



Data Loss Prevention

Protecting Your Information and Reputation

May 2019

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Symantec Data Loss Prevention



Solution Overview



Compliance

"I need to ensure compliance for regulated data across all channels."

Intellectual Property

"I need to protect the company's secret sauce from competitors and spies."

**Symantec DLP
Today**

Sensitive Cloud Data

"I need to extend my DLP coverage to the cloud in a non-disruptive way"



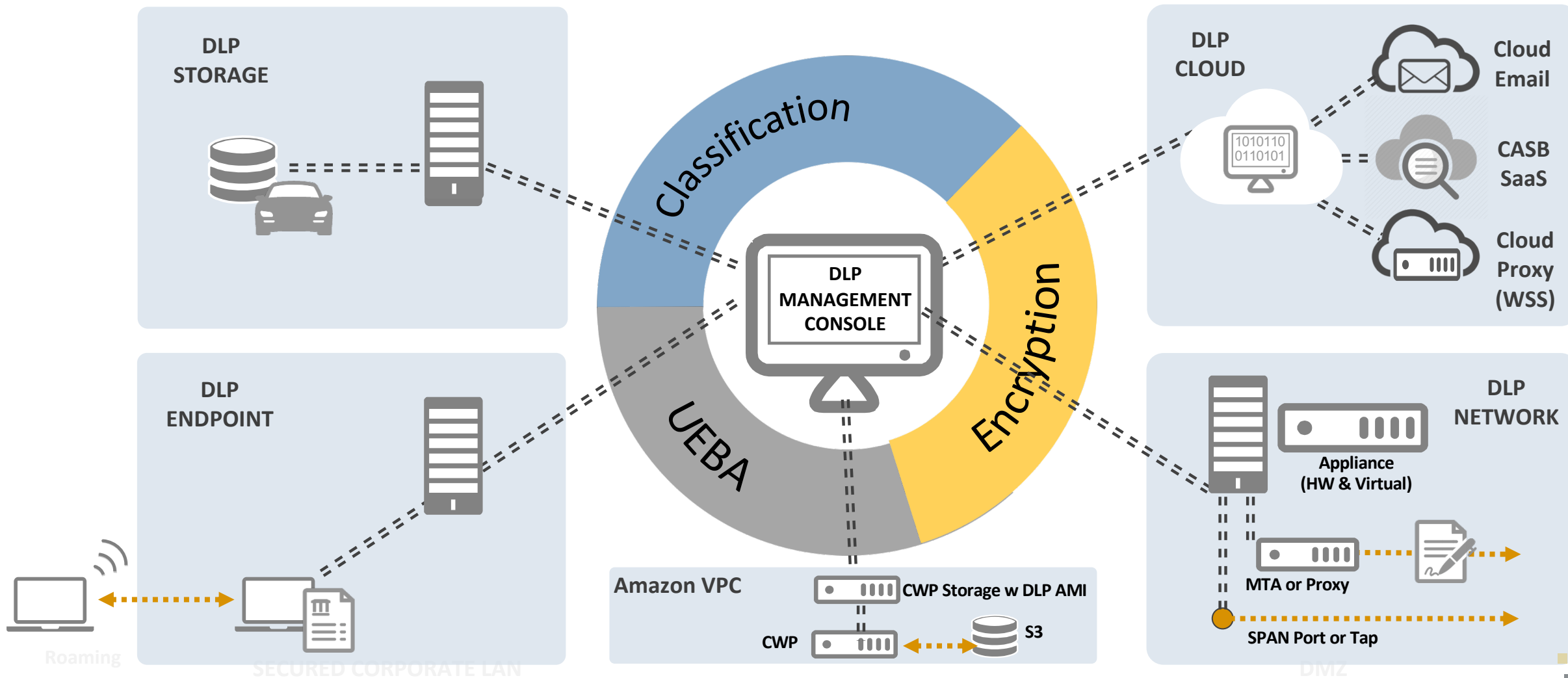
DISCOVER



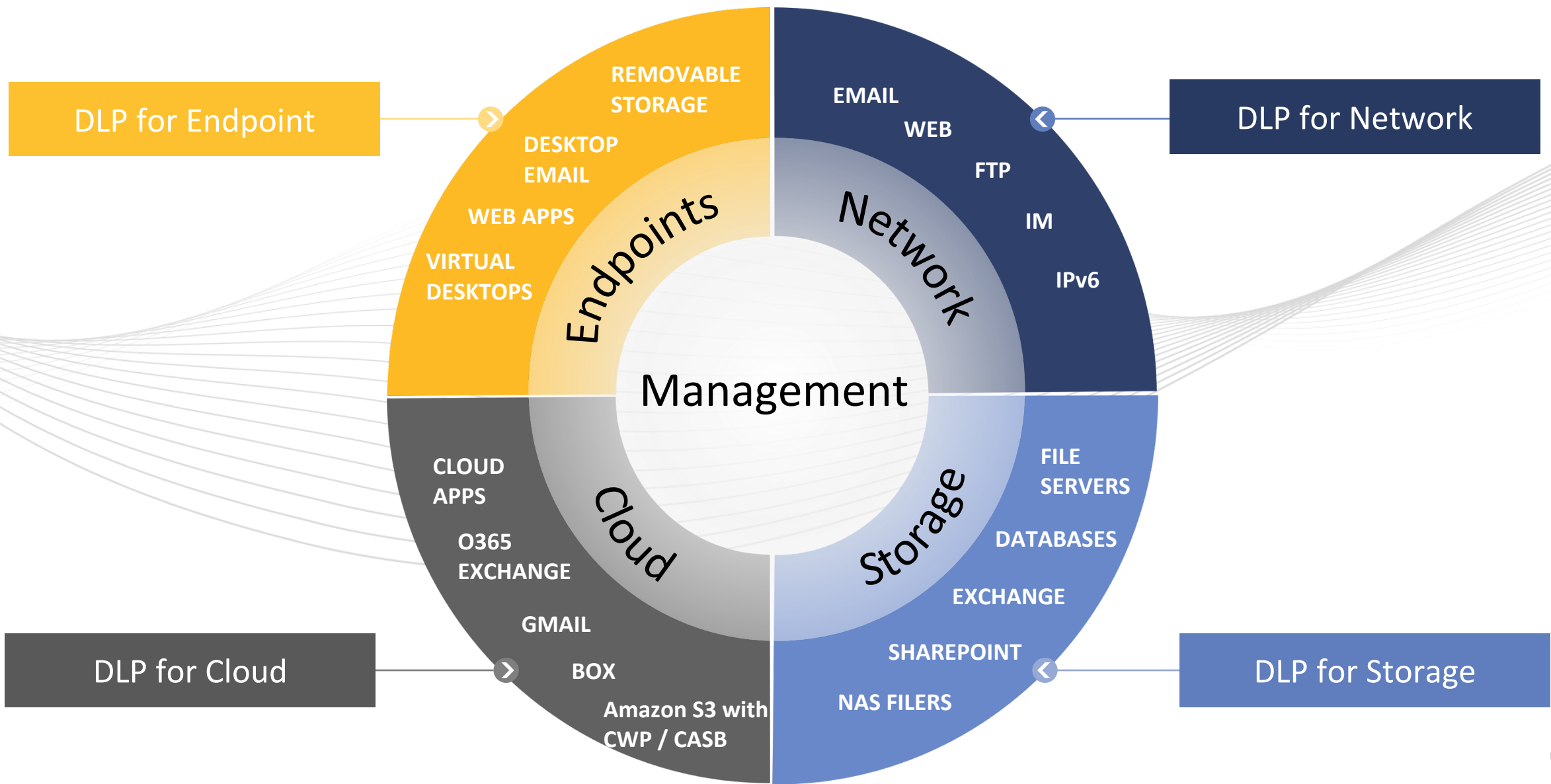
MONITOR



PROTECT



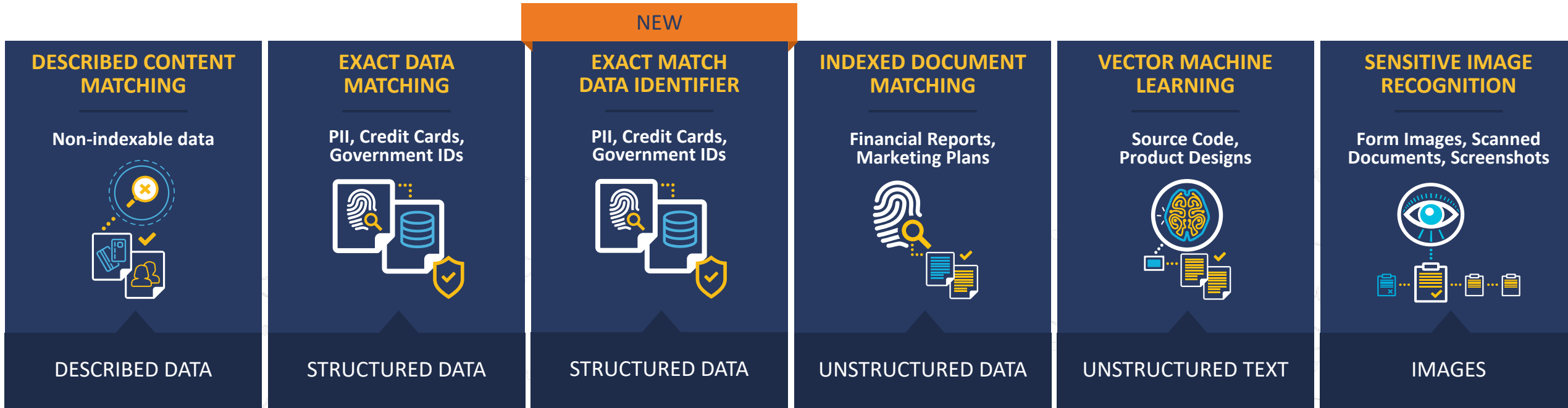
Broadest coverage of data loss channels



Most Comprehensive Data Detection



Gives you the highest accuracy and minimizes false positives



“Symantec offers the most comprehensive sensitive data detection techniques in the market, with advanced functionality that can cover a wide breadth of data loss scenarios.”¹

¹ Source: Magic Quadrant for Data Loss Prevention, Gartner, January 2016

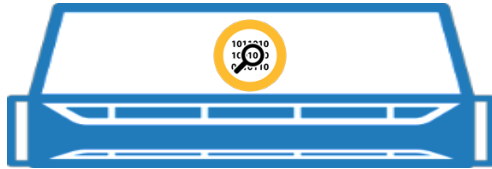
Certified for Cloud Deployment



- Enforce Server
- Network Discover Server
- Network Prevent for Email Server
- Network Prevent for Web Server
- Endpoint Server
- Oracle DB (BYOL)
- Oracle RDS on AWS

[1] An upgrade kit is available for upgrading to S500-20 (20 core / 64GB RAM / 4TB disk)

New DLP Detection appliances



VIRTUAL APPLIANCE

- Network Prevent for Web (ICAP)
- Network Prevent for Email (SMTP)
- API Detection for Developer Apps (REST API)



HARDWARE APPLIANCE

- Network Prevent for Web S500-10 ^[1]
 - 10 core
 - 64GB RAM
 - 4TB disk

[1] An upgrade kit is available for upgrading to S500-20 (20 core / 64GB RAM / 4TB disk)



