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A Kou-Chan Company

thyssenkrupp

REVOLUTIONIZING ONLINE MATERIAL SALES & MINDSET WITH SAP COMMERCE CLOUD

SAP Commerce Cloud

SAP

Company Information

Headquarters : Essen, Germany
Industry : Materials distribution and service provision
Web site : thyssenkrupp-materials-services.com

thyssenkrupp Materials Services is the leading mill-independent materials distributor in the Western world, committed to delivering top-quality materials with exceptional efficiency.

Operating through approximately **380 branches across 30+ countries**, the company provides a diverse range of materials and value-added services. Its tailored solutions empower customers to focus on their core business, with offerings that extend from premium raw materials to advanced supply chain management, automation, and inventory optimization.

With a workforce of **around 15,300 employees**, thyssenkrupp Materials Services is driving digital transformation by integrating **artificial intelligence** into its global logistics network. This, combined with an omnichannel approach, ensures seamless customer access to its extensive materials and services portfolio. These digital innovations not only enhance operational efficiency but also support sustainability through resource-conscious processes.

Serving key industries such as **automotive, construction, mechanical engineering, aerospace, and machine shops,** thyssenkrupp Materials Services remains a trusted partner for businesses worldwide.

Revolutionizing Digital Material Commerce

thyssenkrupp Materials Services GmbH

Challenges	Solution	Outcomes
Limited scalability and performance issues	Implemented SAP Commerce Cloud for a robust, scalable platform	Enhanced system performance and scalability
Inefficient order management and customer experience	Optimized workflows with automated order processing and self-service portals	Improved customer satisfaction and streamlined operations
Integration difficulties with existing ERP and logistics systems	Seamless integration with SAP ERP and third-party logistics providers	Smoother supply chain operations and real-time inventory updates
Lack of personalized buying experiences	AI-driven recommendations and omnichannel support	Increased customer engagement and higher conversion rates
Manual pricing and quotation processes	Automated pricing engine with dynamic quoting	Reduced errors and faster response times for customers

"Information technology is at the heart of our company's holistic transformation. Through our projects, we prioritize continuous learning and knowledge development, ensuring that technology becomes a fundamental strength of our business. This approach positions e-commerce as a key catalyst in driving our transformation."

Ilse Henne,
Chief Transformation Officer

Transforming Online Sales of Materials
Increase in revenue from e-commerce portal

Business Challenges & Objectives with SAP Commerce Cloud

Business Challenges	Objectives
Outdated legacy systems limiting digital growth	Modernize digital infrastructure with a scalable and future-ready platform
Complex and manual order management processes	Automate and streamline order processing for faster transactions
Lack of personalized customer experiences	Implement AI-driven recommendations for tailored purchasing journeys
Integration difficulties with ERP and logistics systems	Ensure seamless connectivity between SAP ERP, logistics, and third-party systems
Inefficient pricing and quotation workflows	Enable dynamic pricing and automated quote generation
Limited omnichannel capabilities	Enhance digital sales with a unified, omnichannel experience
Slow response times impacting customer satisfaction	Improve performance, speed, and overall user experience

Project or Use Case Details

thyssenkrupp Materials Services adopted a structured, two-phase approach to drive learning and digital transformation:

1. **U.S. Lead Project & Foundation Setup**

- The company initiated its transformation by modernizing its **Online Metals** portal, which was running on a legacy system that lacked scalability.
- Initially, a **template-based approach** was tested for rolling out SAP Commerce Cloud across different business units, but it proved ineffective.
- Hosting was initially managed in-house but later migrated to **SAP Commerce Cloud** for better performance, scalability, and support.

2. Omnichannel Expansion & Global Rollout

- After gaining valuable insights from the U.S. lead project, thyssenkrupp Materials Services launched an **omnichannel initiative** in Europe, setting the stage for a broader global expansion.
- **Test-driven** design was implemented early in development, ensuring quality and agility.
- The company established a strong **in-house development and QA team**, working closely with business functions to execute **agile deployments**.
- Expertise and resources were **built internally** across the **U.S., Europe, and India**, ensuring the success of its transformation goals.

Business Process Details

Process Before

Sales relied on traditional methods, with agents managing customer relationships through phone calls, faxes, and in-person visits.

