

# **Presidio & Varonis Presentation to MEEEC**

**Insider Threats,  
Ransomware, Data  
Classification, & Permission**

**PRESIDIO®**

# WHY PRESIDIO

- **Leading IT solutions provider** in North America
- 7,000 middle market and government clients
- Solving for complex, multi-vendor technology
- Engineering led, local-touch model
- **Services for 25% of the population** at 1,300+ state and local government entities
- **Deep solutions expertise** across digital infrastructure, cloud and security
- **Full lifecycle of services** in consulting, design and implementation, managed services and support
- **Client satisfaction**, 95% staying with us year on year
- **Stability and financial power** of a \$2.7 billion public company (NASDAQ: PSDO)
- **Passionate about driving results** for our clients and delivering an outstanding quality of service



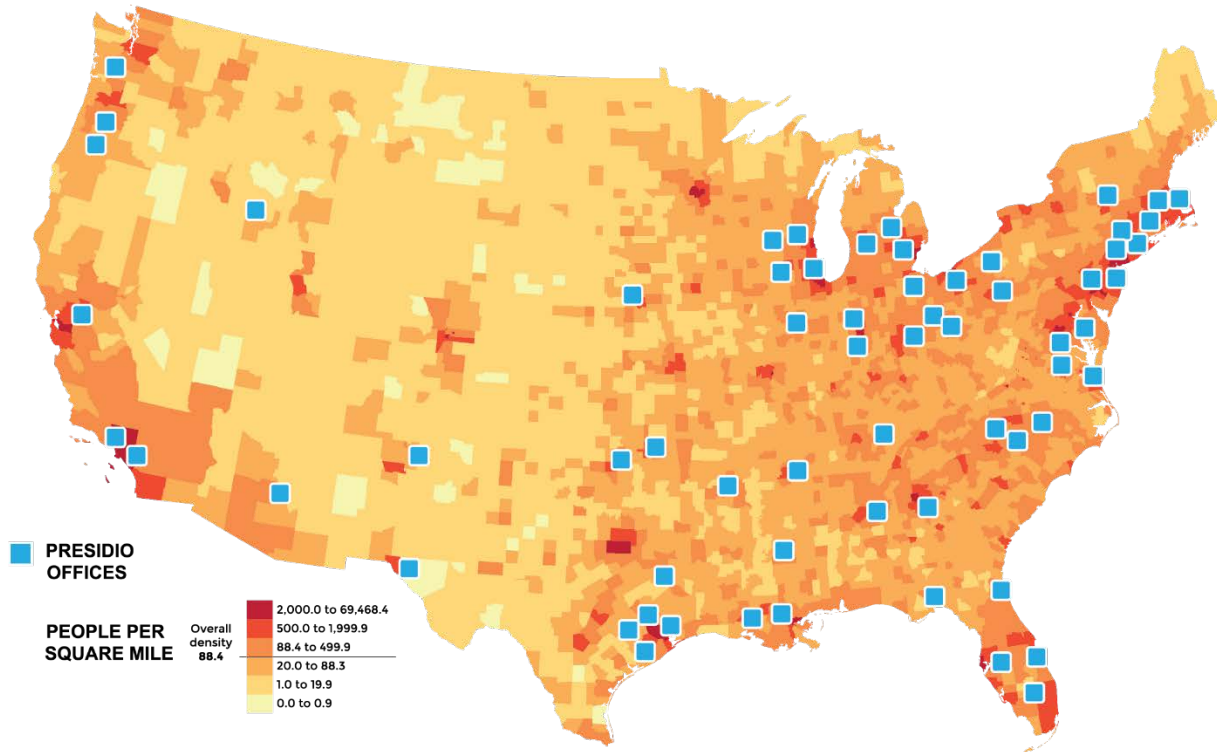
# ENGINEERING-LED SCALE WITH LOCAL PRESENCE

## National Scale

- 2,800+ employees nationally
  - 500+ account managers
  - 1,600+ engineers

## Local Presence

- 60+ offices across the US
- 25+ engineers per office (average)
- 120+ clients served per office (average)



## International Reach

- US clients' operations supported in 100+ countries through our network



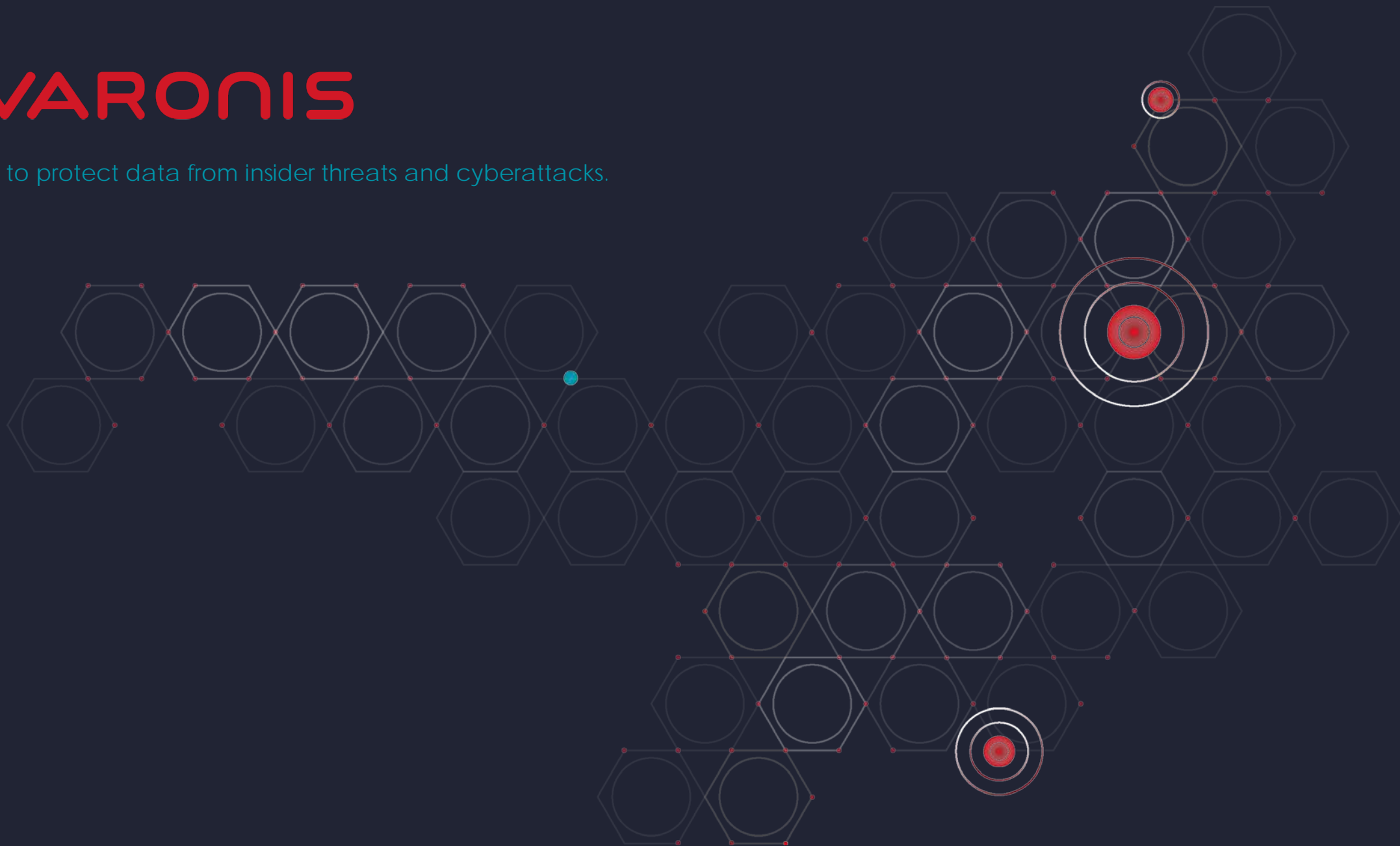
# PRESIDIO ALLIANCE ECOSYSTEM

- Provider of integrated multi-vendor, **multi-technology** solutions for our clients' complex and mission-critical IT needs
- **Solutions-focused**, tailoring and deploying an optimal mix of technologies from 500+ alliances
- On the forefront of **next-generation technologies** and disruptive market trends through our alliance network
- **CEO-level access** at all key partners





Our mission is to protect data from insider threats and cyberattacks.





# Large University – Real World Example #1

- ◆ Lacked the visibility into where **sensitive data sat, who had access, and who was touching it**. The current tools provided little more than manual methods and produced many false positives. There was no recourse.
- ◆ **Impact:** University had **no insight into where employees were placing sensitive HR, student, and patient data** exposing themselves to fines, lawsuits, and embarrassment.



## Large Hospital – Real World Example #2

- ◆ Lacked insight into environment and who **was doing what/where**. Had no ongoing **monitoring of AD/File system in place**.
- ◆ **Example:** The firm lacked visibility into where AD granted groups access to areas in **the environment like EPIC and missed a breach**. Upon a trial, the firm realized they had missed **one of their own employees placing recon tools in the environment and changing configurations without approval**.



## Large Utility – Real World Example #3

- ◆ Lacked the controls to **stop insiders and outside attackers from misusing, encrypting, and/or stealing** data. **4 Endpoint products failed** to detect 3 new variants of Locky ransomware. **70% Global Group Access** further contributed to the problem.
- ◆ **Impact: Firm was down for days at a time while teams tried to restore data.** This went on for weeks causing massive service disruption and time loss.





## Large Law Firm – Real World Example #4

- ◆ Lacked true visibility into where **stale data sat and a means to automatically migrate/delete/ move to cheaper storage.**
- ◆ **Example:** The firm was **spending approx. \$1,000,000.00 more on tier 1 storage each year** and managing the entire environment in the same way. **Teams were wasting time managing unused assets** and leaving low hanging fruit in the environment that could be compromised.

