

Cloud Access Security Broker

Multimode CASB with agentless reverse proxy, forward proxy, and API modes.

Key Benefits:

- › 99.99% verified uptime since 2015
- › Auto-scaling and over 300 points of presence on AWS minimizes latency and maximizes throughput
- › Enterprise-class DLP across all key channels - CASB, SWG, email and endpoints, with unified management, policy configuration and reporting
- › Active Directory sync agent accelerates user onboarding
- › Data-in-motion scanning blocks malware and data exfiltration between users on any device and any managed SaaS application.
- › Field Programmable SASE Logic can block specific HTTP/S request methods resulting in granular control of any element in a managed SaaS web page
- › Data-at-rest scanning of selected SaaS and IaaS identifies malware and sensitive data independent of data-in-motion scanning
- › File level encryption of managed SaaS applications ensures data privacy and data sovereignty without completely blocking access to data
- › Shadow IT reporting helps identify unsanctioned application risk
- › Digital Rights Management (DRM) provides more flexibility with new ways to secure sensitive data.

Forcepoint Cloud Access Security Broker (CASB) delivers broadest visibility and control over the use of corporate sanctioned SaaS applications, including Generative AI. It secures sensitive data with industry-leading Data Loss Prevention (DLP), while providing granular access control and malware protection to defend against modern day threats.

Agentless Reverse Proxy Mode

Agentless reverse proxy mode enforces granular access with Forcepoint CASB's integrated DLP and malware scanning from any device using a modern browser. It is ideal for monitoring and controlling access from BYOD and contractor devices. It leverages Forcepoint's patented integration with any SAML 2.0 compliant IdP to redirect users to a Forcepoint reverse proxy, where a complementary session with the SaaS application is established.



Figure 1: Forcepoint CASB agentless reverse proxy with AJAX/VM.

Combined with Forcepoint's unique AJAX/VM technology, executing within the user's browser, the Forcepoint CASB agentless reverse proxy mode ensures proper URL and cookie rewriting resulting in compatibility with any SaaS application. Key features that let you control and monitor app usage in reverse proxy mode are proxy policies, field-level encryption, shadow IT reports, and reverse proxy reports.

Proxy Policies

Access control options and associated DLP and malware scanning options for data in motion to and from managed SaaS applications are set in proxy policies. These let administrators set access to managed SaaS app as direct app access, deny, or secure app access (all traffic passes through the reverse proxy with the option of enforcing DLP and malware scanning). Criteria for policy enforcement include user group, access method (browser, non-browser client app, or any), device OS, device profile, and location.

Proxy ID	Groups	Access Method	Device	Location	Action
97432	Co Admin	Any	Any	Any	Direct App Access
11592	Any	Web	Any	Any	Secure App Access DLP Download DLP Upload
131814	Any	Web	Any	Any	Secure App Access DLP Download DLP Upload
95490	Any	Client Apps	Managed Mac	Any	Secure App Access DLP Upload

Figure 2: List of proxy policies for a managed SaaS app

A single app can have a list of multiple proxy policies that are evaluated sequentially until a policy is found where all of the match criteria in the policy match the connection request. Then the appropriate enforcement action is applied.

When secure app access is specified, a single proxy policy may include a list of DLP and malware scanning policies for upload to the SaaS app, and another list for download from the SaaS app. In addition, if a managed SaaS app has field level encryption enabled, the proxy policy lets you specify whether a field is displayed unencrypted based on the field security level or whether the user location matches the data creation location. This supports data privacy and data sovereignty

Download DLP

Block All File Downloads

Data Patterns	Files	Action	Watermark	Notify
Code Proprietary	2 - Encrypt	5 - Visible/Calba		
EMR Fingerprint	3 - DRM-He	3 - Invisible/Call		

Deny Download on Scan Timeout

Upload DLP

Data Patterns	Files	Action	Watermark	Notify
Malware-CrowdStrike	3 - Block	1 - None		
Sensitive Keywords	1 - Allow	2 - Invisible/No Ca		

