



**Security and Compliance For Your
SAP Applications:**
*Thales' CipherTrust Tokenization and
Key Management to Secure Your
Most Valuable Data*

December 2021

Current Thales/SAP Partnership

Thales is part of SAP's PartnerEdge program

- Formed a strategic partnership to jointly address data-at-rest encryption use cases
- CipherTrust Transparent Encryption (CTE) is validated for SAP HANA
- Only validated third-party encryption provider

SAP® PartnerEdge®

**CipherTrust
Transparent Encryption
for HANA**

Certification Date
(January 2020)



THALES

Data Security Can Be A Highly Complex Problem

Explosive Data Growth



Global data
In 2025

Evolving Compliance Requirements



1800
Global Privacy Laws

Operational Complexity



Complexity
is the top barrier for data
security deployment

Rapidly Increasing Data Breaches



Records breached
in 2019

1 - IDC DataAge 2025 whitepaper, Dec 2018

2 - <https://www.pwc.com/us/en/library/risk-regulatory/strategic-policy/top-policy-trends/data-privacy.html>

3. Thales DTR 2020

4. Risk based security, 2019 Year end report

Database Specific Risk

Technology Layer



Cloud



Container



Application



Database



File and Volume



Storage

Data Risks

- Improper access
- Data leakage
- Compliance violations
- Lack of access monitoring

