Bienvenue au

Webinar clients TradeXpress

Vendredi 9 avril 2021

Introduction : what’s up at Generix Group ?

01

Philippe Seguin
Generix Group - Directeur Général France

Agenda de notre webinar – 1h30 ensemble

1	Introduction : what's up at Generix Group ? – Philippe Seguin, Directeur Général France
2	Road map et stratégie TradeXpress - Christophe Viry, Product Marketing Director
3	Démonstration TradeXpress – Riquier Mairesse, Consultant Avant-Vente
4	Cas projets TradeXpress – Christophe Klein, Directeur de Projet
5	Conclusion : Philippe Seguin, Directeur Général France

Performance de Generix Group

- Sur les 9 premiers mois de notre exercice (clos au 31/12/20), nous affichons un CA de 60 M€, en léger retrait de 1% à taux de change constant
- De nouveaux clients ont rejoint la communauté des utilisateurs de TradeXpress, en France et à l'étranger. Parmi eux :

DISTRIBUTION

Conforama SUISSE

INTERNATIONAL MERCHANDISE TRADING

ASIA EXPRESS FOOD

3PL

Log'S

AUTAA

GET PAQ

INDUSTRIELS

NIPRO

CLABO Spa

PERIN FURNITURE ACCESSORIES

SCHMIDT LIGHT METAL GROUP

altri

LESAFFRE

deroma

biotex

SERVICES

elior L'appétit du mieux

CA Crédito Agrícola

RCi BANK AND SERVICES

Création de Generix Soft Group Romania

Annoncée le 26 octobre 2020

Notre nouveau **centre de compétences d'ingénierie logicielle** basé à Cluj, en Roumanie.

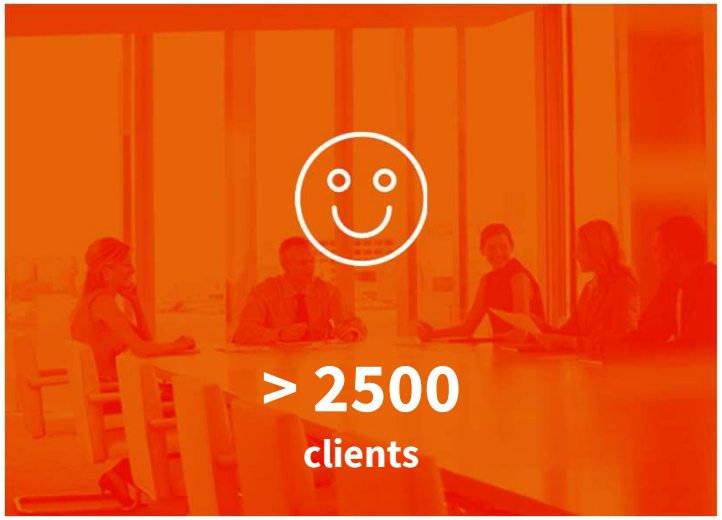
Cluj ? La **'Silicon Valley' de l'Europe de l'Est**, bénéficiant d'universités très compétentes en matière de software engineering.

80 collaborateurs en équipe agile étendue avec les collaborateurs R&D de Generix Group basés en France et au Canada sur nos **solutions WMS, TMS et de dématérialisation.**

Développement de notre centre de services à Porto

- **Support Client de Niveau 1**
- **Monitoring Technique 24/7/365** de nos plateformes SaaS afin de garantir la disponibilité opérationnelle de nos solutions à tout instant
- **Gestion des changements sur nos plateformes de production** (correction de bug, évolution applicative, montée de version, connectivité,…)
- **Tests sur nos solutions logicielles** (plateforme d'automatisation, test de non-régression,..)
- **New :**
  - Generix Managed Services sur les solutions Integration BtoB périmètre BtoB

Generix BU France et +



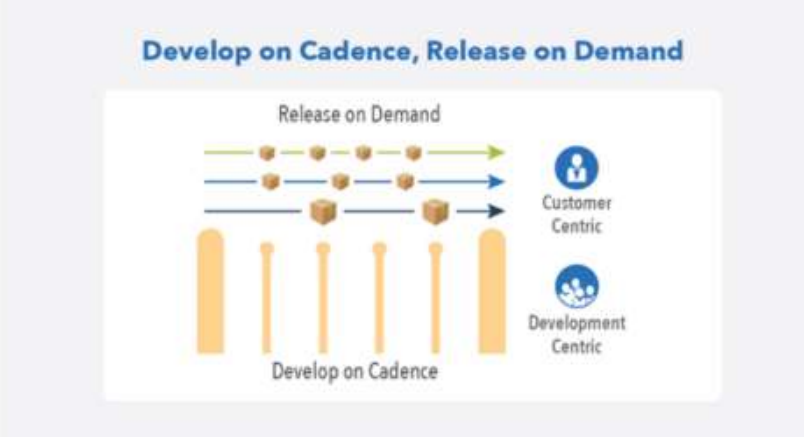
Generix BU France : renforcer la satisfaction client

Avec l'appui des équipes commerciales, services et Customer Delivery managers : être à votre écoute et développer notre relation

- **S'améliorer ensemble et continuellement,**
- **Développer la proximité et identifier vos projets stratégiques, afin d'influencer et d'orienter la feuille de route produits**
  - Privilégier **l'usage et l'enrichissement du standard,** plutôt que le spécifique,
  - Se concerter pour définir les **fonctions prioritaires** dans nos PI produits trimestriels.
- **Faire de vous, nos clients partenaires, les avocats de nos solutions :**
  - **Favoriser les témoignages**
  - **Les prises de parole**
  - **Les échanges**

L’agilité à l’échelle : déploiement de la méthode SAFe (Scale Agile Framework)

» **Une approche centrée sur les clients qui permet de mieux comprendre les besoins et de concevoir la bonne solution.**



» **Des bénéfices multiples attendus pour notre écosystème et notre collaboration.**

L’agilité à l’échelle : déploiement de la méthode SAFe (Scale Agile Framework)

