V5
		OpenEdge DevOps Framework				

Toutes les Nouveautés dans OE 12

<https://docs.progress.com/bundle/openedge-whats-new/page/Learn-about-OpenEdge-12.html>

Progress Documentation > What's New in OpenEdge 12 > ... >

Learn about OpenEdge 12

All Products



Current publication X

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[What's New in OpenEdge 12.0](#)



Updated Oct 24, 2022

OpenEdge 12 is the most secure, available, and performant version to date. All businesses can benefit from the significant advances in this release. OpenEdge continuously evolves with new features and enhancements to help you meet the demand for application performance, availability, security, and data management. To assist in modernizing your OpenEdge application, this release provides features that:

- Achieve continuous planned and unplanned uptime
- Deliver on performance even as the number of users and connections increases
- Extend capabilities and data across various connections and devices
- Protect from breaches and address compliance mandates
- Create intuitive experiences users demand
- Deliver on business demand-quickly and productively

For details about the features in OpenEdge 12, see:

- [What's New in OpenEdge 12.6](#)
- [What's New in OpenEdge 12.5](#)
- [What's New in OpenEdge 12.4](#)
- [What's New in OpenEdge 12.3](#)
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- [What's New in OpenEdge 12.0](#)

Principaux Apports

- Sécurité
- Productivité Développement
- Intégration de Données
- OOABL
- Base de Données
- OE command Center
- Certifications



Securité

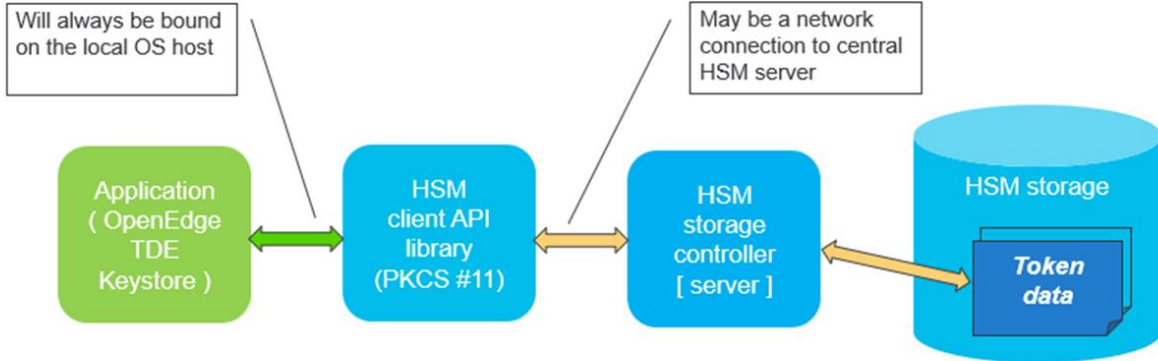
OpenEdge Advanced Security

- Un produit Add-on à partir de OE 12.6
- Pour des besoins de conformités par rapport à des règles de sécurité
- Inclut
 - JSON Web encryption (JWE)
 - Hardware Security Module (HSM)
 - Transparent Data Encryption (TDE)

Un HSM c'est quoi ?

- Un Module Matériel de Sécurité* ou Hardware Security Module en anglais (HSM) **est un dispositif considéré comme inviolable offrant des fonctions cryptographiques**. Il s'agit d'un matériel électronique offrant un service de sécurité qui consiste à générer, stocker et protéger des clefs cryptographiques.
- Pour renforcer la sécurité du « Keystore » OpenEdge, vous pouvez ajouter un composant HSM externe pour gérer la sécurité de stockage des clés de chiffrement OpenEdge TDE. Le stockage HSM, qui peut être un service local, réseau ou cloud, fournit un accès client à l'aide de l'API standard PKCS #11, conçue pour se conformer aux exigences de certification FIPS 140-2 niveau 2.

TDE et HSM



Legend:

Task performed by TDE Keystore

*Task performed by TDE Keystore via the HSM client API

[-PIN]
[-Passphrase]

OpenEdge TDE database

[Encrypted data]

Passphrase

TDE Keystore API

*HSM authenticate user

*HSM authorize DB ID

*Recover .KS file encryption key material

Derive .KS file encryption key

Decrypt .KS file with .KS file encryption key

Authorize key entry access

Decrypt .KS stored DMK (or AI/BI)