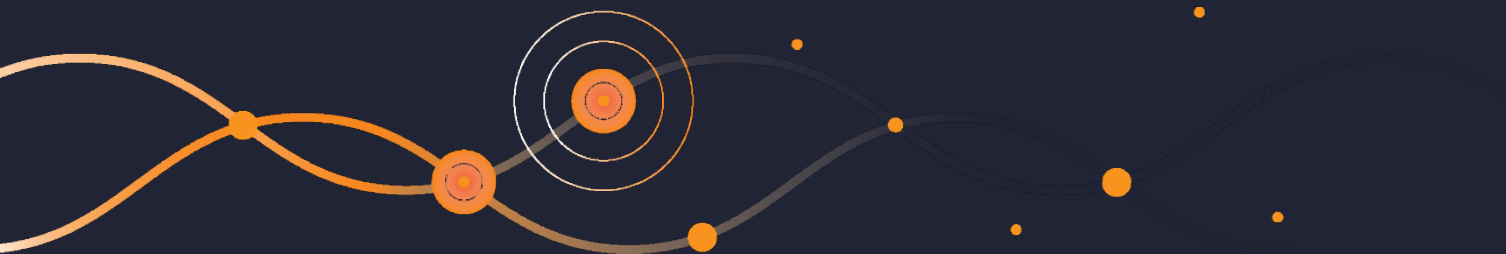


## Large Financial Institution – Real World Example #5

- ◆ Relied on **manual methods to track down business managers/data owners and manual needed to added users to groups** when new employees requested access or personnel moved departments
- ◆ **Impact:** The firm was **wasting valuable IT talent on mundane access requests** and ultimately **resulting in overexposed access and permission creep** that could be avoided and automated.



Why is this still an issue?





# It's all about the **DATA** - Gartner calls it "Dark Data"

Who has access to data (files, folders, sites, & mailboxes)?

Who did what, when, where (detailed audit trail)?

Where is my sensitive data and where is exposed? (PII, GDPR, HIPAA, PCI...)

What data is not being used or stale?

How do I ensure data is not located in unsanctioned areas?

Who owns data and how do I automate access requests?

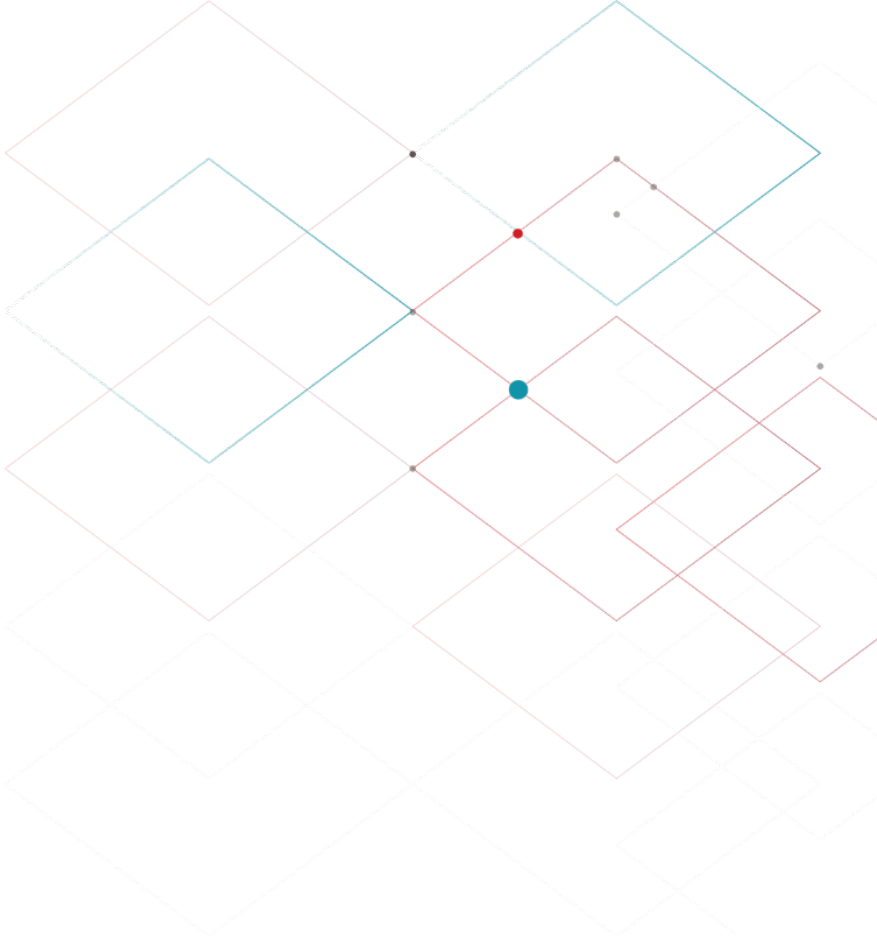
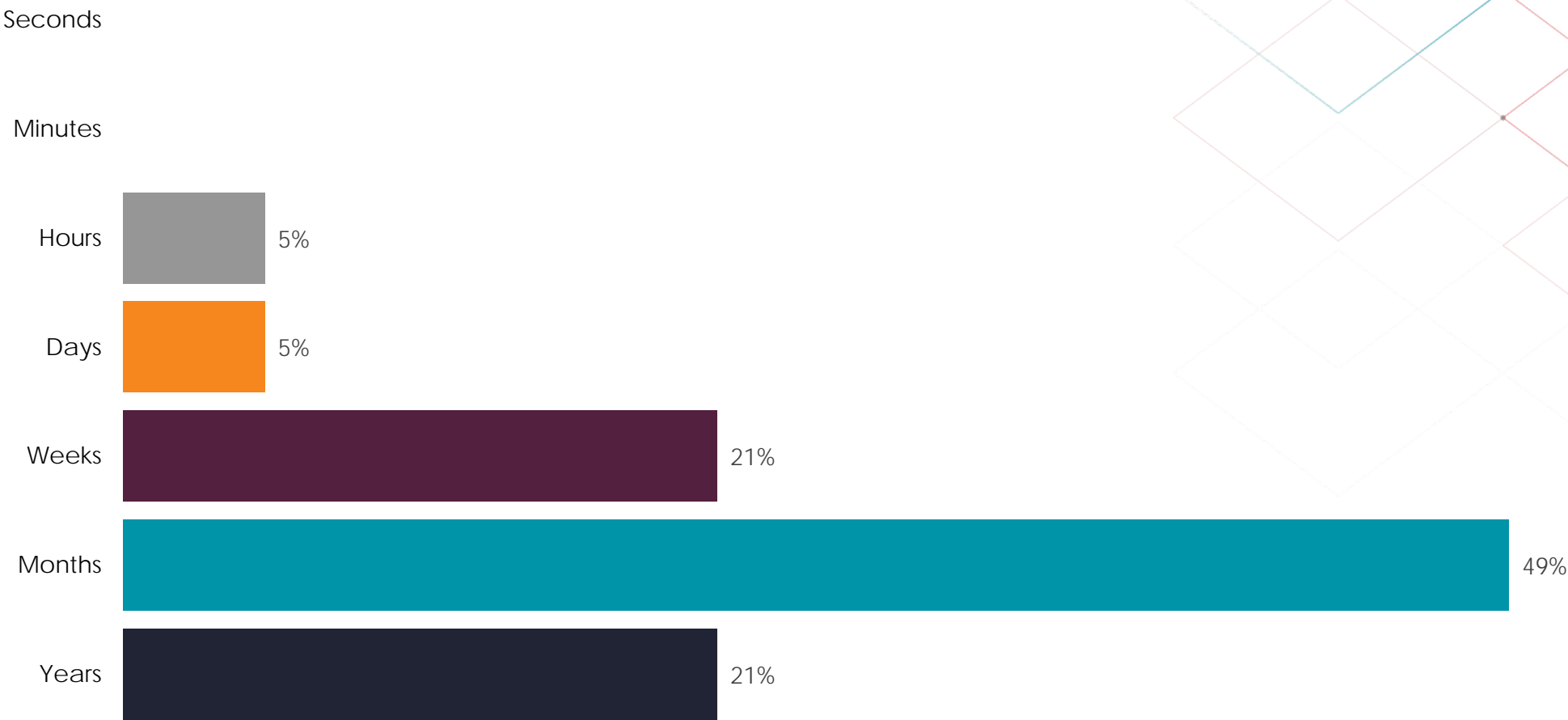
How do we clean up the environment without impacting day to day business?

How do I detect & stop insider threats, ransomware, data exfiltration and beyond?





# Discovery Timeline for Data Breaches







# Expense in Depth

## THE OLD WAY

Fragmented tools

Reactive threat defense

Manually tagging  
sensitive data

Manual permissions  
reports

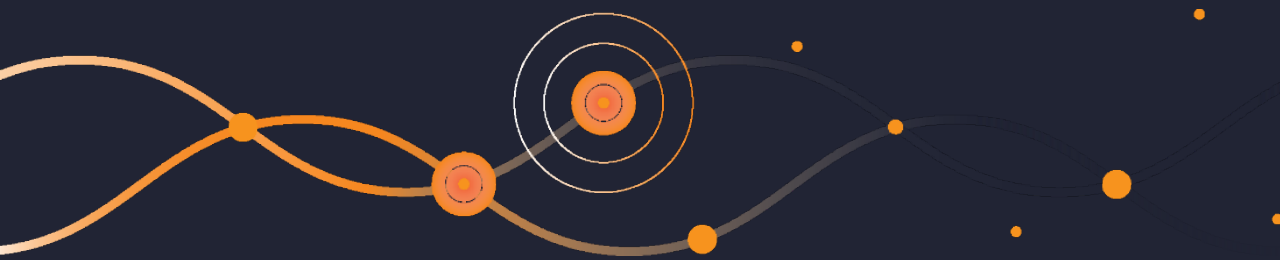
Raw log files

Native auditing

Lack of context

Rule-based alerts

Yearly clean-ups



What if there was a way?



# Varonis

- ◆ Started operations in 2005
  - ◆ VRNS on Nasdaq
- ◆ 5,700+ customers globally (July 2017)
- ◆ Software that protects data from insider threats and cyberattacks

The Boston Globe

ING 



*Coca-Cola*



MoMA

EMC<sup>2</sup>



“

Varonis works across the whole organization. It works with our infrastructure, our Active Directory, it works with all the hardware and software we have.