Decrypt Structured Data

If security level is less than or equal to 20 and

Always Decrypt Author

Or data creation location is Any Selected

Download Notifications

User Email Custom DLP Match Notifi

Group Email Custom DLP Match Notifi

Inline Notification None

Bitless Alert Generate Alert

Upload Notifications

User Email Custom DLP Match Notifi

Group Email Custom DLP Match Notifi

Inline Notification None

Bitless Alert Generate Alert

Figure 3: Proxy Policy details for a secure app access connection.

Within a single proxy policy, the download DLP policies let you control download of both sensitive data and malware, while the upload DLP policies let you control upload of sensitive data and malware. Simply use dropdown menus to specify a data pattern to match, a file action, and watermark/tracking control, and click the checkbox if you want people to be notified about the match.

Forcepoint CASB includes over 190 predefined data patterns that help you enforce regional and industry standards regarding PII, PHI, and personal financial data. There are also reserved data patterns for invoking malware scanning powered by multiple third-party anti-malware engines. You can also create custom data patterns that use simple regular expression up through complex Boolean expressions, and special data patterns for identifying records. The special match patterns include database matching (using exact match), similarity to a standard form (using file fingerprinting), and any HTTP/S request method (using Field Programmable SASE Logic – FPSL).

For download proxy policies, file actions are encrypt, block (replace contents with block message), deny (do not transfer), apply DRM, and watermark and track.

For upload proxy policies, file actions are encrypt (for Office 365, Google Workspace, and Salesforce), block (replace contents with block message), deny (do not transfer), mask data (Salesforce Chatter, O365 Teams, and Slack), and watermark and track.

Field-Level Encryption

Agentless reverse proxy mode lets you encrypt structured data in many popular SaaS apps with support for full AES 256-bit encryption or tokenization, a built-in keystore or your own Key Management Interoperability Protocol (KMIP) keystore, and vaultless encryption and tokenization. You can also specify security levels for each field to control when the field is decrypted for the user.

Protect / Policies / dev59972 (Orlando) / Structured Data Encryption / Field Setup

Object Name PrimaryObject

Primary Key	Field Name	Type	Max Length	Action	Security Level
<input checked="" type="checkbox"/>	Key	string	40	None (PII)	
<input type="checkbox"/>	Incident	string	400	Encrypt	20
<input type="checkbox"/>	Contact	string	400	Tokenize	10

Figure 4: Field-level encryption settings.

Shadow IT Reports

The agentless reverse proxy mode supports shadow IT reporting. Shadow IT usage is collected from the log data from corporate firewalls and proxy servers, either by manual import or through a Forcepoint syslog collector. Reports show application distribution by trust rating, as calculated by Forcepoint, and top accessed applications with drill down to individual applications and individual source IP addresses, helping you understand your organizations, risk posture relative to web traffic. Forcepoint CASB can also let you control shadow IT traffic in forward proxy mode (see below).



Figure 5: Shadow IT Discovery report.

The reverse proxy mode offers reports to give you extensive insight into managed SaaS traffic passing through the reverse proxy: the 'Data in Motion' sections of both the Data Security and Threat dashboards, and the proxy logs report. The Data Security dashboard displays details on sensitive data identified by Forcepoint, including movement of sensitive data into and out of applications secured by Forcepoint as well as showing sensitive uploads to unsanctioned apps, sensitive downloads to unmanaged devices, top groups and users moving sensitive data, and more.

The Threat dashboard includes the same types of metrics as the Data Security dashboard, but specifically for malware and cyber threats.

