IBM Security and Thales

Presents a 4-part series: Zero Trust and Your Data



Zero Trust and your Data – Session Schedule

Session 1

Securing Containers and Managing Access June 16th, 2020 2:00 pm - available on-demand https://community.ibm.com/community/user/security/viewdocument/zero-trust-and-your-data-part-1

Session 2

Securing Databases and Managing Vulnerabilities July 14, 2020 11:00 a.m. - available on-demand <u>https://community.ibm.com/community/user/security/viewdocument/zero-trust-and-your-data-part-2-s</u>

Session 3

Cloud Data Security and Cloud Keys Management

Aug 11, 2020 11:00 a.m. - available on-demand

https://community.ibm.com/community/user/security/viewdocument/zerotrust-and-your-data-cloud-data

Session 4 - Advanced Threat and Continuous Monitoring Sept 17, 2020 1:00 p.m.



Businesses are embracing hybrid multicloud to gain agility, competitive advantage and drive their organizations forward.

However, expanding the data footprint increases the organization's attack surface, resulting in a host of new data security and compliance challenges.

Real world consequences



Global average cost of an insider threat

\$3.92M

Average cost of a data breach

74%

of organizations are negatively impacted by a cybersecurity skills shortage

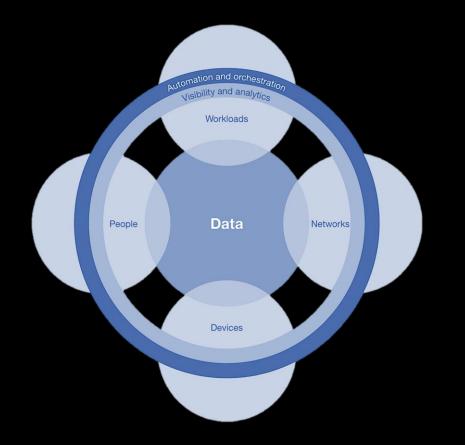
87%

are concerned with data security adversely impacting the use of public cloud services.

279 days

average time to identify and contain a breach

Forrester's Zero Trust Framework



Forrester's Zero Trust Framework

A conceptual and architectural model for how security teams should redesign networks into secure microperimeters, use obfuscation, limit risks associated with excessive user privileges, analytics and automation to improve detection and response.

Key tenants:

Data-Centric Approach Security Travels with the Data



Never Assume Trust Continuously Use Risk-Based Analysis

A Paradigm Not A Product

- Discover, classify and assess vulnerabilities for all data
- Darken multicloud apps from ALL networks
- Verify first then connect
- Least privileged, app-session access-based on context
- Encrypt everything
- Device-app and app-app micro segments
- Visibility and control inside and outside perimeter
- Continuous assessment

A smarter data security approach addresses key challenges across disparate IT environments

Discover your sensitive data across on premises and cloud data stores

Understand risk with contextual insights and analytics to quickly uncover suspicious activity

Respond to threats and share alerts and reports in real-time

Collaborate to share and gain access to critical threat information and remediate risk across teams



Environments and Data Sources

- Databases / structured data
- Cloud
- Containers
- Big data / semi-structured data
- Files / unstructured data
- Mainframes
- Applications
- IoT

Data security with IBM Security Guardium

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DISCOVER AND UNDERSTAND

- Guardium Insights
- Guardium Vulnerability Assessment
- Guardium Data Risk Manager

RESPOND

- Guardium Data Protection
- Guardium Data Encryption
- Guardium Key Lifecycle Manager

