

Versatility 2024

Remote Browser Isolation

Agenda

Agenda

- Problem to solve
- Versa RBI solution
 - Overview
 - How it works
- Demo
- Conclusion

RBI – Problem to Solve

Challenge

- Browser is the first medium between attackers and enterprises under attack
- Common attacks prevalent in recent years-
 - **Drive-by-downloads** where malicious content is automatically downloaded to an endpoint
 - **Drive-by-compromise** attacks, a common tactic where a victim visits regular websites that are seeded with malicious content
 - **Squatted domains** leading to malicious web pages



Why Current Solutions don't work

- Firewalls, VPNs and other security solutions use *Allow* or *Block* rules which are *all or nothing*
- There is no intermediate solution to provide access in a secure manner
- Issues propagated due to 'all or nothing' access-
 - Initial access through compromised web sites, vulnerable browsers
 - Credential theft, exploitation
 - Data exfiltration

48%

Threats entered the organization by drive-by-downloads, [SANS whitepaper](#)

Versa RBI solution

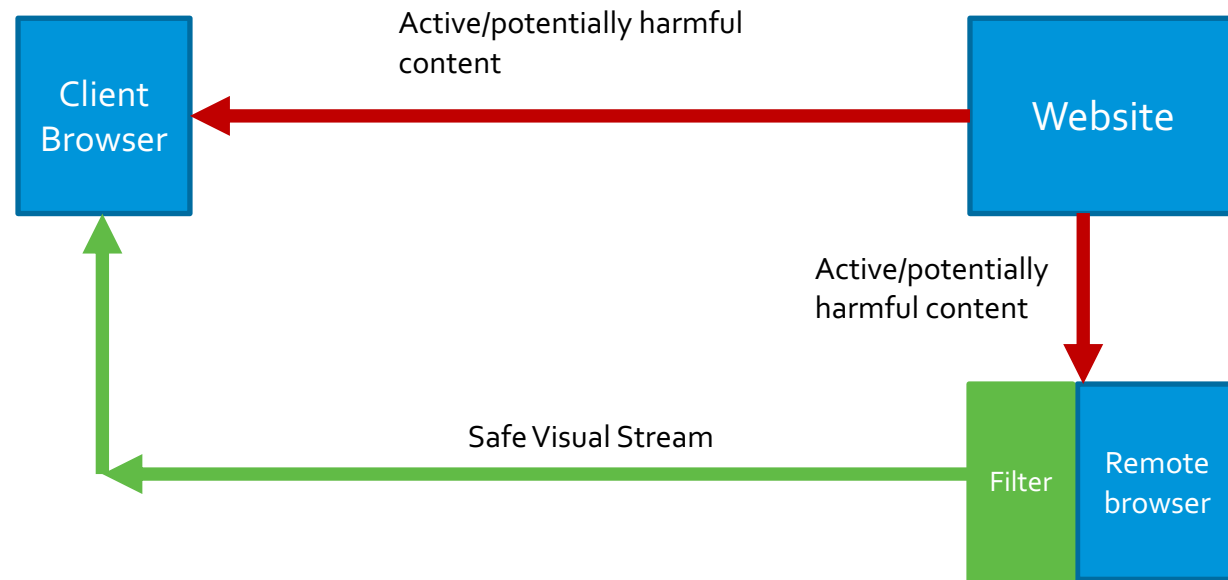
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Versa RBI solution

- Isolate browsing activity from internal network.
- Browsing activity is executed in a remote, sandboxed environment
- Active content only executes in remote browser
- Only a safe visual stream is relayed to the client browser



Versa's RBI solution

Functionality

- Render a visual stream of websites
- Filters harmful content
- Part of the Versa SSE platform
- Tightly integrates with rest of Versa ASC
- Scans client to server and server to client traffic



Actions supported

- Allow/Block uploads and downloads
- Preview downloads: Convert documents to pdf for preview
- Scan uploads and downloads for malware
- Persist first party cookies, block third party ones
- Allow/deny clipboard access



Powered by:

Technology: DOM mirroring

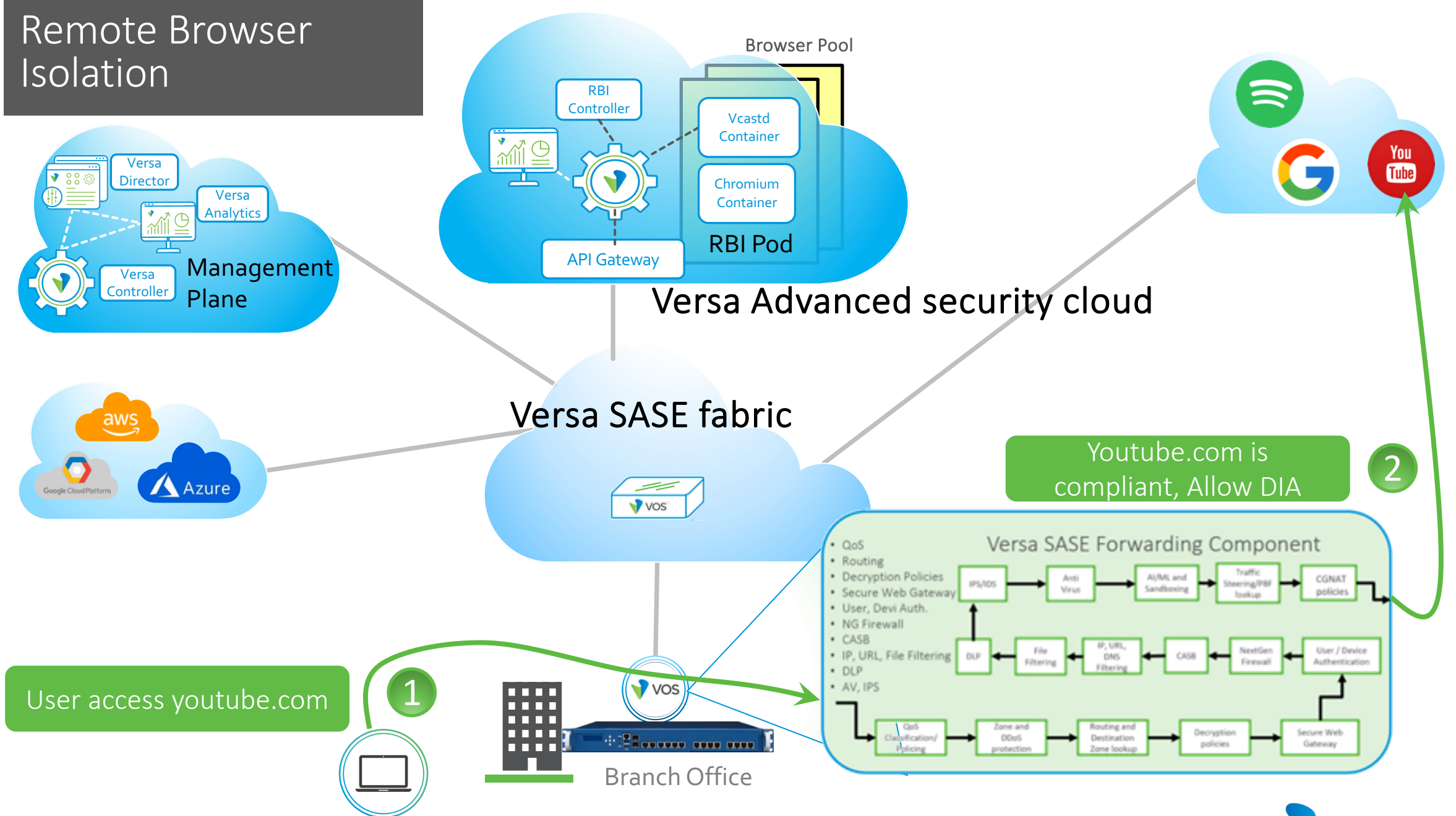
- Remote Browser
- Filters active DOM content
- Streams safe DOM elements to client browser
- Streams audio/video as pixels
- Works with any HTML5 compliant client browser -- Chrome, Edge, Firefox, Safari