- Improper access
- Privilege escalation
- Lack of access monitoring

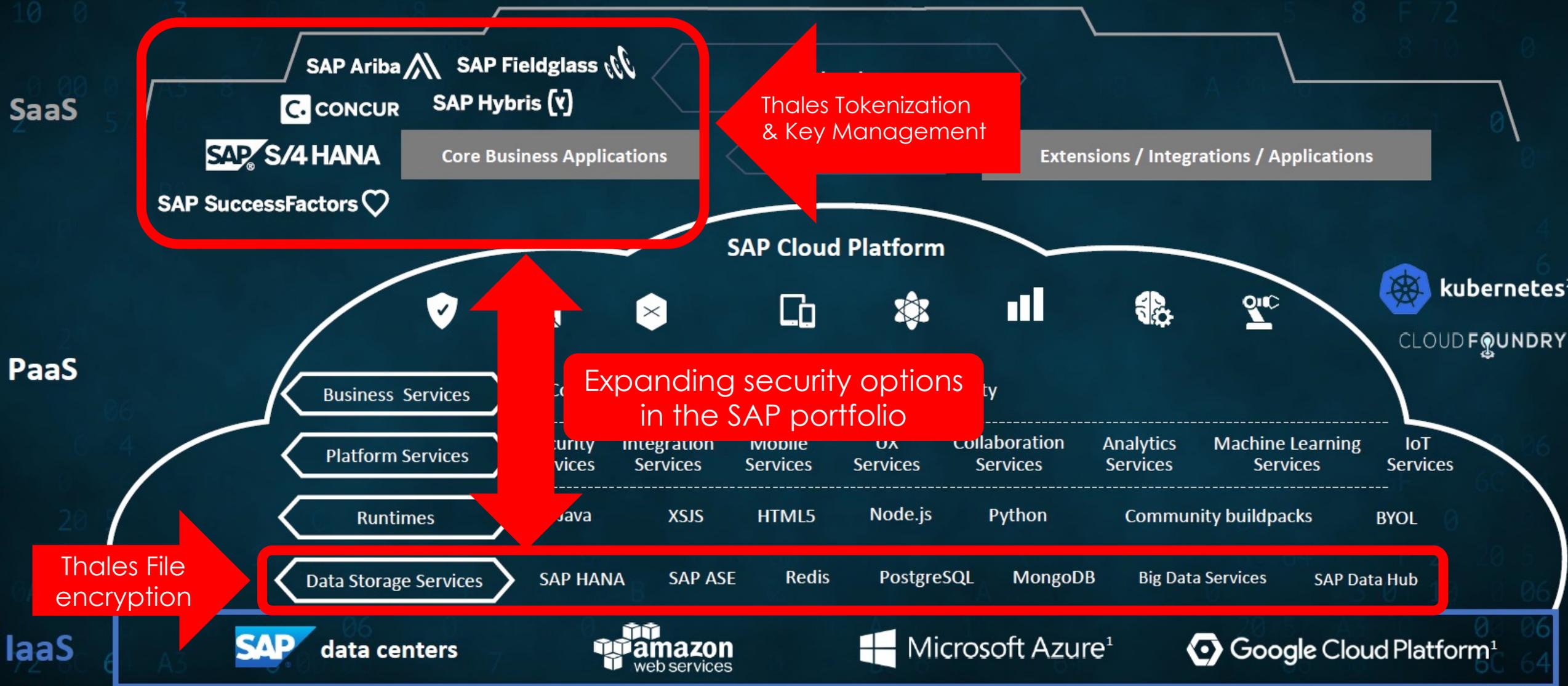
- Data leakage
- Compliance violations

- Improper DBA access
- Data leakage
- Compliance violations

- Improper access
- Privilege escalation
- Lack of access monitoring

- Hardware disposal
- Physical theft

A Growing Playing Field



Thales File encryption

Expanding security options in the SAP portfolio

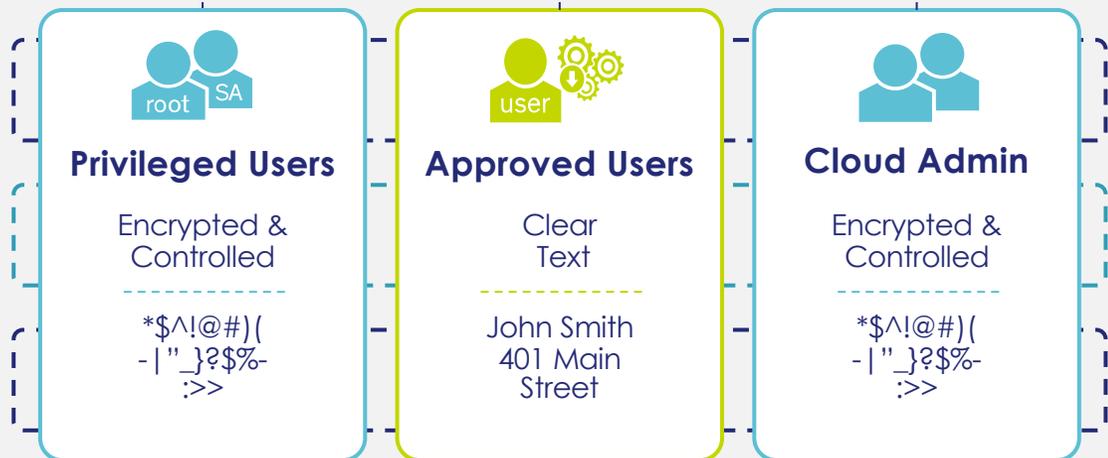
Thales Tokenization & Key Management

File System-level Encryption

Transparently protects file system, volume data-at-rest

CipherTrust Transparent Encryption Agent

Allow/Block Encrypt/Decrypt/report



Transparent, file-level encryption

No need to re-architect SAP HANA, applications, or storage networks



Privileged user access controls

Allows root users to do their job, without abusing data



Data access audit logging

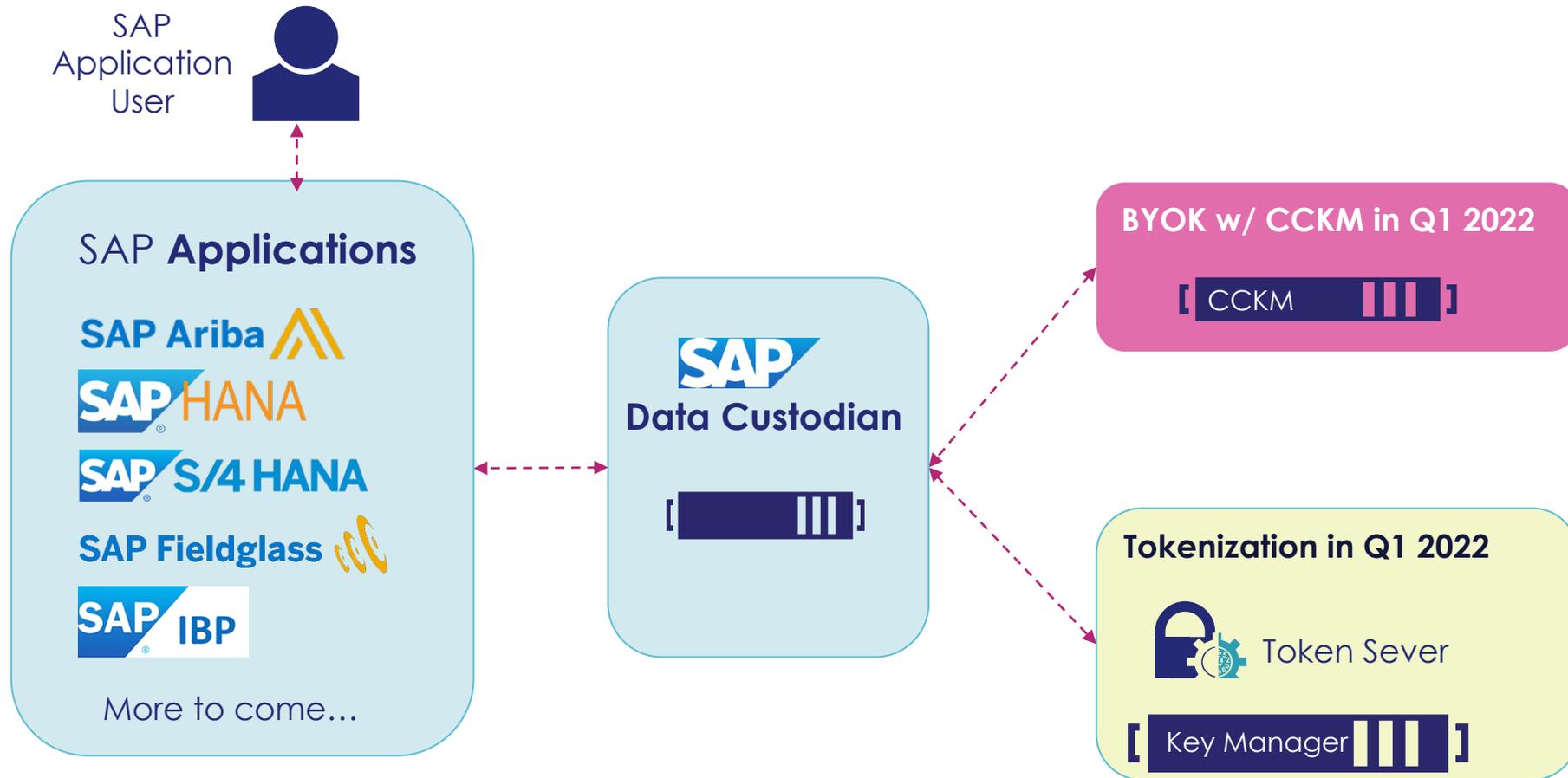
Accelerate threat detection and ease forensics