Derive object key from DMK



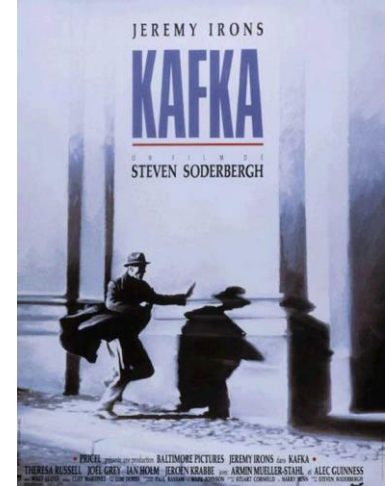
Productivité Développement

PDSOE 12.5

- Intelligent Compilation
- Find References

PDSOE 12.6

- Réduction Temps d'initialisation
 - Initial Scan
 - Deep Scan
- PDSOE utilise Eclipse 4.23 - Eclipse 2022-6



KAFKA

Intégration de Données avec Kafka



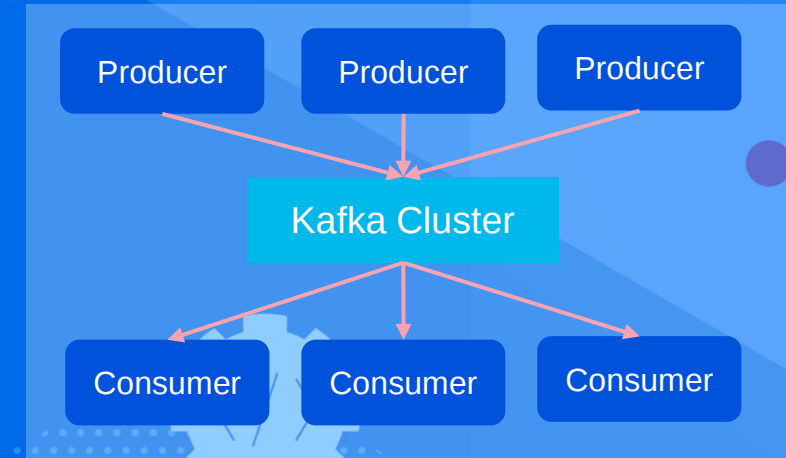
OE 12.5

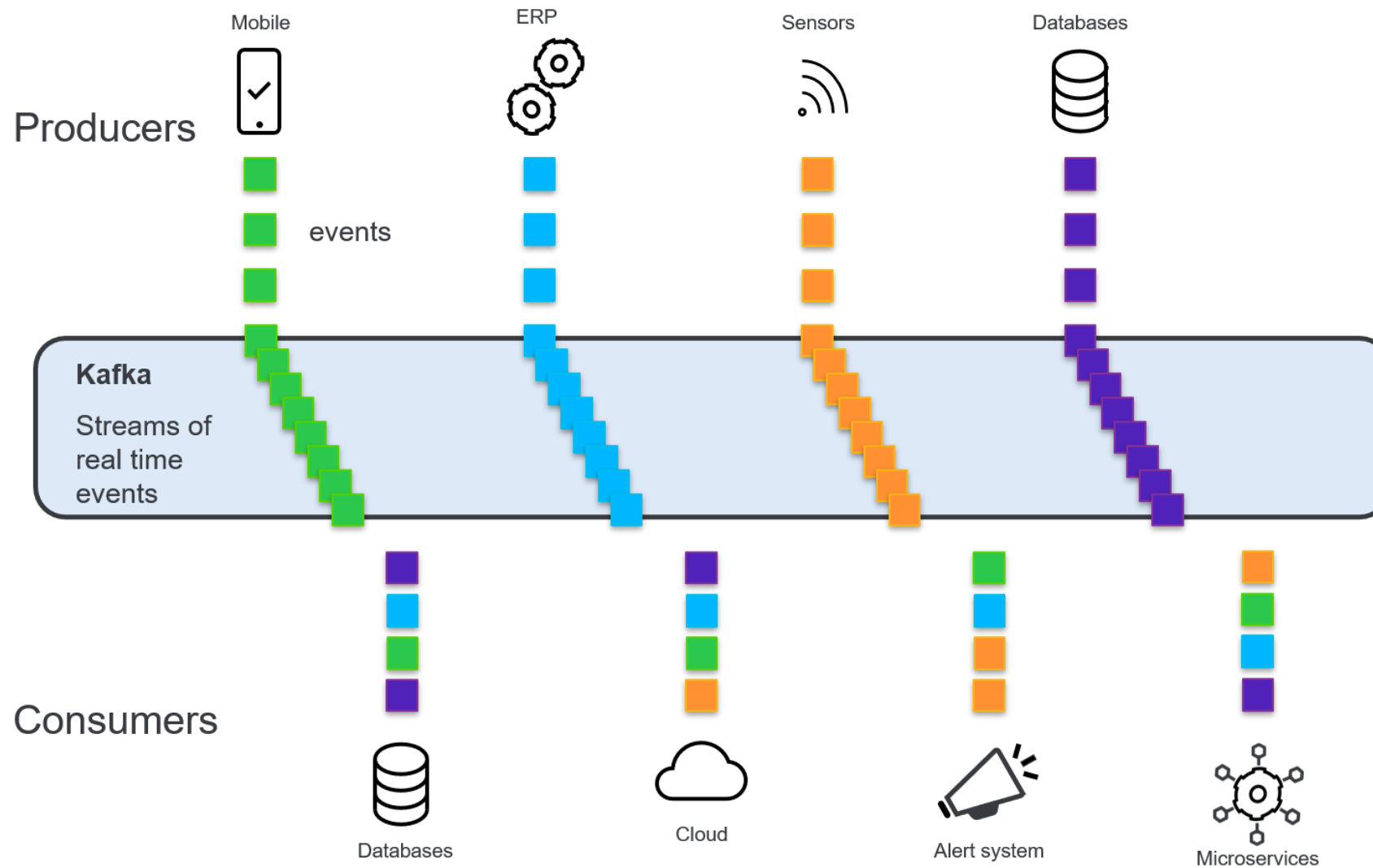
Intégration de Données en utilisant Kafka :