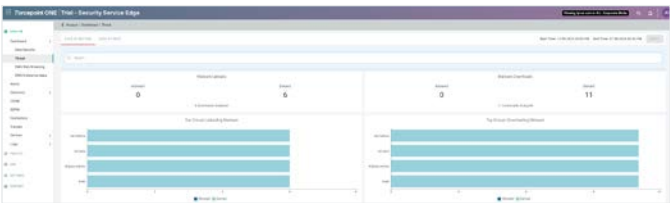


Figure 6: Proxy Dashboard

The proxy logs report plots application activity and watermark, DLP and DRM activity over time, and lists recent events grouped by summary, audit, and data leakage categories.

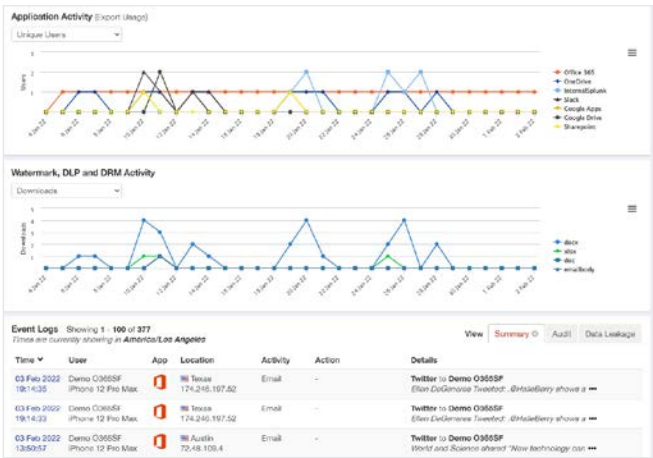


Figure 7: Proxy Logs Report

Forward Proxy Mode

Forward proxy mode uses the Forcepoint unified agent for Windows or MacOS. All managed SaaS traffic still passes through the Forcepoint reverse proxy but without the need for URL rewriting to connect with the user device. Forward proxy mode supports all of the features of the agentless reverse proxy mode, including enforcing DLP and malware scanning through proxy policies, but it also supports use of non-browser clients, such as the Microsoft Outlook client and the Slack client. In addition, forward proxy mode supports shadow IT control.

Shadow IT Control

Shadow IT control lets you control access to any shadow IT app using proxy policies which are evaluated in sequence like managed SaaS proxy policies. However, proxy policies for shadow IT apps do not enforce DLP and malware scanning for upload and download. Instead, they are limited to the following connection control options: render the app in read-only mode, coach (display a recommendation for a company sanctioned alternative app and either allow or deny access to the original shadow IT app), or deny access without a coaching message.

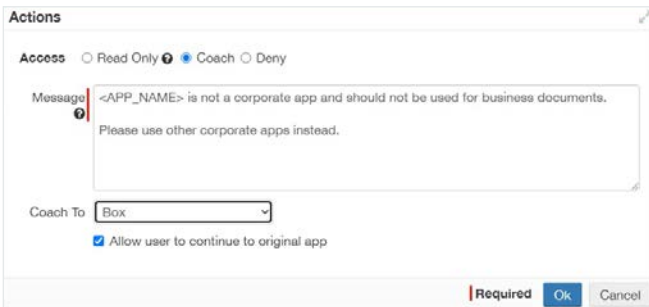


Figure 8: Shadow IT proxy policy details showing the coach options.

If you need to support DLP and malware scanning policies to shadow IT apps, use SWG content policies instead.

API Mode

In API mode, the CASB uses API calls to your SaaS or IaaS tenant to scan data at rest for sensitive data or malware and perform automatic remediation actions such as restrict sharing, quarantine, copy, add classification metadata, or notify the file owner. It supports historical file scanning and can apply OCR to image files and image only PDF files before scanning for sensitive data. API mode is supported out-of-box for many popular SaaS and IaaS including Google Workspace, Office 365, Salesforce, ServiceNow, Box, Dropbox, Atlassian Confluence, Github, Webex Teams, Slack, AWS, GCP, and Azure. API mode ensures that even if new files or updates to old files bypass the reverse proxy, they can be scanned for sensitive data.

