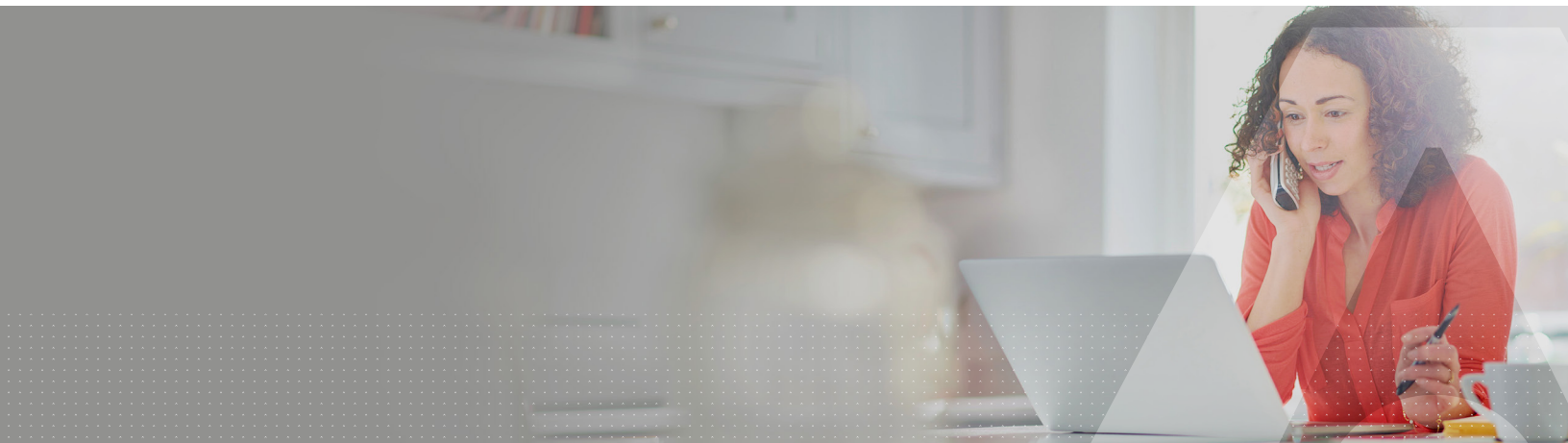# Thales Security Solutions for Google Workspace

## Enhanced Privacy and Confidentiality using Google Workspace Client-side encryption and Thales Identity and Data Protection

## Enhancing Key Management for Google Workspace

In a world of digital transformation and cloud-based apps, cloud providers and enterprises are looking for stronger cloud security and compliance. Addressing this challenge, Google Workspace now provides enhanced privacy and confidentiality options with Client-side encryption (beta coming soon) – a solution that enables enterprise customers to have full control over their encryption keys using the combination of SafeNet Trusted Access and CipherTrust Cloud Key Manager.

Adhering to a concept of 'shared security', Google recommends that customers use an external key manager (EKM) and Identity Provider (IDP) to ensure that only authorized and authenticated individuals can access protected documents. Only Thales develops an independent IDP and key management solution.

## Google Workspace Client-side encryption with Thales Identity Protection and Key Management: Better Together

Customers using Google Workspace Client-side encryption can achieve stronger security and lower deployment overheads by benefiting from Thales's integrated end-to-end solution that protects identities and controls encryption keys separate from their sensitive data in the cloud.

Client-side encryption keys enable service providers to host encrypted data but not decrypt it, protecting the user's privacy. When a user retrieves their file, the corresponding data encryption key is decrypted using customer-provided keys only after the user has been authenticated with customer-controlled authentication.

Thales's SafeNet Trusted Access (STA) used with CipherTrust Cloud Key Manager provides customers with an independent IDP and key management solution from a single vendor, helping you achieve your business goals with a smoother deployment, superior user experience and better value.

Thales is a trusted multi-cloud partner. The combination of STA and CipherTrust Cloud Key Manager allows organizations to keep control of both their access security and key management while avoiding vendor lock-in – vital to supporting multi-cloud environments as part of digital transformation initiatives.