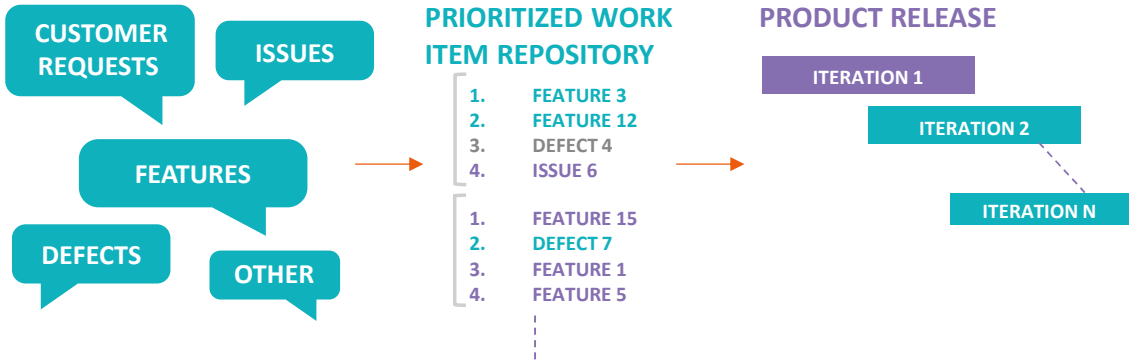
PI (Program Increment) : cycle trimestriel de roadmap, constitué de 4 sprints de 3 semaines,

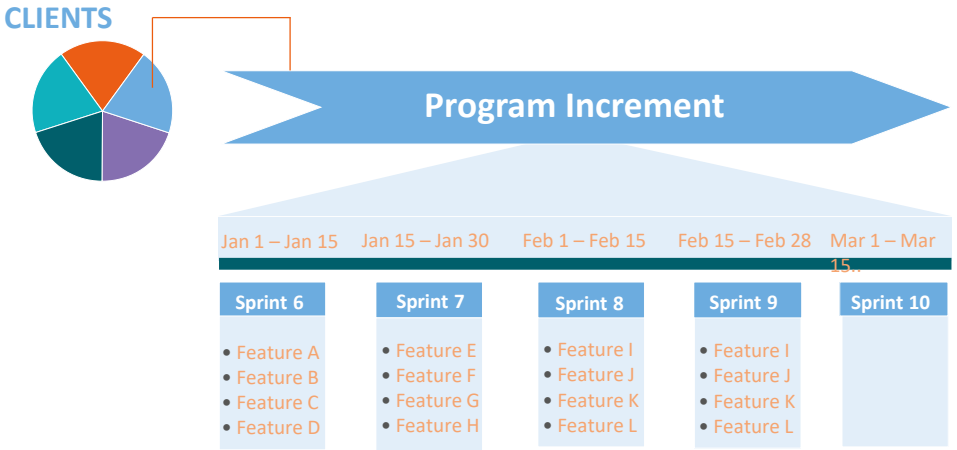
Backlog de PI préparé par le Product Marketing Director :

- Besoins clients,
- Marché (réglementaire, prospects)
- Incidents

TradeXpress : 2 agile Teams

- IHM, Nouveautés, Architecture
- Automatisation des tests
- Cellule d’architecture





generix SUPPLY CHAIN HUB

Notre plateforme au service de la performance de votre supply chain

Supply Chain Execution Services
Pilotage des entrepôts et optimisation des transports

Collaboration & Visibility Services
Animation de processus collaboratifs de la supply chain

B2B Integration Services
Intégration et collaboration Multientreprises

Omnichannel Sales Services
Pilotage de la relation et de l'expérience client

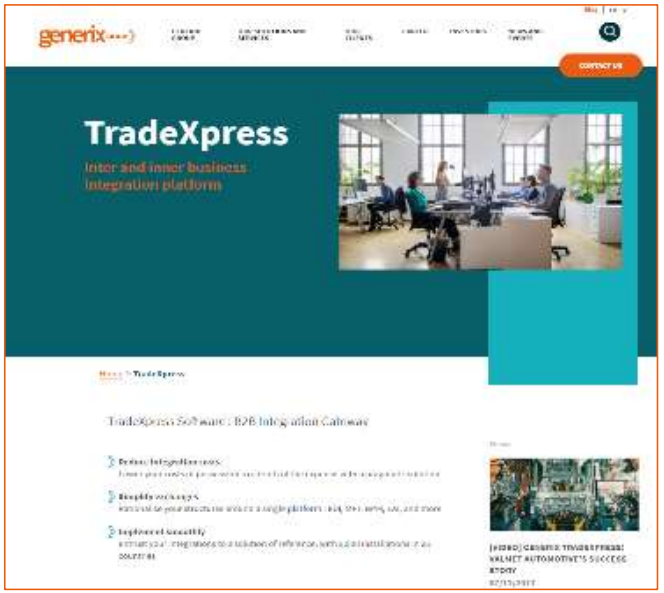
TradeXpress Stratégie & Roadmap

02

Christophe Viry
Product Marketing Director

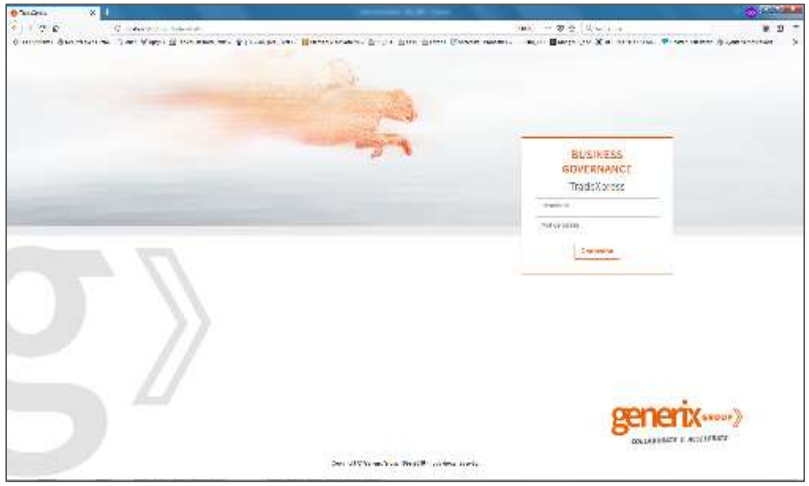
TradeXpress V5 today

- **Reference integration middleware in Europe**
- **Multiple use cases B2B / EDI integration but also EAI, MFT, ETL**
- **Recognized quality: robustness, functional openness, performance**
- **On-premise and SaaS delivery (GENERIX and other operators)**
- **Several thousand customers around the world**
  - 1,000 on-premise customers in most industries
  - Several thousand customers in SaaS (Generix EDI Services)
  - Deployment in around 40 countries
  - Customers with several million messages / day
- **A community of several hundred technical consultants**
- **About thirty integration or distribution companies outside France**



New strategic direction for TradeXpress

1. Modernize architecture
2. Guarantee compliance with new technologies (Cloud, API, Block Chain, BI, AI, etc.)
3. Meet the new SLA requirements (continuity/HA, performance, scalability, security, etc.)
4. Improve user experience and user productivity
5. Enrich functional coverage and B2B connectivity
6. Ensure compatibility with previous version