Process After

With the introduction of omnichannel capabilities, sales have evolved into a more integrated and enhanced experience:

Customers now have the flexibility to engage with thyssenkrupp Materials Services through their preferred channels.

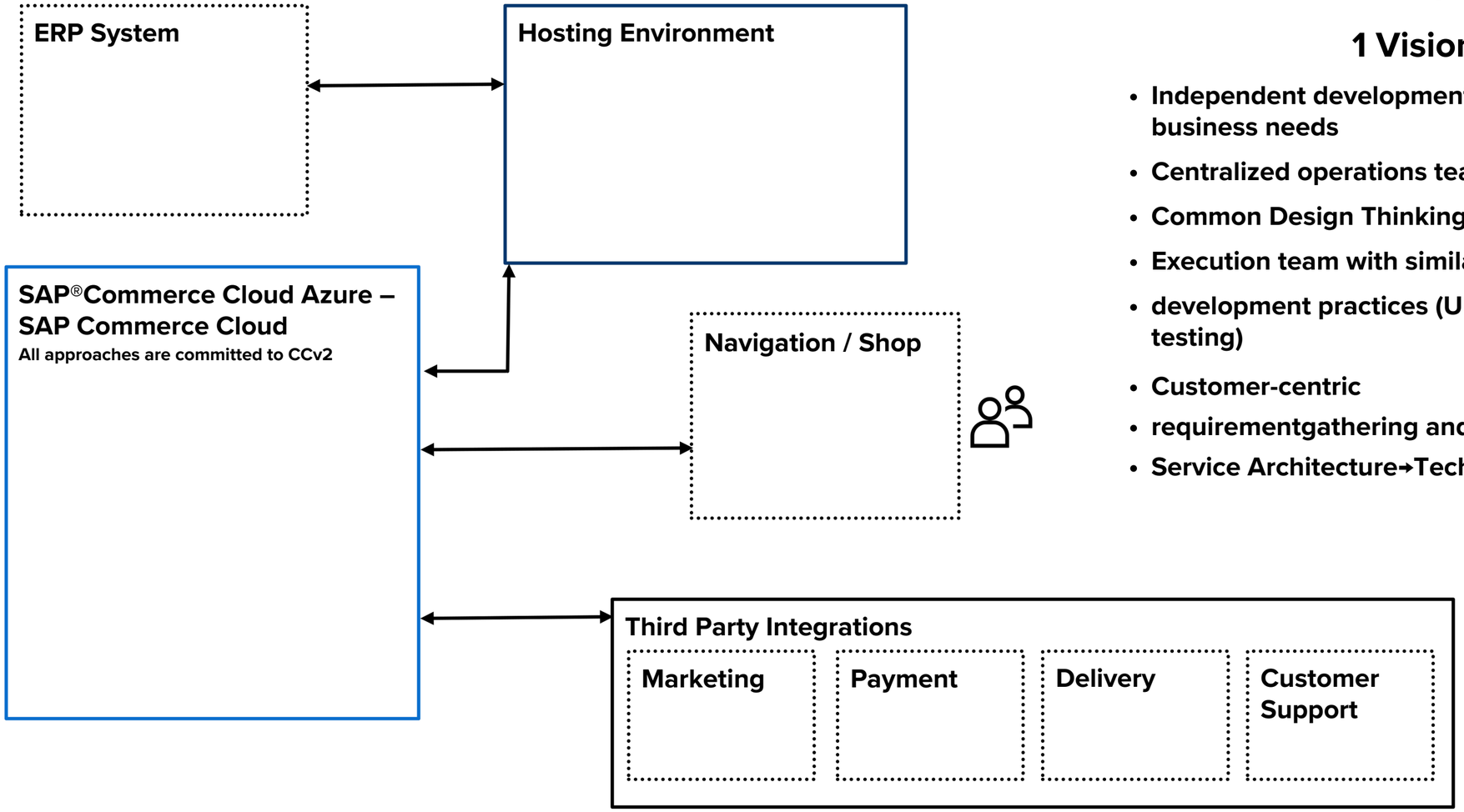
A seamless connection between customer portals and inside sales ensures a superior experience compared to standard e-commerce models.

While large material orders may still require offline transactions, the entire customer journey is now digitally optimized, enhancing efficiency and engagement.