## How the Joint Solution Works

A user logs into Google Workspace and is redirected to STA for authentication and identity validation.

- STA authenticates the user and creates an authentication token
- When the user creates a Client-side encrypted file, the STA-generated authentication token and a separate Google-generated authorization token are sent to the CipherTrust Cloud Key Manager with a Google-generated Data Encryption Key (DEK)
- CipherTrust Cloud Key Manager validates the STA-generated authentication token with STA and validates the Google-generated authorization token with Google
- If both tokens are validated, CipherTrust Cloud Key Manager encrypts the DEK with a CipherTrust-generated Key Encrypting Key (KEK) – and returns the encrypted DEK to Google
- Subsequent file opens or saves require validation by CipherTrust Cloud Key Manager which permits authorized parties to unwrap the KEK and access the DEK and the file

## Pivotal Benefits

Organizations that are moving workloads and applications to the cloud frequently leverage collaboration suites such as Google Workspace. While offering immense benefits in terms of easy, anywhere access from any device, adding external identity and encryption gives you the ability to control your encryption keys and provides an additional layer of privacy and security to your sensitive enterprise assets in the cloud.

Thales is the only security provider that offers an independent IDP, authentication, and key management, enabling organizations to meet cloud security best practices on how to secure Google Workspace with client-side encryption.

The integrated access and key management solution from Thales offers tangible benefits including:

- **Security:** Allows organizations to reduce the risk of data breach and penalties by owning their access security and key management
- **Smooth deployment:** Single vendor integration with Google Workspace ensures quick, smooth deployment
- **Superior user experience:** Users benefit from single-sign-on to Google Workspace and their other cloud services and apps

## Highlights

**Identity Protection for Client-side encryption**

STA serves as an independent third party IDP and authenticates users to Google Workspace. STA enables authentication for Google Workspace Client-side encryption via an OIDC integration.

**Enhancing Authentication and Secure Access to Google Workspace**

STA federates with Google Workspace via a SAML integration, enabling single-sign-on, and enforcing the appropriate level of authentication when users log into their Google service.
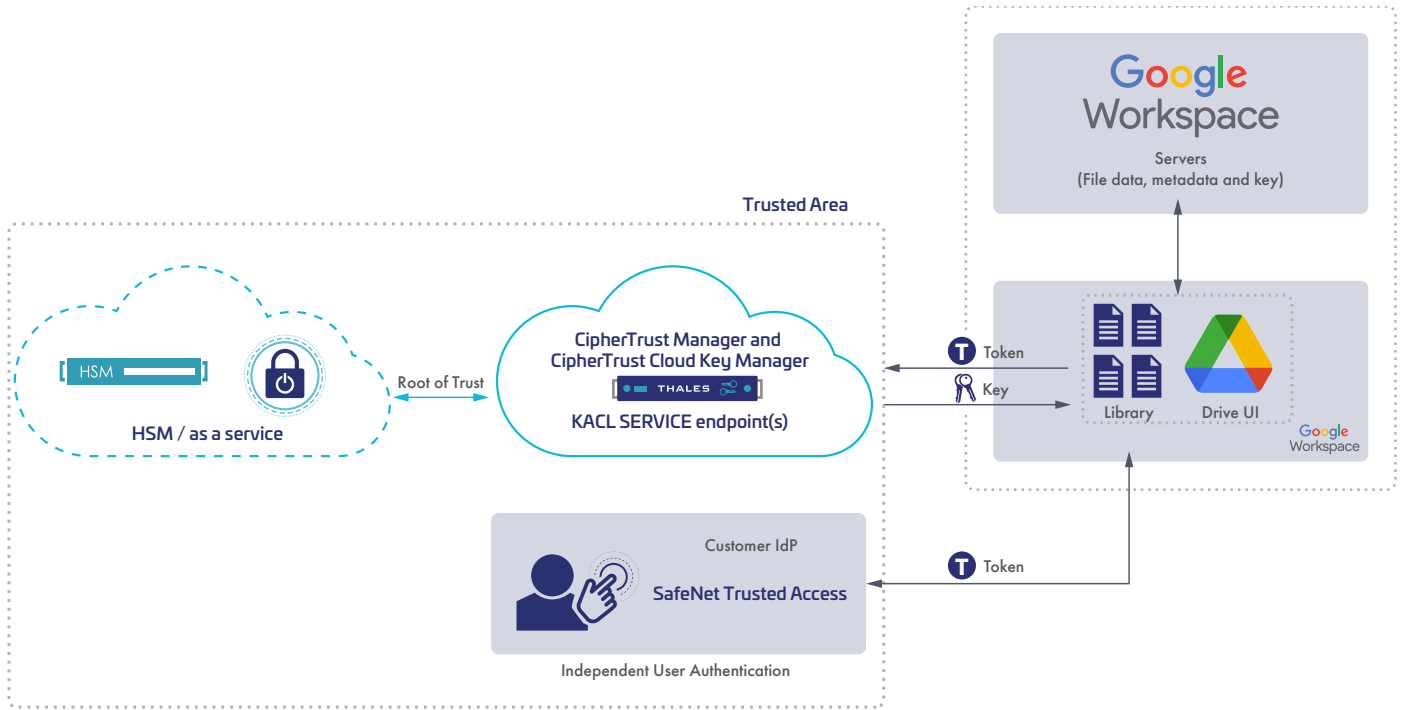
**Simple and Strong Authentication**