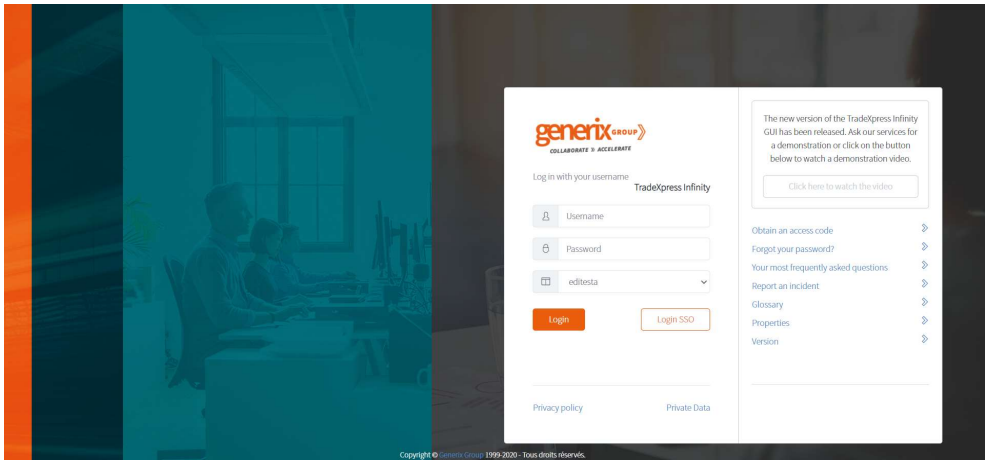


For the following use cases : B2B/EDI integration, EAI, MFT + API

TradeXpress reinvents itself and becomes

…

TradeXpress Infinity



A new field of possibilities is offered to you

UI/UX, international compliance,

new architecture & connectors, …

Available on SaaS & on premise

Official maintenance notice (April, 2021)

Software name	Release number	Go-to-market date	End date of standard maintenance	End date of extended maintenance	Operating System Supported
Generix TradeXpress	5.2	01/06/2013	01/06/2016	01/06/2018	Windows, IBM AIX, LINUX Red Hat Enterprise & Debian
Generix TradeXpress	5.2.1	01/06/2014	01/06/2017	31/12/2021	Windows, IBM AIX, LINUX Red Hat Enterprise & Debian
Generix TradeXpress	5.2.2	01/04/2016	01/04/2019	30/06/2022	Windows, IBM AIX, LINUX Red Hat Enterprise & Debian
Generix TradeXpress	5.2.3	01/03/2018	01/03/2021	30/06/2022	Windows, IBM AIX, LINUX Red Hat Ent. & Debian & CentOS
Generix TradeXpress	5.2.4	1/10/2019	1/10/2022	31/12/2022	Windows, IBM AIX, LINUX Red Hat Ent. & Debian & CentOS
TradeXpress Infinity	**0**	**18/06/2021**	**30/06/2024**		**LINUX Red Hat Ent. & Debian & CentOS**
TradeXpress Infinity	**1**	**17/09/2021**	**30/09/2025**		**LINUX Red Hat Ent. & Debian & CentOS**
TradeXpress Infinity	**2**	**18/12/2021**	**18/12/2025**		**LINUX Red Hat Ent. & Debian & CentOS**

Why a major release ?

4 Structuring and interlinked elements:

- New technical HA architecture service oriented: modularity, modernity and security
- New database: standard and High availability services
- New user interface: oriented control and data management
- New connectors including REST / JSON

New Data base and shared file system, outputted

- PostgreSQL database replace SQLite or legacy system
- Opened to other databases later (RTE runtime interfaced with generic DAO)
- Externalization of the database (core outputted)
- Preservation of intermediate files, use ObjectiveFS (cloud architecture)

Main benefits

- 3-tier architecture (data, front, back), more robust, secure
- Database with relational model, easier to interact with
- Multiple solutions to replicate, restore, duplicate, ... your data

Multi-node architecture
Hight availability & scalability

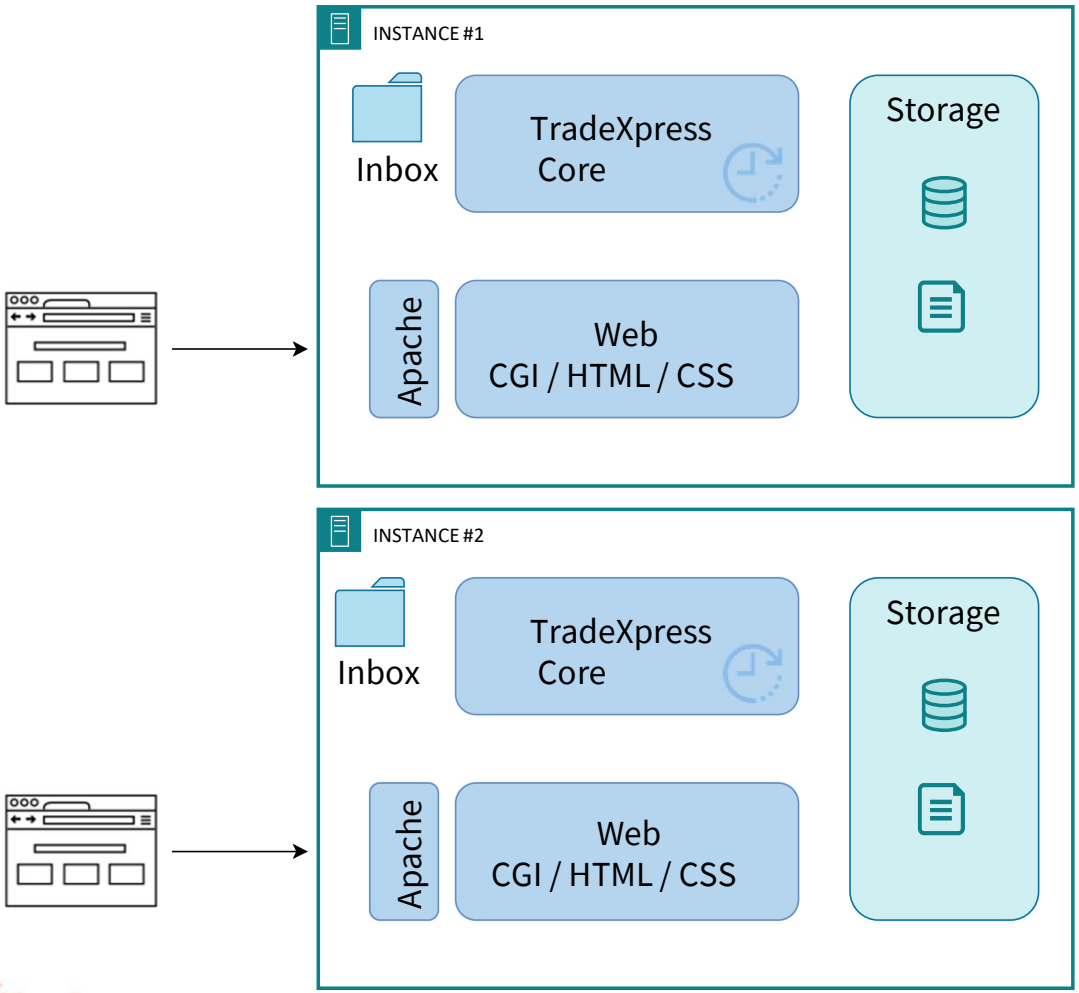
2021 Architecture:

- Centralized operation of several production nodes
- Centralized data storage from multiple TradeXpress Infinity nodes
- Several node read/feed the same database
- Consolidated monitoring of several nodes

Q1 2022 Architecture:

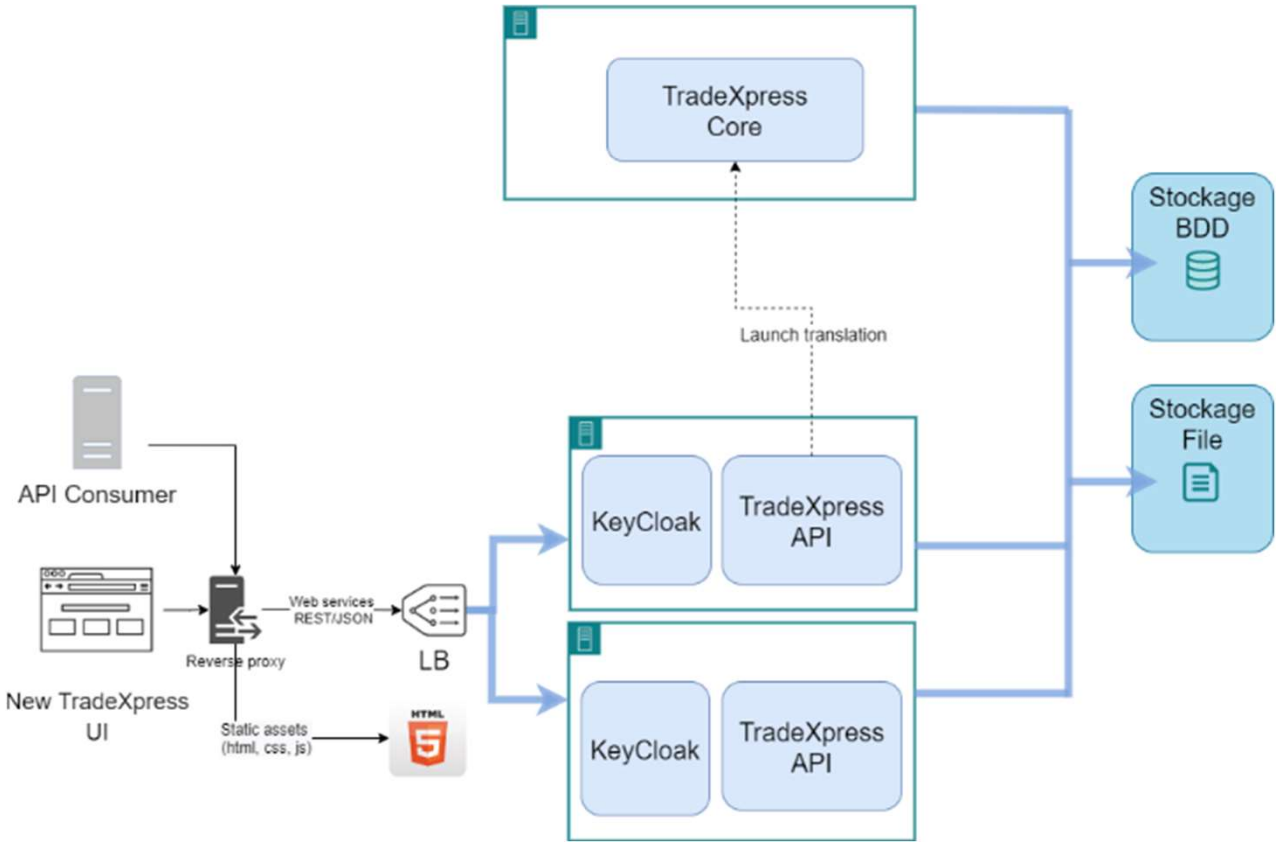
- Hight availability with redundancy of services, allocation of nodes, distribution of processing (scheduling)
- Multi-node configuration and deployment
- Stateless architecture
- Cloud auto-scaling
- Compatibility with Public Cloud architectures like AWS, AZUR

TradeXpress V5 existing architecture



- Each instance handles and stores its own data
- The storage part contains data to save (SQL Lite) and extensions
- ‘Inbox’ contains files to treat
- The web part only retrieves local data Each instance has its own url
- There is no global view of data in several environments
- Each TradeXpress has its own scanner / scheduler