Versa RBI: Highly responsive, native experience – the *next best thing* to browsing in real time

Versa RBI - how it works

- Configure real time protection policy on SWG
 - Redirects matching uses browsing sessions to the RBI cluster for secure, isolated access.
 - Same rich policy language used by other security Versa security features.
 - Match based on URL category, reputation
 - Match based on geolocation
 - Match based on user
 - Match based on user and device posture
- Configure RBI data protection rules in Advanced Security Cloud
 - DLP and ATP for files transferred by remote browsers (downloads as well as uploads)

Remote Browser Isolation



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Demo

Versa RBI - Conclusion

- Improve overall security posture with RBI as a mitigation technique
- Improve productivity with isolation as an intermediate action instead of blocking access.
- Provide differential access to employees and contractors.
- Protect against ransomware attacks.
- Prevent data exfiltration.

Questions



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API-Based Data Protection & Email Protection



Agenda

- Why API-Based Data Protection (API-DP)?
- Connectors, SaaS Authorization – Grant Access
- API-DP Policy Rules, Retroactive and Scheduled Scans
- Email Protection – SMTP Proxy
- Monitoring
- Demo



Why API-Based Data Protection?

Why API-Based Data Protection (API-DP)?

Challenges

- Inline CASB breaks open TLS and inspect content as a reverse proxy
- However, enterprise SaaS applications are often “certificate pinned”
- Users can access public cloud apps using BYOD or without being behind VPN/corporate firewall
- Need an “out-of-band” mechanism that works directly with SaaS applications through authorized “connectors”

Solution

- Versa’s API-DP, part of the Advanced Security Cloud (ASC) in Secure Service Edge (SSE) platform, secures access from user to application
- Also known as API-Based CASB, out-of-band CASB, offline CASB, etc.

Overview

- Protection for File, Email, Instant Messaging, Cloud Infra services
 - Webhooks, Poll Based and Hybrid
 - Retroactive, Scheduled and On-Demand Scan
- Provides policy and access control.
- Run DLP, CASB, Sandbox (Static, Dynamic, AI/ML). Fine-grained control compared to inline CASB
- Encrypt, Redact and other DLP actions
- Quarantine and Legal Hold
- Expire, delete shared links/collaborators. Restrict shared access
- Support for different categories of application like cloud storage, collaboration, email, messaging and source code repositories, CRM, etc.

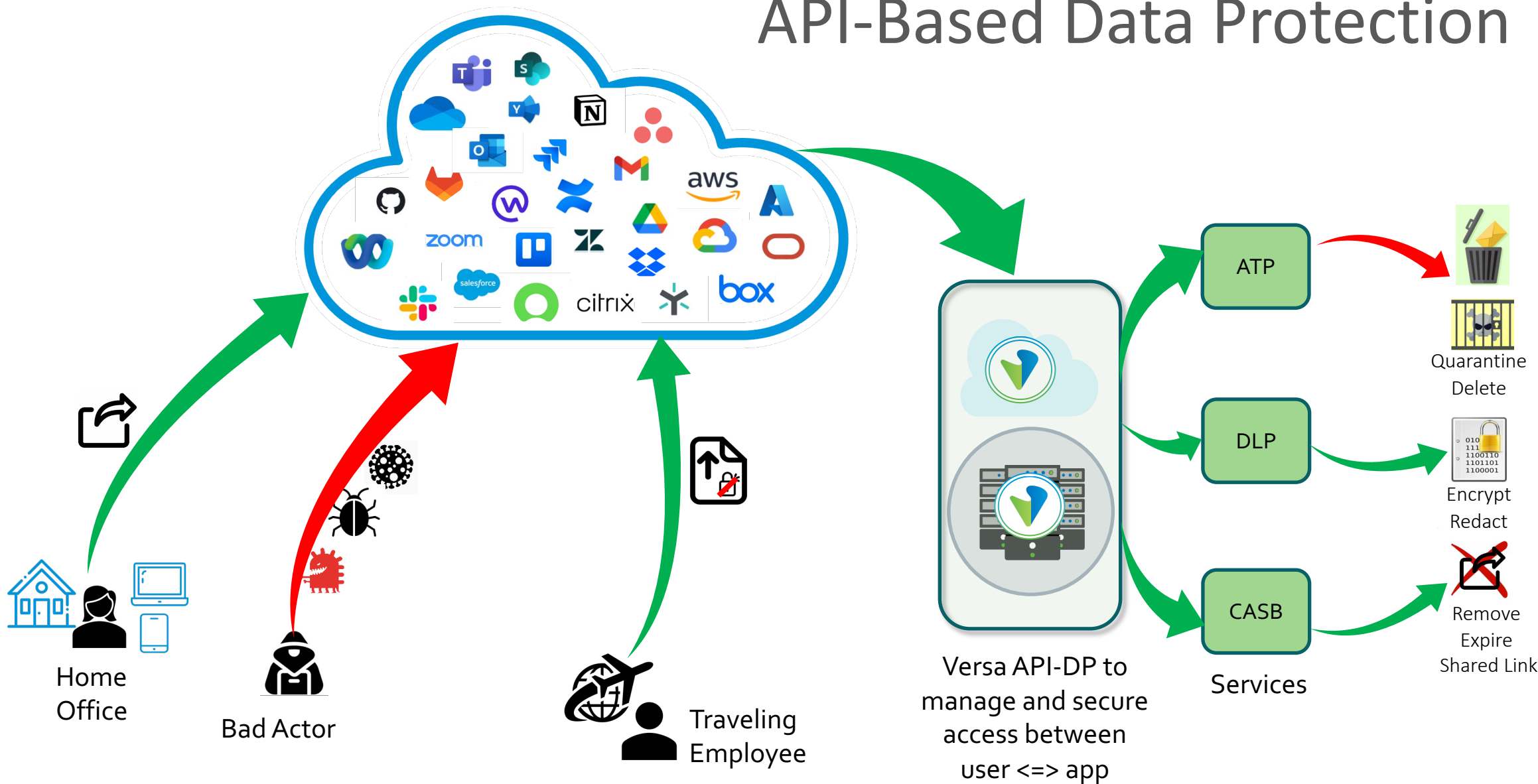
API-DP Use Cases

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API-Based Data Protection





Connectors

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SaaS Connectors

VERSA

Versa-Employees

CONFIGURATION

View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

Configure > SASE > Advanced Security > Connectors > SaaS

SaaS

SaaS

IaaS

All

Search

Asana

Box

Cisco Webex Teams

Citrix ShareFile

Confluence

Dropbox

Egnyte

GitHub

GitLab

Google Drive

Google Gmail

Jira

Microsoft OneDrive

Microsoft Outlook

Microsoft Sharepoint

Microsoft Teams

Microsoft Yammer

	Name	Application	Ad
☐	Sanctioned-Collaborative-SaaS-App	Slack	sri dy
☐	Sanctioned-FileSharing-Microsoft-Sharepoint	Microsoft Office 365 Sharepoint Sites	shi
☐	Sanctioned-File-Sharing-SaaS-App-Box	Box	sri dy
☐	Sanctioned-File-Sharing-SaaS-App-Box-Versa-Networks	Box	vp
☐	test-akshay	Microsoft Office 365 Sharepoint Sites	Test .co
☐	versa-box-com-account	Box	shi
☐	Versa-Collaborative-SaaS-App-MSTeams	Microsoft Teams	shi

Showing 1-7 of 7 results 10 Rows per Page

Edit Instance - Sanctioned-File-Sharing-SaaS-App-Box-Versa-Networks

box

Box

View Instructions for setting up Box instance.