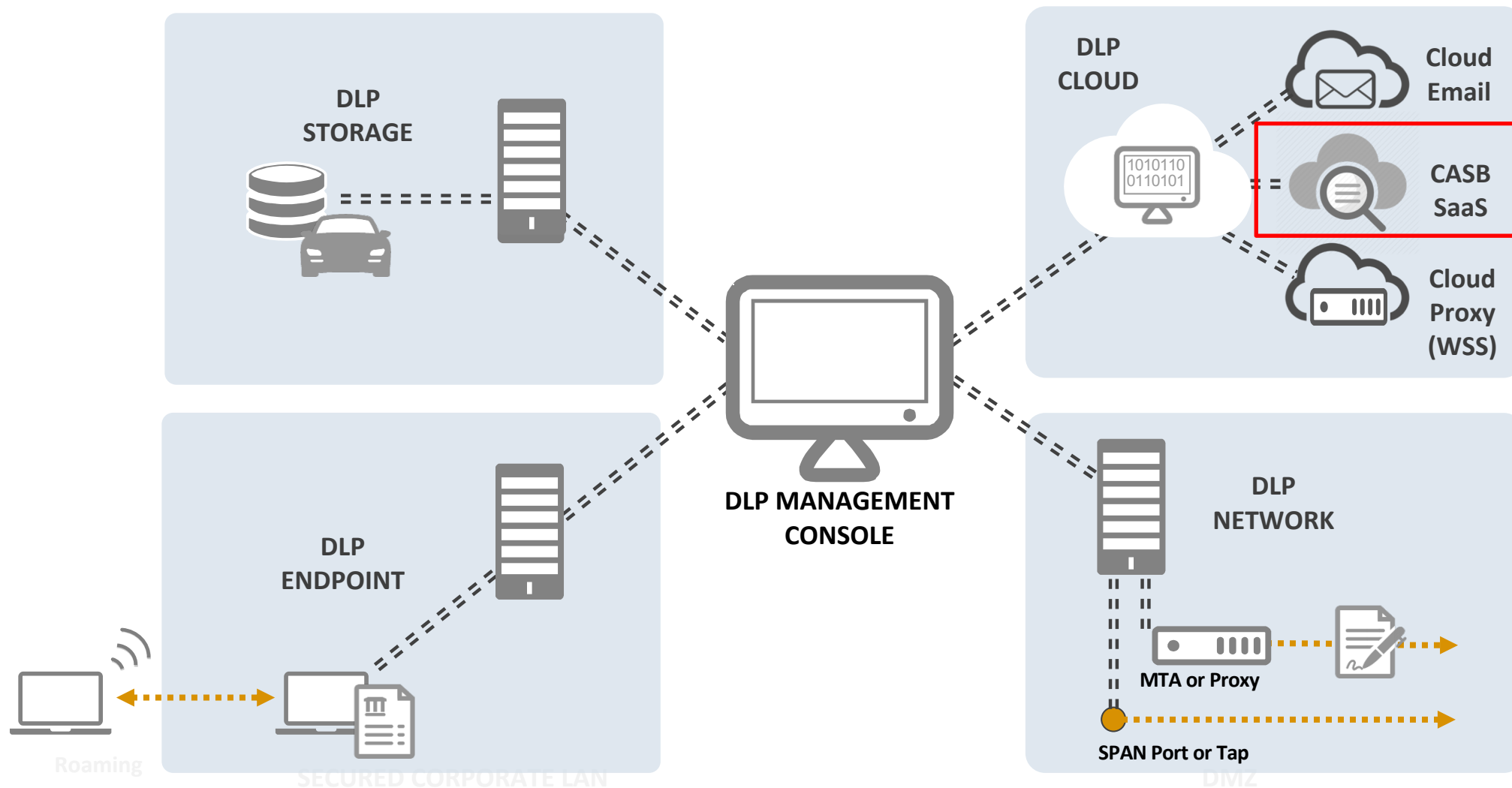
DISCOVER



MONITOR



PROTECT

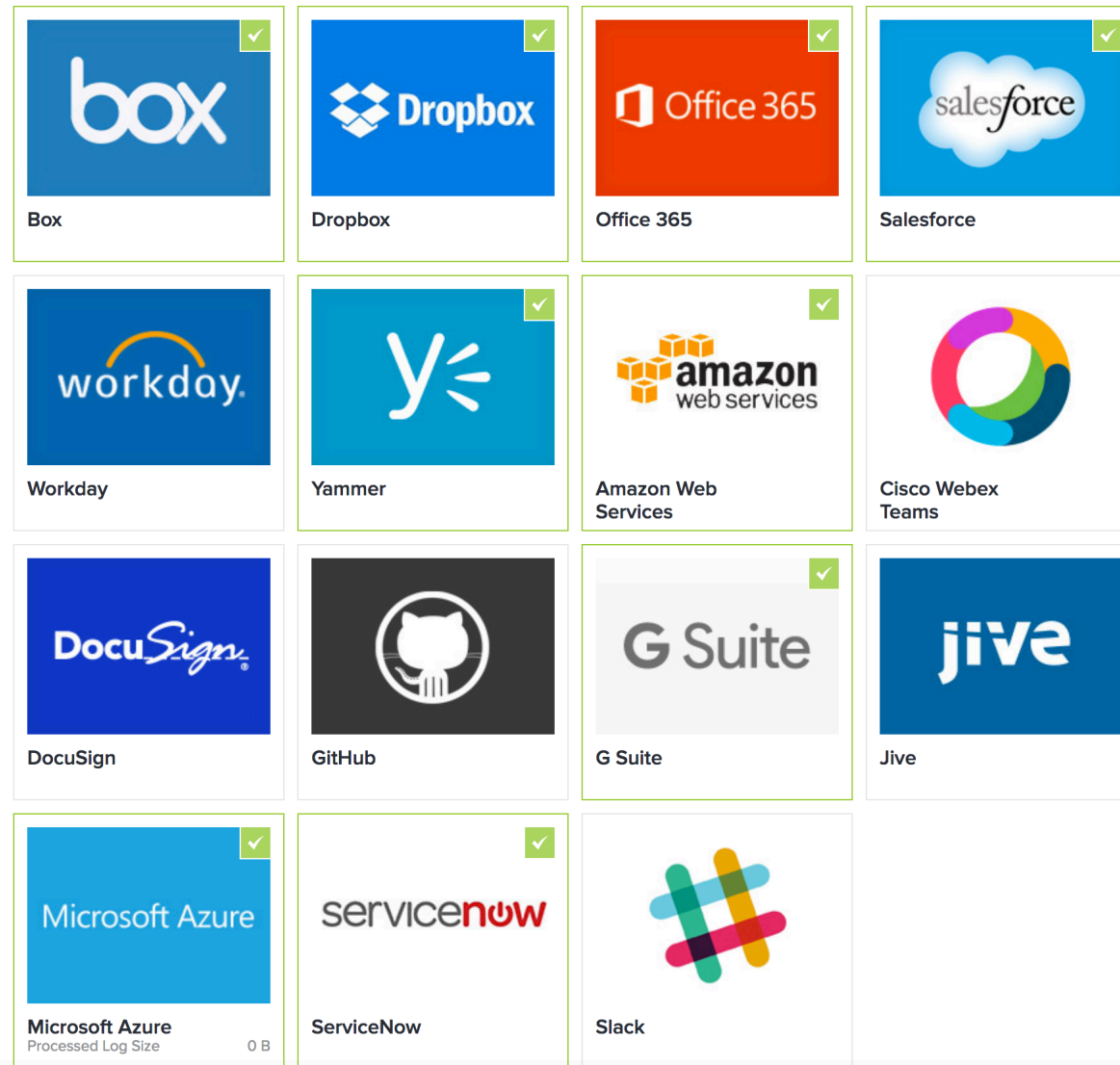


Coverage for sanctioned apps

API Coverage
for Cloud Apps:

16+

Total



Coverage for unsanctioned apps



Gateway Coverage
for Cloud Apps:

218+ 200

Total With DLP

Box ✓	Dropbox ✓ <small>Deactivate</small>	Dynamics ✓	Gmail ✓	GroupDocs ✓ <small>https://www.google.com/calendar/render</small>	Hightail ✓
Evernote ✓	Google Drive ✓	Office 365 ✓	Huddle ✓	IBM Connections ✓	iCloud ✓
OneDrive Personal ✓	Salesforce ✓	Sites ✓	IDrive ✓	IntraLinks ✓	Jive ✓
Sugarsync ✓	SurveyMonkey ✓	Yammer ✓	Joyent ✓	Just Cloud ✓	MailerLite ✓
4Shared ✓	4Sync ✓	Acrobat.com ✓	MediaFire ✓	Microsoft Azure ✓	OneHub ✓
AIM Mail ✓	Alfresco ✓	Amazon CloudDrive ✓	OneUbuntu ✓	Outlook.com ✓	OwnCloud ✓
Amazon Web Services ✓	Amazon WorkDocs ✓	Bitcasa ✓	Oxygen Cloud ✓	Podio ✓	Rackspace Cloud ✓
BV ShareX ✓	cCloud ✓	CentralDesktop ✓	RapidShare ✓	SafeSync ✓	SeaCloud ✓
Cloud Provider ✓	CloudMe ✓	Concur ✓	ShareFile ✓	Slack ✓	SmartFile ✓
Confluence ✓	Copy ✓	Cubby ✓	Soonr ✓	Syncplicity ✓	Uploaded ✓
Digital Ocean ✓	DocuSign ✓	Egnyte ✓	WatchDox ✓	WebCargo ✓	Workshare ✓
FilesAnywhere ✓	Flow ✓	Ftopia ✓	Wuala ✓	Xero ✓	Yahoo Mail ✓
			Zoho Docs ✓	DigitalBucket ✓	

Extending DLP into the Cloud



Extend DLP to 60+ Cloud Apps
Apply Fine-Tuned Policies to Cloud
Leverage Workflow Integrations



Gain Full CASB Functionality

- Shadow IT Analysis
- Granular Visibility and Control
- User Behavior Analytics

Direct
to Net

Direct
to Net

Unmanaged Devices
Extended Perimeter

Managed Devices w/ Symantec DLP
Endpoint Agent

Symantec CASB

Symantec DLP Cloud

Corporate Datacenter

Symantec DLP
Management Console

Attribute Rules based on Contextual Data from CASB

Matches Value (Cloud Service Connector only)

Application Name

General

- Application Name
- Application Type
- Data Type

User

- Activity Type
- Exposed Document Count
- User ID
- User Is Internal
- User Name
- User Threat Score**

Data Exposure

- Document Creation Date
- Document Last Accessed
- Document Last Modified
- Document Owner
- Document Tag
- Document Type
- Document is Exposed
- Document is Internal

Application Name

Data Transfer

- Browser
- Country
- Device Inside Office
- Device OS
- Device Type
- Device is Compliant
- Device is Managed**
- Device is Personal
- Device is Trusted
- HTTP Method
- Network Direction
- Recipient IP
- Recipient Port
- Sender IP
- Sender Port
- Site Classification
- Site Risk Score
- Source Protocol
- User Agent

- DLP Policy combines CASB Context with DLP Detection
- Rules based on 6 Contextual Dimensions:
 - User (User Threat Score, Internal/External)
 - Region (Country/Geo-Location of the device)
 - Cloud Application (Application Name/Sanctioned)
 - Activity (Upload/Download, Sharing)
 - Device Posture (Managed/Personal)
 - Document Meta-Data (Internal/External, File Type)