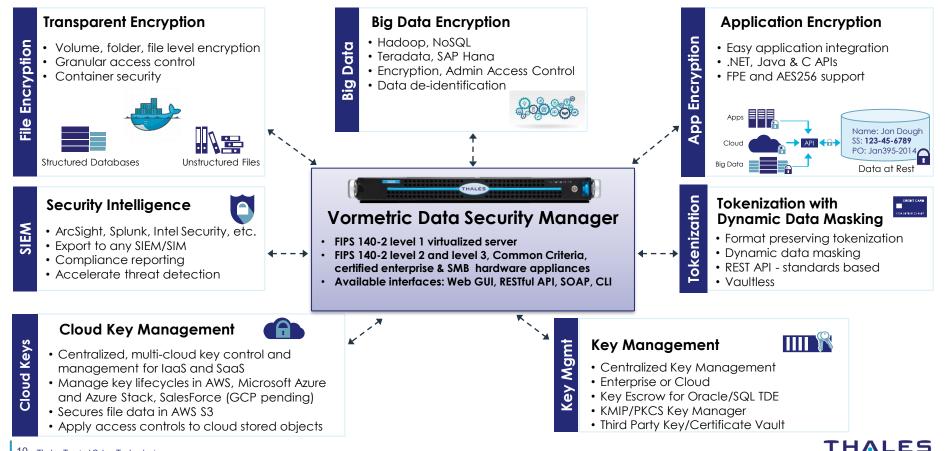
COLLABORATE

- Guardium Data Protection
- Guardium Insights

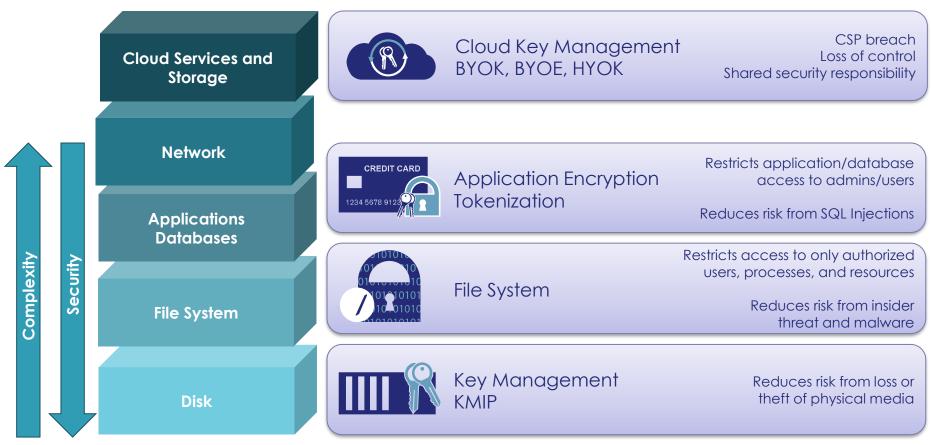
Integrations

- Data discovery and classification
- Security orchestration, automation and response
- Security information and event management
- Data leak prevention
- Identity and access management
- Privacy management
- Vulnerability assessment
- IT operations and service management
- Application security
- Auditing
- Archiving/backup restore
- Web Application firewalls

Vormetric Data Security Platform



Security Solutions for your Data Stack



THALES

Vormetric Transparent Encryption: Protection Layers

	Protection Layer	Risks Mitigated	
	Key Management for Cloud Services / Cloud Storage (Object Storage)	CSP Breach Loss of control / Shared responsibility	CipherTrust Cloud Key Manager
Cloud Risk Mitigation CSP breach	Application/ Database	App/Database level DBAdmins, DB Users SQL Injections	Application Encryption
or loss of control, shared responsibility	♥ File System	System level control User/groups for System/ LDAP/AD/Hadoop/Containers Includes Privileged/Root Users for APT/Malware protection	Transparent Encryption
	Disk	Loss or theft of physical media	Key Management

THALES

SIEM Integration: For Compliance Reporting

- Supports compliance reporting and audits
- Reveals unauthorized access attempts to protected data
- Identify compromised users, administrators and applications
- Identify attacks on data such as APTs or malicious insiders
- Invaluable for post-breach forensics

Top 10 Users

Last 7 days

uinfo 🗘

root,uid=0,gid=0\root,bin,daem

haldaemon.uid=101 (User Not)

jira,uid=1005,gid=100\users\

mysql,uid=27,gid=27\mysql

root,uid=0 (User Not Authentic

root,uid=0,gid=0\root,bin,daem/ve,503) 19 apache,uid=48 (User Not Auth

SYSTEMWINT AUTHORITY

phenscheid\\VORMETRIC

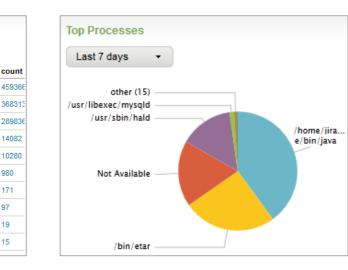
980

171

97

15

root,uid=0,gid=0\root\



cess Attempts from Unauthoriz	ted Agents	
Last 7 days 👻		
shost ≎	count \$	percent
PHENSCHEID-WIN7.vormetric.com	31	38.27
fslpar215.i.vormetric.com	26	

er Logins	S		
Last 7 days 🔹			
Name ‡	Result ‡	count \$	percent \$
User1	ок	199	95.2
anand	ок	5	2.39
User1	Failed	4	1.91
voradmin	ок	1	0.47