Instance Name*

Sanctioned-File-Sharing-SaaS-App-Box-Versa-Networks

Admin Email*

Input Admin Email

Interval (in Minutes)*

15

☒ Retro Scan

Services

☒ API Based Data Protection

☒ Forensic

☒ Legal Hold

☒ Quarantine

Confirm

Instance Add requires configuring your Box account. [View Instructions](#) for setting up Box instance.

☒ Yes, I completed the steps required to configure Box account

Cancel

Submit

IaaS Connectors

View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

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CONFIGURATION

America/Los_Angeles | English | Administrator Service Provider Administrator

Configure > SASE > Advanced Security > Connectors > IaaS

IaaS

Publish (1)

SaaS

IaaS

All

Search

+ Add

Delete

Refresh

Select Columns

aws

Amazon Web Services

Google Cloud Platform

A

Microsoft Azure

O

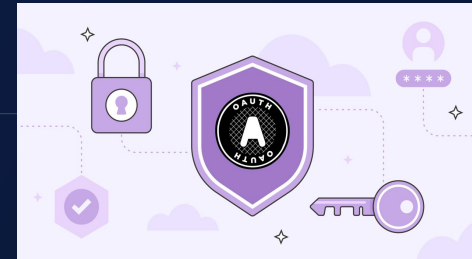
Oracle Cloud Infrastructure

	Name	Application	Admin Email	Services	Access
☐	AWS-Instance1	Amazon Web Services	srinivas@innovation-dynamix.com	API Based Data ProtectionForensicLegal HoldQuarantine	Revoke Access
☐	Azure-Instance1	Microsoft Azure	srinivas@innovation-dynamix.com	API Based Data ProtectionForensicLegal HoldQuarantine	Revoke Access
☐	GCP-Instance1	Google Cloud Platform	srinivas@innovation-dynamix.com	API Based Data ProtectionForensicLegal HoldQuarantine	Revoke Access
☐	Oracle-Cloud-Instance1	Oracle Cloud Infrastructure	srinivas@innovation-dynamix.com	API Based Data ProtectionForensicLegal HoldQuarantine	Revoke Access

Showing 1-4 of 4 results

10 Rows per Page

Go to page 1 < Previous 1 Next >



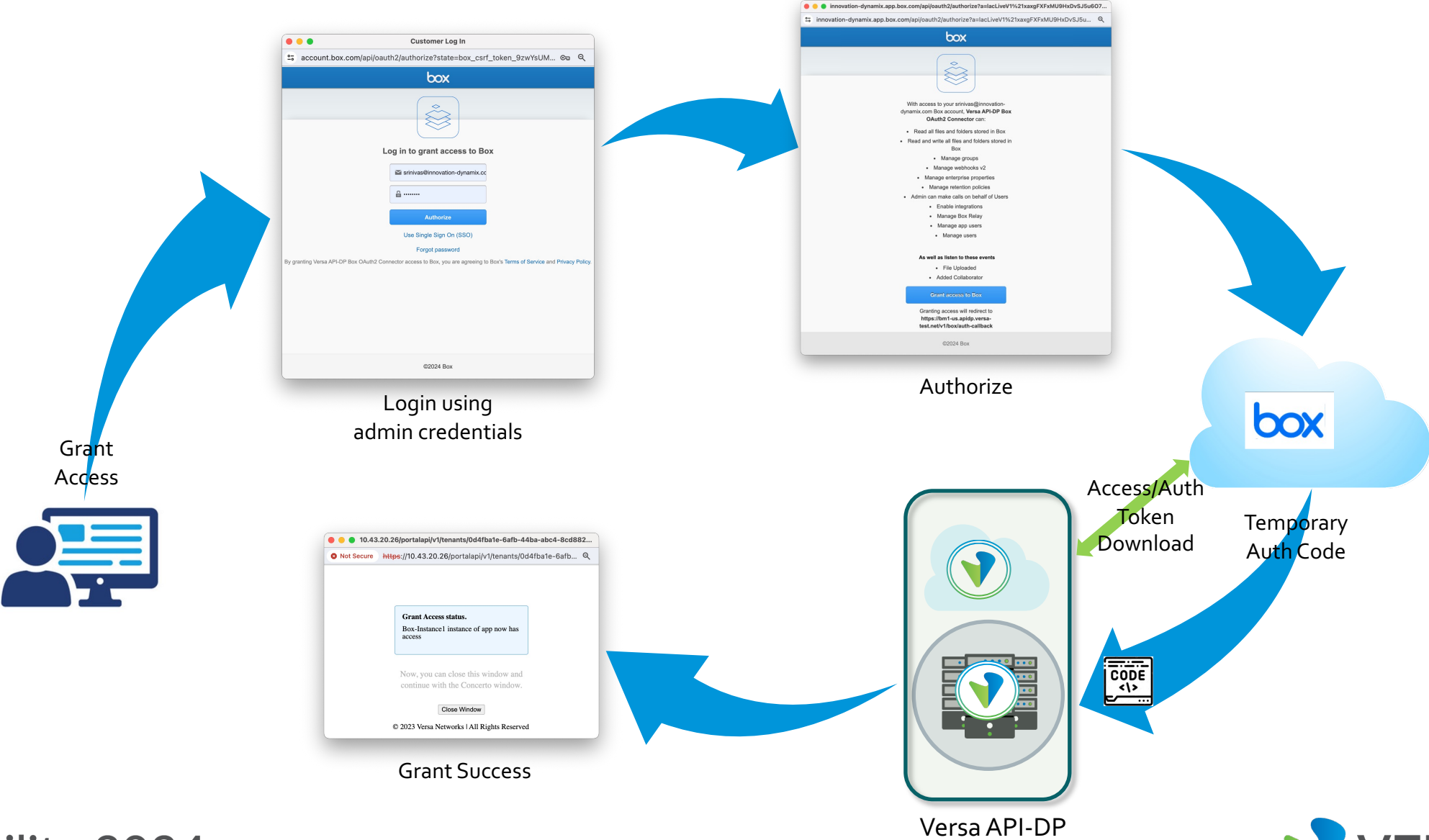
SaaS Authorization

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SaaS OAuth2.0 based Grant Access