Centralized encryption key and data access policy management

Streamline operations, reduce risk, satisfy compliance

SAP Data Custodian & Thales CipherTrust Portfolio



Demos in Q4 with GA in Q1 2022

Tokenization for SAP



Reduce compliance scope for PCI DSS

Bring data security into SAP applications

Supports any application integrated with the Data Custodian

Policy automation and scheduling

Overview

SAP works with 3rd party security vendors to allow any application that uses the SAP Data Custodian to call out via API for tokenization services. Customers can replace sensitive values with their applications with tokens of the same length and format.

Features



Administer seamlessly via GUI or API



Separate responsibilities between token groups with unique access and policies



Centralized tokenization templates that simplify implementation (i.e. formats, groups, character sets)



Support for any cloud infrastructure

External Key Management for SAP Data Custodian



FIPS 140-2
Key
creation
and backup

Reduce Opex
for key
lifecycle
management

AWS
Azure
Salesforce
and more...

Policy
automation
and
scheduling

Overview

SAP's Data Custodian KMS supports integration with 3rd party key managers to establish stronger controls over a customer's encryption keys and policies to meet compliance and best practice requirements.

Features



Administer seamlessly via GUI or API



Abstract Multicloud BYOK Complexity



Federated User Access to Key Management



Automated Key Rotation and expiration

Use Case – Global Energy Producer

An American multinational energy corporation this customer is one of the world's 20 largest companies and is active in more than 180 countries. They engage in oil, natural gas exploration and production, refining, transport, power generation, and chemicals manufacturing.

The Situation

- Customer needed to migrate from SAP ECC with an Oracle database on-premises to SAP HANA. They opted to move their entire SAP infrastructure into Microsoft Azure.
- They had multiple environments each with varying security needs. Ultimately, their concern was to keep their Tier 1 financial data safe and to maintain full control in the face of a lawful subpoena.

The Solution

- File Encryption with External Key Management**
- Selected because it gave them full control of their data as it resides in the Microsoft cloud. They didn't need to rely on the cloud vendor.
- Management fit with their enterprise security strategy
- Chose encryption first and applied it during migration in order to save down time

Thales External Key Management for SAP Data Custodian Benefits

Bring your own key to SAP applications

- Centralized key control for SAP applications
- Incorporate SAP keys into your multi-cloud strategy