THALES



Our journey to a bigger and better data protection platform IBM Security Guardium Insights

for IBM Cloud Pak for Security

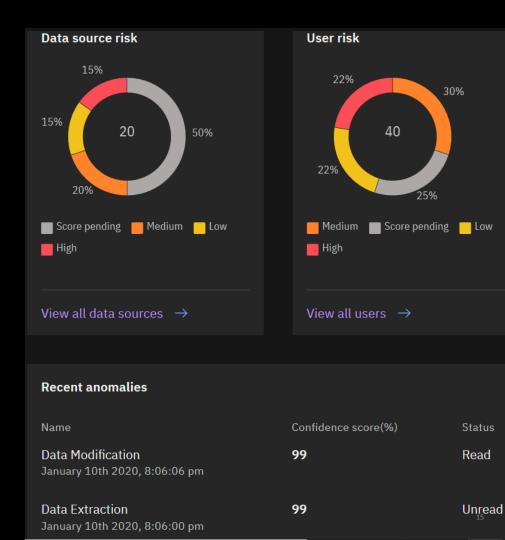
Guardium Insights will help existing and new clients using Guardium Data Protection by:

- Accelerating decision making using new, risk-based data security insight technology
- Reducing cost and complexity of collecting, managing and retaining data security and audit data
- Performing long-term reporting in seconds
- Enabling flexible deployment with on-prem, public cloud or private cloud installation options

Discover

Centrally store and visualize security and compliance data

- Quickly visualize data activity across on-premises and cloud-hosted data sources
- Produce pre-defined and custom data security and compliance reports in seconds
- Track how data is being accessed, shared, and interacted with using agent and agentless based monitoring
- Discover hidden threats and potential risks



Understand

Apply advanced analytics to uncover threats

- Advanced analytics learn logical operations in a business – and spot anomalies at the first occurrence
 - Uncover user behavior anomalies
 - Understand major deviations in database transactions
- Detect potential fraud or threat activities faster

Data Extraction

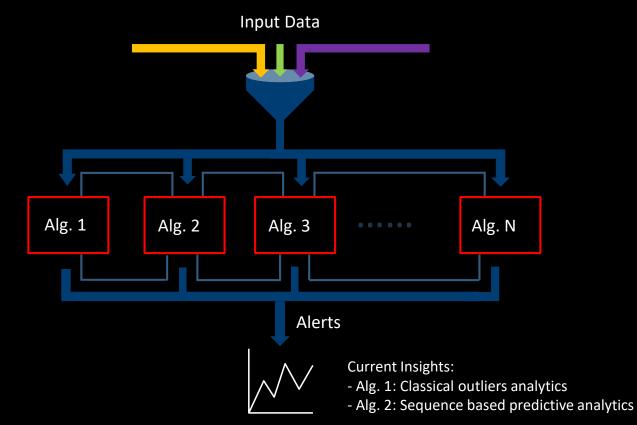
2019-10-08 11:00:00

Summary

A HIGH data extraction violation has been triggered by on , which violates the normal extraction on asset USER.

Details		Timeline		
Who	Actor: DB2	INST1		
What	Database N	Name: DB2INST1		
When	Timestamp	o: 2020-01-10 20:06:00		
Where				
Why	Anomaly T	ype: Data Extraction		

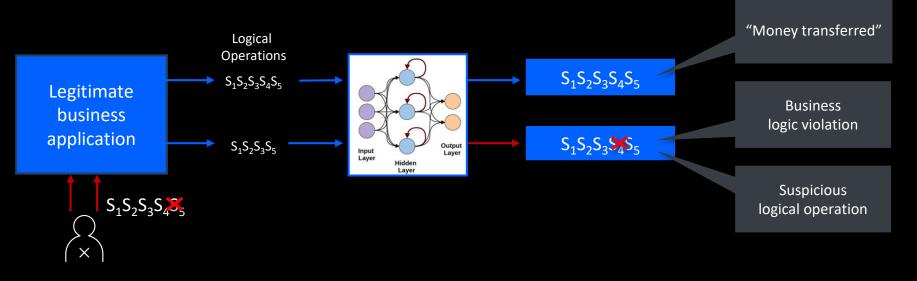
Comprehensive analytics



Sequence-based predictive analytics

Logical operation \rightarrow Online money transfer

- Step 1: Lookup source account
- Step 2: Verify transfer limit
- Step 3: Lookup destination account
- Step 4: Debit source account
- Step 5: Credit destination account



Respond

Tools at your fingertips to mitigate threats

- Standardized remediation workflows across hybrid multicloud environments
- Block unauthorized and suspicious users from accessing data
- Create tickets, enrich cases, and escalate issues
- Share insights and reports across teams

ction 🔨	Create a ticket
a ticket	Open an incident report ticket in Service Now
s unread	Brief description
	Add a short description
	Assign ticket
	Choose an individual or group to assign
	Detailed description
	Include all necessary details here