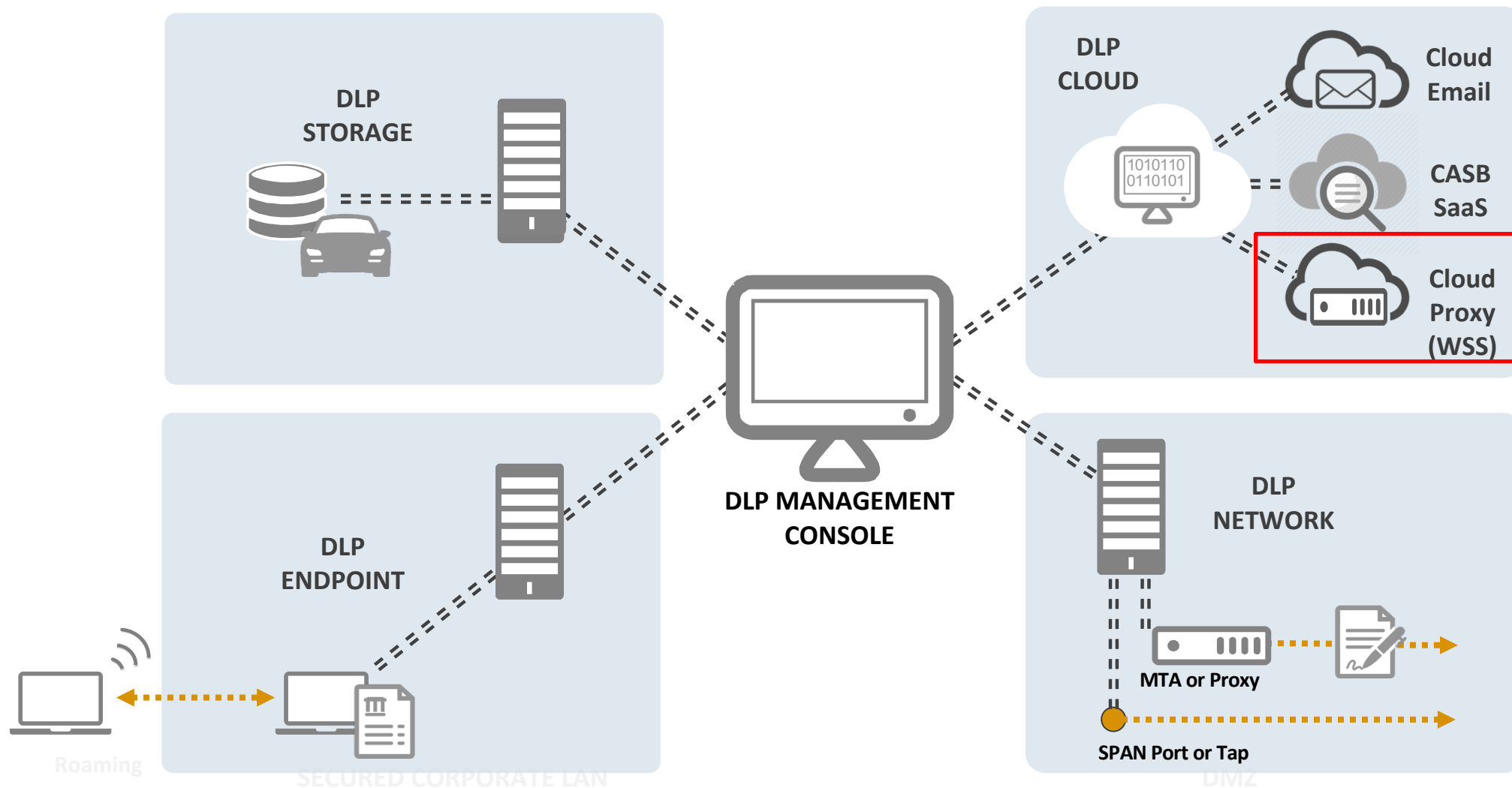
DISCOVER



MONITOR



PROTECT



DLP + Blue Coat Web Security Service

Enterprise Network



Office & Remote
Workers



Symantec DLP
Console



Blue Coat Web
Security Service



Symantec DLP Cloud
Detection

Policies /
Incidents

Websites & Cloud Apps

Key Features

- Cloud-to-cloud monitoring and blocking
- Single policy across on-premises and cloud gateways





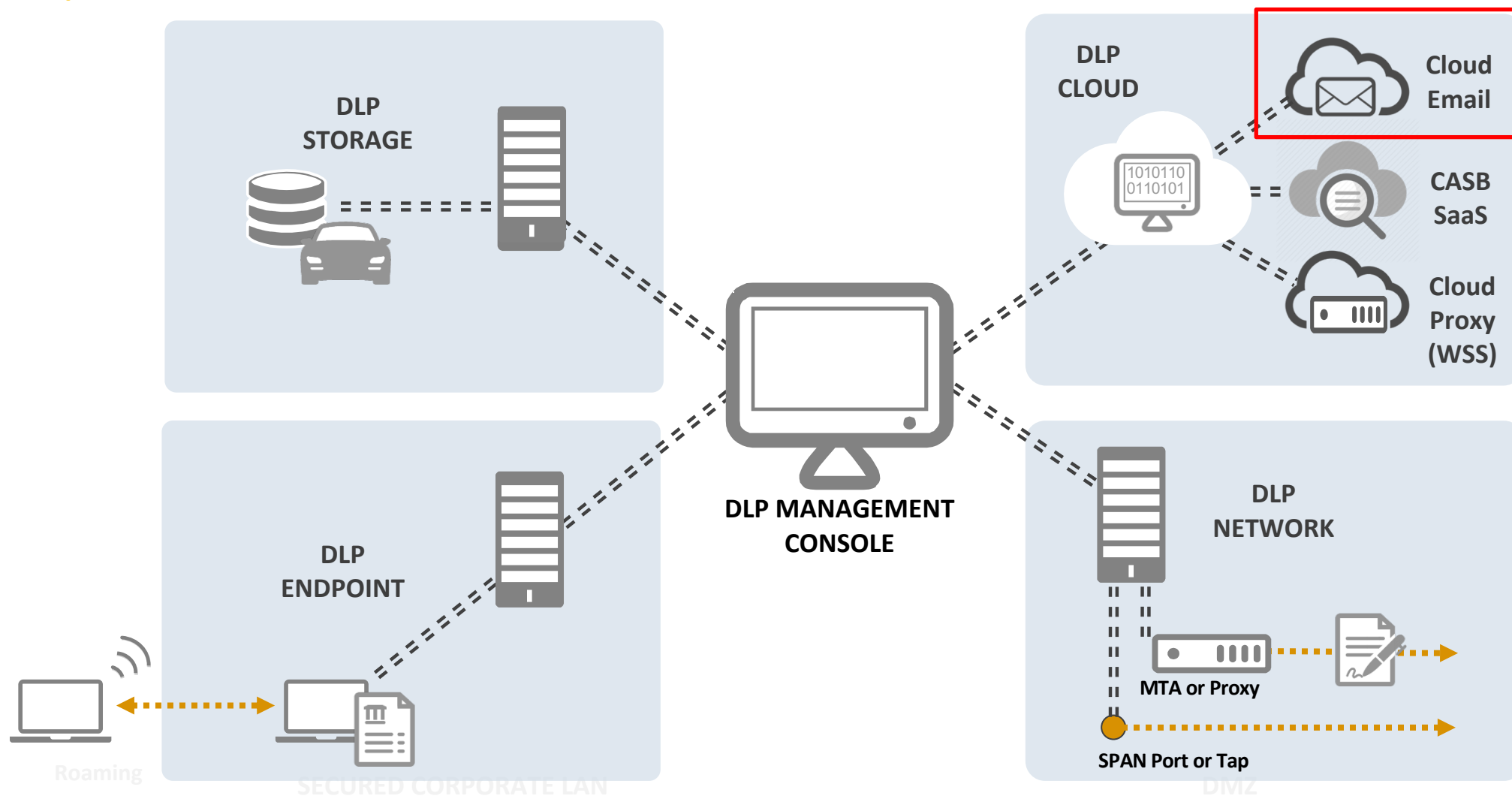
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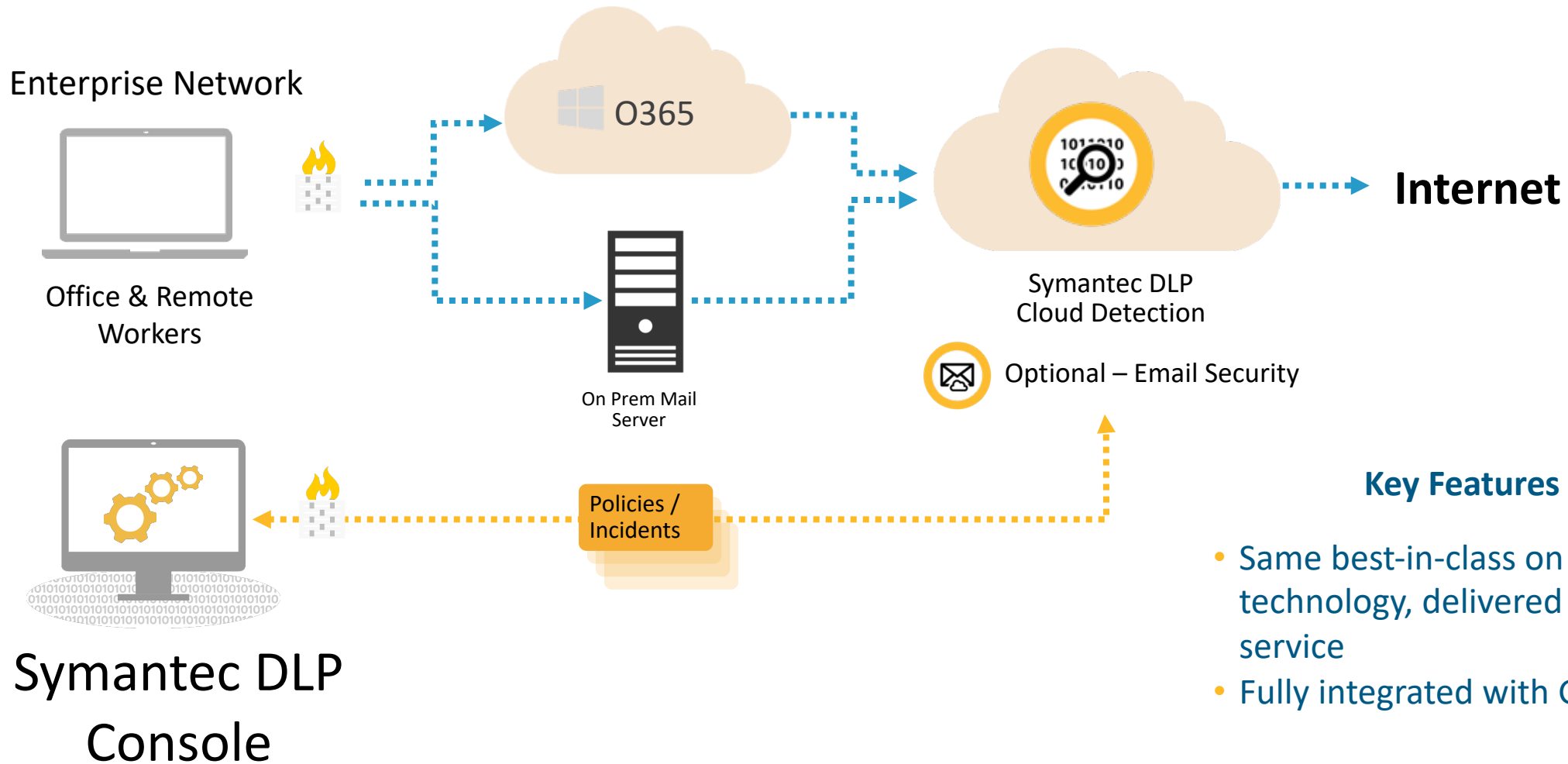
MONITOR