- Framework open source populaire qui s'exécute sur une variété de plates-formes et de systèmes d'exploitation.
- Système de messagerie publication-abonnement sécurisé et tolérant aux pannes
-
- Utile pour les applications distribuées
-
- Utilisé par des entreprises telles que LinkedIn, Netflix et Twitter.
- Nouvelles classes ABL
- `OpenEdge.Messaging.*`
`OpenEdge.Messaging.Kafka.*`

Kafka Architecture cas d'utilisation

- **Producer:** Envoi messages
 - Propager des messages
 - Analytique en temps réel (BI)
 - Traquer l'utilisation d'une application
 - Collecter et Monitorer des Métriques
- **Consumer:** Réception messages
 - Synchronisation de Données
 - Intégration Microservice
 - Aggrégation de Log







OE 12.6

Intégration de Données en utilisant Kafka :

- Configurer Kafka au niveau “topic”

```
topicConfigBuilder:SetTopicOption("request.required.acks", "1").  
topicConfigBuilder:SetTopicOption("request.timeout.ms", "10000").
```

- Kafka Transactional Producer
 - Plusieurs messages peuvent être combinés dans une transaction

- `InitTransactions()`
- `BeginTransaction()`
- `CommitTransaction()`
- `AbortTransaction()`

Vidéos Disponibles

- Producer - Consumer

- Videos

- [Setup](#)

- [Producer](#)

- [Consumer](#)

Autre exemple

[CDC + KAFKA](#)



OOABL

Ajout aux Collections

- SortedSet Collection
 - Une collection d'éléments uniques (sans doublons) d'un ordre prédéfini

```
VAR Progress.Collections.ISet<MyString> stringSet.  
VAR Progress.Collections.IIterator<MyString> iterator.  
VAR MyString name1.  
  
stringSet = NEW Progress.Collections.SortedSet<MyString>().
```

Demo

- Sorted Collection
- Kafka



Base de Données

Dump/Load des données de table à l'aide des utilitaires Data Admin

- Dump&Load possible en utilisant
 - La Class `DataAdminService`
 - `IDataFile` à partir du package `OpenEdge.DataAdmin`
 - Les utilitaires du package `OpenEdge.DataAdmin.Util`
 - `IDataUtility`
 - `IExportUtility`
 - `ITableDataUtility`
 - `ITableExportUtility`
 - `ITableImportUtility`

Quelques nouveautés

- Truncate Are Online
- Clean up Unused Index Blocks
- Large file Support avec toutes les licences de base de données
 - Utile en cas de copie d'une base utilisant une licence Enterprise vers une site (Test) utilisant Workgroup
- Exécutez simultanément les utilitaires de diagnostic sur une Database Offline
- Amélioration Index Fix
 - PROUTIL IDXFIX options 1 and 8 now scan only the blocks belonging to Type II tables and indexes, instead of a whole Type II area
- Binary Dump Produces More Data and Detail about Corrupt Records