”

-- Wade Sendall, VP of IT, The Boston Globe

# What the Market Research says about Varonis

- “Varonis is the market-share leader with **over 3,500 customers**” *Gartner 2015*  
(Added over 1,800 customers since this report..)
- In 2014, file analysis market size was ~ **\$150 million**. Varonis captured the vast majority with **\$101 million** in revenue. (rest of the market split among 25 bit players)

**Gartner**



Software Product of the Year, 2015



**VARONIS**  
Security Project of the Year - Private Sector  
&  
Auditing / Reporting Solution of the Year



Varonis CEO named Entrepreneur of the Year (NYC, tech Industry, 2012)



Crowned Data+ Editors Award for Mastering Data Security with Loyola Univ. (2015)



“Varonis is the clear market leader in unstructured data governance”



# Varonis protects many leading federal agencies

- Certificate of Networthiness granted by the US Army
- Achieved Common Criteria EAL2+



"Varonis is on an extremely short list of companies that supply products I wouldn't be without in any major executive role in any public company, three-letter agency, government office, or IT firm."

- Rob Enderle, President, The Enderle Group







# IT'S ALL ABOUT THE DATA



We know where  
our sensitive  
data lives



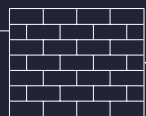
Only the right  
people have  
access



Cyber threats are  
detected and  
stopped



Sustain a secure  
state without  
manual effort



Firewall



Varonis Collectors



Varonis Collectors

## Topology



MS-SQL



Varonis Probe/  
Aggregator



Varonis Data Security  
Platform Server (IDU)

## THE NEW WAY



Data  
Classification



Cyber Threat  
Detection



File & Email  
Monitoring



User Behavior  
Analytics



Least Privilege  
Enforcement



Active Directory  
Monitoring



Data Access  
Governance



Automatic  
Quarantining

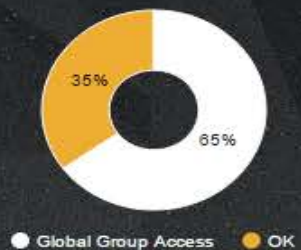




## Data Risk Assessment



## Global Group Access



30,123,581  
folders

or 35% of the entire environment



47% or 115k users that are stale but enabled



USNSH-I-FS101

54%

of folders on this server have Global Group Access

371 TB  
stale data

more than half of the entire environment



58%  
of all users  
have on-  
expiring  
passwords



0.21% of 17k folders with users permissioned directly

ext.dir.willis.com

97% 93%

of users have non-expiring passwords of users are stale

4729  
sensitive files with  
Global Group Access

less than 1% of all files

USNSH-I-FS10

54%

of folders on this server have Global Group Access



## DETECT

- Implement detective controls for file systems and AD
- Map and monitor preventive controls
- Track Key Risk Indicators
- Alert and respond to threats



## PREVENT

- Identify and remediate sensitive and at-risk data
- Eliminate global access
- Identify and assign data owners
- Implement best-practice controls



## SUSTAIN

- Automate access provisioning
- Regularly re-certify access
- Archive or delete old data

# Operational Phases





An abstract graphic spanning the middle of the slide. It features several wavy lines in orange and grey, with several small orange dots placed along these lines. One of the dots is highlighted with three concentric circles in orange and white.

# Diving into the Environment



# Where is your Sensitive Data, Where is Exposed?

Work Area

Statistics

Log

Reports

Alerts

Work Area: Domain Users

Existing Users and Groups

Reload

View

Filters

Arrange By

Org. units: All domains and local hosts

Look for: domain users

Arranged By: Name

Domain Users (corp.local)

File Analysis Results(\\corps02b\share\Corporate Finan...

Display the contents of analyzed files and view the snippets that match the spec. The classification analysis displayed here may differ from that of the Work Area or a dictionary used by the classification rule has been changed.

Relevant Rules

Rule PCI Data Security Standards (PCI-DSS):2 hit(s)...

Rule Patent:136 hit(s) in 2 condition(s)

Rule MasterCard:2 hit(s) in 1 condition(s)

Rule Visa:1 hit(s) in 1 condition(s)

File Information

File name:

Contractor\_Supervision\_ 26.03.06 fin.pdf

File type:

.pdf

Last modified date:

1/30/2014 12:35:00 PM

Last scanned date:

4/12/2017 3:20:59 PM

Document Text

Show only relevant snippets

Extend snippets to show preceding and following sent

s Maiden name: Harris  
Birthday: July 2, 1932 (81 years old)  
Visa: 4532 1655 6961 7525  
Expires: 5/2016  
CVV2 302  
SSN:419-07-3387  
Occupation: Home health aide  
...  
sting Testing Testing Testing Testing Testing Testing Testing  
Testing Testing Testing Testing Testing Testing Testing Testing Testing Testing  
Testing Testing Testing Testing Testing Testing Testing Testing Testing Testing  
5452678301234567  
And testing some more...  
Testing Testing Testing Testing Testing Testing Testing Testing Testing Testing  
Testing Testing Testing Testing Testing Testing Testing Testing Testing Testing  
Testing Testing Testing Testin...

Directories

Reload

View

Filters

Resources: All resources

Look For:

Search

Directory	File System Permissions	Explanations	Total Hit Count ...	Classification Results
corps02b			28870	American Express (0/1625),AU Privacy Act (0/5),California SB-1386 (0/1128),CH Personal
share	F M R W X L	Inherited from "Everyone (Abstract)"	28870	American Express (0/1625),AU Privacy Act (0/5),California SB-1386 (0/1128),CH Personal
apps			0	
B4			249	American Express (0/4),California SB-1386 (16/16),GLBA (Gramm-Leach Bliley Act) (16/1
B4Released-Applications			0	
BBB-Project			32	MasterCard (0/5),PCI Data Security Standards (PCI-DSS) (0/16),Visa (0/11)
BI			0	
Corporate Finances			2272	American Express (0/24),AU Privacy Act (0/5),CH Personal Data Protection (0/8),CN PIPE
Asia			275	American Express (3/3),MasterCard (2/2),Patent (262/262),PCI Data Security Standards (P
Australia			5	AU Privacy Act (5/5)
Brazil			273	American Express (3/3),DE Personal Data Protection (1/1),MasterCard (2/2),Patent (262/2
Canada			289	American Express (3/3),CN PIPEDA (17/17),MasterCard (2/2),Patent (262/262),PCI Data S
France			290	American Express (3/3),CH Personal Data Protection (6/6),FR Personal Data Protection (8
Germany			291	American Express (3/3),DE Personal Data Protection (19/19),MasterCard (2/2),Patent (262
Latin America			280	American Express (3/3),ES Personal Data Protection (8/8),MasterCard (2/2),Patent (262/2
Russia			274	American Express (3/3),MasterCard (2/2),Patent (262/262),PCI Data Security Standards (F
South Africa			6	SA Personal Data Protection (6/6)
Sweden			7	SE Personal Data Protection (7/7)
Switzerland			2	CH Personal Data Protection (2/2)
UK			280	American Express (3/3),MasterCard (2/2),Patent (262/262),PCI Data Security Standards (F
CONTRACTOR (SUPERVISION) 26.03.06 FIN.PDF			131	American Express (3/3),Patent (126/126),Visa (2/2)
Contractor_Supervision_ 26.03.06 fin.pdf			141	MasterCard (2/2),Patent (136/136),PCI Data Security Standards (PCI-DSS) (2/2),Visa (1/1)
ukinfo.txt			8	UK Data Protection Act (8/8)
databases	M R W X L	Inherited from "Everyone (Abstract)"	255	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),I
DataShare 1	F M R W X L	Inherited from "Authenticated Users (Abstract)"	5	HIPAA (5/5)
dsr			95	American Express (0/12),MasterCard (0/19),PCI Data Security Standards (PCI-DSS) (0/47)
DW	F M R W X L	Inherited from "Everyone (Abstract)"	0	
Embd-Engineering			34	DE Personal Data Protection (16/16),HIPAA (18/18)
ERP-Arc			24	DE Personal Data Protection (15/15),HIPAA (9/9)
finance			10339	American Express (24/1160),California SB-1386 (8/552),DE Personal Data Protection (1/1)
Fondue			219	American Express (0/22),California SB-1386 (0/4),GLBA (Gramm-Leach Bliley Act) (0/4),M
groups	R W X L	Inherited from "Everyone (Abstract)"	17	Media file types (0/17)
HR			562	American Express (0/2),California SB-1386 (10/64),DE Personal Data Protection (2/2),GLE
HRArchive-DTE			0	

In this Example, **Domain Users** have **READ** access to the Folders that are **GREEN**. This group should be removed as it presents additional RISK as **ANY User** can access this data which in some cases includes HIPAA and other Personal Identifiable information.



Work Area

Statistics

Log

Reports

Alerts

Existing Users and Groups

ReloadViewFiltersArrange By

Org. units: All domains and local hosts

Look for: domain users

Arranged By: Name

Domain Users (corp.local)

Existing Users and Groups

Expected Access Errors

Directories

ReloadViewFilters

Resources: All resources

Look For:

Search

Directory	File System Permissions	Explanations	Total Hit Count
corps02b			
C:			28870
share	F M R W X L	Inherited from "Everyone (Abstract)"	28870
apps			0
B4			249
B4Released-Applications			0
BBB-Project			32
BI			0
Corporate Finances			2272
databases	M R W X L	Inherited from "Everyone (Abstract)"	255
BADBLOCKS			0
corpQCR			0
DOK			0
DW			0
DW Backup			0
HELPDESK			0
HR			0
MFG Shared Files			0
OLD			0
Oracle			255
RamDOS			0
RamNihul			0
DataShare1	F M R W X L	Inherited from "Authenticated Users (Abstract)"	5
dsr			95
DW	F M R W X L	Inherited from "Everyone (Abstract)"	0
Embd-Engineering			34
ERP-Arc			24
finance			10339
Fondue			219
groups	R W X L	Inherited from "Everyone (Abstract)"	17
HR			562
HRArchive-DTE			0
HR-Private			44
HumanResources			301
legal			12785

Any User at [Customer] has READ access to the **Creative** folder and the **GREEN** folders below it. Unreleased designs of [Customer] apparel are stored here and we recommend locking this down to only the Users that require access which will greatly reduce Risk of data theft/leakage.