Policy Rules

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API-DP Policy Rule

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CONFIGURATION

America/Los_Angeles

English

Administrator

Service Provider Administrator

Configure > SASE > Advanced Security > Policy Rules > SaaS Event Based

1 Saas Applications

Match Criteria

3 Users & Groups

Action

5 Notification Profile

Review & Deploy

Box

Search for Application

Clear All

asana

Asana

Atlassian

box

Box

Cisco Webex Teams

Citrix ShareFile

Confluence

Cancel

Back

Skip to Review

Next

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Offline CASB Rule

Add CASB Rule

Match Criteria

Applications

Instances

Activities

Actions

Notification

Review & Submit

Activities

Configure applications and the corresponding activities

Teams

Select All

Chat Join

Team Join

Message Send

Message Send

Direct Message

Teams Message

Teams Message

All Teams

Teams By Type

Teams By Name

List

Select Options

Add

Save & close

Back

Skip to review

Next

- Application specific activities and access control
- Fine-grained actions per activity
- Finer control on running DLP and ATP services at the user level or based on application specific activities

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 **VERSA**

DLP Profile

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Configure

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Inventory

Users

Settings

Configure > SASE > Advanced Security > Profiles > DLP

Publish (1)

Data Loss Prevention (DLP)ForensicCloud Access Security Broker (CASB)Advanced Threat Protection (ATP)User ProfilesDomain Profiles

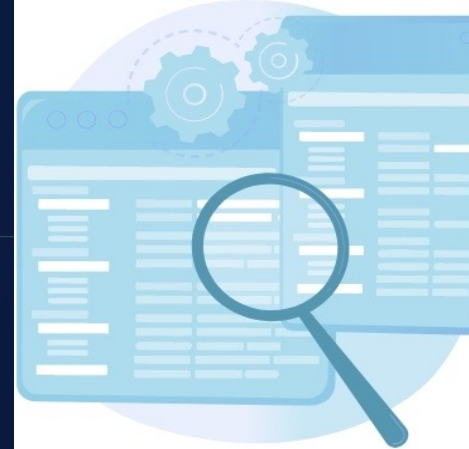
DLP ProfilesDLP RulesData Protection ProfilesData Patterns

Search by keyword or nameFilterAddCloneDeleteRefreshSelect Columns

Profile Name	Rules	Exit	Logging	Action	
☐ DLP_PROFILE_1	3		Disabled	Allow	
Name	Rule Type	Action	Context	Protocol	File Type
DLP_PII_RULE	Content Analysis US_PII	alert	Attachment	HTTP	pdf, docx
DLP_PCI_DSS_RULE	Content Analysis PCI_DSS	alert	Attachment	HTTP	xls, xlsx, ppt, pptx
DLP_EDM_RULE	Exact Data Match (EDM)	alert	Attachment	HTTP	html

Showing 1-1 of 1 results10Rows per PageGo to page 1Previous1Next





Retroactive and Scheduled Scans

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Scheduled Job

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CONFIGURATION

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English

Administrator

Service Provider Administrator

View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

Tenants

Configure > SASE > Advanced Security > Policy Rules > SaaS Schedule Based

Saas Applications

Instance

Users & Groups

Schedule

Security Profiles

Notification Profile

Review & Deploy

Select Schedule

Schedule

Which scan type would you like to choose?

Now

Non Recurring Time

Hourly

Daily

Weekly

Monthly

Every

On

Start Date

Start Time

End Date

Enter Type

M T W T F S S

04/03/2024

03:46 AM

04/03/2024

Cancel

Back

Skip to Review

Next



Retroactive Scan

Add Instance - Box

 Box
[View Instructions](#) for setting up Box instance.

Instance Name*

Input Name

Admin Email*

Input Admin Email

Interval (in Minutes)*

15

☒ Retro Scan

Services

☐ API Based Data Protection

☐ Forensic

☐ Legal Hold

☐ Quarantine

Confirm

Instance Add requires configuring your Box account. [View Instructions](#) for setting up Box instance.

☐ Yes, I completed the steps required to configure Box account

Cancel

Submit

- Retro scan can be enabled during the connector creation.
- Scans historical data at rest existing before using Versa API-DP
- Violation detected will be logged in Analytics

Data at Rest

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SECURITY

America/Los_Angeles

English

Administrator

Service Provider Administrator

View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

Security > Saas > box.Box-Instance1 > Files:Files

box

Box-Instance1

Last 12 hours

Files

Users

>Srinivas D >CASB Demo >

Name	Size	Access	Object Id	Last Modified	Details
Demo	48.20 MB	Private	CASB Profile	Feb 28 2023, 04:35 PM	
Demo W2	1.08 MB	Public	ATP Profile	Jan 20 2023, 01:00 PM	
Demo w3	0.00 KB	Private	DLP Profile	Jan 19 2023, 11:37 AM	
abc.docx	5.47 MB	Public	Policy	Oct 26 2021, 04:36 PM	
sample1.docx	26.00 KB	Private	Last Modified	Oct 26 2021, 11:06 PM	
Screenshot 2024-03-05 at 11.05.48AM.png	97.67 KB	Private	Created At	Mar 05 2024, 09:05 AM	
Screenshot 2024-03-05 at 11.36.27AM.png	242.67 KB	Private	User	Mar 05 2024, 09:36 AM	
Training Lab Topology.pptx	261.15 KB	Private	Size	Nov 08 2019, 02:36 PM	
Yang-tutorial.ppt	494.50 KB	Private	Object Path	Aug 31 2013, 07:15 AM	
			Name		

Showing 1-9 of 9 results 10 rows

Object Id

Enter a value

Exact

Add Filter

Data at Rest

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View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

Tenants

Security > Saas > box.Box-Instance1 > Files:Files

box

Box-Instance1

Files

Users

/ > Srinivas D > CASB Demo >

Name	Size	Access
Demo	48.20 MB	Private
Demo W2	1.08 MB	Public
Demo w3	0.00 KB	Private
abc.docx	5.47 MB	Public
sample1.docx	26.00 KB	Private
Screenshot 2024-03-05 at 11.05.48AM.png	97.67 KB	Private
Screenshot 2024-03-05 at 11.36.27AM.png	242.67 KB	Private
Training Lab Topology.pptx	261.15 KB	Private
Yang-tutorial.ppt	494.50 KB	Private

Showing 1-9 of 9 results 10 rows

File Details

Name:	abc.docx	Path:	(Srinivas D)/All Files/CASB Demo/abc.docx
Owner:	Srinivas D	Created:	Feb 28 2024, 07:25 PM
File Size:	5.47 MB	Scanned:	Apr 02 2024, 04:08 PM
Modified:	Oct 26 2021, 04:36 PM	Exposure:	Public

SHARED LINKS

Access:	Permissions:	Expiration:	Link:
Public	view	Apr 03 2024	Download File

COLLABORATION

User:	Email:	Permission:	Expiry:
Chris Green	chris@innovation-dynamix.com	view	None
Jigish Rathod	jigish@innovation-dynamix.com	edit	None
Versa CASB	AutomationUser_1407016_wlMGkkti4@boxdevedition.com	edit	None