Benefits and Outcomes

Category	Benefits & Outcomes
Business & Social Impact	🚀 Improved customer experience with seamless omnichannel interactions
	📈 Increased sales efficiency and market reach
	🌍 Strengthened global presence with a scalable digital platform
IT Advancements	🔧 Enhanced system performance with cloud scalability and reliability
	🔄 Streamlined integrations with SAP ERP and logistics for real-time data flow
	🔍 AI-driven insights for personalized recommendations and smarter decision-making
Human & Workforce Development	👩‍💻 Empowered employees with agile processes and digital tools
	🎓 Built internal expertise across the U.S., Europe, and India
	🤝 Strengthened collaboration between sales, IT, and business functions

Architecture Principles for tkmx



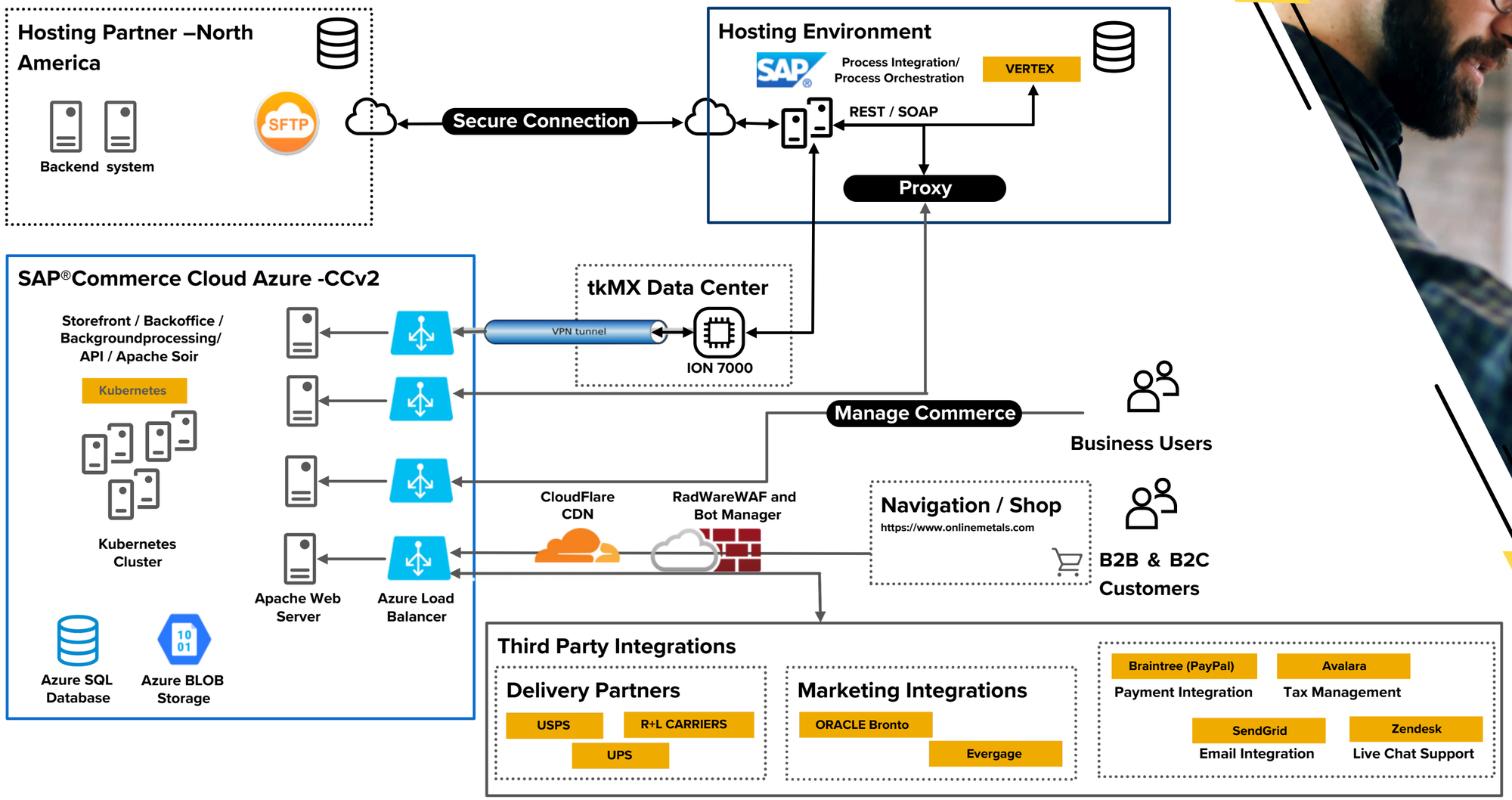
3 Independent e-commerce services

1 Blueprint

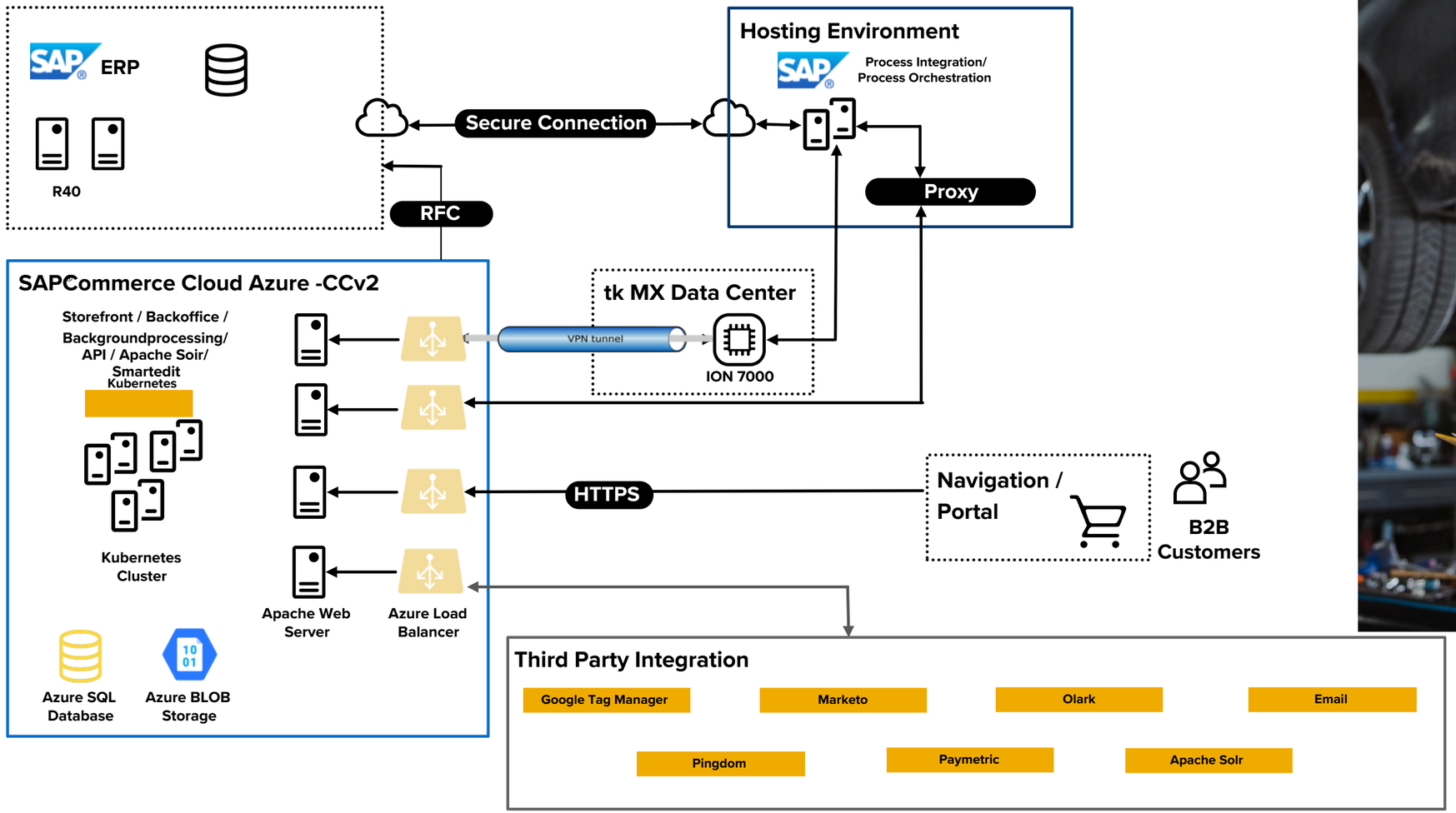
1 Vision

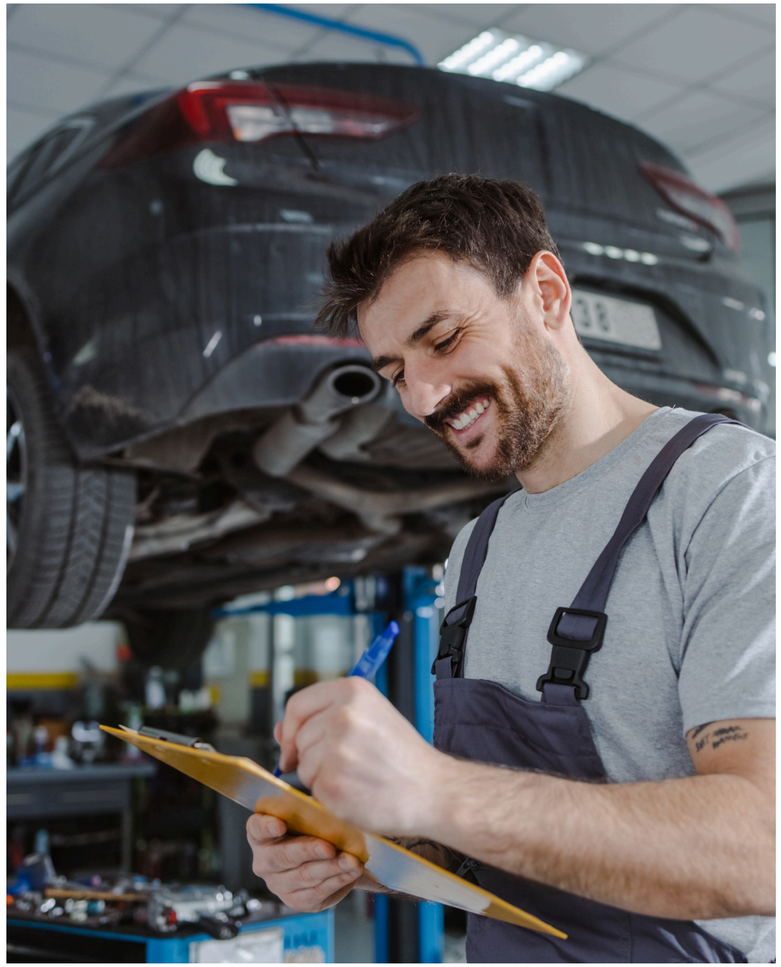