Autres sujets

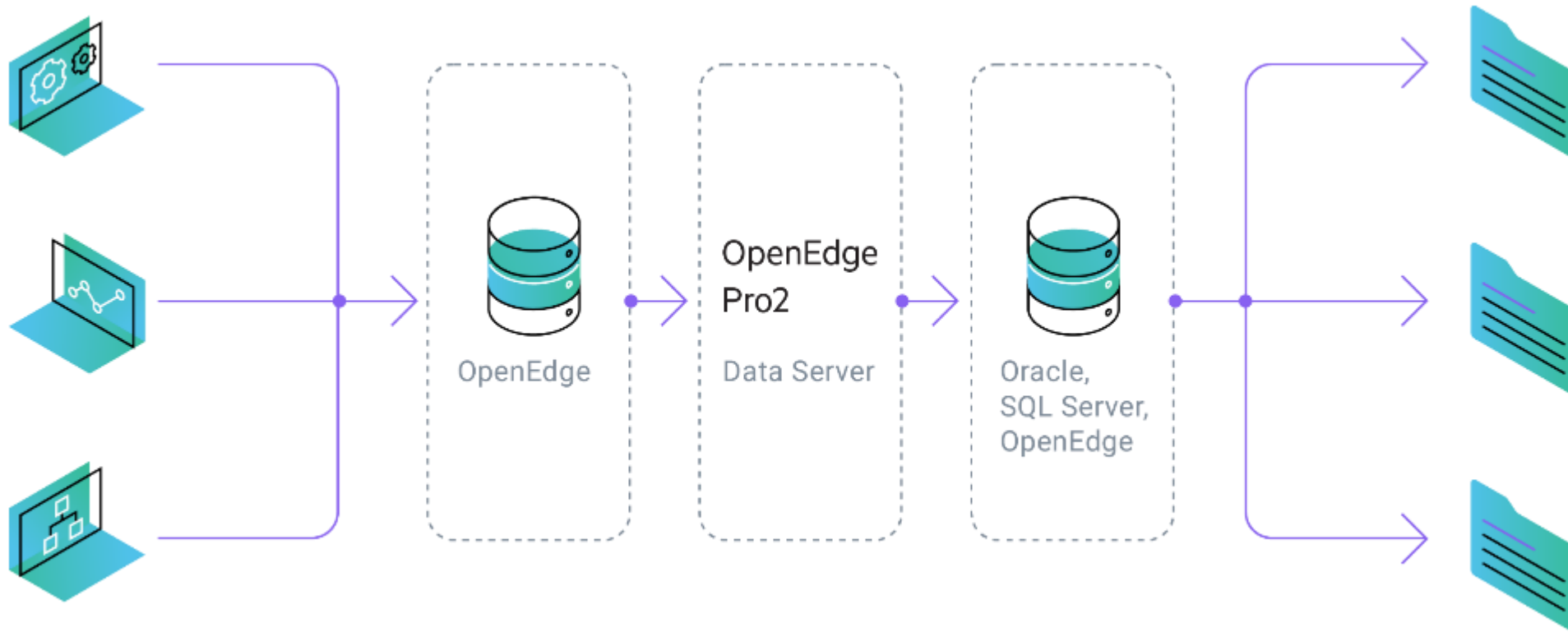
- Leakcheck class dans librairie corelib pour identifier des fuites mémoires
- PASOE: meilleure gestion des “fatal signals” en provenance de solutions externes
- Plus d'utilitaires database peuvent être lancés en parallèle



PRO2 6.4

Pro2 en quelques mots

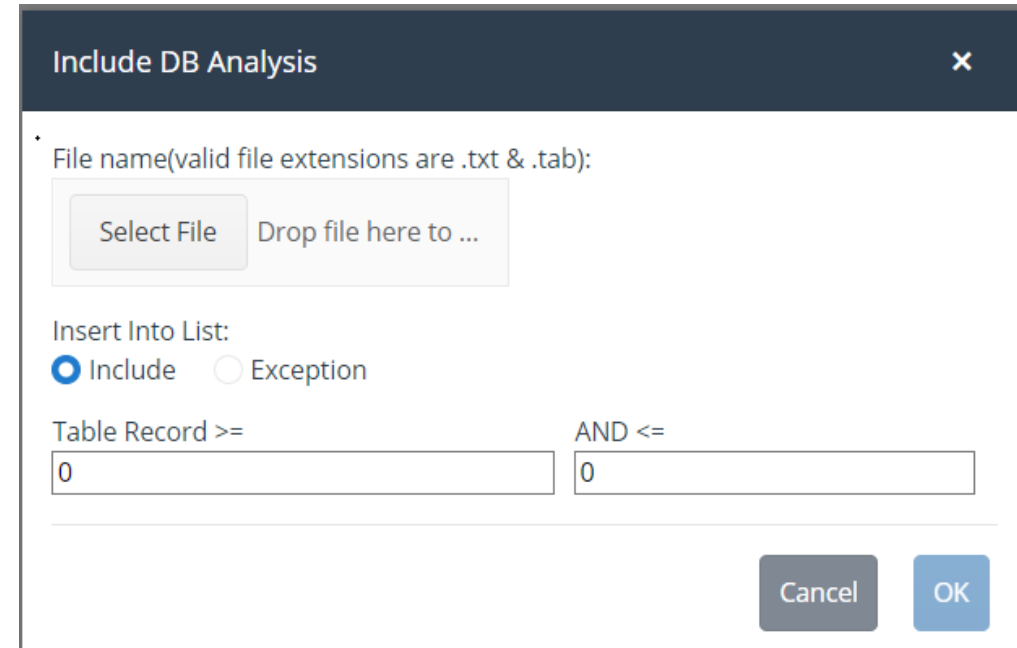
Pro2™ est un produit de réplication dynamique, proche d'une réplication en temps réel de données OpenEdge vers MS-SQL Server, Oracle ou OpenEdge