American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI

HIPAA (5/5)

American Express (0/12),MasterCard (0/19),PCI Data Security Standards (PCI-DSS) (0/47),Visa (0/17

DE Personal Data Protection (16/16),HIPAA (18/18)

DE Personal Data Protection (15/15),HIPAA (9/9)

American Express (24/1160),California SB-1386 (8/552),DE Personal Data Protection (1/1),GLBA (G

American Express (0/22),California SB-1386 (0/4),GLBA (Gramm-Leach Bliley Act) (0/4),MA 201 CM

Media file types (0/17)

American Express (0/2),California SB-1386 (10/64),DE Personal Data Protection (2/2),GLBA (Gramm

American Express (0/8),California SB-1386 (0/2),GLBA (Gramm-Leach Bliley Act) (0/2),HIPAA PHI D

American Express (0/32),California SB-1386 (0/16),DE Personal Data Protection (0/2),GLBA (Gramm

American Express (0/102),California SB-1386 (0/426),Confidential (0/92),GLBA (Gramm-Leach Bliley

Prioritize High Risk Folders



Work Area

Statistics

Log

Reports

Alerts

Existing Users and Groups

ReloadViewFiltersArrange By

Org. units: All domains and local hosts

Look for:

Arranged By:NameFile System Permissions

David Hightower (corp.local)R W X L

Domain Admins (corp.local)F M R W X L

ERP\_Invoices (corp.local)R X L

ERP\_PO (corp.local)M R W X L

Lisa Clasen (corp.local)R X L

sec\_IT-ERP (corp.local)R W X L

Aimee Blomkalns (corp.local)

Andy Welch (corp.local)

Candace Miner (corp.local)

Candace Triggs (corp.local)

Chrissy Vanlandingham (corp.local)

Daniel Yen (corp.local)

Dave Ruthruff (corp.local)

Don Zitterkopf (corp.local)

Duane Hocker (corp.local)

Harry Lampkin (corp.local)

Joe Lee (corp.local)

Joseph Shisler (corp.local)

Laurel Heman (corp.local)

Pamela Cousins (corp.local)

Robert Stepp (corp.local)

sec\_IT-HD (corp.local)M R W X L S

sec\_IT-System (corp.local)M R W X L S

Aimee Blomkalns (corp.local)

Andy Welch (corp.local)

Anne Lampkin (corp.local)

Benjamin Hastings (corp.local)

Bill Whitley (corp.local)

Brenda Elliston (corp.local)

Candace Miner (corp.local)

Candace Triggs (corp.local)

Carolyn Levy (corp.local)

Existing Users and Groups

Expected Access Errors

Directories

ReloadViewFilters

Resources: All resources

Look For:

Search

DirectoryFile System PermissionsExplanationsTotal Hit CountClassification Results

corps02b

C:

share

apps

B4

B4Released-Applications

BBB-Project

BI

Corporate Finances

databases

BADBLOCKS

corpQCR

DOK

DW

DW Backup

HELPDESK

HR

MFG Shared Files

OLD

Oracle

RamDOS

RamNihul

DataShare1

dsw

DW

Embd Engineering

ERP-Arc

finance

Fondue

groups

HR

HRArchive-DTE

HR-Private

HumanResources

legal

Child directory ACL is inconsistent

28870

28870

0

249

0

255

0

0

5

95

0

34

24

10339

219

17

562

0

44

301

12785

American Express (0/1625),AU Privacy Act (0/5),California SB-1386 (0/1128),CH P

American Express (0/1625),AU Privacy Act (0/5),California SB-1386 (0/1128),CH P

American Express (0/4),California SB-1386 (16/16),GLBA (Gramm-Leach Bliley Ac

American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act)

HIPAA (5/5)

American Express (0/12),MasterCard (0/19),PCI Data Security Standards (PCI-DSS

DE Personal Data Protection (16/16),HIPAA (18/18)

DE Personal Data Protection (15/15),HIPAA (9/9)

American Express (24/1160),California SB-1386 (8/552),DE Personal Data Protecti

American Express (0/22),California SB-1386 (0/4),GLBA (Gramm-Leach Bliley Act)

Media file types (0/17)

American Express (0/2),California SB-1386 (10/64),DE Personal Data Protection (2

American Express (0/8),California SB-1386 (0/2),GLBA (Gramm-Leach Bliley Act) (

American Express (0/32),California SB-1386 (0/16),DE Personal Data Protection (0

American Express (0/102),California SB-1386 (0/426),Confidential (0/92),GLBA (Gr

There are **Excessive Permissions** applied to the **ERP-Arc** folder. This folder Contains Sensitive data such as HIPAA and PII. Permissions need to be reviewed and aligned properly to greatly reduce the Risk of data theft\leakage.

Discover & Review Permissions to Critical Folders

# Prioritize & Lockdown Sensitive Data

Recommendations ✕

Resources: fileserver01

Directory	Permissions	Size	Sensitive Data
DSR	F M R W X L	25.4 GB	
Finance <span>✕</span>	R W L	1.2 TB	American Express
Engineering		34.9 GB	
Legal	F M R W X L	235 GB	Visa (35), US SSN (20)
Marketing		235 GB	Visa (118), SOX (502)
Medical	R W X L	15 GB	Visa (10), HIPA
Memcached		2 GB	
Mergers <span>✕</span>	R W X L	52 MB	
PRS		22 KB	

Look for:

Search

Domain Admins

IT\_System

Group\_Finance

Kevin Malone (CORP)

✕ Michael Scott (CORP)

Pam Beesly (CORP)

Dwight Schrute (CORP)

Oscar Martinez (CORP)

Stanley Hudson (CORP)



File   Tabs   Tools   Help

Work Area   Statistics   Log   Reports   Alerts

Existing Users and Groups

Org. units: All domains and local hosts

Look for:

Arranged By: Name   File System Permissions

Administrator (corp.local)

Domain Admins (corp.local)

Domain Computers (corp.local)

HR-Private (corp.local)

sec\_IT-System (corp.local)

Directories

Resources: All resources

Look For:

Directory

File System Permissions

Explanations

corps02b

C:

share

apps

B4

B4Released-Applications

BBB-Project

BI

Corporate Finances

databases

DataShare1

dsr

DW

Embd-Engineering

ERP-Arc

finance

Fondue

groups

HR

HRArchive-DTE

HR-Private

snapmirror\_no\_access\_to\_this\_tmp\_dir\_57\_25525\_11210...

snapmirror\_no\_access\_to\_this\_tmp\_dir\_66\_8574339\_112...

Contract tmlate

Letters of change

New Employees for options

Open Positions files

Open Positions in Budget

Options

Presentations

Proposals

PRS

Permission Sources

Group: Domain Computers (corp.local)

Folder: [corps02b] C:\share\HR-Private

Current effective permissions: RXL

Recommended effective permissions: RXL

Missing permission required by events: N/A

All Permission Sources

Folder

Group / User

Current Permissions

Current Flags

Recommended Permissions

C:\share\HR-Private

Domain Compute

RXL

This folder, subfo

RXL

Media file types (0/17)

American Express (0/2), California SB-1386 (10/64), DE Personal Data Protection (2/2), GLBA (Gramm-Leach Bliley Act) (0/2), HIPAA (0/2), etc.

In this Example, **Domain Computers** have **READ** permission to the Folders that are **GREEN**. This group should be removed as it presents additional RISK as **ANY Computer** can potentially access this data. If something/someone (Malware, Ransomware, or a Bad actor) were able to run as the System account from any Computer/Server, this data will be accessible.

Spot & Remove High Risk or Problematic Permissions

**Expected Access Errors**

User/Computer	Access Path
Alice Tanner (corp.local) (20)	
Darren Parker (corp.local) (18)	
Fred Phelps (corp.local) (15)	
Melissa Cooley (corp.local) (83)	
Melissa Donovan (corp.local) (64)	

**Directories**

Resources: All resources

Look For: Search

Directory: corpfs02b

File System Permissions

Explanations

Child directory ACL is inconsistent

Uniqueness changed

Child directory ACL is inconsistent

Child directory ACL is inconsistent

Child directory ACL is inconsistent

**Recommended Users and Groups**

Org. units: All domains and local hosts

Look for:

Arranged By:	Name	File System Permissions
	Administrator ...	F M R W X L
	Administrators (cor...	F M R W X L
	Everyone (Abs...	F M R W X L

SIMULATE the removal of the **Everyone** group. The list of users on the left **have been accessing the Legal folder** via this group and will be adversely affected if we make a change. A new group needs to be created, affected users added, and aligned to the IT folder.

Model & Simulate Permission Changes

General

Source Folder Scope

Source File Scope

Delete Source Content

Folder Structure

Destination

Collision Behavior

Sandboxing

Scheduling

Summary

## Source File Scope






Select the files you want to copy from the defined source folders to the selected destination (select the folders themselves on the Source Folder Scope page).

☒ Copy content

☐ All files

☒ Only the following files:

### File Scope

 New Group  New Filter  Remove Selected  Reset  Import/Export Filter

☒ All of (AND):

☐ Classification results

☐ Rule names

Contained in

GDPR Hungary, GDPR Portugal, GDPR Czech, GDPR Romania, GDPR Greece

and

☐ Hit count (on selected rules)

Greater than

0

Quarantine files based on Classification rules

☒ Calculate files by default

**Source Folder Scope**

Source File Scope

Delete Source Content

Folder Structure

Destination

Collision Behavior






Sandboxing

Scheduling

Summary

**Source Folder Scope**

Set filters to define the folders to be moved from the source to the destination (select the actual content to be moved on the Source File Scope page).

 New Group  New Filter  Remove Selected  Reset  Import/Export Filter

☐ All of (AND):

☐ Any of (OR):

☐ Access path (corpfs02b)

Equals

C:\share\finance



Search in child objects

or

☐ Access path

Equals

C:\share\HR



Search in child objects

or

☐ Access path

Equals

C:\share\legal



Search in child objects

**Calculate Scope**

Click the Calculate Scope button to view the list of folders matching the defined scope.