Enjoy IT efficiency

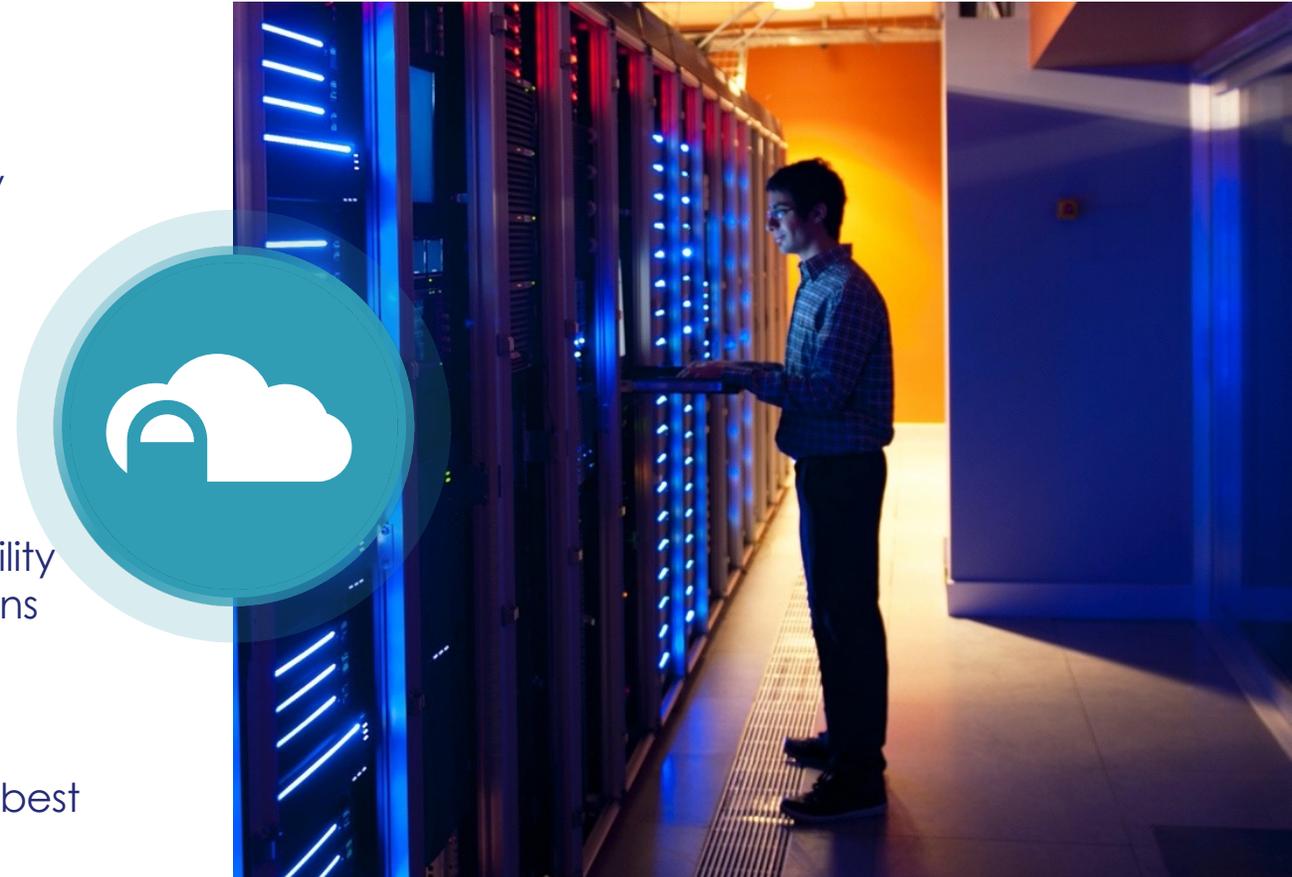
- Benefit from centralized full key lifecycle management

Inform your IT execution

- Auditing functionality gives customers greater visibility and reporting of their key usage for SAP applications

Achieve internal & industry compliance

- Separate encryption keys from data according to best practice and regulation
- Use key usage reports to demonstrate data control to auditors



Thales Tokenization with SAP Applications: Benefits

Greater security within SAP applications

- Protection against external threats: APTs, cloud administrators, data center employees
- Protection against internal threats: developers, privileged user access (i.e. DBAs)

Compliance with industry and government obligations

- Customer controlled key & token management for data sovereignty requirements

Safer Development

- Use tokenization for build accurate development environments without using real data

More Information

■ **Solution briefs**

■ **Whitepapers**

■ **Integration guides**



SAP

Headquartered in Waldorf, Germany, SAP is the world's largest inter-enterprise software company, and the world's third-largest independent software supplier overall. SAP employs over 28,909 people in more than 50 countries. Their professionals are dedicated to providing high-level customer support and services. SAP integrates with Thales Luna HSM to provide users with a powerful database and file encryption solution.



Learn More [▶](#)

<https://cpl.thalesgroup.com/partners/sap>

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Thank You!

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