Take A

Create

Block

Mark a

Ignore

Collaborate

Team up in the battle against threats

- Share out reports
- Customize reports to find repeating events
- Synchronized view and response to threats across teams

Share			
Copy the URL so you can share it with others.			
https://10.10.9.74/report?id=702&start=2020-0	9-16T10%3A10%3A25.000Z&end=2020-09-16T	13%3A10%3A25.000Z&tenantid=T	

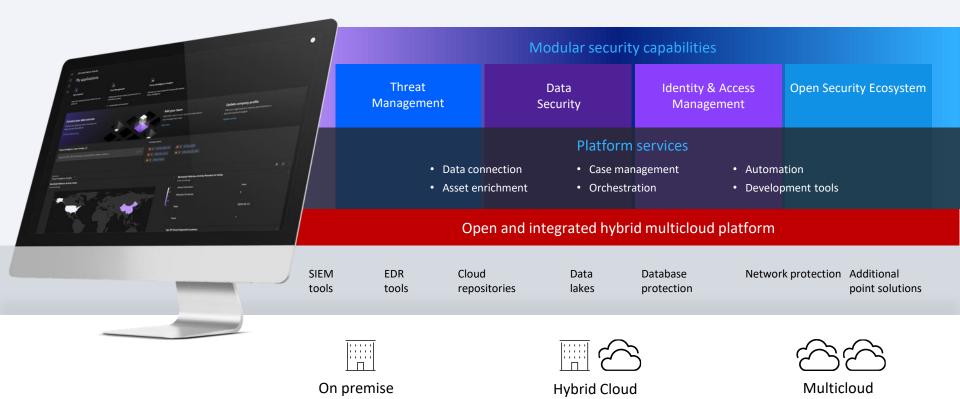
Homepage /				
Select a Report				
	Full SQL by DB User Name			
Data points Client IP Source Program Sci, Yaon Object Name	Data points Clanet (P Source Program Source Program Object Name Dispit (in 5QL command)	Data points Client IP Source Program		
DML Execution on Sensitive Objects				
Data points Access Period Client IP Source Program	Data points Client IP Server IP Server Type SQL Verb Count of Commands	Data points Access Rule Description Client IP Server IP DB Username Full SQ String Serverity Description		

IBM Security Guardium Insights for IBM Cloud Pak for Security

Demo

IBM Cloud Pak for Security

An open multicloud platform to gain security insights, take action faster, and modernize your architecture



IBM Security Guardium Insights for IBM Cloud Pak for Security

Collect, analyze and act on years of data security and audit data in the Guardium Insights for Cloud Pak for Security data security hub whether that data comes from Guardium Data Protection via collectors or is streamed directly into the hub from Cloud sources in an agentless way.

	IBM Cloud Pak for Security						
		Data Security			Open Security Ecosystem		
		IBM Secur	ity Guardium Insigh	nts			
	Activity MonitoringRisk-based PrioritizationData Protection• Long-term security and audit data retention and reporting• One data security console dashboard• Deeper investigation and analytics						
ſ	Case management	Pla • Automation	tform services • Orchestratior	ı •	Federated search		
		Open and integrate	ed hybrid multiclou	d platform			
	IBM Guardium Data Protect Sources supported via: STAPs Native Audit ATAPs (i.e., Oracle) ETAPs	PostgreSC	Trora via Kinesis for:	Microso Azure SQL Cosmos SG Cosmos M	QL Cosmos Gremlin		

IBM Security Guardium Insights for IBM Cloud Pak for Security

Data security becomes the latest addition to IBM Security's modern, open multicloud platform

Effective August 11th customers can purchase Insights with Cloud Pak for Security and the Red Hat OpenShift Container Platform

Use these resources to get in the know about this exciting news!

- Security Intelligence Announcement Blog
- **Community Post**
- Product page
- Product Tour •
- Data sheet

Centrally store and

visualize data security

and compliance posture

Discover

Understand Evaluate risk across repositories

hybrid multicloud data

Respond Centralize and accelerate responses

Collaborate Unify critical threat information and workflows across teams



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Thank you

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Statement of Good Security Practices: IT system security involves protecting systems and information through prevention, detection and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, misappropriated or misused or can result in damage to or misuse of your systems, including for use in attacks on others. No IT system or product should be considered completely secure and no single product, service or security measure can be completely effective in preventing improper use or access. IBM systems, products and services are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products or services to be most effective. IBM does not warrant that any systems, products or services are immune from, or will make your enterprise immune from, the malicious or illegal conduct of any party.