PROTECT



DLP Cloud Service for Email



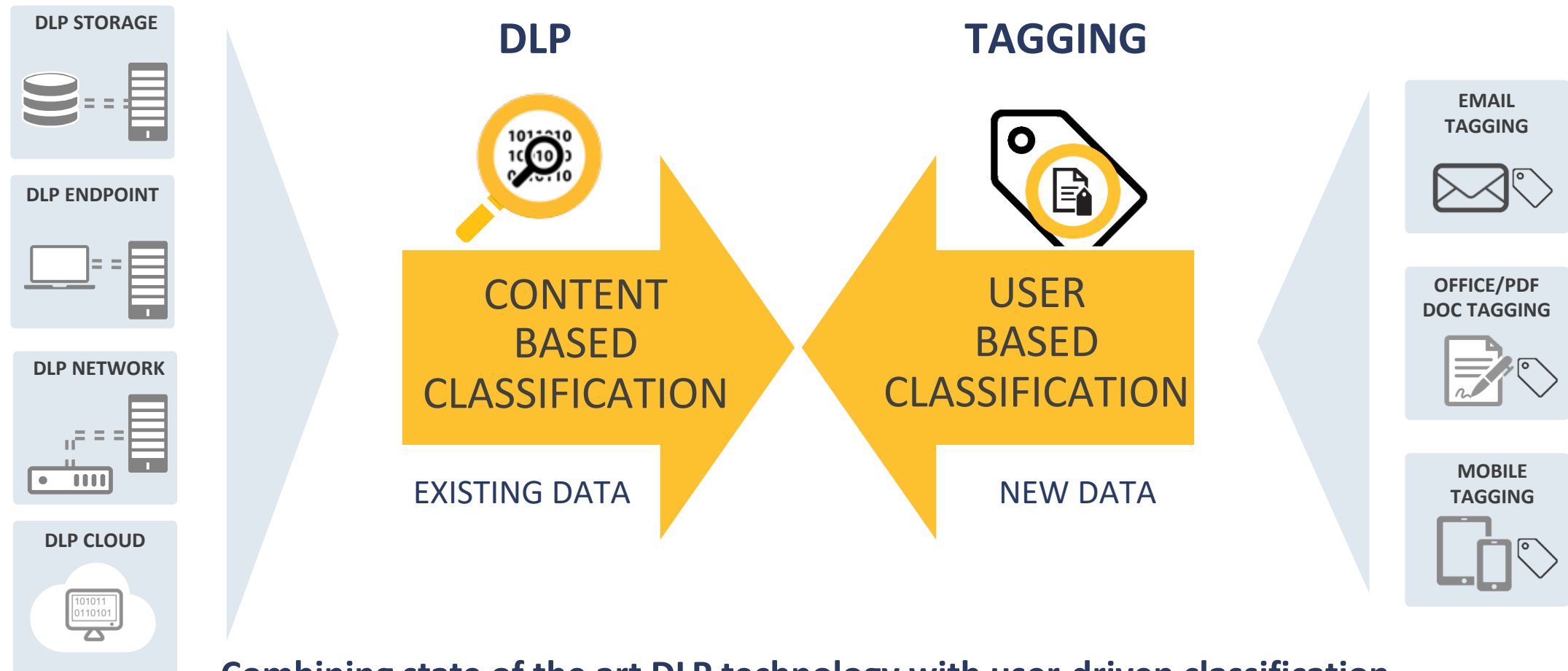
Information Centric Security



Augment DLP with Data Classification



DLP with Symantec Information Centric Tagging (ICT)



Combining state of the art DLP technology with user-driven classification to identify and protect sensitive data

Protect sensitive data when it leaves the managed channels



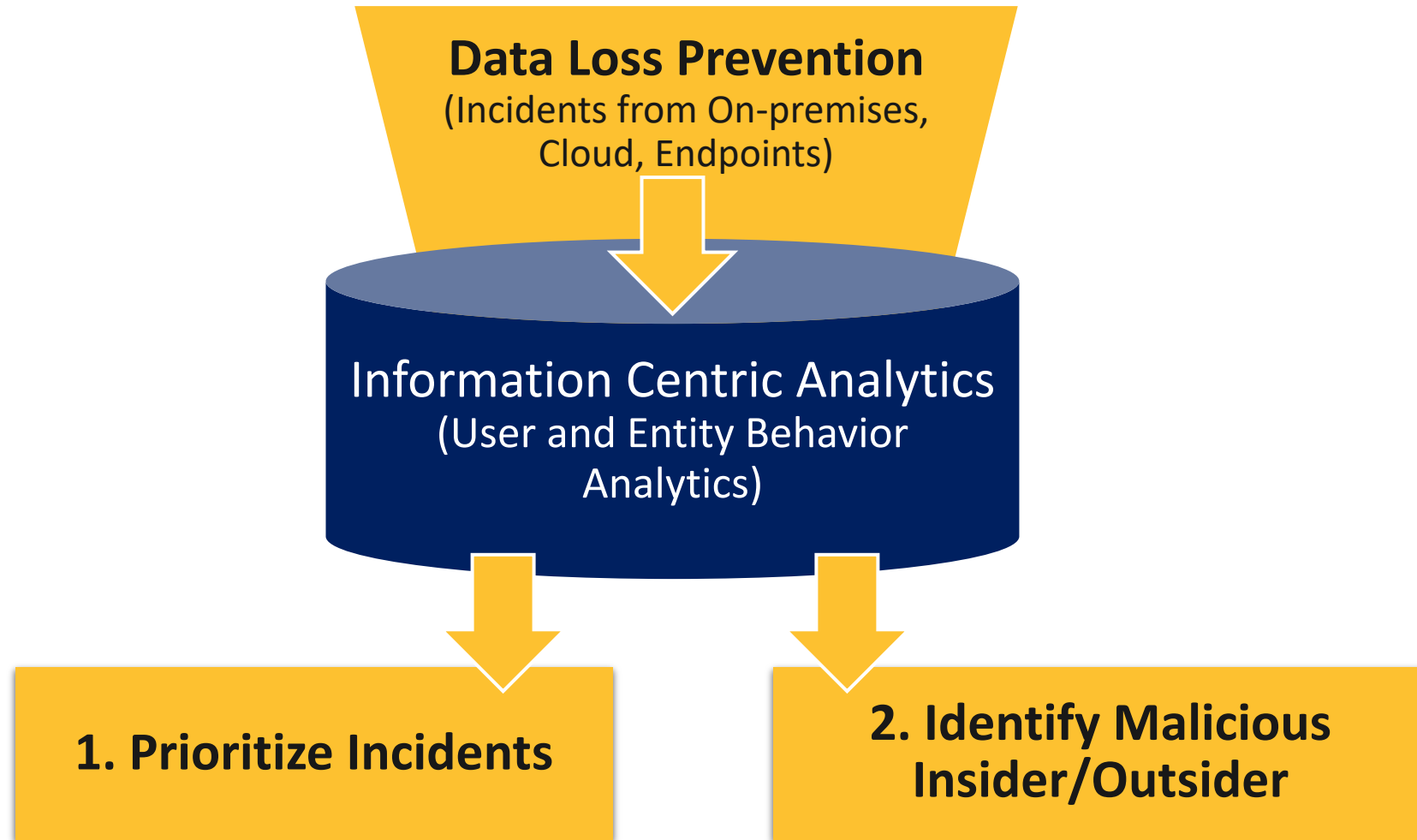
DLP with Information Centric Encryption (ICE)



DLP/Tags identify confidential data to automatically ENCRYPT	ENCRYPTION “travels” to protect data everywhere (DRM)
ICE Principles	
IDENTITY drives decryption, providing visibility & control	

Protects your organization’s sensitive data across its lifecycle. Integrates CASB, DLP, Encryption and Identity

Simplified Incident Management with ICA



Risk Trends and Risky Users



Breakdown of risky behaviors by risk vector

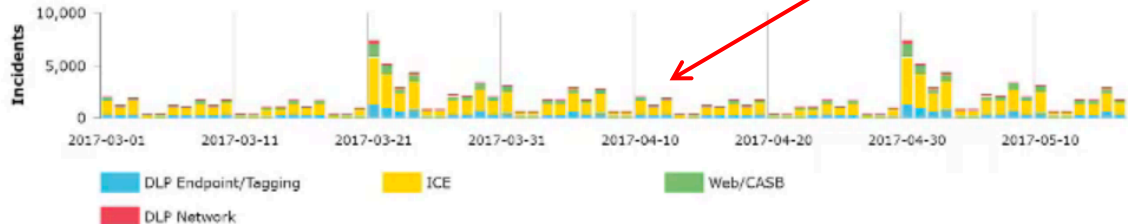
Incidents By Type



DLP Endpoint/Tagging	23,125
DLP Network	6,633
ICE	84,385
Web/CASB	22,026

Risk trends and risk mix for all vectors over time

Incidents Trend



Highlight the most risky users

Top Risky Users

AccountName	FirstName	LastName	RiskScore	RiskRating	Organization	DLP EndpointTagging	ICE	WebCASB	DLP Network
Sandler, Rubin	Sandler	Rubin	100	Critical	Engineering	282	335	243	83
Nicolas Popp	Nicolas	Popp	100	Critical	Engineering	233	282	223	48
Bruce Ong	Bruce	Ong	100	Critical	Engineering	200	258	180	38
kristy.mendez	Kristy	Mendez	100	Critical	Information Technology	183	258	183	34
kristyn.dean	Kristyn	Dean	100	Critical	Information Technology	167	237	151	33