VIOLATIONS

Action:	ATP Profile:	CASB Profile:	DLP Profile:
Clean	None	None	None



Email Protection: SMTP Proxy

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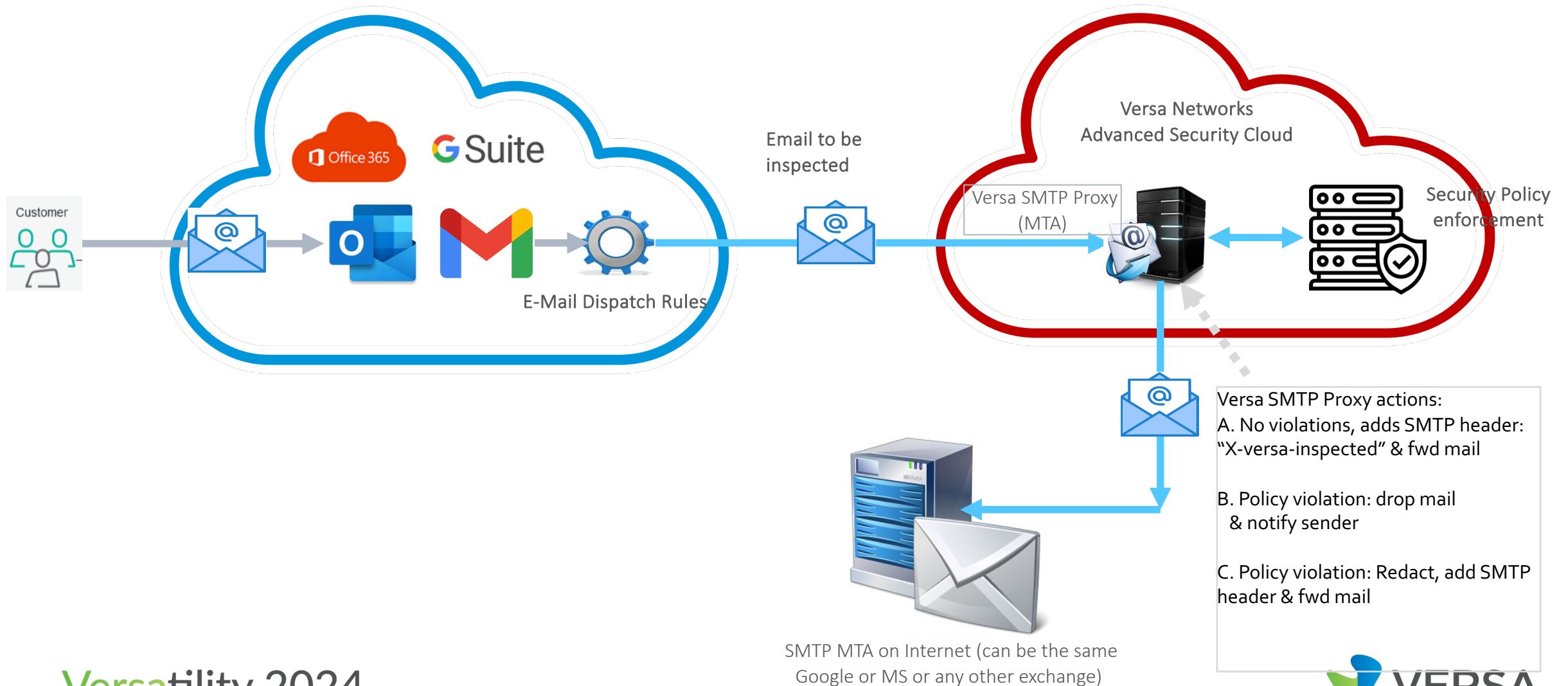
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Email Protection

- SMTP Proxy for Email Protection provides protection for cloud emails (cloud hosted email exchanges: GMAIL or O365 or a custom exchange)
- Design & workflow:
 - Organization/Tenants GMAIL (G-Suite) or O365:
 - Configure outbound connectors to filter/route emails outbound/inbound emails to SMTP proxy
 - Inbound connectors are configured to accept emails SMTP proxy
 - Outbound/inbound email received on the GMAIL/O365 exchanges is forwarded to SMTP Proxy
 - Proxy maps email to tenant specific security enforcement policies (DLP, ATP etc.)
 - Policy specific actions such as forward, redact, drop, notify
 - Inspected header is added, and emails can be routed through the same GMAIL or O365 exchange or any other configured MTA
- Integrated with Analytics

SMTP Proxy & Security Policy Enforcement



Email Protection: SMTP Proxy Configuration

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Service Provider Administrator

Configure > SASE > Advanced Security > Proxies

View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

Tenants

Edit Email Protection Proxies

Publish (1)

Provide the incoming email domain that will connect to your tenant

Email Service

Microsoft Exchange

Sender Email Domains

Press Enter to add

Azure Tenant ID

"5ed8fe30-95a6-47c1-b919-f91566f703c7"

Sender Email Profiles

Select

Receiver Email Domains

Press Enter to add

Receiver Email Profiles

Select

Domain Administrator Email*

srinivas@engineering-dynamix.com

Provide the remote host details which will connect to the outgoing mail transfer service (MTA).

MTA Host Port

25

MTA Host IP Address or FQDN*

engineeringdynamix-com02i.mail.protection.outlook.com

Cancel

Next

2 Allowed IP Addresses

3 Enter Name, Descriptions & Tags

Email Protection: Policy Detail

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View

Configure

Deploy

Monitor

Analytics

Inventory

Users

Settings

Tenants

Configure > SASE > Advanced Security > Policy Rules

Email Protection Rules

Publish (1)

Below are all the rules for your Email Protection Policy

Search by keyword or name

Filter

+ Add

Clone

Delete

Refresh

Select Columns

Policy Name	Security Enforcement	Users	Enabled
☐ Inbound_DLP	DLP Profile DLPProfile1	All Users	Enabled
☐ jay	Malware Protection Easy Malware Protection	All Users	Enabled
☐ Outbound_DLP_SSN	DLP Profile DLPProfile1	All Users	Enabled