Calculate Scope



Scope was not calculated

[View scope](#)

**Subfolders**

Get whether to include the subfolders of the selected folders to the rule's scope

Configure one time migrations or mirror rules

## Rules

Commit

Groups

Permission Mapping

## Rules

Create, edit and view all pending, running and historical rules



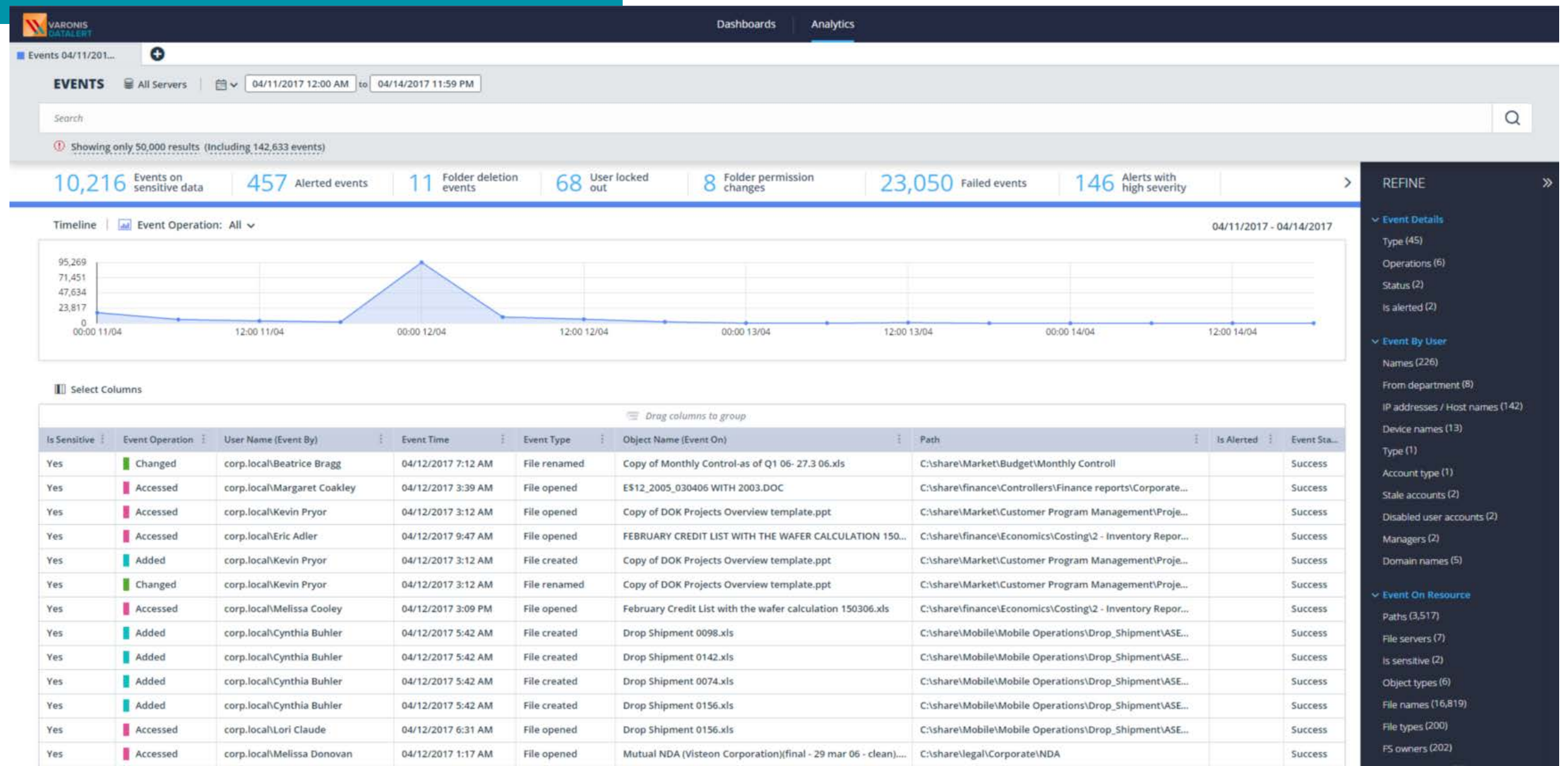
<input type="text" value="Search by rule name"/>		Last run time: Start <input type="text" value="Select a date"/> End <input type="text" value="Select a date"/>				<input type="button" value="Search"/>
Rule Name	Type	Status	Progress (%)	Last Run	Schedule	
Department Archival Rule	Regular	<a href="#">Ready to run</a>			No Schedule	
Media File Removal	Regular	<a href="#">Ready to run</a>			No Schedule	
Replication of Sales Data	Mirror	<a href="#">Ready to run</a>			No Schedule	
HR Historical Record Archive Rule	Regular	<a href="#">Ready to run</a>		<a href="#">4/13/2017 10:52 PM</a>	No Schedule	
GDPR Quarantine	Regular	<a href="#">Ready to run</a>			No Schedule	