- Independent development to fitcustomer and business needs
- Centralized operations team for all approaches
- Common Design Thinking and ideation process
- Execution team with similar processes and
- development practices (UI, backend and testing)
- Customer-centric
- requirementgathering and enhancement
- Service Architecture→Technical Architecture

Architecture OnlineMetals.com



Architecture CBS eCommerce





OnlineMetals.com

Deployment Details 1 of 2

Deployment status LIVE

Date March 2019

Number of end users ~ 493 T

Number of customers ~ 493 T

Transaction Volume ~ 27 T orders/month

SAP®technologies used:

	SAP product	Primary product	Deployment status LIVE or POC [proof of concept]	Contribution to project
1	SAP Commerce	X	LIVE	Product Catalogue, Content Catalogue order placement, account management
2	SAP Commerce Cloud	X	LIVE	(Dealer portal) Manage build and deployment activities
3	SAP Process Integration	X	LIVE	Secure integration with third parties
4	SAP Process Orchestration	X	LIVE	Secure integration with third parties

CBS eCommerce

Deployment Details 1 of 2

Deployment status LIVE

Date October 2020

Number of end users ~4,500

Number of customers ~4,500

Transaction Volume ~ 200 quotes/month, ~ 30 orders/month

SAP®technologies used:

	SAP product	Primary product	Deployment status LIVE or POC [proof of concept]	Contribution to project
1	SAP Commerce		LIVE	Product Catalogue, Content Catalogue, order placement, account management
2	SAP Commerce Cloud	●	LIVE	(Dealer portal) Manage build and deployment activities
3	SAP Process Integration	●	LIVE	Secure integration with third parties
4	SAP Process Orchestration	●	LIVE	Secure integration with third parties

tkSchulte B2B Portal 1.0

Deployment Details 1 of 2

Deployment status LIVE

Date March 2018

Number of end users ~12,800

Number of customers ~12,800

Transaction Volume ~ 1,000 orders/month

SAP®technologies used:

	SAP product	Primary product	Deployment status LIVE or POC [proof of concept]	Contribution to project
1	SAP Commerce	X	LIVE	B2B e-commerce portal for customers,order placement, account management
2	SAP Commerce Cloud	●	LIVE	Manage build and deployment activities
3	SAP Integration Suite	●	LIVE	Middleware (ERP and SAP Commerce and Pricing)
4	SAP ERP	●	LIVE	Backend system

Deployment Details 2 of 2

The following offerings from SAP Services and Support were utilized during the implementation or deployment phase

- [x] SAP MaxAttention™ SAP
- [ ] ActiveAttention™ SAP Value
- [ ] Assurance SAP Advanced
- [ ] Deployment RISE with SAP
- [ ] for Industries
- [ ] Other:
- [ ] SAP Advisory Services SAP Customer
- [x] Experience Solutions SAP Innovation
- [ ] Services
- [ ] SAP Innovative Business Solutions
- [ ] SAP Preferred Success
- [ ] SAP Enterprise Support
- [x] SAP Solution Manager
- [ ] SAP Cloud ALM

Contribution to the project

SAP Solution Manager: Used to plan deployment on the SAP Commerce Cloud(OLM and CBS) SAP

Customer Experience Solutions: Solution review, Code review, Technical Support (B2B 1.0)

Advanced Technologies (1 of 2)

The following **advanced technologies** were part of the project.

	Technology or use case	Product *	Contribution to project and how product used integrates with SAP products
1	**Intelligent technologies** **A) Machine learning or artificial intelligence** Conversational AI, AI-based knowledge graph, AI Business Services, Robotic process automation		
	B) Blockchain		
	C) Internet of things		
2	**Intelligent data management** Multi-cloud and or hybrid deployment, data virtualization & governance, privacy compliance, cloud data lake service		

Advanced Technologies (2 of 2)

The following **advanced technologies** were part of the project.

	Technology or use case	Product *	Contribution to project and how product used integrates with SAP products
3	**Advanced cloud integration** New business models using API's, Connecting business partner(s) with API's, Integration Advisor, Digital integration hub architecture, Event Mesh	**OnlineMetals.com:** Vertex, UPS, Rnl, QuantumView,Zendesk, Avalara and many more **CBS eCommerce:** Synchronous Integration with ERP, PaymetricAsynchronous IntergationVia PIPO	OnlineMetals.com: -Vertex and Avalara are for tax and tax exemptions -UPS, Rnlare shipping providers -UPS also provides account and address validations -Quantum view is used to get tracking details of packages -Order, Customer and Product flow into ERP -Zendesk is a ticketing tool
4	**Advanced and augmented analytics** Real-time and streaming analytics, spatial analytics, natural language processing, machine learning to identify trends, patterns, and outliers, predictive analytics and planning)	**OnlineMetals.com:** GTM, AdobeMarketo, Bronto, Evergage **CBS eCommerce:** GTM google tag manager, Adobe Marketo, Solr	(Using javascript) customer tracking and marketing
5	**Combined transactions and analytics on single data set** Reduce data latency and footprint from dedicated data marts, data warehouses and data lakes (> 1TB)	**OnlineMetals.com:** Bronto	Order, Customer data is sent daily to Bronto together with details likeabandoned cart details

Additional Information

Outlook: Advancing Omnichannel Capabilities

thyssenkrupp Materials Services has entered the next phase of its **omnichannel transformation** in Europe, focusing on:

- **Headless Commerce Approach:** Decoupling backend and frontend to enable a unified backend that supports multiple frontends tailored to different brands and regional requirements.
- **Pan-European Integration:** Developing a standardized solution integrated with SAP S/4HANA, balancing uniformity with flexibility to support diverse business processes.

A Legacy of Innovation with SAP

With a **40+ year partnership** with SAP, thyssenkrupp Materials Services has built one of the **largest and most complex SAP landscapes worldwide**. What began with **SAP R/3** and extensive in-house developments is now evolving into a **future-ready SAP S/4HANA ecosystem**, driving efficiency and innovation for decades to come. 🚀