Apply a Zero Trust security model by enforcing authentication 1st, access later concepts, with strong and continuous authentication, single-sign-on, and multifactor authentication to all resources. Authentication methods include: FIDO, hardware tokens, software tokens (OTP apps), out-of-band (OOB) push authentication, certificate-based authentication (CBA), pattern-based authentication, OOB via SMS and email, and contextual authentication.

**Convenient and Easy**

Re-authentication can be configured to use the existing credentials within a pre-determined time period -- which decreases user friction without compromising security.

**Key Management for Google Workspace**

CipherTrust Cloud Key Manager provides external key management and policy control to ensure that encrypted documents can only be accessed by authorized users.

Trusted Area

HSM

HSM / as a service

Root of Trust

CipherTrust Manager and
CipherTrust Cloud Key Manager

**THALES**

KACL SERVICE endpoint(s)

Token

Key

Library    Drive UI

Google
Workspace

Servers
(File data, metadata and key)

Google
Workspace

Customer IdP

SafeNet Trusted Access

Independent User Authentication

Token

## About Google Workspace Client-side encryption

Google Workspace Client-side encryption helps customers strengthen the confidentiality of their data and may address a broad range of data sovereignty and compliance requirements. Customers have direct control of encryption keys and the identity service they choose to access those keys. Customer data is indecipherable to Google, while users can continue to take advantage of collaboration, access content on mobile devices, and share encrypted files externally.

## About Google Workspace

Google Workspace is a unified collaboration and communications platform that provides companies of all sizes with everything they need to connect, create, and collaborate. Google Workspace includes apps such as Gmail, Google Meet, Calendar, Drive, Docs, Sheets, Slides, and more. Learn more at workspace.google.com

## About Thales Access Management

Thales's industry-leading Access Management and Authentication solutions let enterprises centrally manage and secure access to enterprise IT, web, and cloud-based applications with a Zero Trust approach. Utilizing policy-based conditional access, rigorous SSO, and universal authentication methods, enterprises can effectively prevent breaches, migrate securely to the cloud and simplify regulatory compliance.

## About Thales Data Protection

The CipherTrust Data Security Platform is a cloud-ready portfolio of products designed to alleviate many of the challenges faced by security teams as they strive to support multi-cloud strategies. The platform offers an unparalleled breadth of solutions to address both data security and encryption key management efforts. CipherTrust Cloud Key Manager is a component of the platform.

## About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

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**Contact us –** For all office locations and contact information, please visit cpl.thalesgroup.com/contact-us