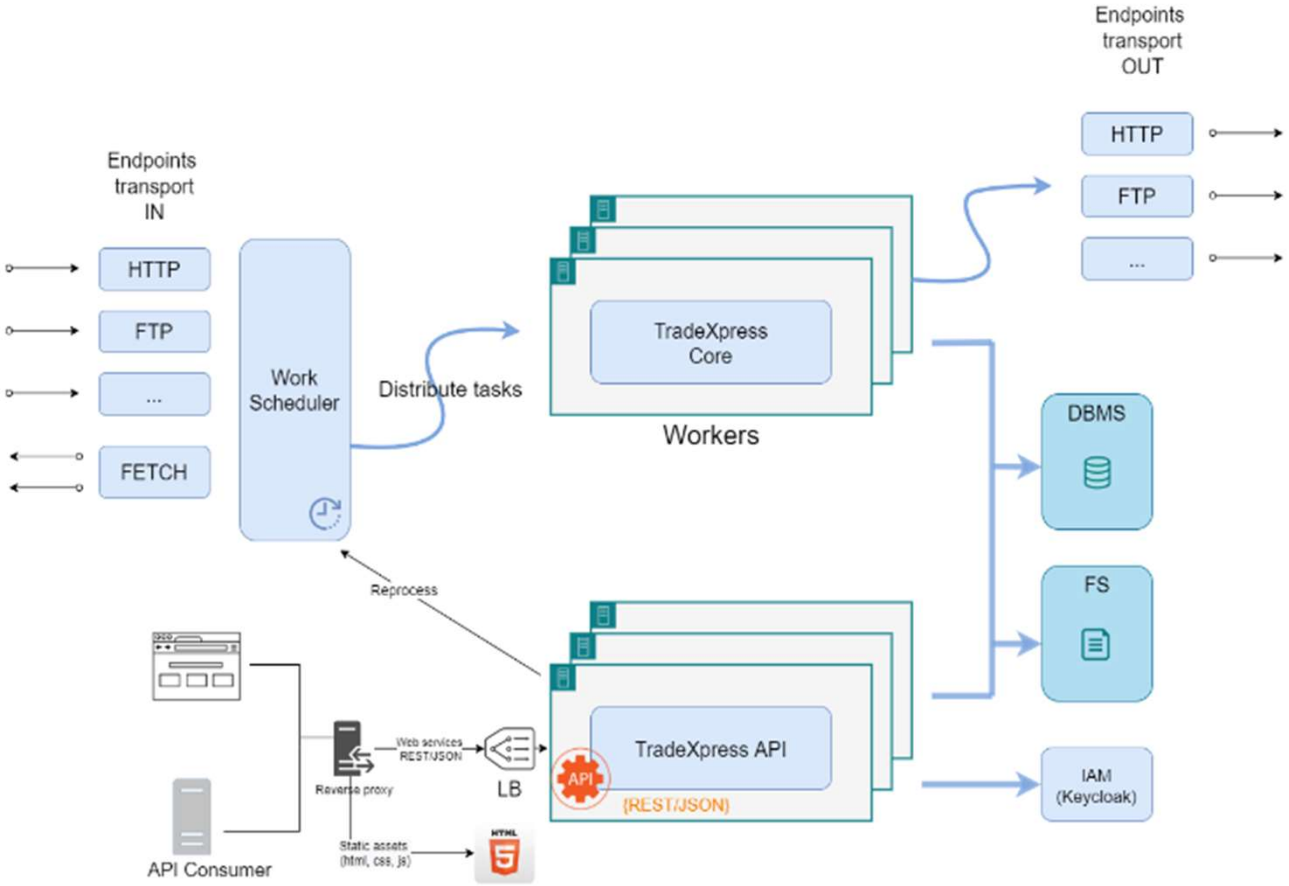
TradeXpress Infinity, architecture 2021



- Data are saved and shared in a relational database (Postgres). Extension are shared in a shared file system
- A scalable TradeXpress API Server. A load balancer is in front of them
- New UI and external customer's applications can access to the data via the API Server
- API & Users authentification are managed by KeyCloak
- Each TradeXpress has its own scanner / scheduler

Docker Images to package up TradeXpress: core and artefacts (DB, FS, front end, KeyCloack)

TradeXpress Infinity, architecture Q1 2022



- Multi-worker architecture with task scheduler and High Availability management (bus)
- Self and auto scaling in the public cloud
- Multi-node configuration and up-grade management
- Endpoints transport outsourcing

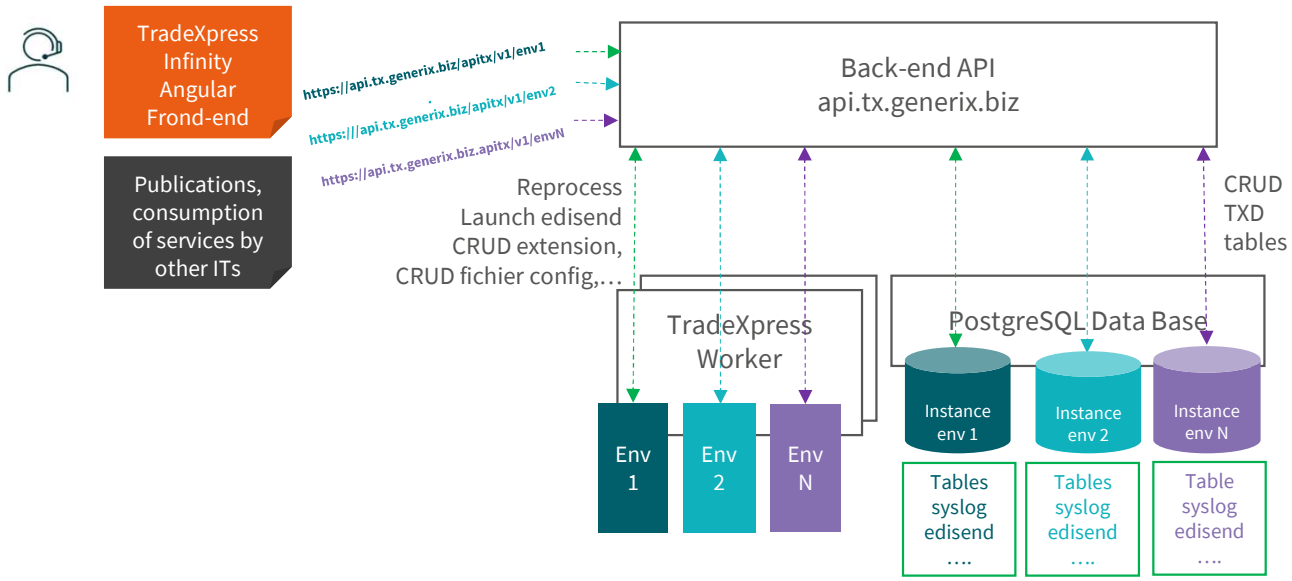
New UI and architecture (Front-end & Back-end)

Scope, ambitions of the project

- New ergonomics, updated look and feel, increase usability, efficiency, preference management
- Modernize the technological base with **architecture in the form of API services**
- **Eliminate security risks linked to CGI** (see security leak, relocate web server)
- Web Access and Business Governance are no longer maintained in TradeXpress Infinity
- Keeping the Java client dedicated to the configuration of TradeXpress Modeler (eeplace in 2022)

New architecture

- Front-End : Angular & CoreUI template
- Back-end : Java Rest



And many new admin. & monitoring features to improve UX & productivity

Resumption and extension of Business Governance coverage

- Rights and profiles management by users
- Syslog, Document Tracker monitoring interface
- Administration (partner, edisend, routing,…)

Functional enrichments

- Authentication (REST call management, security token), IAM
- New KPIs, user selectable, KPI activity bar
- Analytic page
- Personalization of alarms / notifications, setting of thresholds for example, notification conditions, etc.
- Display of dependencies between flows, classification, hierarchy
- Timeline of message processing (different status changes)
- Traceability of actions by users (reprocess, change of status, correction, creation of partner, etc.)
- New actions possible on the messages (for example manually changing its status)
- New administration functions: RTE program library, document sharing, ...