Showing 1-3 of 3 results

10 Rows per Page

Go to page 1

< Previous

1

Next >

Email Protection: Policy Detail

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View

Configure

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Users

Settings

Tenants

Configure > SASE > Advanced Security > Policy Rules

Edit Email Protection Rule: Outbound_DLP_SSN

Match Criteria

Action

Review & Deploy

Users & User GroupsSecurity EnforcementReview & Deploy

Review your Email Protection Rule configuration below

General

Name *
Outbound_DLP_SSN

Description
DLP_SSN on outbound emails

Tags
Press Enter to add

☒ Rule is Enabled

Receiver Users & Groups

Include

Exclude

Cancel

Back

Save



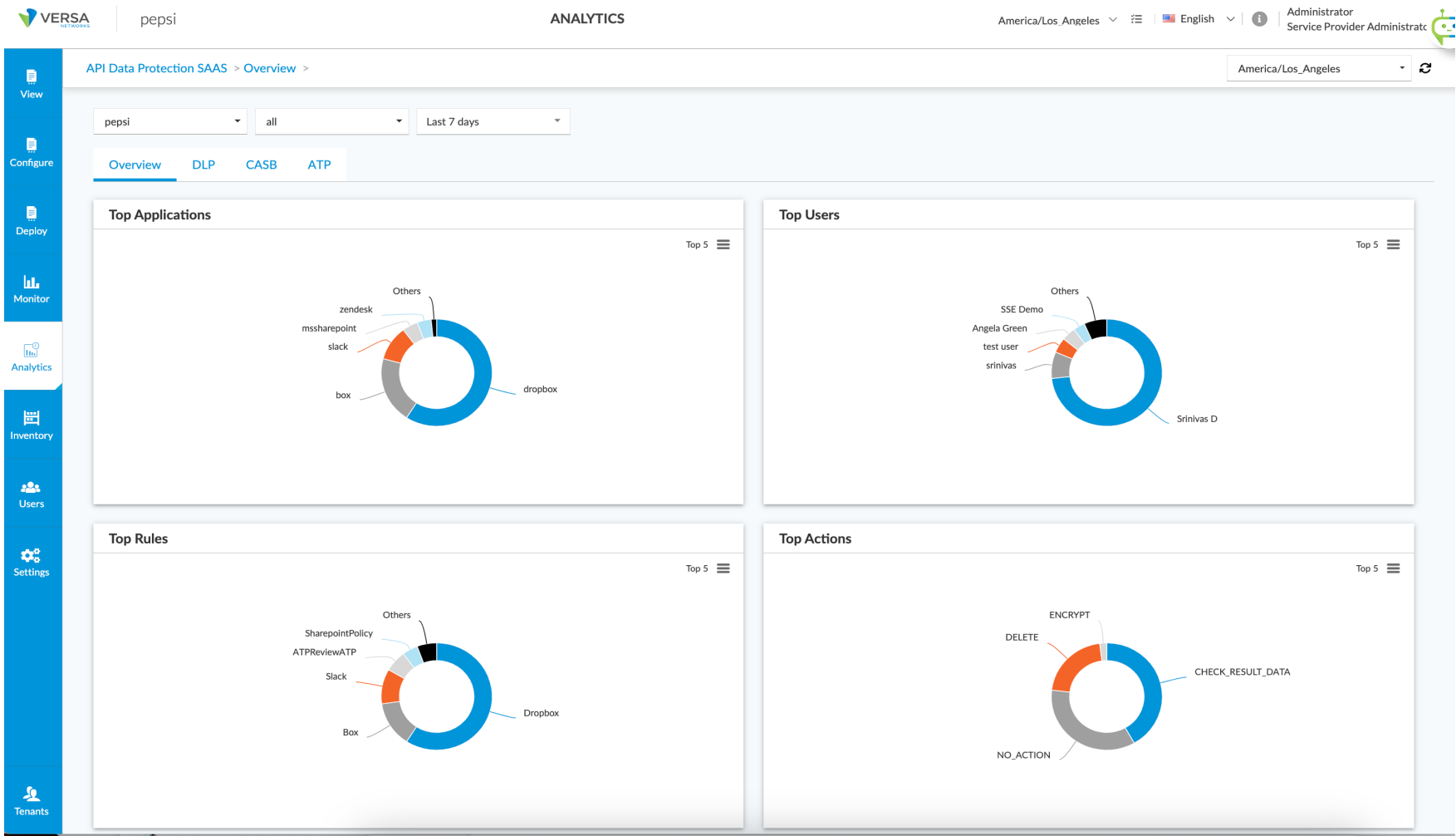
Monitoring

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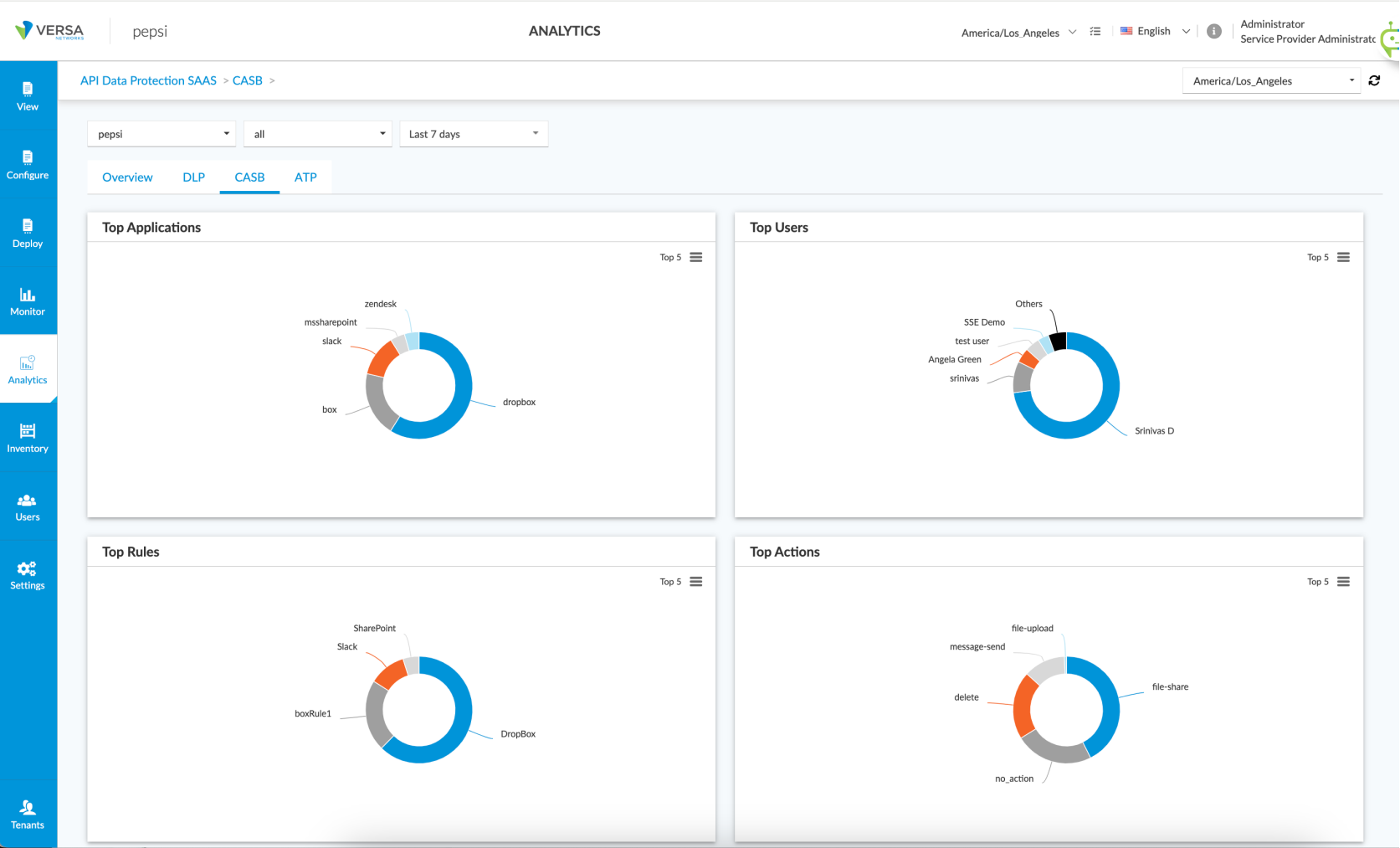
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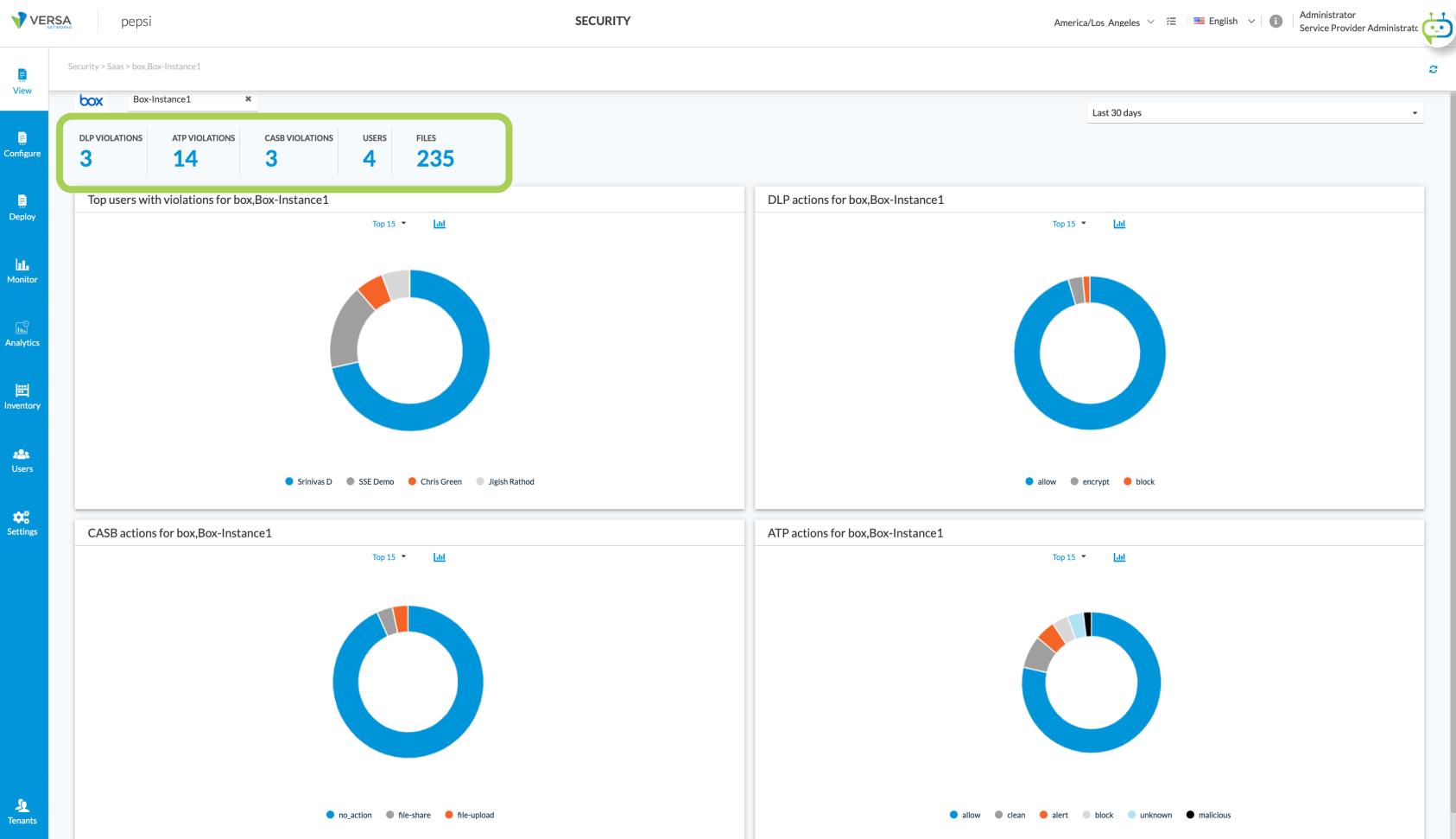
API-DP Analytics