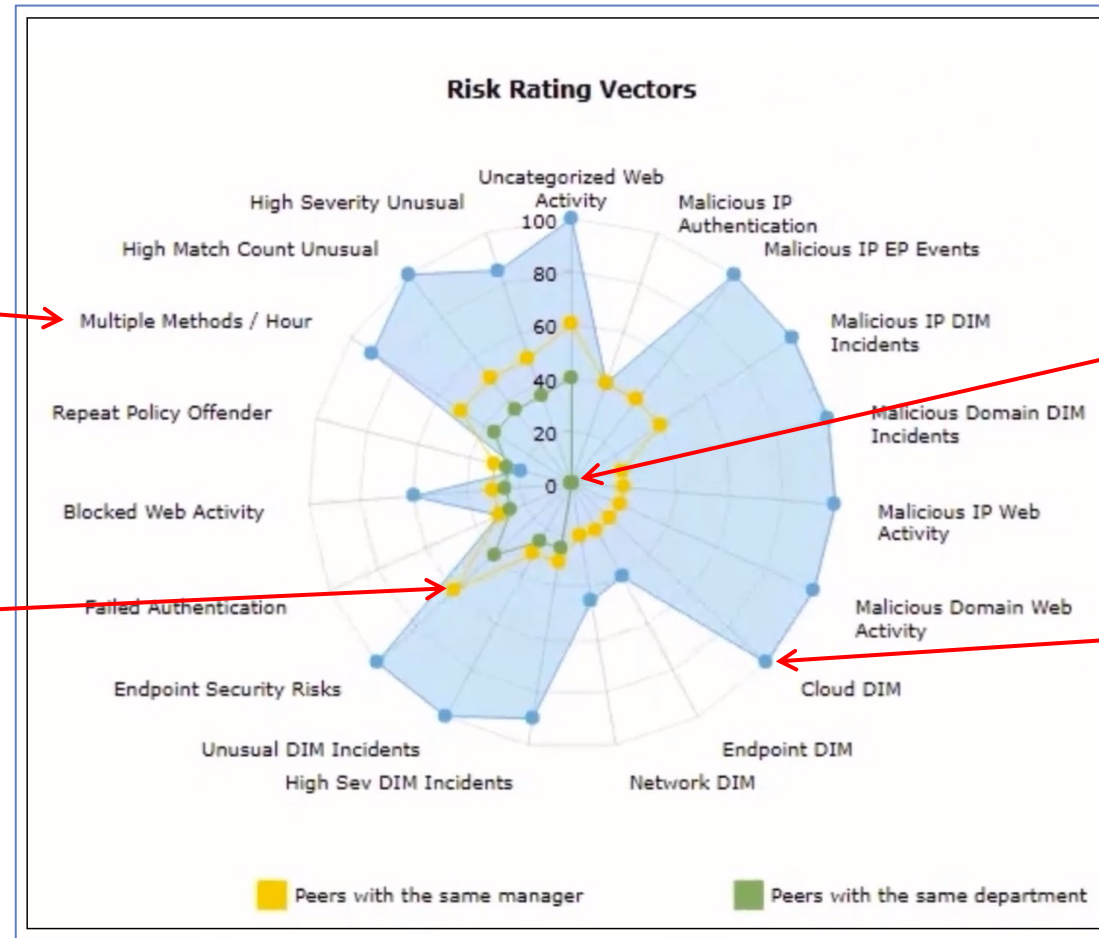
Comparative User Risk Analysis

Which Behaviors Occur

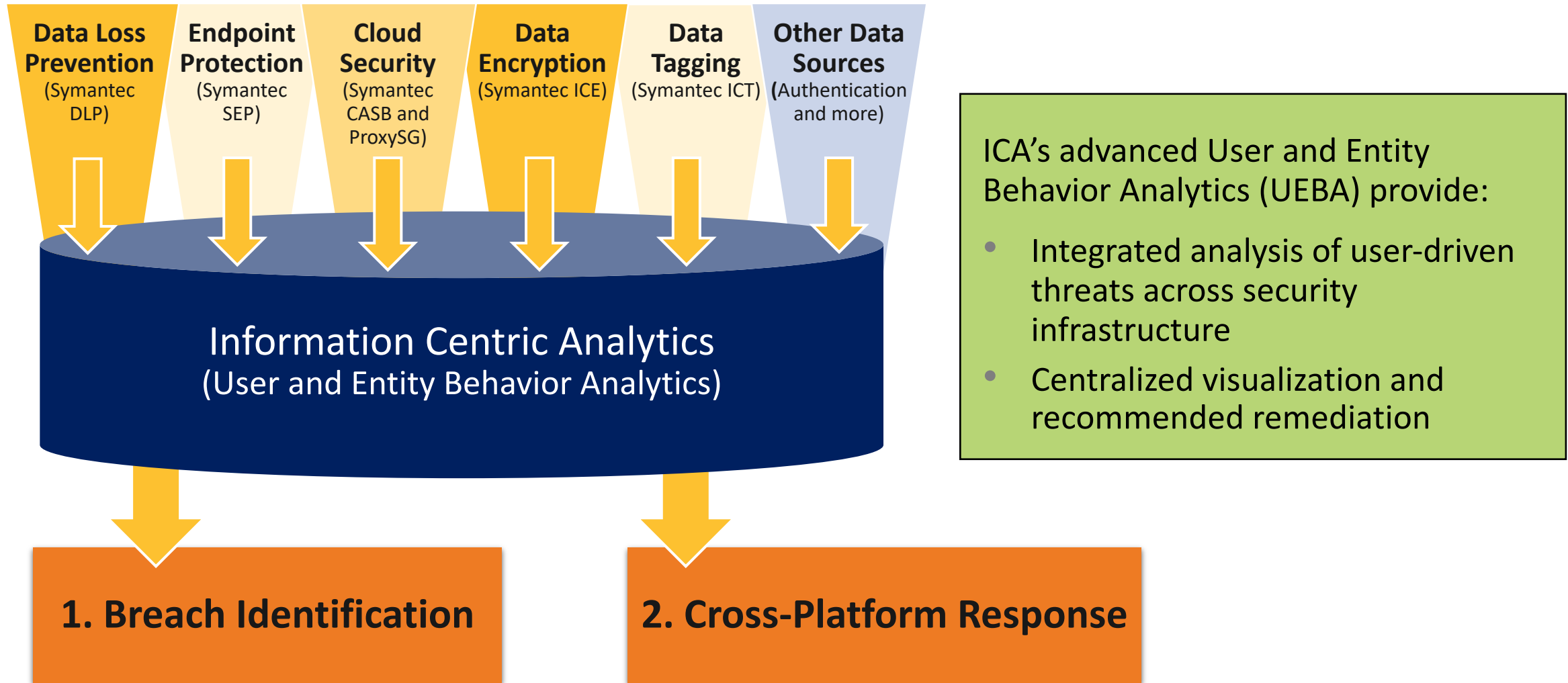
Manager Peer-based Risk Ranking

Department Peer-based Risk Ranking

100th Percentile Infractions



Centralized Visibility and Response with ICA



Cyber Breach Prediction With ICA



Compliance Breach Loss Likely to Occur Due to a Cyber Breach Within the Next Year

Focus Entity



Oracle IAM

Critical
99th percentile

MODEL

Cyber Breach Prediction

THREAT

Cyber Breach

TIME FRAME

01/15/2018 - Today

RISK

Compliance Breach Loss Likely to Occur Within the Next Year

Recommended Action

- Review DeepSight exploit details, and mitigate associated vulnerabilities identified by CCS VM on Computer Endpoints in the Collection named [Sensitive Servers Vulnerable to Newly Discovered Exploits](#) to reduce the risk of Compliance Breach Loss
Time Estimate: 20 Hours

Applicable

Sensitive Servers with High Concentration of Unencrypted Personal Data Files

45 Machines are applicable

Recommended Action

Review DLP DAR Incidents and encrypt files with personal data

Estimate: 45 Hours

Vulnerable

Sensitive Servers with Exploitable Vulnerabilities

15 Machines are applicable

Recommended Action

Review vulnerabilities and perform mitigation steps identified by CCS VM

Estimate: 22 Hours

Exploitable

Compliance Breach Loss Likely to Occur

Sensitive Servers Vulnerable to Newly Discovered Exploits

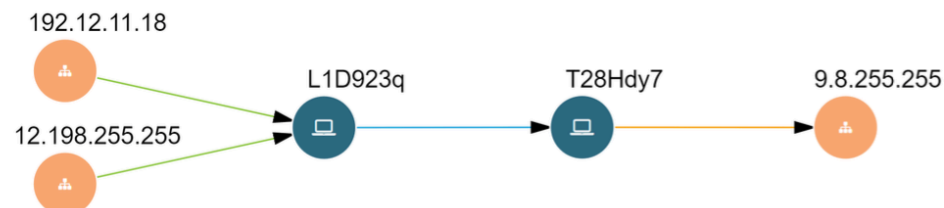
10 Machines are applicable

Recommended Action

Review DeepSight exploit details, and mitigate associated vulnerabilities identified by CCS VM

Estimate: 20 Hours

Relationship Graph



Roadmap!



FORWARD LOOKING STATEMENTS



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What's New in Data Loss Prevention 15.5



ENDPOINT

DETECTION

DLP 15.5

CLOUD

ICT/ICE

DLP - SEP Integration

SEP Intensive Protection
Protection based on reputation

Automatic Classification

DLP classifies existing files

Added Securlets

Support for Amazon S3, Spark, and Slack
via CASB
Oracle RDS support in AWS

EMDI

New fingerprinting technology
Accuracy, performance and security for
indexed data

DLP for Skype for Business

REST API Detection

Larger Inspection File

Support for larger file sizes

DLP Suggests Classification

DLP policy assists user for data
classification

ICE for Browser Channel

Apply DRM encryption to files uploaded
using HTTPS

DLP 15.7 | 2H2019 (Planned)

Simplification and Integration – Customer Satisfaction



DLP-ICT

- Classifying existing data on file shares and Sharepoint
- Integrated IP Agent (DLP + ICT)
- ICT manageability improvements



DLP-ICE

- DLP Insight - Ability to inspect and apply DLP response rules on ICE encrypted files on endpoints, file-shares and emails



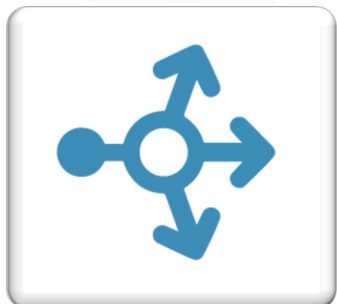
DLP Cloud Service

- First class support of Slack, Cisco Spark and Amazon S3 w/CloudSOC
- Email quarantine integration with ESS



User Driven Encryption

- Enabling users to encrypt files and emails, specify permissions and add authorize recipients



DLP

- Grid scanning: Stats added to give better performance visibility
- Enforce: AD group mapped to Enforce roles
- Oracle: 12c RAC / PDB/CDB
- Chrome for Enforce
- TCP/TLS support for Syslog response rule



Content updates

- New out-of-the-box Data Identifiers
- Updating and adding new policy templates

DLP 16.0 | 1H2020 (Concept Phase)



DLP-ICT integration

- Console integration



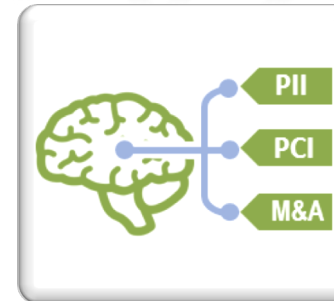
Malicious Activity Monitoring

- Record activities
- Discover anomalous behavior
- Investigate users



Simplified DLP management (2HCY2019)

- End use remediation for Discover
- Self Service
- Integrated with ServiceNow
- Update Endpoint from Enforce (*via Cloud Endpoint Gateway – CY2020*)



Automatic data classification

- No policy required
- Template, index and ML classifiers
- Supervised learning



DLP – ICE Integration

- Expanded channel support for ICE Insight
- User driven Encryption v2 (Mac)



Increased DLP speed & scale

- Larger Files
- Faster detection
- Improved UX



Thank You!