TradeXpress Infinity, API oriented architecture

- Expose TradeXpress Infinity services and functionnalities via a new REST API
- The TradeXpress REST API is also meant to be « secure by design »
- TradeXpress API Catalog with around 100 exposed services

API Specification

OPENAPI INITIATIVE

swagger

API Design

{json:api}

HATEOAS
Hypermedia as the Engine of Application State

API Backend

spring boot

Java

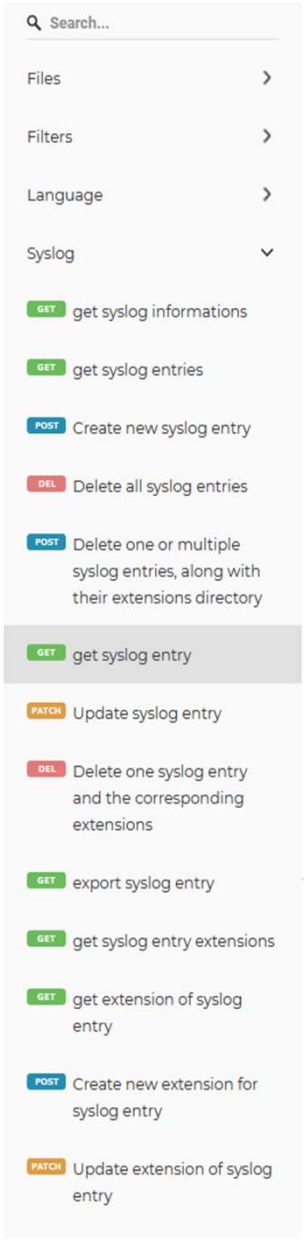
REST & JSON Connectors

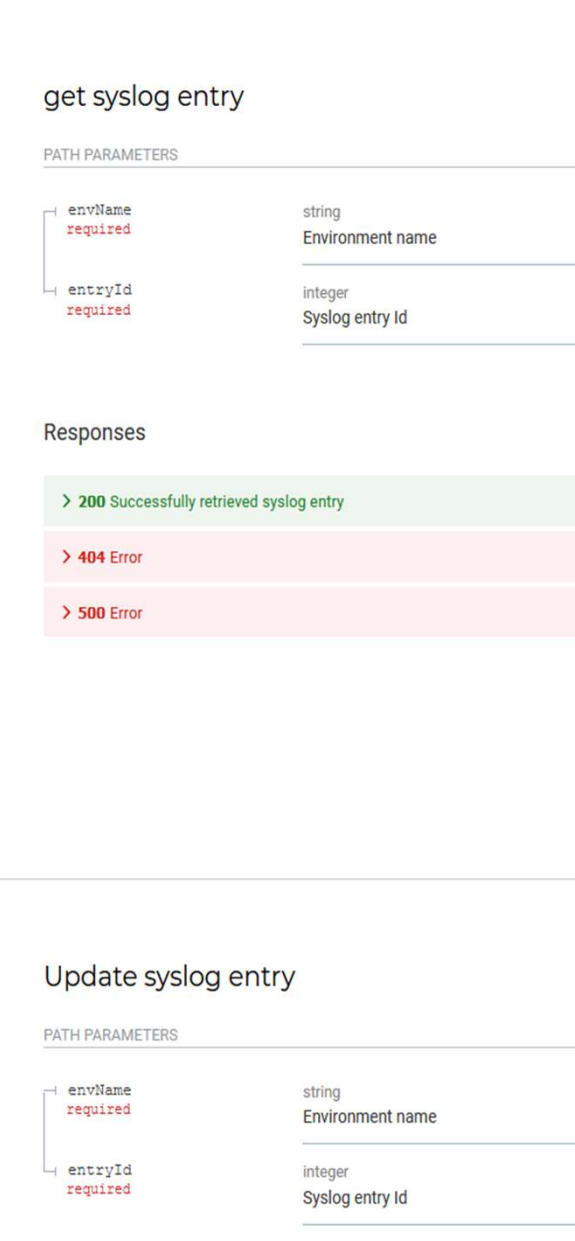
New REST and JSON connectors

- Exposition of TradeXpress functionalities in consumable services
- Consumption of external services exposed by REST request

Enhancement of the RTE language

- REST request from the RTE language
- Addition of a new data type for the JSON language (loading, validation, reading, writing, ...)
- Method library (GET, PUT, DELETE, POST)
- API catalog offered by TradeXpress (database access, Business Process, customer database)
- Replacement of previous connectors Web Service, Soap





LDAP, SSO Connectors

- **Delegate all authentication, authorization to a dedicated middleware**

KEYCLOAK

- **Allow Single Sign on with Identity and Access Management**
  - Single Sign on: login once to multiple applications
  - LDAP and Active Directory: connect to existing user directories

- **Standard protocols supported**
  - OpenID Connect
  - Oauth 2.0
  - SAML 2.0
  - Social Login (in a second time)

Other major architectural innovations

Support for UNICODE character sets, 天府可乐可乐型汽水

- Management of all types of charset currently not covered, UTF-8 encoding by default, EDIFACT V4, multibyte characters
- Character set specification by Partner
- RTE Runtime modification to detect MB chars and to detect length of position of a char into string

Native 64-bit support

- Better maintainability of operating systems, compilers, date management after 2032, ...
- 64-bit version of the components: Open SSL (1.9), SQLite, Open SSH, Xerces

Software containerization

- Docker Image
- Install & deploy TradeXpress Infinity more easily, quickly especially on Cloud

New SAP Connector

- Update our connectivity with SAP currently based on File, Idoc, RFC and tRFC-ALE
- Interact with SAP in synchronous manner to collect data, statuses, etc. consume services offered by SAP
- Support mission with SAP France
- New Sap Connector
  - New RTE instruction to be able to launch Business API SAP request
  - WS Open Data Connector