API Policies

API policies control scanning data rest in IaaS and SaaS. Like proxy policies, several API policies can be applied to a single SaaS app and are evaluated sequentially.

ID	Condition	Action
179991	(User Group = All Scanned Users) AND (Data Pattern = PII-Confidential)	Allow Classify
111538	(User Group = All Scanned Users)	Allow
97469	(User Group = All Scanned Users) AND ((Data Pattern = SecretCats) AND (Path = /All Files/Demo))	Remove Public-External Sharing Generate Alert

Figure 9: List of API policies.

Within a policy, you can specify match criteria based on user group, DLP data pattern, file path, file name, sharing status (external, internal, public, or any), file size, owner, shared with username, create date, and modified date. The data match patterns used in an API policy can be any of the custom or predefined match patterns shared across the proxy policies, letting you have unified control of sensitive data and malware.

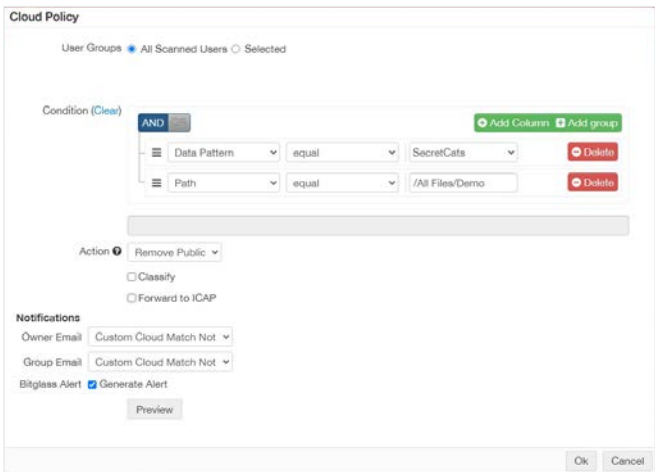


Figure 10: API policy details

When a match of conditions for a scanned file occurs, possible API policy actions include modify sharing (remove public, remove public and external, remove all), allow, quarantine, create copy, and encrypt.

CASB Third-Party Integrations

Forcepoint CASB additionally can be configured to integrate with various other data security systems as outlined below.

- **Security Information and Event Management (SIEM).** Forcepoint CASB integrates with any system that supports syslog. This allows third party apps to upload logs from Forcepoint for visualization and analysis.
- **On-premises DLP Systems.** While Forcepoint CASB fully integrates with Forcepoint DLP, it also work with any on-premises DLP system that supports the Internet Content Adaptation Protocol (ICAP). This provides customers the ability to send files at rest in managed SaaS or IaaS cloud storage, that are flagged by Forcepoint as having sensitive data, to the onpremises DLP system using TLS encryption. The files are enriched with data such as source and destination IP and the email address of the file owner.
- **Security Orchestration and Response (SOAR).** Forcepoint CASB supports two-way integration between CASB and the selected SOAR platforms. In these cases, the SOAR platform is used to automate activities within Forcepoint CASB and another tool.
- **Data Classification.** Forcepoint CASB can use classification metadata from any data classifier in a DLP match pattern.
- **Endpoint Management.** As part of the SAML login process, Forcepoint CASB can validate a client certificate stored on a Windows, Mac, Android, or IOS device to confirm it is managed by an endpoint management system. This knowledge lets the administrator apply different access policies for users logging in via managed vs. unmanaged devices.