Symantec Data Loss Prevention Data Access Governance

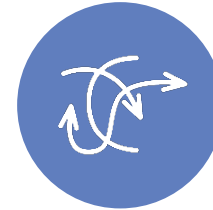
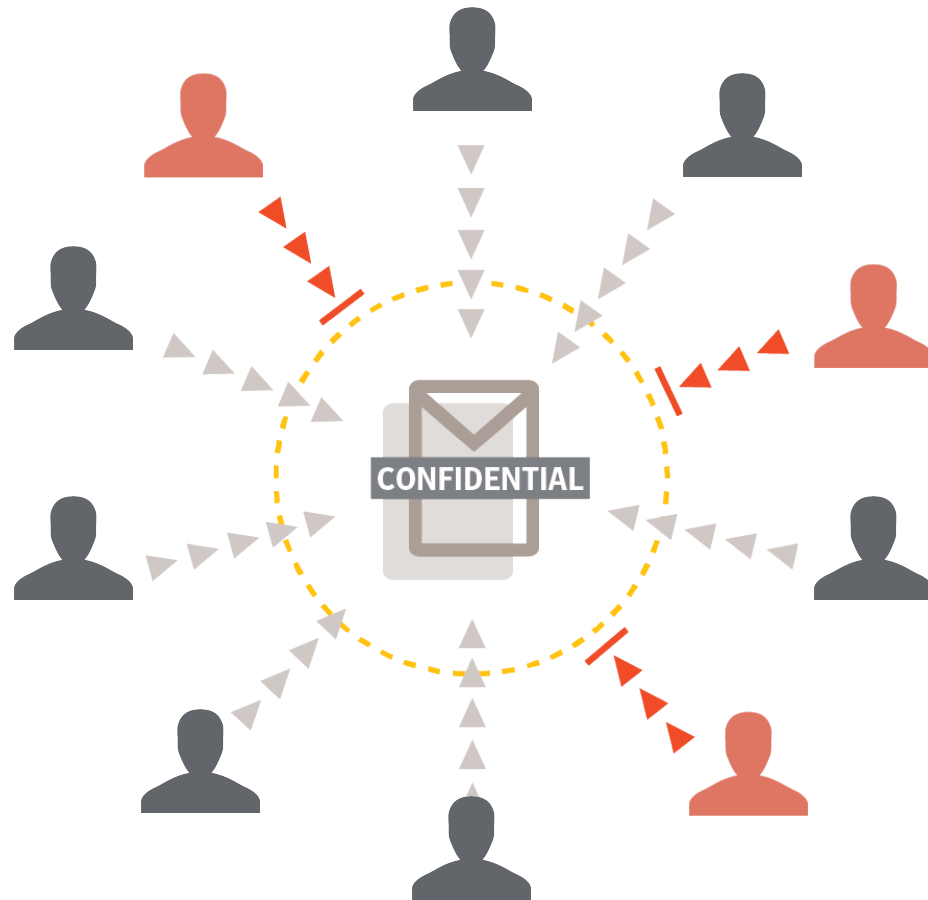
Protecting Your Information
and Reputation



Risks to Shared Sensitive Data



Lack of visibility and excessive exposure



Data residing in multiple places



Excessive Access and Complex Entitlements



Unknown Threats in the Midst



Compliance Requirements

The Need for Data Access Governance

Lack of Visibility into User Privileges and Data Access Activities



Malicious / Inappropriate User Access Behavior

How do I monitor and control high-risk user access behavior around sensitive data?

- More unstructured data is being created by users than can be easily governed by security teams, making it vulnerable to loss and theft
- Compliance mandates such as GDPR, PCI, HIPAA require evidence of data security governance policies and controls
- Data loss incidents are difficult to remediate due to potentially inaccurate and unreliable file metadata

Symantec DLP Data Access Governance



Least privileged access model reduces data loss and compliance risks

USER ACCESS, PERMISSIONS & ACTIVITY MONITORING

Who has access to data?

What are they doing with it?

What level of access do they have?

MONITOR USER ACTIVITY & IDENTIFY TOXIC "OPEN ACCESS" CONDITIONS

DATA DISCOVERY, CLASSIFICATION & GOVERNANCE

Where does data reside?

Which files have sensitive content?

Who owns the data?

Who can make decisions about it?

DISCOVER SENSITIVE DATA & IDENTIFY PROBABLE OWNERS

DATA CLEANUP & ACCESS TRANSFORMATION

Is the data stale or outdated?

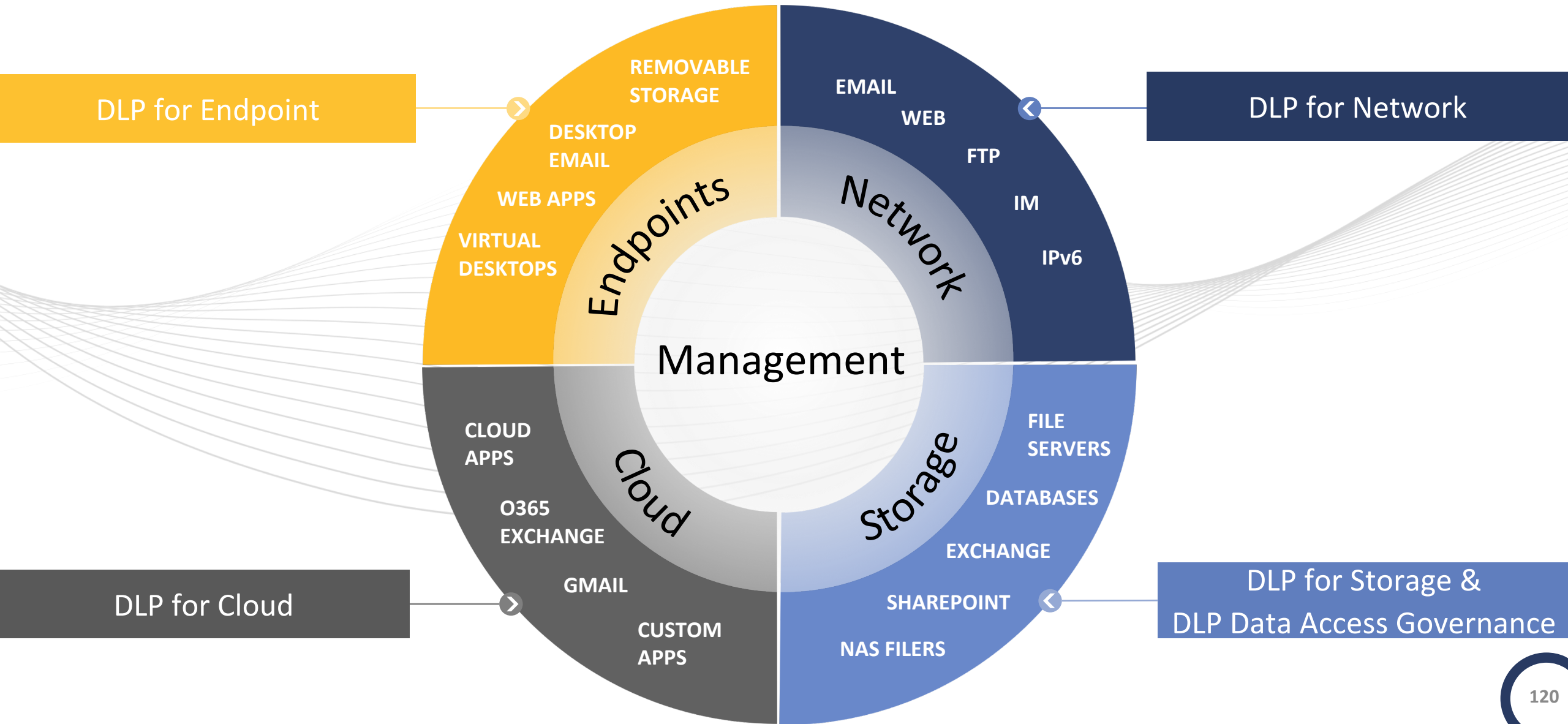
Is it still needed by the business?

How do I assign least privilege access?

MANAGE STALE RESOURCES & RESTRUCTURE ACCESS PRIVILEGES

Limits the number of users who have access to data and reduces privileges to the lowest levels possible.

Symantec Data Loss Prevention



In the DLP data policy incident view it provides file information including:

- owner name, email, phone #, manager name, phone #, etc.
- most active users for the file that generated a policy incident

Incidents > Discover > Incidents - All Scans > Discover Incident Snapshot

Data Access Governance

Incident 00000535

Status: **New**

Severity: **High**

File System

Key InfoHistoryNotesCorrelations

Policy Matches

Customer Personal Info [view policy]
phone number (Regular Expression)100100

Incident Details

Server or DetectorVontu Monitor One
TargetDAG Scan test
Scan5/28/19 4:58 PM
Detection Date5/28/19 4:58 PM
Seen BeforeFirst seen less than 1 day earlier.
Is HiddenNo [Do Not Hide]
File Location//kauai.2k16-dag-ad.engdip.symantec.com/combo/basic/domi/CustomerProcessingInfo.txt
Document NameCustomerProcessingInfo.txt
File Owner2K16-DAG-AD\manager
Scanned Machinekauai.2k16-dag-ad.engdip.symantec.com
File Created5/28/19 10:52 PM
Last Modified5/28/19 11:30 PM
Last Accessed5/16/19 10:15 PM
Data Owner Name
Data Owner
Email Address

Access Information

File Permissions
NamePermission
S-1-5-21-3664968268-619510148-3466250854-1003GRANT READ
S-1-5-21-3664968268-619510148-3466250854-1003GRANT WRITE
EveryoneGRANT READ
EveryoneGRANT WRITE
NT AUTHORITY\SYSTEMGRANT READ
NT AUTHORITY\SYSTEMGRANT WRITE
KAUAI\AdministratorGRANT READ
KAUAI\AdministratorGRANT WRITE
BUILTIN\AdministratorsGRANT READ
BUILTIN\AdministratorsGRANT WRITE
KAUAI\SQAGRANT READ
KAUAI\SQAGRANT WRITE
Share Permissions
NamePermission
BUILTIN\AdministratorsGRANT READ
BUILTIN\AdministratorsGRANT WRITE
EveryoneGRANT READ
EveryoneGRANT WRITE

Matches (matches found in 1 component)

▼ CustomerProcessingInfo.txt (100 Matches):
...symc\CHRISTIE_WOOD, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...FRANK_RUIZ@symantec.com,symc\FRANK_RUIZ, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ETTA@symantec.com,symc\JAMES_ARCHULETTA, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...DIMAURO@symantec.com,symc\KEVIN_DIMAURO, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ANGELA_LOR@symantec.com,symc\ANGELA_LOR, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...POTTS@symantec.com,symc\FLORENCE_POTTS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...MARTIN@symantec.com,symc\TAMARA_MARTIN, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ELD@symantec.com,symc\VIRGINIA_WINFIELD, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...SHOP@symantec.com,symc\ROSEMARIE_BISHOP, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...GE_AGUON@symantec.com,symc\GEORGE_AGUON, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ARTEAU@symantec.com,symc\ROBERT_HARTEAU, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...UGHTON@symantec.com,symc\JOAN_BROUGHTON, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...GALVAN@symantec.com,symc\PHILLIP_GALVAN, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...Y_BAGLEY@symantec.com,symc\DANNY_BAGLEY, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...RAGLIN@symantec.com,symc\GEORGE_RAGLIN, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...MIE_PEREZ@symantec.com,symc\MAMIE_PEREZ, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...NFIELD@symantec.com,symc\MARY_STANFIELD, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...SA_DURAND@symantec.com,symc\LISA_DURAND, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...AS_MOORE@symantec.com,symc\THOMAS_MOORE, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...RIAN@symantec.com,symc\CATHERINE_ADRIAN, 224-223-2234,02234567,sqa,qa,303...
...m,symc\THOMAS_MOORS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...FRANK_RUDE@symantec.com,symc\FRANK_RUDE, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...TZLER@symantec.com,symc\KENNETH_GUTZLER, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...GGY_JANES@symantec.com,symc\PEGGY_JANES, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...OTT_FITTS@symantec.com,symc\SCOTT_FITTS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ER@symantec.com,symc\CAROLYN_MCALLISTER, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ANGELA_LAY@symantec.com,symc\ANGELA_LAY, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...ANA_GRUBB@symantec.com,symc\DIANA_GRUBB, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...NDERS@symantec.com,symc\SHEILA_SAUNDERS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...FILKINS@symantec.com,symc\MARK_FILKINS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...COLLINS@symantec.com,symc\LEAH_COLLINS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...RYCKER@symantec.com,symc\JAMES_STRYCKER, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...HARRIS@symantec.com,symc\LAVERNE_HARRIS, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...URA_HEINE@symantec.com,symc\LAURA_HEINE, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...E_PRICE@symantec.com,symc\CANDICE_PRICE, 224-223-2234,02234567,sqa,qa,303 2nd st, sf, ca, us,...