SAP S/4 HANA

SAP ECC6 Ehp7

Type	Use case	Comments	SAP S4 Hana et ECC6	On premise	SaaS
WS Odata	User interact	Light, new	Services libraries	Adapted	To secure
WS Soap	Software interact	Robuste, tracking	Services libraries	Adapted	To secure
RFC	Cf CPIC, asynchrone	IDOC		Cf EDI, EAI	EDI, EAI
TRFC ou ALE	Transactionnel			Adapted	Few adapted
Sap JCO	« RFC » to Java	Run Modules Functions	150 000 Module function include Business API	Sap client	
Business Technology Platform		Ex. Sap Cloud Platform			SSL tunnel, Sap agent

New transport connectors integrated into TradeXpress

OFTP2 Connector

- New connectors to manage the OFTP 2 protocol without using a partner product (TTO)
- Management integrated into the TradeXpress architecture (administration, monitoring)
- Integration of Generix Group Probus software (eg GMI Connectivity)

PeSIT SSL and PeSIT SSH Connector

- New connectors to manage PeSIT SSL / SSH protocols and secure file transfers
- Compatibility and alternative to AXWAY monitors (eg CFT, INTERPEL, XFB)
- Management integrated into the TradeXpress architecture (administration, monitoring)
- Integration of Generix Group Probus software (eg GMI Connectivity)

EBICS T / TS Connector

- New connectors to manage the EBICS T / TS protocol without using a partner product
- Management integrated into the TradeXpress architecture (administration, monitoring)
- Integration of Generix E-Banks software (eg GMI Connectivity) with business rules of the bank exchanges

Others connectors

Support Factur-X format

- Factur-X support (outgoing, ingoing) on the 4 proposed extensions
- Read, write PDF 1.4 in RTE, **new PDF RTE library**, improved support for the latest PDF versions
- Use of a Java library on the market

Support TLS 1.3 (SSL)

- To integrate into many of our SSL, FTPS, HTTPS, SSL TLS, PESIT SSL transport connectors

Connectors and Developments co-funded by the European Union, CEF Program

EDIINT AS4 Connector & PEPPOL E-Delivery Network

- Support for version 4 of EDIINT based on Web Services
- CEF-INEA Building Block integration
- Management integrated into the TradeXpress (administration, monitoring)
- Support of SMP / SML PEPPOL standards for directory interoperability

RTE programs CEN 16931 connectors

- UBL 2.1 and UN CEFACT CII

Projects under study on compliance with eIDAS standards

- E-signature, timestamping
- Unique digital identification

EURINV
Implementing the European Standard in consolidated eInvoicing cloud platforms
Co-financed by the Connecting Europe Facility of the European Union

EURINV19
Co-financed by the Connecting Europe Facility of the European Union

AS4EDI
European EDI Providers integrating the AS4 eSENS Profile
Co-financed by the Connecting Europe Facility of the European Union

EUROLogin
Cross-border authentication in European cloud platforms according to the eIDAS Regulation

Commission Européenne

Connecting Europe Facility

Peppol Access Point CERTIFIED PROVIDER

PEPPOL Access Point CERTIFIED PROVIDER

generix GROUP

2022-23, next evolution

- **Integration of All In One's RTE Java language into the TradeXpress architecture**
  - Coexistence with RTE C language
  - Take advantage of Java advantages in certain use cases (XML for example)
- **New version & UI for TradeXpress Designer**
  - RTE C and RTE Java code generation
- **New version & UI for TradeXpress Modeler**
- **Archiving connector on AWS S3 / Glacier**
- **Block Chain protocol connector**
- **Swift Connector**
- **...**

PI road map intention

TradeXpress Infinity 0
End of June, 2021

Business Features

- ✓ New PostGreSQL database and new FS
- ✓ Outsourcing, securing the database
- ✓ Several production node with unique DB
- ✓ Consolidated UI & monitoring of several nodes
- ✓ REST and JSON connector
- ✓ EDIINT AS4 connector
- ✓ EN 16931 Support
- ✓ RTE Unicode
- ✓ Full 64-bit architecture

Enablers

- ✓ CI & CD architecture
- ✓ GIT deployement
- ✓ TradeXpress Infinity Docker Image

TradeXpress Infinity 1
End of september, 2021

Business Features

- ✓ REST API Architecture
- ✓ New front-end & back-end architecture
- ✓ New User Interface (+75 % of perimeter)
- ✓ Analytic & KPI & Counter activity bar
- ✓ New administration features
- ✓ New monitoring features
- ✓ OFTP2 connector
- ✓ PESIT SSL & SSH connector
- ✓ IAM Key cloack (SAML, Open ID, Oauth, Social)

Enablers

- ✓ Execution action on Worker by HTTP call
- ✓ Migration Tools from V5 -> TradeXpress Infinity
- ✓ API library upgrade

PI roadmap intention

TradeXpress Infinity 2
End of december, 2021

Business Features

- ✓ New User Interface (full perimeter)
- ✓ New monitoring features
- ✓ SAP connector
- ✓ Factur-X, PDF connector
- ✓ EBICS T/TS Connector
- ✓ TLS 1.3 connector
- ✓ Business Intelligence engine (SaaS only)

Enablers

- ✓ Endpoint transport outsourcing
- ✓ API library upgrade
- ✓ Migration Tools from V5 -> TradeXpress Infinity

TradeXpress Infinity 3
End of march 18, 2022

Business Features

- ✓ Hight Availability with multi-workers allocation
- ✓ Multi-node configuration & deployment
- ✓ Cloud Auto-scaling
- ✓ Redesign TradeXpress Design V1
- ✓ RTE Java Integration
- ✓ Block Chain Connector