Create custom rules with Varonis data

Total number of rules: 5

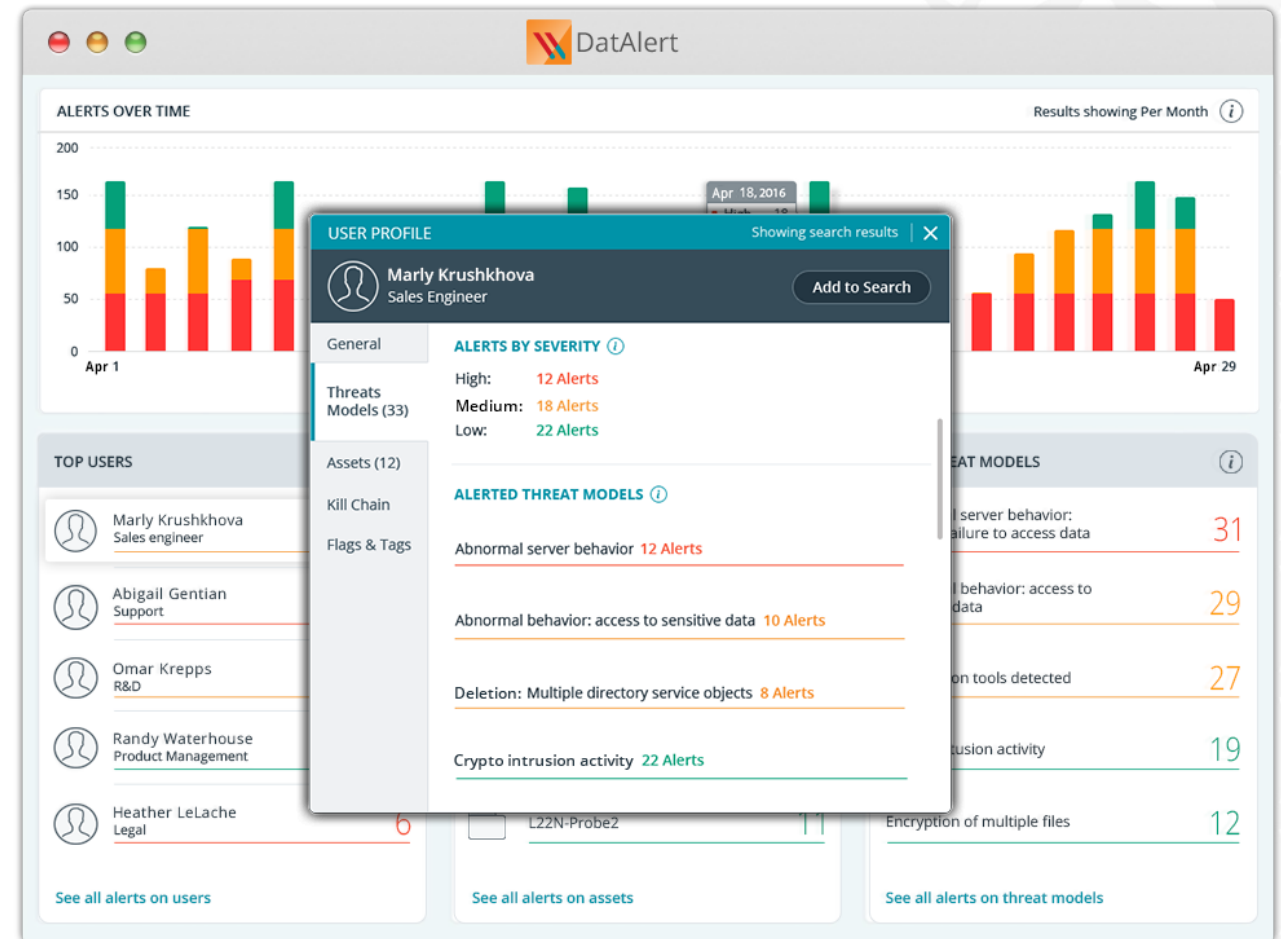


# Complete Audit Trail of User Activity



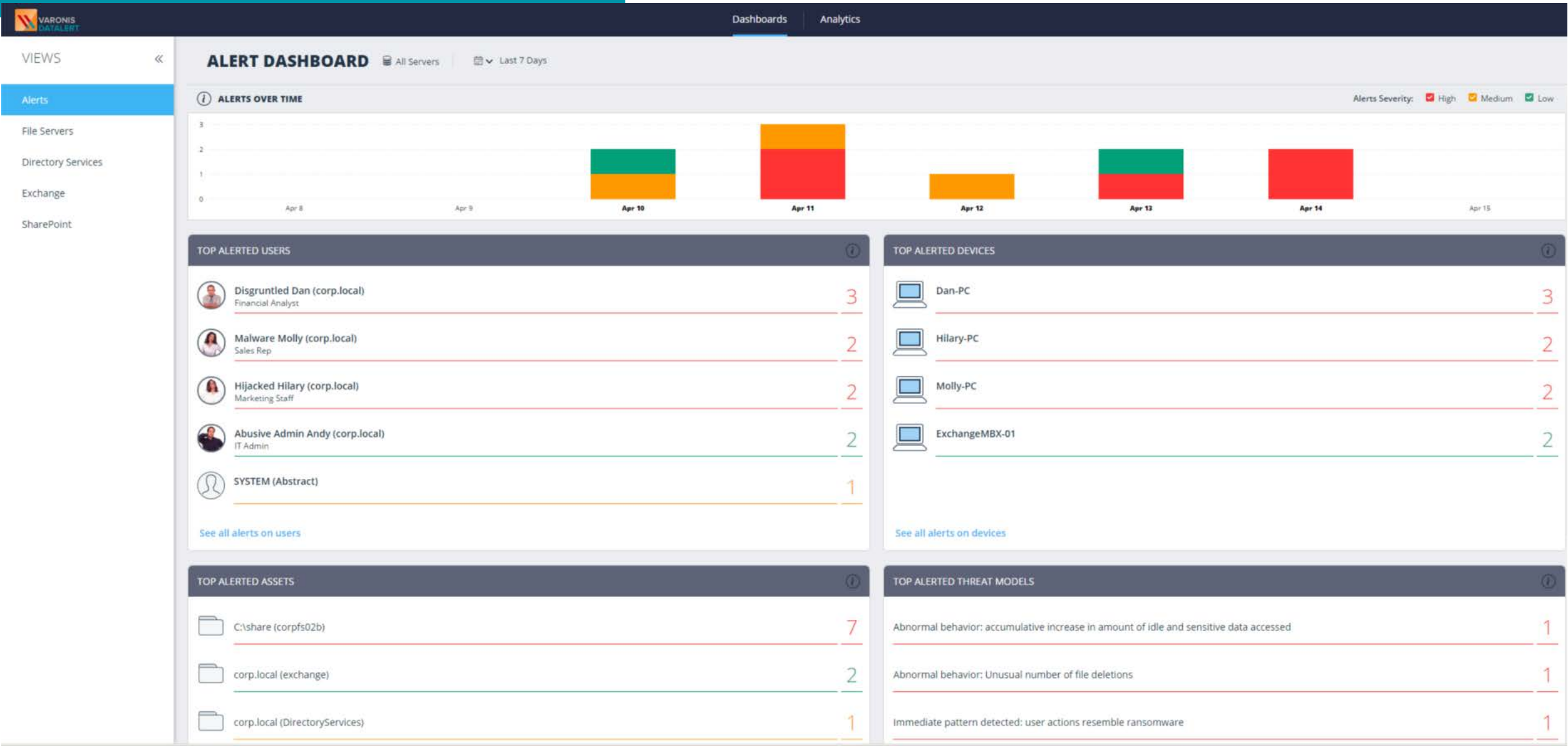
# (UBA)Behavioral & Real Time Alerts/Threat models

- ◆ **Abnormal Service Behavior:**  
Access to atypical files
- ◆ **Abnormal User Behavior:**  
Unusual amount of access to idle and sensitive data
- ◆ **Ransomware alerted on and stopped**
- ◆ **Insider threats detected and stopped**
- ◆ **Real time visibility into auditing**





# Alert Dashboard for Threat Detection & Investigation





## File servers

DG-IDU

Add Widget



No. Of Folders With Open Access



13%

31 Folders With Open Access



No. Of Sensitive Files With Open Access

12  
Files

20% Sensitive Files With Open Access



No. Of Sensitive Folders With Open Access



55%

13 Sensitive Folders With Open Access



No. Of Folders With Open Access (Inc. Inherited)



44%

105 Folders With Open Access (Inc. Inherited)



No. Of Folders With Stale Data



3%

6 Folders With Stale Data



No. Of Folders With User ACEs

84

Folders

35% Folders With User ACEs

## Key Risk Indicators

Work Area

Statistics

Log

Reports

Alerts

Print

Print Preview

Directories

ReloadViewFiltersHistory

Resources: All resources

Look For: Search

Directory	Total Hi...	Classification Results
corps02b		
C:	28870	American Express (0/1625),AU Privacy Act (0/5),California SB-13
share	28870	American Express (0/1625),AU Privacy Act (0/5),California SB-13
apps	0	
B4	249	American Express (0/4),California SB-1386 (16/16),GLBA (Gramm
B4Released-Applications	0	
BBB-Project	32	MasterCard (0/5),PCI Data Security Standards (PCI-DSS) (0/16),V
BI	0	
Corporate Finances	2272	American Express (0/24),AU Privacy Act (0/5),CH Personal Data I
databases	255	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm
DataShare1	5	HIPAA (5/5)
dss	95	American Express (0/12),MasterCard (0/19),PCI Data Security Sta
DW	0	
Embd-Engineering	34	DE Personal Data Protection (16/16),HIPAA (18/18)
ERP-Arc	24	DE Personal Data Protection (15/15),HIPAA (9/9)
finance	10339	American Express (24/1160),California SB-1386 (8/552),DE Perso
Fondue	219	American Express (0/22),California SB-1386 (0/4),GLBA (Gramm
groups	17	Media file types (0/17)
HR	562	American Express (0/2),California SB-1386 (10/64),DE Personal C
HRArchive-DTE	0	
HR-Private	44	American Express (0/8),California SB-1386 (0/2),GLBA (Gramm-L
HumanResources	301	American Express (0/32),California SB-1386 (0/16),DE Personal C
legal	12785	American Express (0/102),California SB-1386 (0/426),Confidential
Market	149	American Express (0/30),California SB-1386 (0/2),DE Personal D
Market_Budget	36	American Express (0/6),California SB-1386 (0/2),GLBA (Gramm-L
Market-Cost	48	DE Personal Data Protection (25/25),HIPAA (15/15)
Marketing	0	
Mobile	1126	American Express (0/175),California SB-1386 (0/36),GLBA (Gram
OEM Sales	48	DE Personal Data Protection (30/30),HIPAA (18/18)
Operation_FamilyJewels	0	
Private-Confidential	0	
PRS	34	DE Personal Data Protection (0/2),MasterCard (5/5),PCI Data Sec
...	56	DE Personal Data Protection (35/35),HIPAA (21/21)

Users and Groups

Directories

Statistics

From Monday April 10, 2017 To Friday April 14, 2017 Search Show: Chart Table

Activity By DateSubdirectory StatisticsUser AccessInactive UsersLeast Active UsersInactive DirectoriesActivity on Unmanaged Directories and Resources

User	Percentage
Ann Schoenberger(corp.local)	13.64%
Erin Manning(corp.local)	9.02%
Margaret Coakley(corp.local)	4.09%
Melissa Cooley(corp.local)	3.91%
Crystal Grove(corp.local)	15%
Christen Greenslade(corp.local)	4.09%
1.69-2.4% of events, 7 users	0.13%
0.22-1.09% of events, 7 users	35.08%
Disgruntled Dan(corp.local)	15.05%
...	15.05%

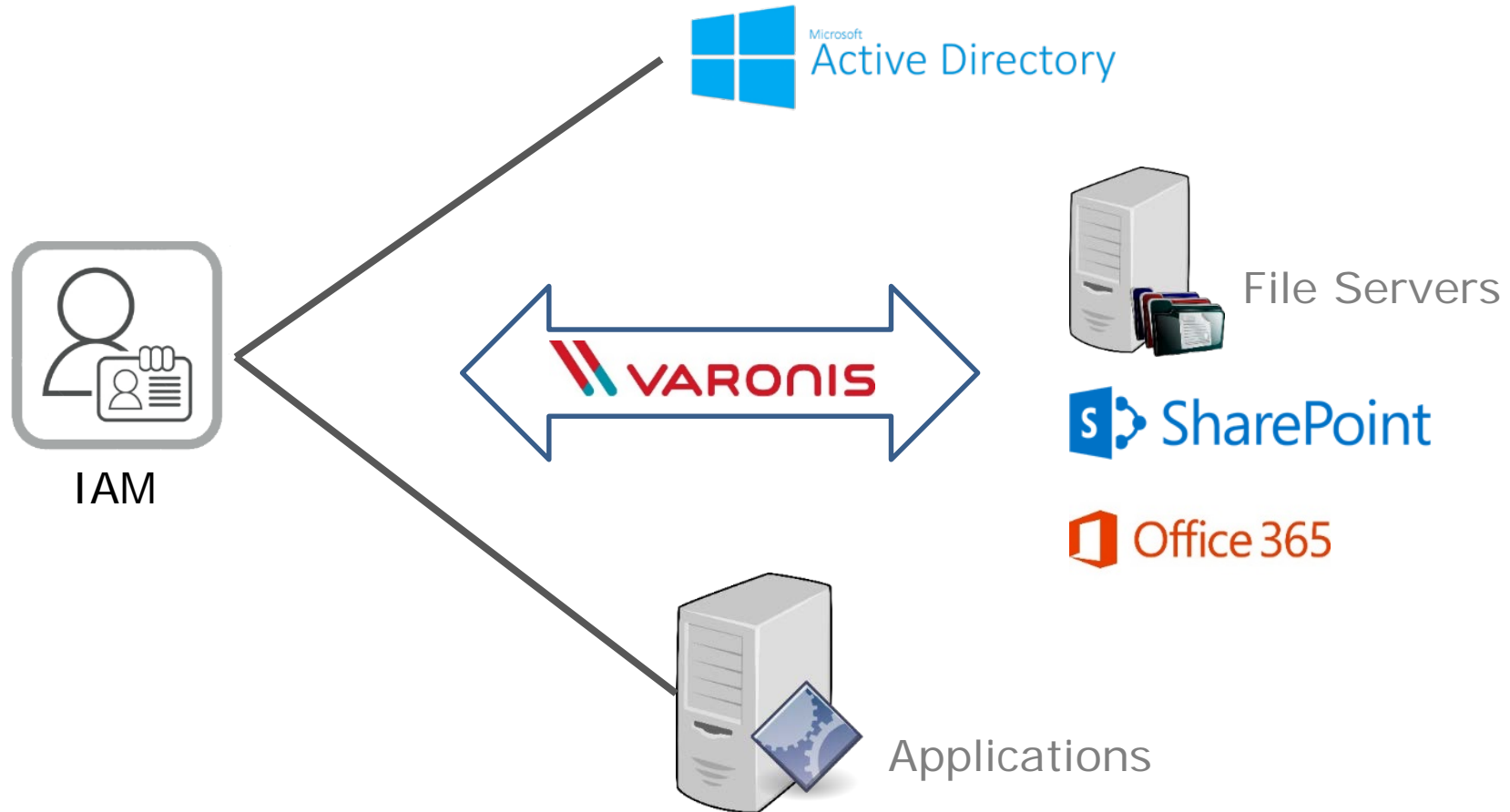
Jump To...  
Manage Ownership...  
Set Ownership...