Attributes

Most Active User
DepartmentSales Department
NameEllie.Williams
TitleAccount Manager
EmailEllie.Williams@acme.com
Phone Number4150001111
Manager NameDavid.Jones
Manager Emaildavid.jones@acme.com
Manager Phone4152223333

Respond Faster

By knowing who owns the data

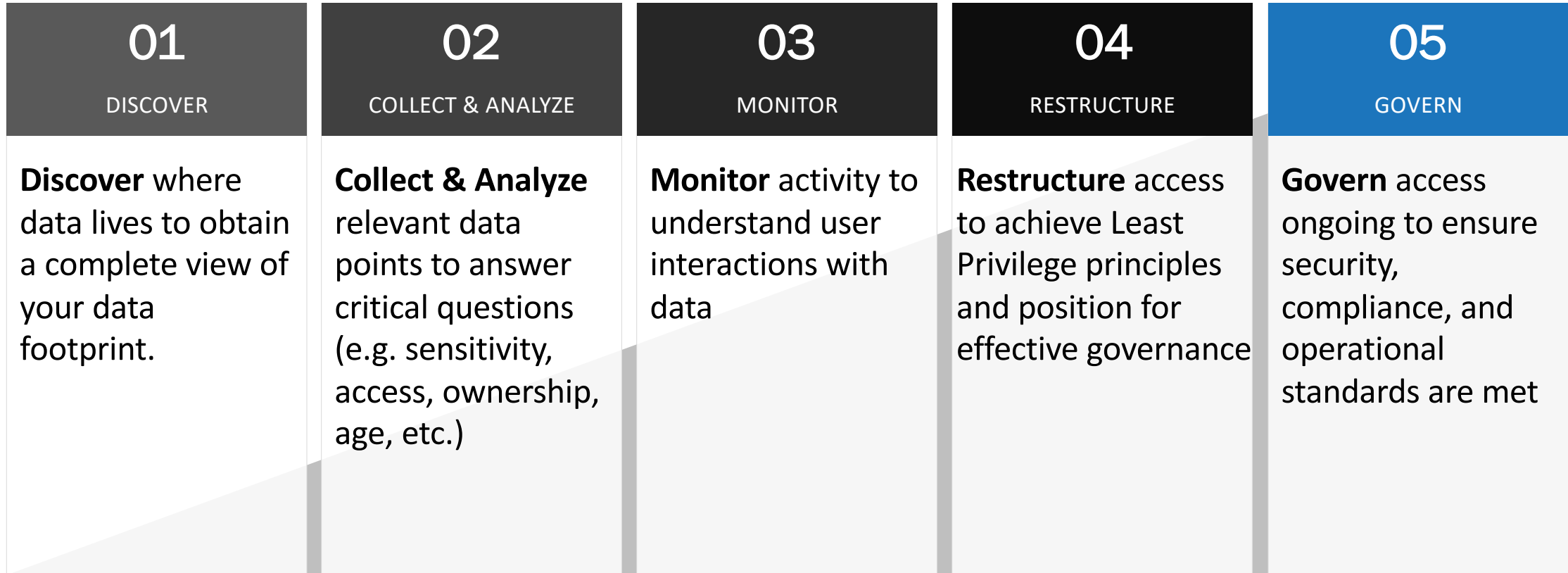


Monitor file access and usage

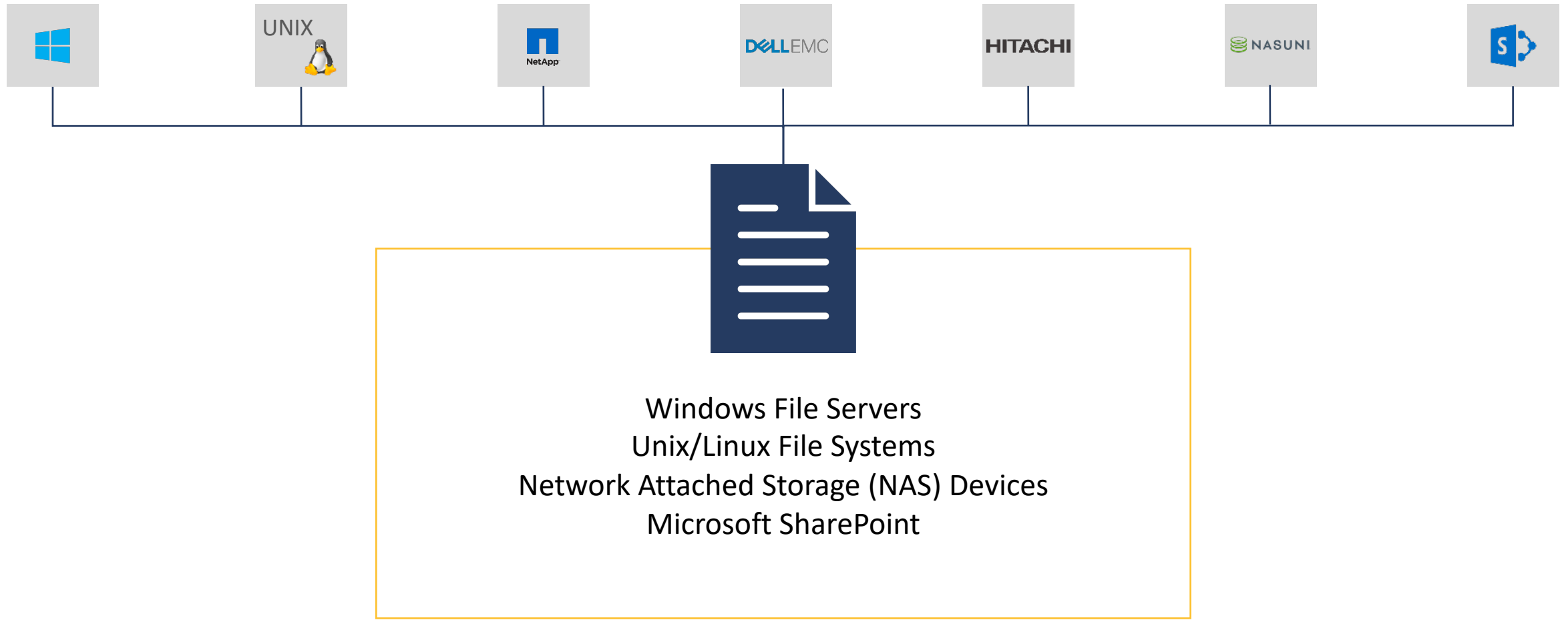
Identify true data owners



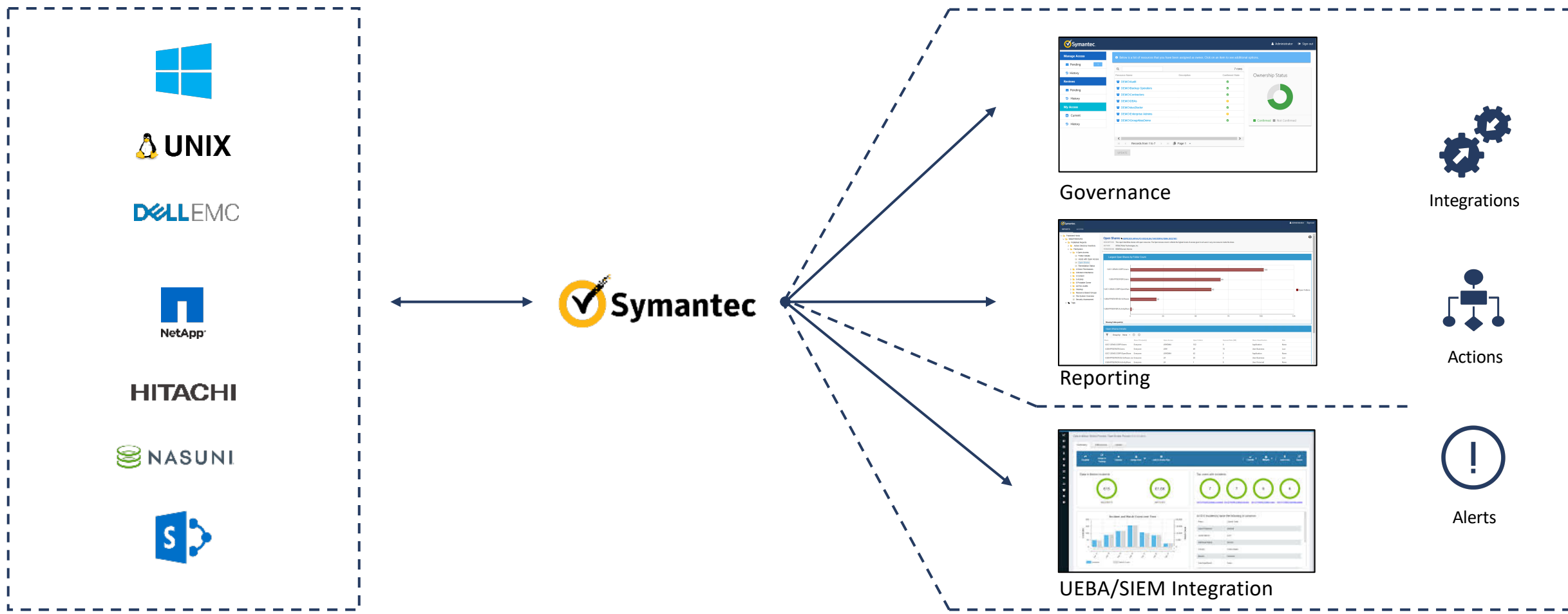
Data Access Governance – How?