Réplication de Données, pas plan de continuité

Principaux apports

- Simplification pour la migration PRO2 V5 à PRO2 V6
 - Migration automatisée de PRO2 5.5 vers PRO2 6.4
- Fonctionnalité d'analyse de données pour la phase de Bulkload
 - DBANALYS qui permet ensuite de sélectionner les tables à charger en fonction du nombre d'enregistrements



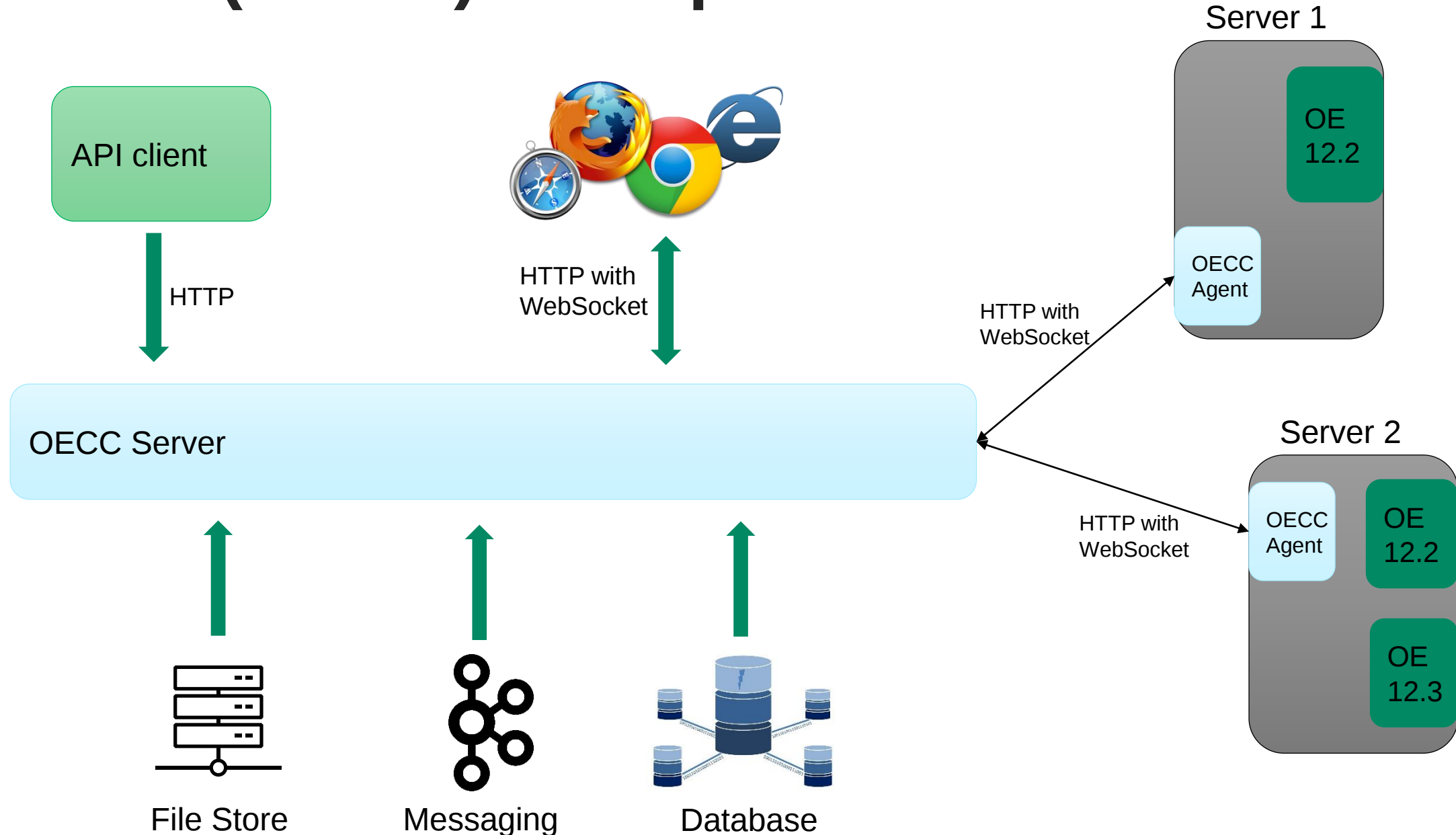
The screenshot shows a dialog box titled "Include DB Analysis" with a close button (X) in the top right corner. The dialog contains the following elements:

- A label: "File name(valid file extensions are .txt & .tab):"
- A file selection area with a "Select File" button and a "Drop file here to ..." text.
- A section titled "Insert Into List:" with two radio buttons: "Include" (selected) and "Exception".
- Two input fields for numerical values:
 - The first field is labeled "Table Record >=" and contains the value "0".
 - The second field is labeled "AND <=" and contains the value "0".
- At the bottom right, there are two buttons: "Cancel" and "OK".



OE Command Center 1.2

OE CC (>=12.4) : Component Architecture



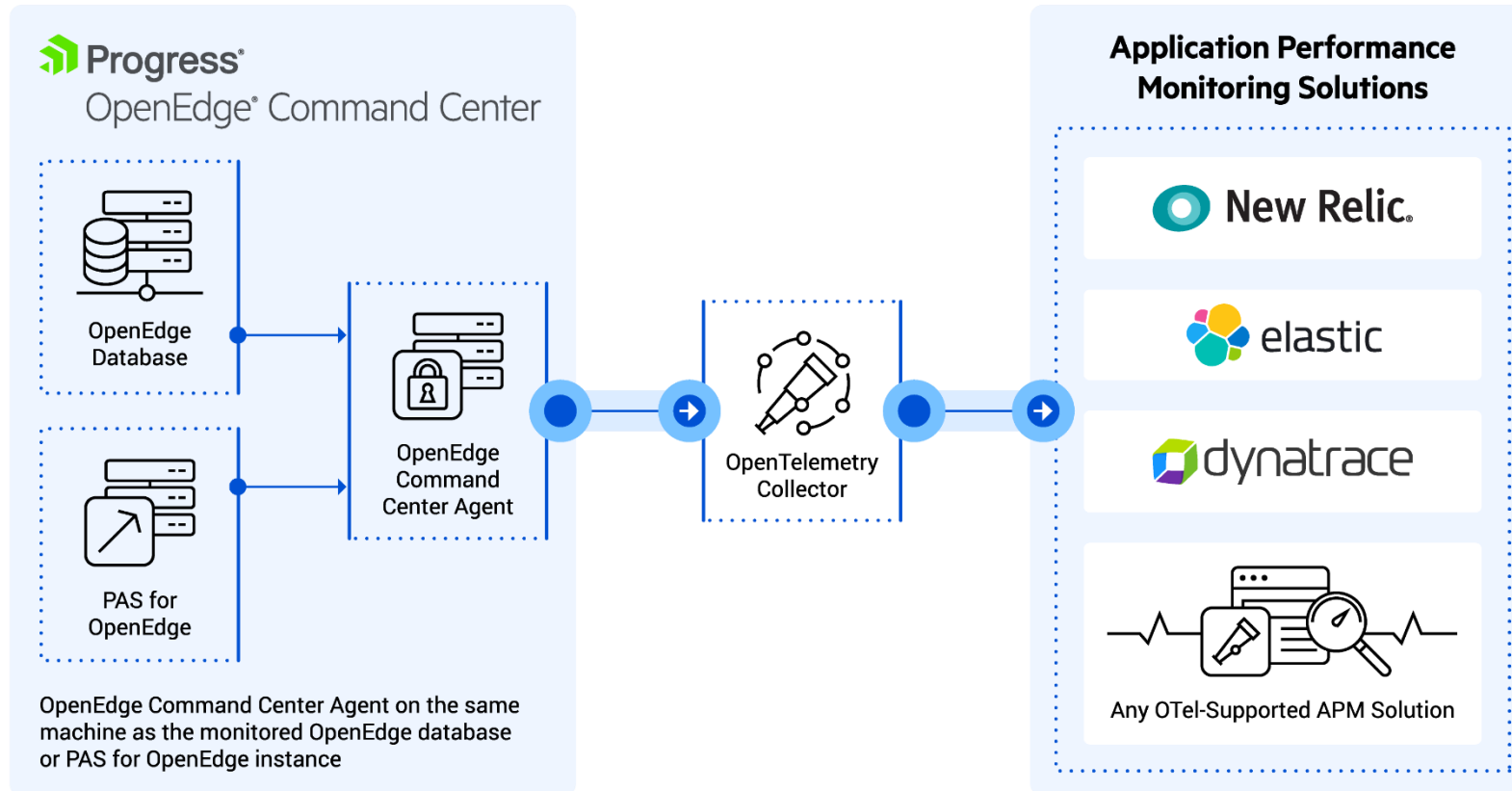
OpenEdge Command Center 1.2

- Nouvelle possibilité PASOE
 - Cloner des instances (par exemple pour Load Balancing)
- Windows Installer