Ann Schoenberger(corp.local)  
Erin Manning(corp.local)  
Margaret Coakley(corp.local)  
Melissa Cooley(corp.local)  
Crystal Grove(corp.local)  
Christen Greenslade(corp.local)  
1.69-2.4% of events, 7 users  
0.22-1.09% of events, 7 users  
Disgruntled Dan(corp.local)

Represents the distribution of events per user on the specified directory

## Identify and Manage Folder Owners

# Extending IAM with Varonis





# Eliminate Global Access

Simulation Results

Users impacted:

Allen Carey (CORP)

Angela Martin (CORP)

Erin Hannon (CORP)

Pam Beesly (CORP)

resources: fileserver01

Directory	Permissions	Size	Sensitive Data
DSR		25.4 GB	
Finance	R	1.2 TB	

Commit

Directory	Permissions
Everyone (Abstract)	Protection added to C:\Share\legal
Legal (CORP)	Add RXL for Legal (CORP) to C:\Share\legal

☒ Immediate

☐ Schedule on: / /

Commit

Cancel



**Warning!**  
Erin Hannon will lose access to data she's been using!

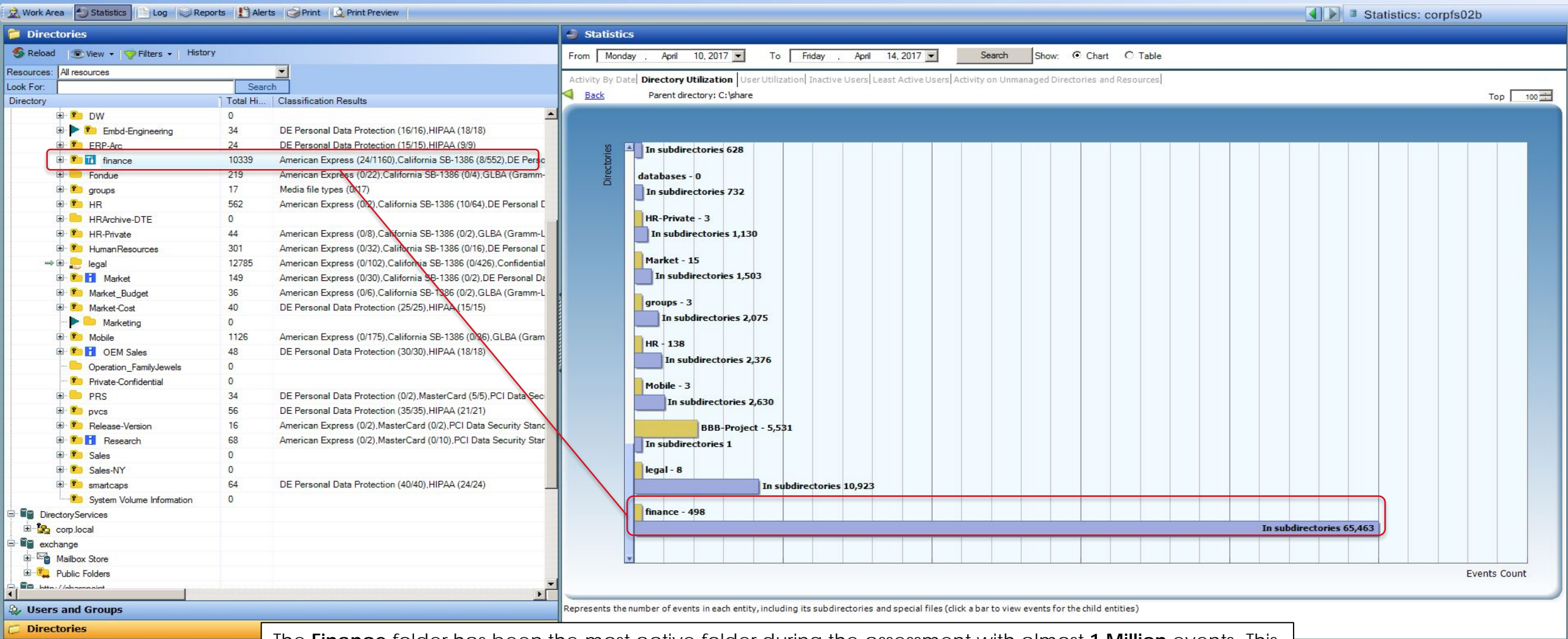




# Automate Entitlement Reviews

Status	Users	Permission	Decision and Explanation	
	  er (CORP)	Exe-Write	<input checked="" type="radio"/> Keep	<input type="radio"/> Remove
	 Andrew Carlisle (CORP)	Exe-Write	<input checked="" type="radio"/> Keep	<input type="radio"/> Remove
	 Andrew Weirich (CORP)	NA	<input type="radio"/> Keep	<input checked="" type="radio"/> Remove
	 Andy Welch (CORP)	Execute	<input checked="" type="radio"/> Keep	<input type="radio"/> Remove
	 Anne Lampkin (CORP)	Execute	<input checked="" type="radio"/> Keep	<input type="radio"/> Remove

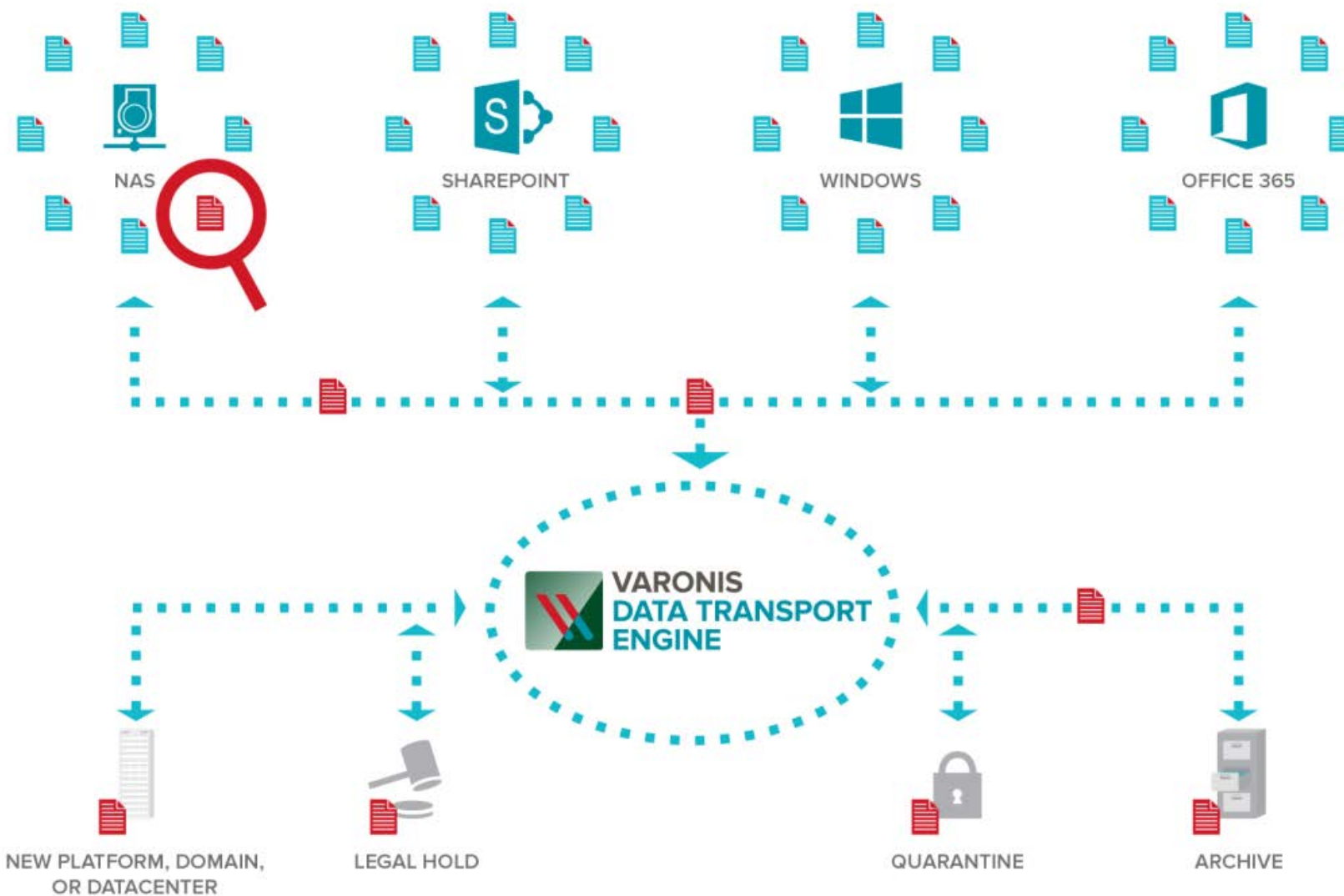




The **Finance** folder has been the most active folder during the assessment with almost **1 Million** events. This folder also contains Sensitive data so permissions need to be reviewed and ensure that only the proper users/groups should have access to this data set.