Forcepoint CASB Difference

- **Broadest SaaS visibility:** Largest known database of 800,000+ SaaS applications, along with their risk rating through the assessment of 40+ attributes.
- **Industry-leading data security:** Extend Forcepoint DLP policies to every major channel, whether its endpoint, network, cloud, web, or email, so your data is protected, wherever it resides. Unified policy enforcement via a single console, coupled with more than 1700 pre-defined templates, policies, and classifiers helps meet regulatory demands of 90 countries and over 150 regions.
- **Agentless access for SaaS apps:** Frictionless, zero trust access to any application from any unmanaged device through agentless reverse-proxy deployment, securing access from unmanaged devices, including BYOD and third-party partner or contractor devices.
- **Any app control:** Control any web-based app, including uncommon and custom apps, with extensible controls using Field Programmable SASE Logic (FPSL). This unlocks limitless number of use cases that won't be available out-of-the-box, such as simple login controls distinguishing between corporate versus personal accounts to more refined and specific controls per cloud service such as preventing users from sharing files externally.

* Integration with Forcepoint DLP requires a separate add-on SKU

Forcepoint CASB Features and Benefits

FEATURE	BENEFIT
Auto-scaling, distributed architecture on AWS with over 300 POPs worldwide.	<ul style="list-style-type: none"> → 99.99% uptime. → Minimal latency: often even faster than direct application access.
Integration with any SAML compatible IdP in SAML relay or ACS proxy mode. Optional built-in IdP using Microsoft ADFS.	<ul style="list-style-type: none"> → Flexible deployment. → Denial of service protection when using SAML relay mode.
Active Directory Sync Agent. Synchronizes your current AD users and groups with Forcepoint CASB users and groups.	<ul style="list-style-type: none"> → Leverages your existing Microsoft AD instance to quickly onboard users and maintain the groups they are assigned to.
Contextual access control based on user group, device type, location, or time of day, with escalation to Multi-Factor Authentication based on "impossible travel," unauthorized location, or unknown device. Additional layer of access control for individual websites or applications based on user group, device type, or location.	<ul style="list-style-type: none"> → Detects and blocks suspicious login attempts. → Reduces risks associated with stolen passwords. → Segments users based on risk and need to access.
Single unified agent for CASB forward proxy, and ZTNA for non-web applications. Includes support for deployment through MDM systems and uses self-generated auto-rotated certificates.	<ul style="list-style-type: none"> → Simplifies agent deployment. → Enhances security. → Reduces IT overhead.
Integration with Forcepoint DLP to enforce unified data protection policies across all channels — cloud, network, endpoints, web and email.*	<ul style="list-style-type: none"> → Reduces complexity and time to value. → Increases data visibility and control. → Eliminates redundant and fragmented security products.
DLP and malware scanning for data in motion. Scans file attachments downloaded from or uploaded to any web-based app or website for malware or sensitive data and logs and blocks the transfer as appropriate.	<ul style="list-style-type: none"> → Stops data leakage and spread of malware in transit between users and any corporate SaaS application.
Field Programmable SASE Logic. Monitors, logs, and optionally blocks any HTTP/S request method based on any portion of the request method.	<ul style="list-style-type: none"> → More fine-grained control of app usage. → Ability to block upload of sensitive data as message posts.
DLP and malware scanning for data at rest in selected IaaS and SaaS storage. Supports historical scanning and OCR of images files and image-only PDF files.	<ul style="list-style-type: none"> → Stops data leakage and spread of malware in selected SaaS and IaaS. → Ensures that even if new files or updates to old files bypass the reverse proxy, they can be scanned for sensitive data.
File level encryption of managed SaaS.	<ul style="list-style-type: none"> → Ensure data privacy and data sovereignty without completely blocking access to data.
Agentless shadow IT reporting using logs from corporate firewalls and proxies.	<ul style="list-style-type: none"> → Detect unauthorized app usage from on-prem devices without an agent.
Shadow IT control using the unified agent in forward proxy mode.	<ul style="list-style-type: none"> → Stop users from accessing certain unmanaged apps while recommending use of corporate sanctioned alternatives.
Detailed reporting of managed SaaS traffic.	<ul style="list-style-type: none"> → Complete visibility of access to managed SaaS apps including those accessed from unmanaged devices.

* Integration with Forcepoint DLP and Risk-Adaptive Protection requires a separate add-on SKU