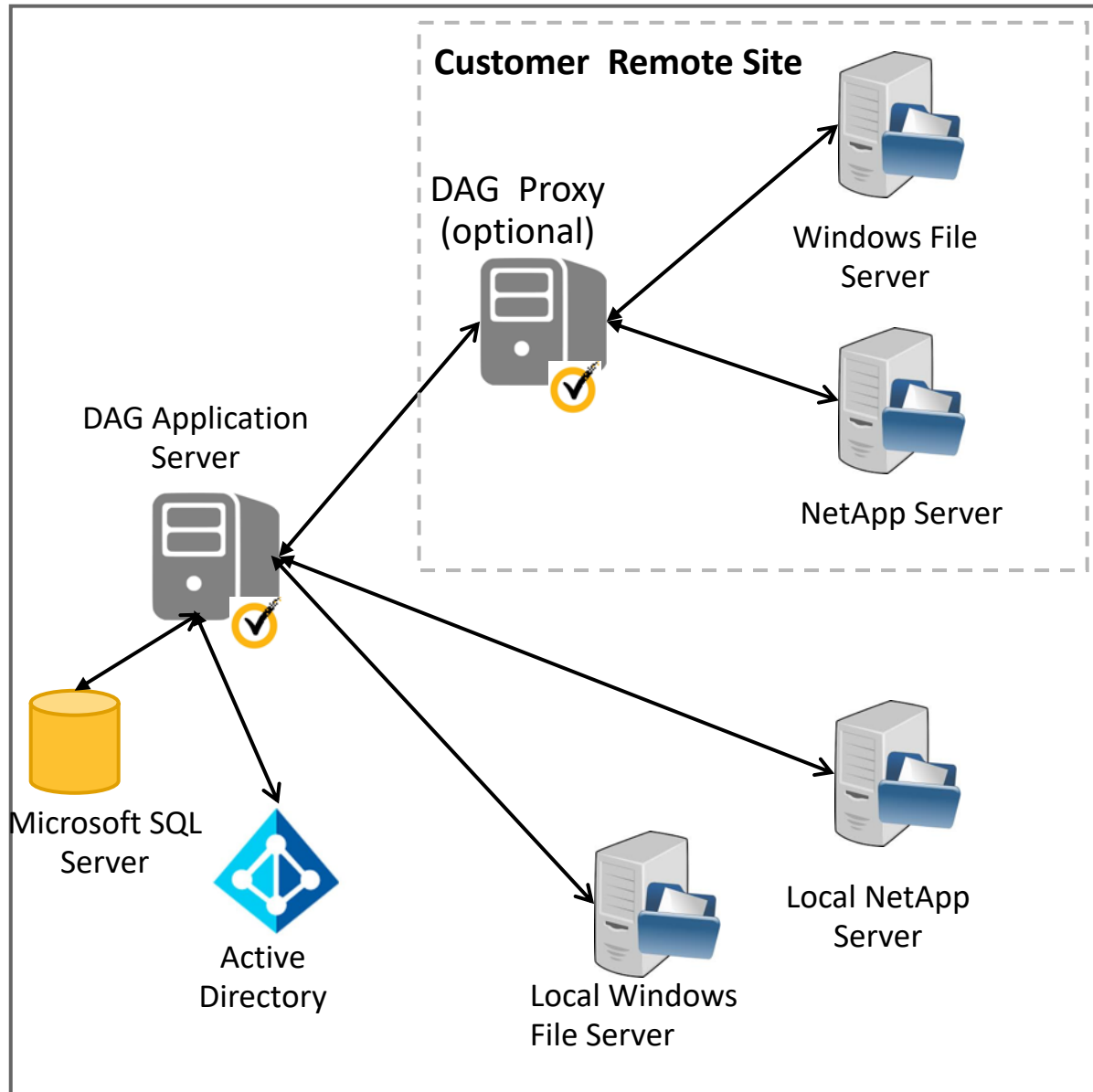
Supported Platforms



Symantec DLP Data Access Governance Architecture

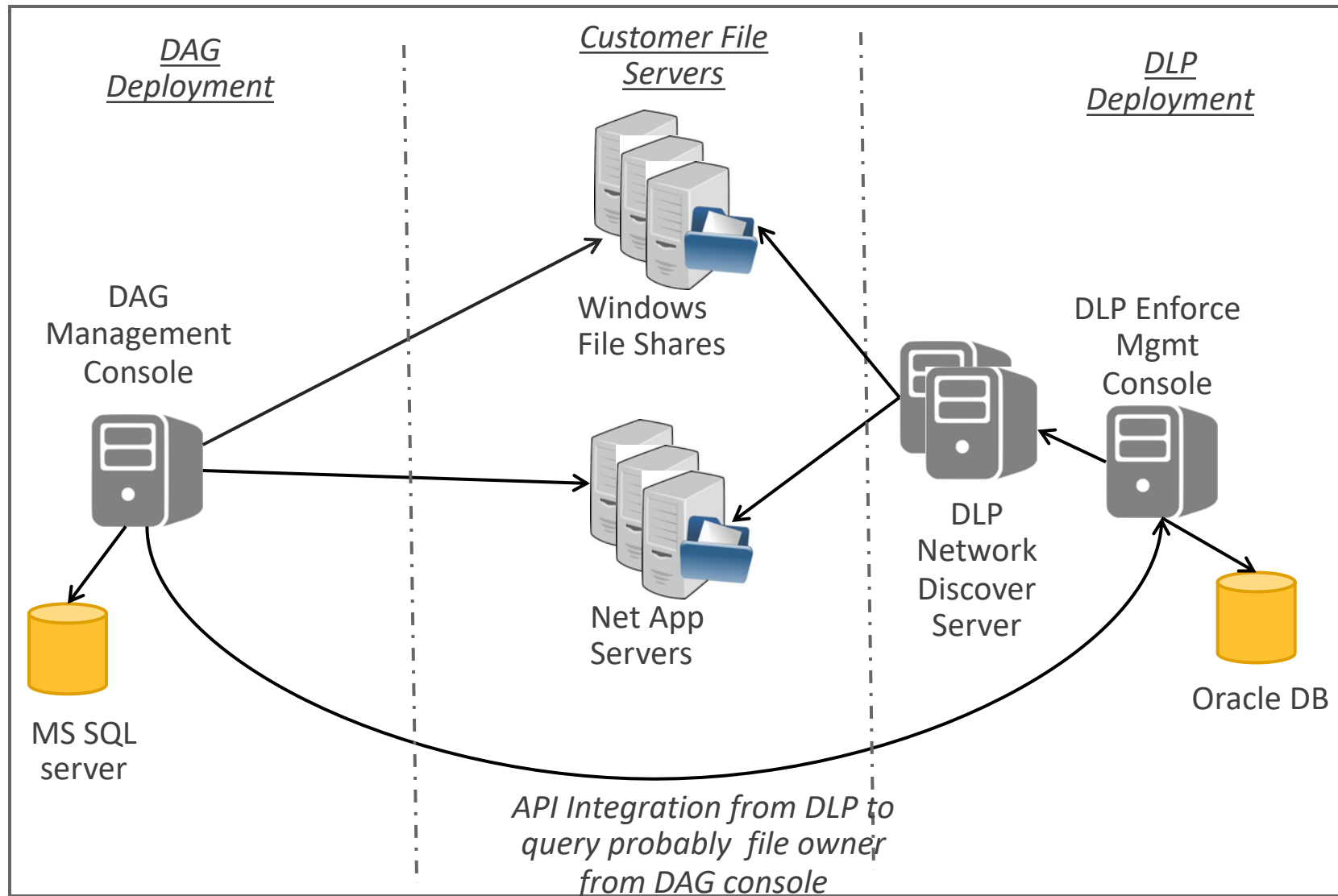


DLP Data Access Governance Deployment Architecture

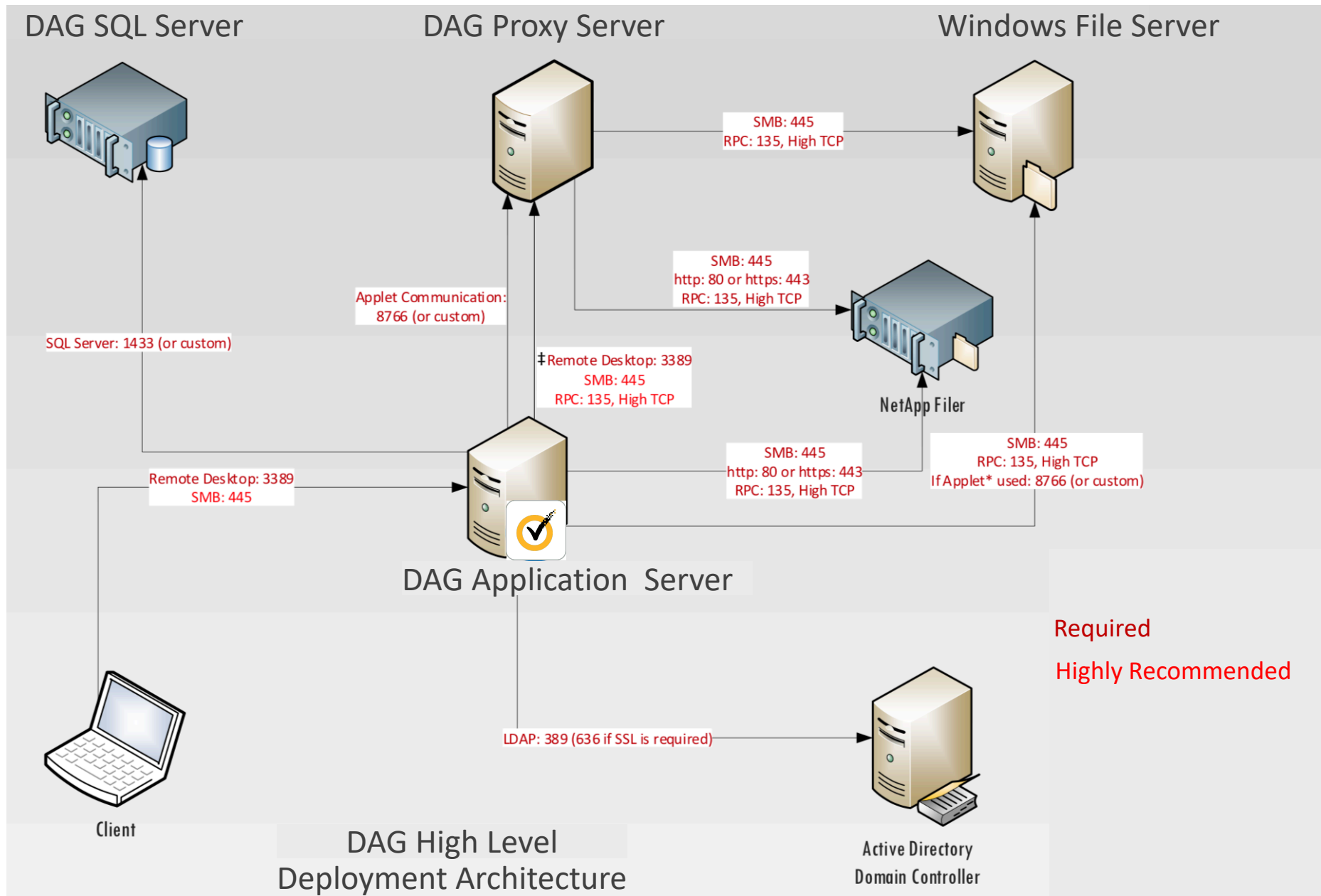


- Platform
 - Windows Based Application Server
 - Microsoft SQL Server for data/configuration storage
 - Windows based 'Proxy servers' as data relays
 - Go across network boundaries to remote sites
- On-premise deployment

DAG/DLP Integration Architecture at a Customer Site



1. DAG scans customer file servers and collects permissions and activity history, including probable file owner info in its SQL server
2. DLP scans customer file servers and reports files that violate DLP policies in its Enforce Mgmt Console as DLP incidents
3. DLP Enforce queries DAG Mgmt Console on Inferred File Owners for each file that violates DLP policies





Thank You!