Determine What High Risk Data is Active vs. Stale

# Automate Disposition & Quarantining



# Automatically send Group Membership or Folder Permission Reports to Owners

## User or Group Permissions for Directory - Databases

Displays a list of users having permissions on the specified directories

15 results displayed

File Server	Access Path	User/Group	Logon Name	Current Permissions	Recommended Permissions	Recommendations	Classification Results
corpfs02b	C:\share\databases	Abstract\Everyone	Everyone	MRWXL	MRWXL	No change	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US Social Security Number (0/8),Visa (0/40)
corpfs02b	C:\share\databases	corp.local\Duane Hocker	DuaneHocker	MRWMLS	MRWMLS	No change	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US Social Security Number (0/8),Visa (0/40)
corpfs02b	C:\share\databases	corp.local\Anne Lampkin	AnneLampkin	MRWMLS		Remove	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US Social Security Number (0/8),Visa (0/40)
corpfs02b	C:\share\databases	corp.local\Christopher Overfelt	ChristopherOverfelt	MRWMLS		Remove	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US Social Security Number (0/8),Visa (0/40)
corpfs02b	C:\share\databases	corp.local\Jeffrey Shaw	JeffreyShaw	MRWMLS		Remove	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US Social Security Number (0/8),Visa (0/40)
corpfs02b	C:\share\databases	corp.local\sec_IT-HD	sec_IT-HD	MRWMLS	MRWMLS	No change	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US Social Security Number (0/8),Visa (0/40)
corpfs02b	C:\share\databases	corp.local\sec_IT-BI	sec_IT-BI	MRWMLS	MRWMLS	No change	American Express (0/44),California SB-1386 (0/8),GLBA (Gramm-Leach Bliley Act) (0/8),HIPAA PHI Data - US (0/11),MA 201 CMR 17 (0/8),MasterCard (0/38),PCI Data Security Standards (PCI-DSS) (0/90),US





# Automated Privileged Account Review

## Group Members - Domain Admins

Displays the changes in group membership for the specified groups

94 results displayed

Group Name	Member Name	Logon Name (Group)	Logon Name (Member)	Member Type	User with Password that Never Expires (Member)	LastLogonTimestamp (Member)
corp.local\Domain Admins	corp.local\Administrator	Domain Admins	Administrator	User	Yes	4/26/2017 5:14 PM
corp.local\Domain Admins	corp.local\Aaron Joy	Domain Admins	AaronJoy	User	Yes	11/10/2014 4:25 PM
corp.local\Domain Admins	corp.local\Jim Sheldon	Domain Admins	JimSheldon	User	Yes	4/15/2017 8:15 PM
corp.local\Domain Admins	corp.local\Katherine Caudle	Domain Admins	KatherineCaudle	User	Yes	4/15/2017 8:17 PM
corp.local\Domain Admins	corp.local\Clay Owens	Domain Admins	ClayOwens	User	Yes	4/12/2016 1:42 PM
corp.local\Domain Admins	corp.local\George Schneider	Domain Admins	GeorgeSchneider	User	Yes	11/19/2014 10:19 PM
corp.local\Domain Admins	corp.local\Jane Carey	Domain Admins	JaneCarey	User	Yes	4/15/2017 8:13 PM
corp.local\Domain Admins	corp.local\Art Norris	Domain Admins	ArtNorris	User	Yes	4/20/2016 3:48 PM
corp.local\Domain Admins	corp.local\Bill Whitley	Domain Admins	BillWhitley	User	Yes	4/20/2016 3:48 PM
corp.local\Domain Admins	corp.local\Bart Hartz	Domain Admins	Barthartz	User	No	9/2/2014 10:14 PM
corp.local\Domain Admins	corp.local\Dorothy Stacy	Domain Admins	DorothyStacy	User	Yes	4/12/2016 3:19 PM
corp.local\Domain Admins	corp.local\Karen Williams	Domain Admins	KarenWilliams	User	Yes	11/19/2014 10:20 PM
corp.local\Domain Admins	corp.local\Giulietta Campbell	Domain Admins	GiuliettaCampbell	User	Yes	4/15/2017 8:10 PM
corp.local\Domain Admins	corp.local\Harry Lampkin	Domain Admins	HarryLampkin	User	Yes	4/15/2017 8:11 PM
corp.local\Domain Admins	corp.local\Heather Stivers	Domain Admins	HeatherStivers	User	Yes	11/19/2014 10:19 PM
corp.local\Domain Admins	corp.local\Laurel Herman	Domain Admins	LaurelHerman	User	Yes	4/20/2016 3:49 PM
corp.local\Domain Admins	corp.local\Eileen Warnes	Domain Admins	EileenWarnes	User	Yes	11/19/2014 10:18 PM
corp.local\Domain Admins	corp.local\Frank Holloman	Domain Admins	FrankHolloman	User	Yes	11/19/2014 10:19 PM
corp.local\Domain Admins	corp.local\Allen Kamen	Domain Admins	AllenKamen	User	Yes	4/15/2017 7:33 PM





# Report on Stale Data – corpfs02b

## Stale Data - Older than 2 years

Displays the estimated size of inactive directories, for archiving purposes

5299 results displayed

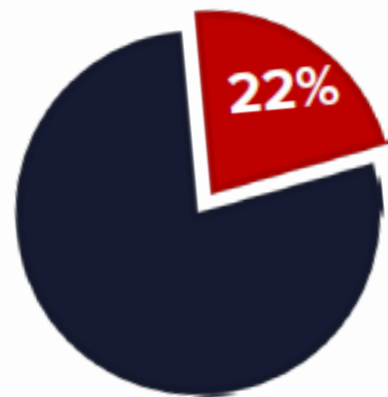
File Server	Access Path	Size of Folder and Subfolders (in MB)	Create Date	Modify Date	Access Date	Classification Results
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road	64.637	9/4/2014 7:02 PM	9/4/2014 7:02 PM	9/4/2014 7:02 PM	Media file types (17/17)
corpfs02b	C:\share\groups\GROUPS\HR	64.637	9/4/2014 7:02 PM	9/4/2014 7:02 PM	9/4/2014 7:02 PM	Media file types (0/17)
corpfs02b	C:\share\Fondue\dsr\QA	10.789	9/4/2014 7:02 PM	9/4/2014 7:02 PM	9/4/2014 7:02 PM	American Express (0/12),MasterCard (0/8),PCI Data Security Standards (PCI-DSS) (0/25),Visa (0/6)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\06 - I want You (She's So Heavy).mp3	10.418	12/2/2010 7:13 PM	9/11/2009 8:29 PM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\Fondue\dsr\QA\Bug tracker	7.602	9/4/2014 7:02 PM	9/4/2014 7:02 PM	3/23/2015 1:05 PM	American Express (8/8),MasterCard (2/2),PCI Data Security Standards (PCI-DSS) (11/11),Visa (2/2)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\01 - Come Together.mp3	6.035	12/2/2010 7:13 PM	9/18/2005 1:50 AM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\09 - You Never Give Me Your Money.mp3	5.621	12/2/2010 7:13 PM	9/11/2009 8:39 PM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\03 - Maxwell's Silver Hammer.mp3	4.668	12/2/2010 7:13 PM	9/18/2005 1:50 AM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\04 - Oh! Darling.mp3	4.590	12/2/2010 7:13 PM	9/18/2005 1:50 AM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\07 - Here Comes the Sun.mp3	4.516	12/2/2010 7:13 PM	9/11/2009 8:32 PM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\B4\Users	4.332	9/4/2014 7:01 PM	9/4/2014 7:01 PM	9/4/2014 7:01 PM	American Express (0/2),MasterCard (0/1),Patent (0/122),Visa (0/1)
corpfs02b	C:\share\B4\Users\Elinor	4.328	9/4/2014 7:01 PM	9/4/2014 7:01 PM	9/4/2014 7:01 PM	American Express (0/2),MasterCard (0/1),Patent (0/122),Visa (0/1)
corpfs02b	C:\share\B4\Users\Elinor\dropbox	4.328	9/4/2014 7:01 PM	9/4/2014 7:01 PM	9/4/2014 7:01 PM	American Express (0/2),MasterCard (0/1),Patent (0/122),Visa (0/1)
corpfs02b	C:\share\B4\Users\Elinor\dropbox\stuff	4.328	9/4/2014 7:01 PM	9/4/2014 7:01 PM	9/4/2014 7:01 PM	American Express (2/2),MasterCard (1/1),Patent (122/122),Visa (1/1)
corpfs02b	C:\share\Market\Public	4.242	9/4/2014 7:09 PM	11/19/2014 10:22 PM	11/19/2014 10:22 PM	DE Personal Data Protection (9/9),Sarbanes Oxley - US (9/9)
corpfs02b	C:\share\Market\Public\Varonis - Operational Plan 5.9.pdf	4.242	11/19/2014 10:22 PM	11/10/2013 12:47 PM	11/19/2014 10:22 PM	DE Personal Data Protection (9/9),Sarbanes Oxley - US (9/9)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\05 - Octopus's Garden.mp3	4.102	12/2/2010 7:13 PM	9/11/2009 8:21 PM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\02 - Something.mp3	3.879	12/2/2010 7:13 PM	9/11/2009 8:11 PM	12/2/2010 7:13 PM	Media file types (1/1)
corpfs02b	C:\share\groups\GROUPS\HR\Abbey Road\08 -	3.645	12/2/2010	9/8/2009	12/2/2010	Media file types (1/1)

This report highlights where Stale data resides. Some data may also be Sensitive which presents additional risk.



Try it yourself, 90 minutes to install.

KEY FINDINGS:  
GLOBAL ACCESS GROUPS



Over **1.9 million** folders  
with global group access

**Global Group Access**

These include groups such as Everyone, Domain Users, and Authenticated Users.

Global access groups will allow anyone within an organization to access data with these access controls.

Everyone group allows anyone on the network access.

**Distribution of Global Group Access**

CIFS_FS_2 :	11%
CIFS_FS_3 :	7%
CIFS_FS_4 :	20%
SP_FS_1 :	44%
EXCH_FS_1 :	18%

It was demonstrated very quickly that this is a product that works –

Varonis does what it says it can do.

-- Ron Mark | Innovation and IT Manager,  
Gas Strategies



Our mission is to protect data from insider threats and cyberattacks.

**Hear what our 5,700+ customers have to say:**

<https://www.varonis.com/ransomware-solutions>

<https://www.varonis.com/customers/>

<https://www.techvalidate.com/product-research/varonis-data-security-platform>

<https://www.techvalidate.com/portals/why-organizations-turn-to-varonis-to-meet-gdpr>

Thank You!

Chris Prangle

[cprangle@varonis.com](mailto:cprangle@varonis.com)

212-729-6593 (cell)