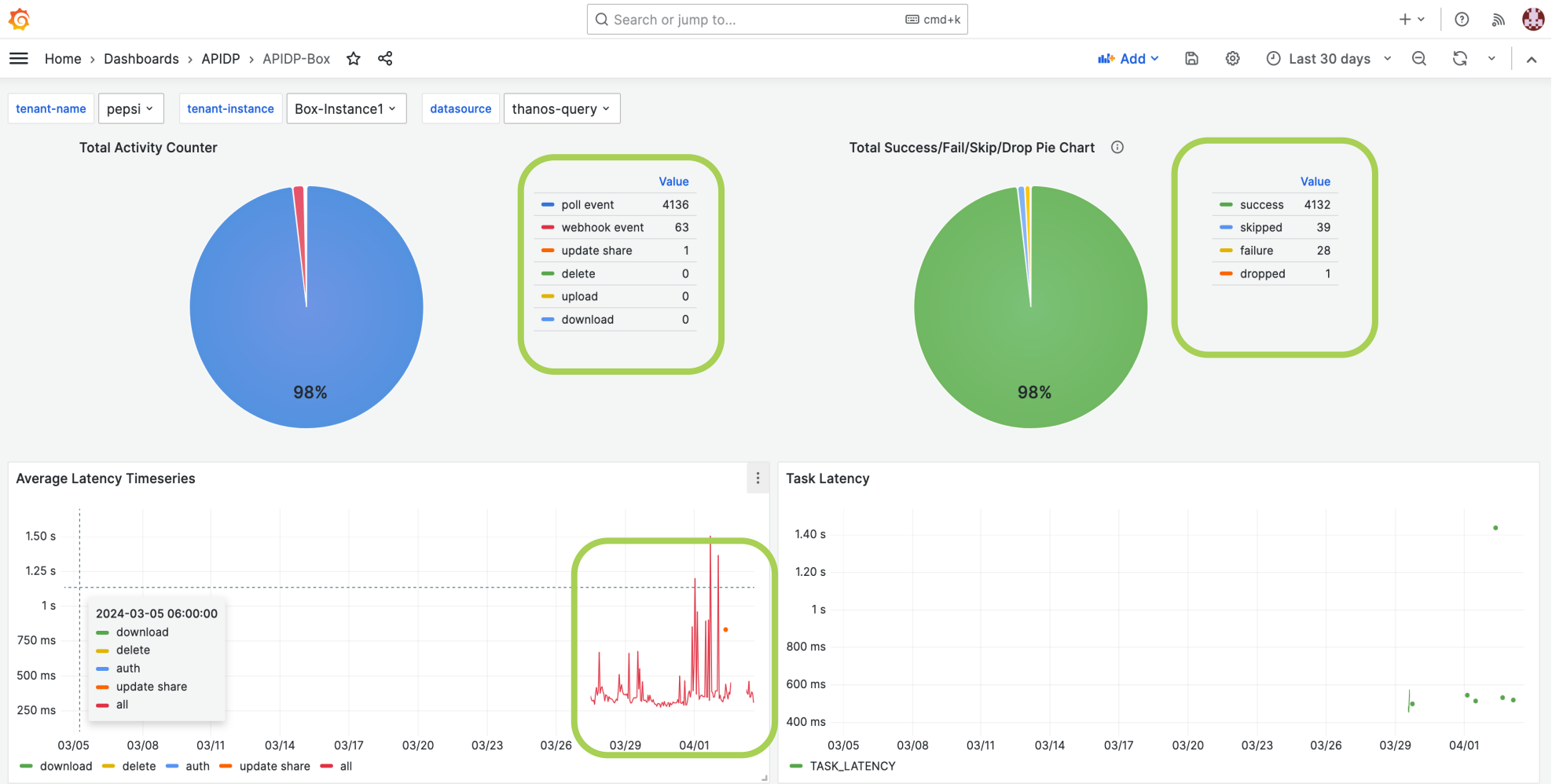
Offline CASB Analytics



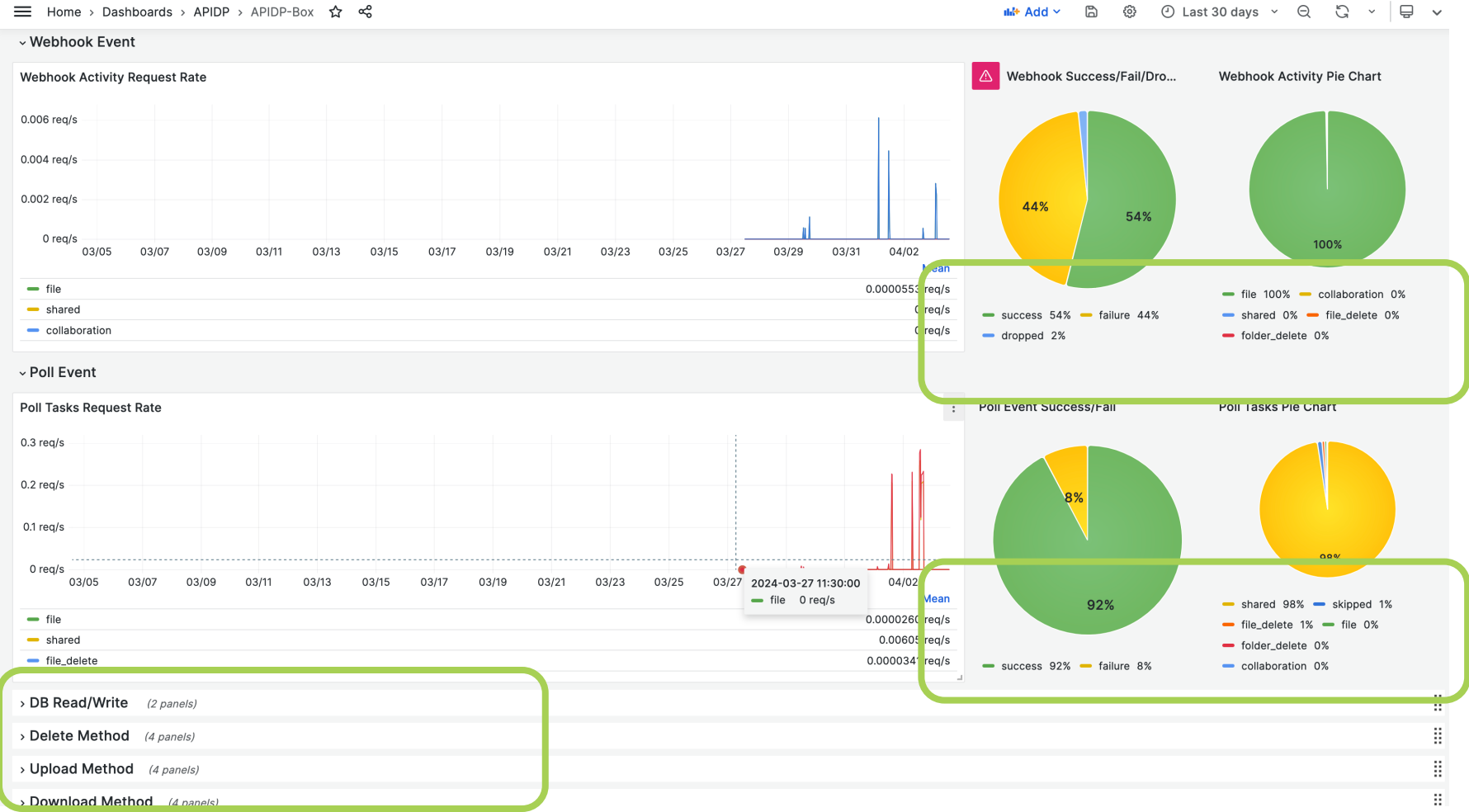
Per Application Instance Analytics



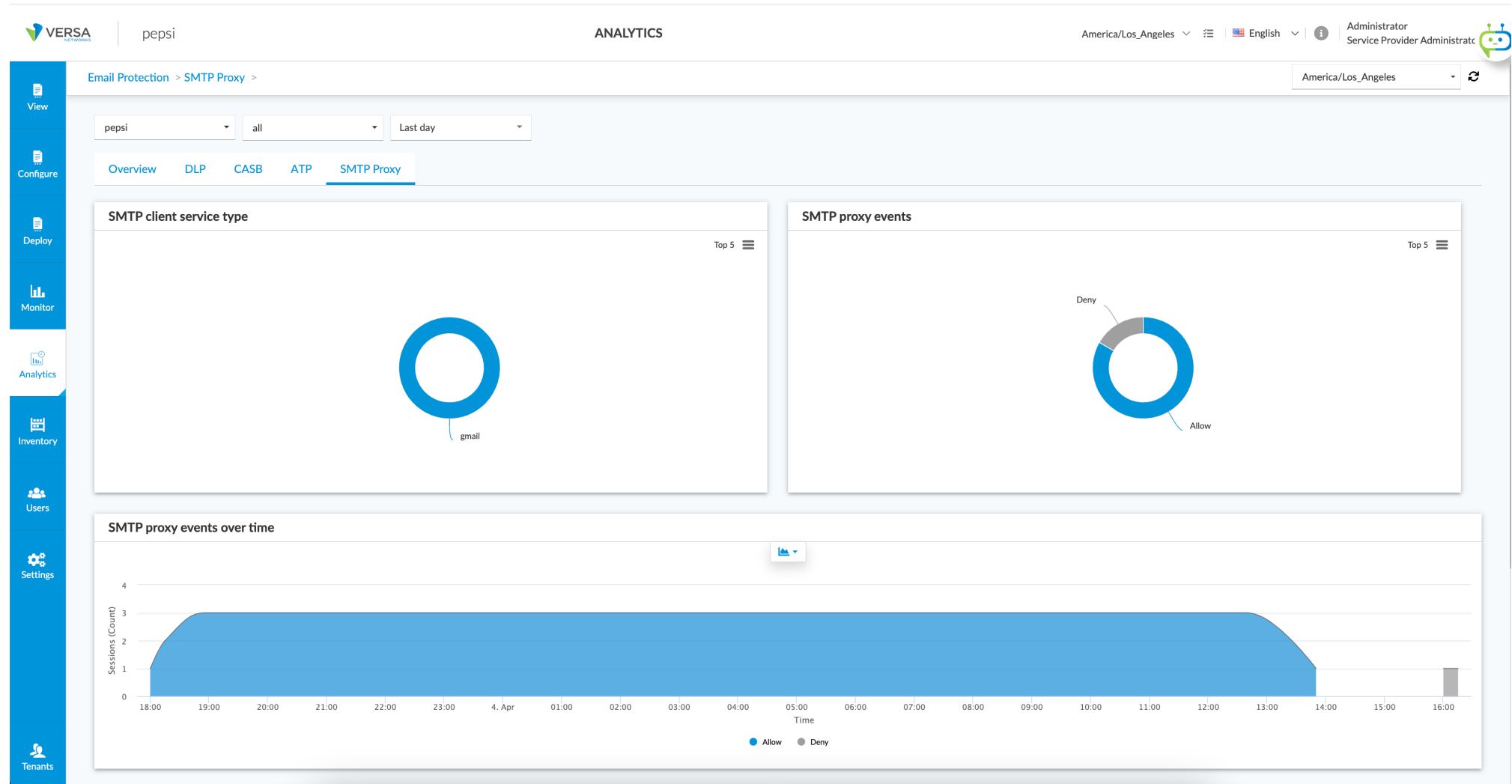
Managed Ops Dashboard



Managed Ops Dashboard



SMTP Proxy Analytics





Demo

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Demo

- File activity on Box
 - Shared publicly – Set link expiry
 - Infected with malware – Deleted
 - Containing confidential information – Replace with encrypted version
- User activity on Slack
 - User joining public channel – Remove
- Email Protection
 - Send email to external user from Gmail enterprise account
 - Attach document containing confidential information – DLP blocks
 - Attach clean document – Allow

Questions



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Thank you

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