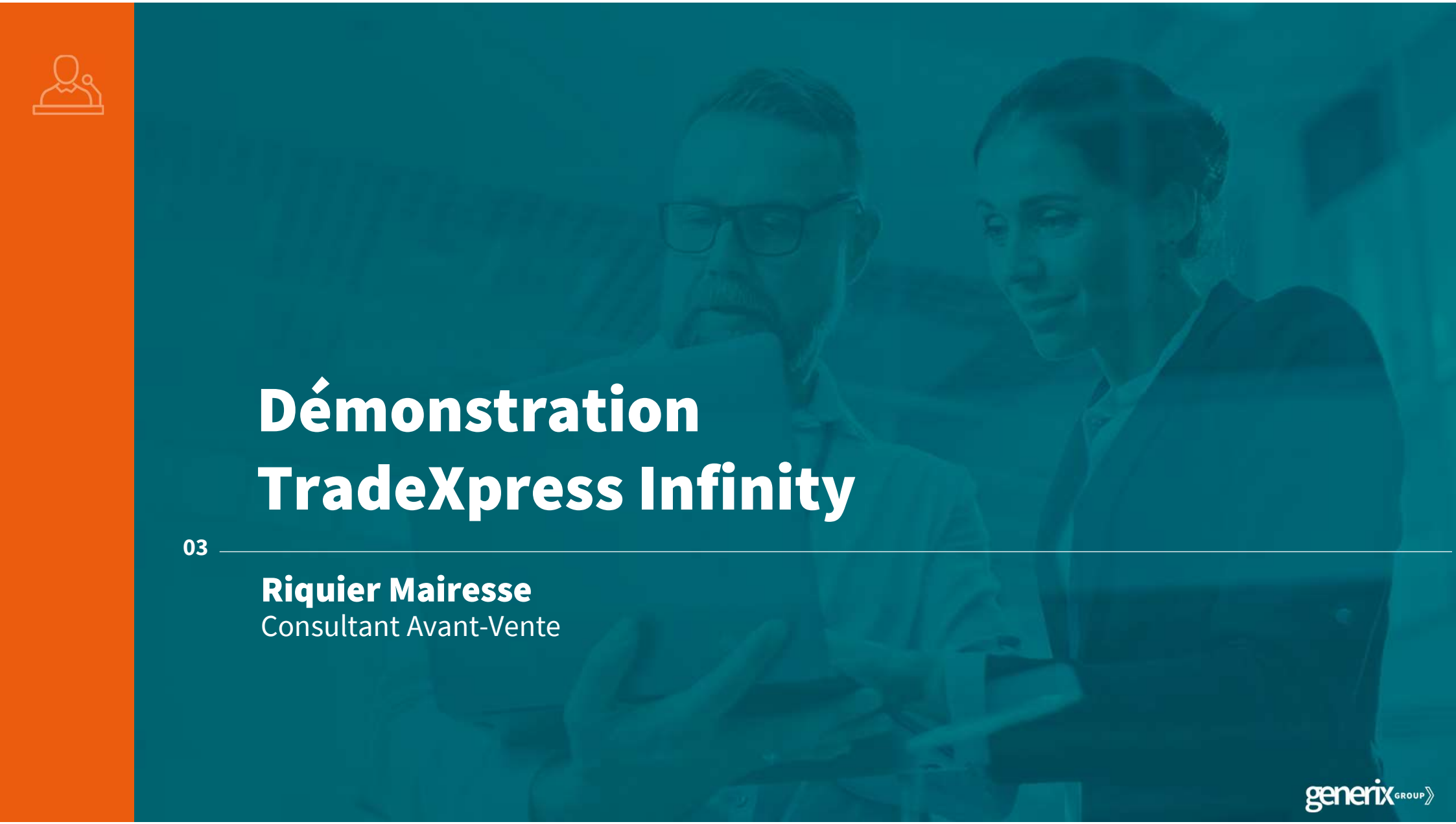
Enablers

- ✓ Scanner evolutions

Certification of our TradeXpress partners and integrators

- **In addition to our TradeXpress Professional Services offer, Generix Group works with an ecosystem of service providers: around twenty IT service companies or freelancers participate in the service activity on TradeXpress (maintenance, RTE developments, deployment, operation, etc.)**
- **Structures of 1 to 30 TradeXpress experts, 200 to 250 consultants**

- **Implementation of a 2021-22 certification program, TradeXpress Infinity**
  - Train our partners in new technologies and architecture
  - Ensure quality of services and proper use of the software
  - Reassure customers and users by the publisher's "surety"
  - Award based on 2 main criteria
    - Recognized expertise + participation in TradeXpress Infinity training
    - Willingness for reciprocal partnership



Démonstration TradeXpress Infinity

03

Riquier Mairesse
Consultant Avant-Vente

Business Case projets TradeXpress

04

Christophe Klein
Directeur de Projet

Distributeur français : transformation On premise vers SaaS Generix Group

Périmètre Projet

- Lift & Shift TDX On Premise vers Generix EDI Services
- Flux : ORDERS, DESADV, INVRPT, RECADV, HANMOV, PARTIN
- Volumes : > 600 K messages par mois / 40 k factures
- Plus de 3500 fournisseurs connectés
- Transformation effectuée en 3 mois, démarrage lors du 2ème confinement

Bénéfices

- Sécurisation de l'environnement
- Rapidité de traitements des flux critiques (ORDERS, DESADV.. < 10 min)
- Mise en place de KPIs pertinents sur l'activité
- Optimisation des communications et réduction importante des coûts.

Distribution : transformation
On premise vers SaaS Generix Group

Facteurs clés de succès :

- Une cartographie détaillée des flux et de leur fonctionnement détaillé
- Une équipe projet dédiée à la transformation et embarquement des fournisseurs
- Des ateliers précis et documentés sur les étapes clés
- Un suivi régulier sur des comités de projet hebdomadaire et Comité pilotage Mensuel
- Des tests unitaires et de masse documentés et poussés
- La disponiblité des équipes durant toute la phase d'hypercare
- Un process transition suivi afin d'assurer la transmission aux équipes Cloudops
- Une documentation d'exploitation détaillée

Industriel alimentaire : transformation On premise vers SaaS Generix Group

Périmètre Projet

- Solution concurrente On Premise vers Generix EDI Services
- Flux : ORDERS, DESADV, INVRPT, RECADV, HANMOV, SLSRPT, INVOIC… (130 Traducteurs)
- 9 Business Unit : FR, SP, PT, AU, NL, DE, IT, UK, MAR
- 280 partenaires connectés
- Projet réalisé en 1 an, en pleine période COVID

Bénéfices

- Solution sécurisée et rapide (traduction + communication)
- Rapidité de traitements des flux critiques (ORDERS, DESADV.. < 15 min)
- Optimisation des communications et réduction des coûts.
- Centralisation de l'ensemble du monitoring des 9 BU dans un outil unique / Affichage particulier de l'activité de chaque BU
- Nouveau déploiement, traducteurs mutualisés pour l'ensemble des BU

Industriel alimentaire français : transformation On premise vers SaaS Generix Group

- **Facteurs clés de succès :**
  - Une rétro-analyse détaillée des flux
  - Une équipe projet dédiée à la transformation et embarquement des partenaires
  - Des ateliers précis et documentés sur les étapes clés
  - Un suivi régulier sur des comités de projet hebdomadaire et Comité pilotage Mensuel
  - Des tests unitaires et de masse documentés et poussés
  - La disponiblités des équipes durant toute la phase d'hypercare
  - Un process transition suivi afin d'assurer la transmission aux équipes Cloudops
  - Une documentation d'exploitation détaillée

Conclusion

05

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Merci

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