 - Automatisation de toutes les étapes d'installation
 - OE CC en tant que Service Windows
- Utilisation OpenTelemetry

OpenTelemetry

- OpenTelemetry fournit une norme open source unique et un ensemble de technologies pour capturer et exporter des métriques, des traces et des journaux à partir de vos applications et infrastructures .
- Plus d'informations sur :
<https://opentelemetry.io/>

OE CC ↔ OpenTelemetry ↔ Solutions APM





Certifications et Plateformes

OS et JDK

- Windows 11 certifié avec
 - OE 12.6
 - OE 12.2.10
 - OE 11.7.15
- RHEL 8.6
 - OE 12.6
 - OE 12.2.10
 - OE 11.7.15
- OE 12.6 avec JDK 17

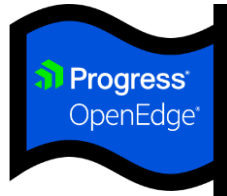


ET Après OE 12.6

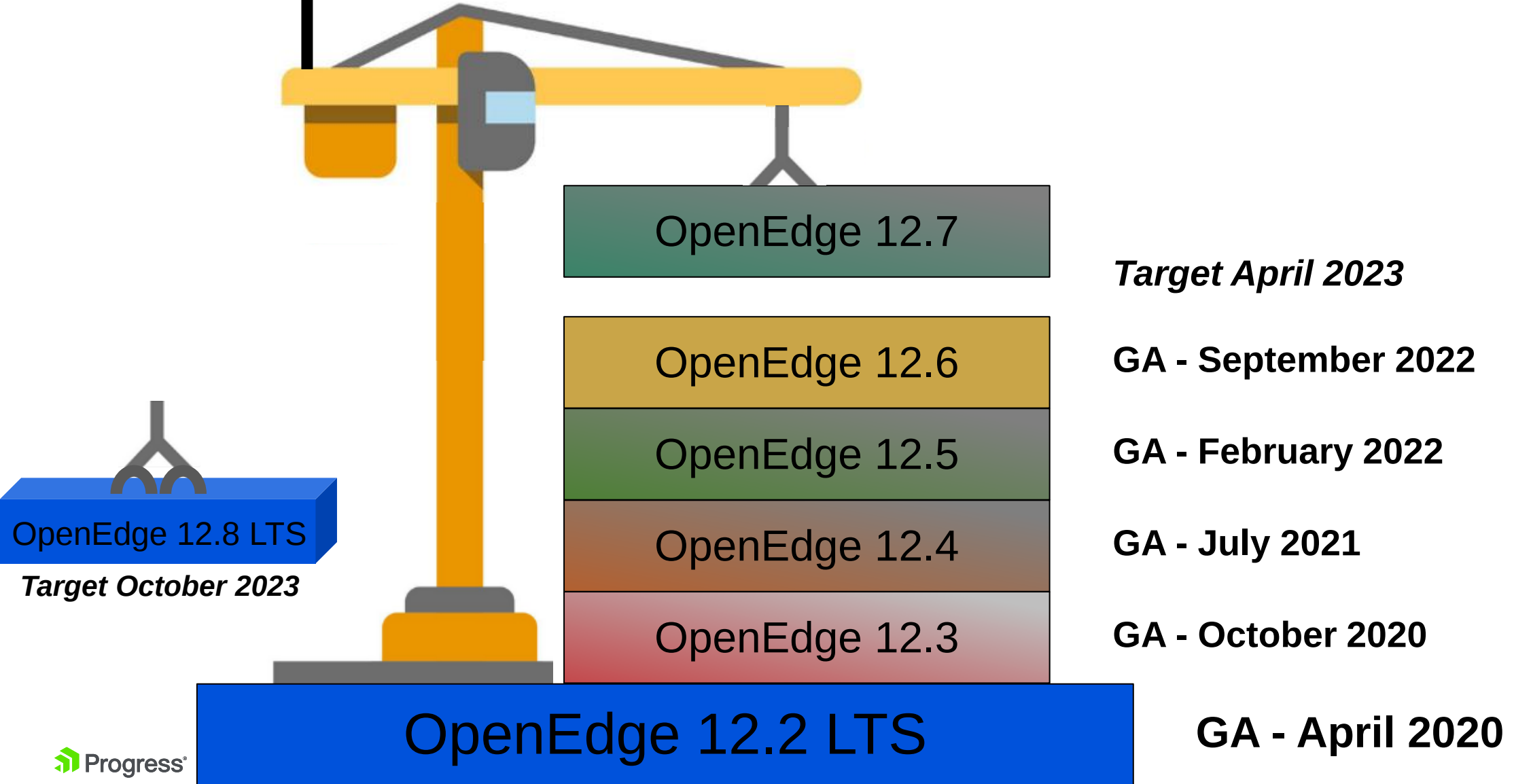
“Disclaimer”

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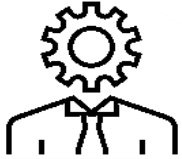
Building The OE 2023 LTS Release



OE 12.7 quelques exemples

- Optimized large table reorganization
- PASOE – Tomcat 10
- Support .Net 6
- Support Legacy WebSpeed Mapped Web Objects in PASOE
- Protect Compiled OpenEdge Code
- Shorter Duration for Restore Process
- Enable AI Archiver online
- Support for TLS 1.3 as Default Protocol

Developer Productivity



- Memory Profiler
- OOABL
 - HashMap & HashSet Collections
 - Other Collections based on customer need: Queue, Stack
 - Leverage List Collections to enhance Generics capabilities
- PDSOE
 - Dependency module creation shareable and less sensitive to propath changes
 - Integrate Language Server Protocol (LSP) with dependency module, support LSP tools, and use LSP to support other IDEs including browser-based
 - OOABL Type Hierarchy view
 - Fast access to OOABL method/class declaration code
 - Additional refactoring capabilities

CI/CD, Cloud, Containers



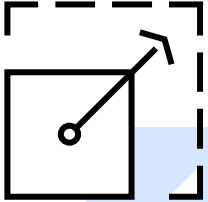
- OpenEdge DevOps Framework CI/CD
 - Produce OEDS, WAR and OEAR packages for deployment
- Cloud-agnostic OpenEdge install package
- Multi-vendor Container support via Open Container Initiative (OCI)
- PASOE decommission Sessions and scale down Agents, resource & time based
- OpenEdge Command Center:
 - Continuous improvement for managing OpenEdge infrastructure
 - Ability to manage and gather metrics from Containers

Availability



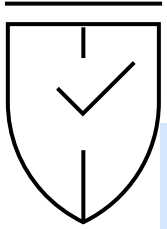
- Secure components in operating environment (signing, single source of truth)
- Unplanned outages:
 - DB Repair tool more widely available with improved useability
- Planned Maintenance
 - Online removal of a storage area
 - Shorter restore duration
 - Table reorg efficiency through smarter scanning

Performance and Scalability



- OpenTelemetry performance tracing for ABL applications
 - Infrastructure components such as the AVM, PASOE and OpenEdge Database
 - Customized tracing within ABL application code
- Server-side JOIN resolution completion
- Database Engine scalability: create concurrency for record space allocation on tables
- Improved Table reorganizing efficiency and performance
- Move LOBs to a different Area
- Multi-threaded Index Check (options 2, 3 and 4)
- Concurrency of offline Database diagnostic scans
- Focused algorithm review & improvement in all functional areas

Security



- Simplify use of Certificates (TLS connections)
 - Use the Operating System Certificate store
 - Ensure complete, validated, and current Root Certificates
- OAUTH 2.0 / SAML2 token validation & conversion to OpenEdge Client Principal
- Production environment:
 - Protection of compiled ABL code
 - Secure executables from command injection
 - Disallow compilation on production system
- CLI for ease of PASOE authentication configuration
- Dynamic Data Masking – security during application runtime
- Static Data Masking – security during development and testing

Integration and Interoperability



- Kafka:
 - Support for transactions
 - Per-topic QoS configuration
 - Control of Topic and Partition position
- PASOE Deferred (in-memory) logging to central logging e.g., Kibana
- Enhanced OpenAPI (Swagger) support

Environmental Currency



- .NET 6 Support on Windows and Linux
- Java 17
- Operating System Certifications:
 - Windows 11, Windows Server 2022
 - RHEL 8.6, 9
 - Ubuntu 22.04
 - SUSE Enterprise Server 15 SP3
 - AIX 7.2 TL5, 7.3 TL0
- Stay current with OpenSSL/TLS updates

Questions

