Lepide

ALIGNMENT GUIDE

ALIGNING LEPIDE FOR

RANSOMWARE

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1 Introduction

Ransomware is arguably THE most pressing and potentially damaging security threat out there right now. Ransomware is where a company's data is encrypted, held at ransom, and released upon payment.

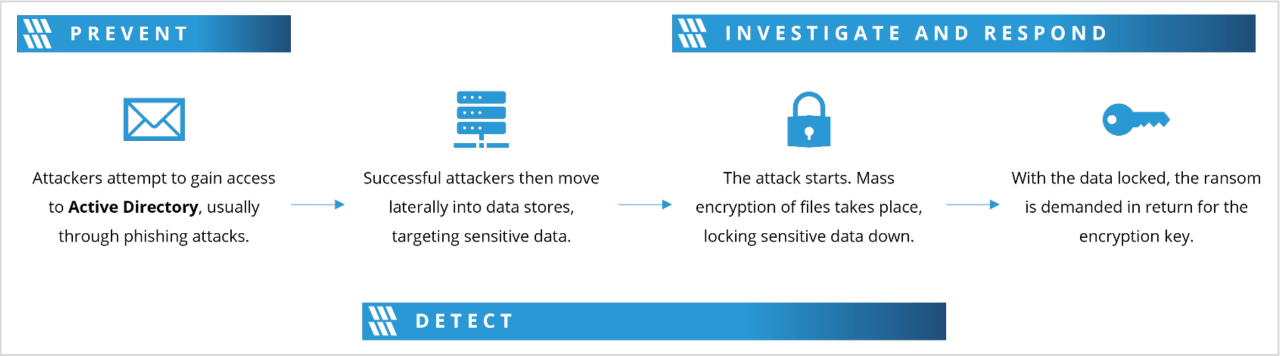
Ransomware often starts with a phishing email, leading to the compromise of an Active Directory account which is then used to spread across the corporate network. It will then attempt to elevate its access and permissions to access even more data to create the maximum amount of disruption.

In all cases, Ransomware relies on Active Directory as its means of moving across the network and in nearly all cases the data that is impacted by ransomware involves data stored on enterprise data stores such as a Windows File Server, OneDrive or SharePoint.

Due to our deep and unique knowledge of Active Directory and these enterprise data stores, using Lepide enables customers to have a significantly faster way to detect, respond and limit the damage of a ransomware attack.

2 Aligning Lepide for Ransomware

There are a number of key questions that you need to be able to answer to be able to detect, prevent, investigate and respond to ransomware attacks.



Attackers attempt to gain access to **Active Directory**, usually through phishing attacks.

Successful attackers then move laterally into data stores, targeting sensitive data.

The attack starts. Mass encryption of files takes place, locking sensitive data down.

With the data locked, the ransom is demanded in return for the encryption key.

In the table below, we align Lepide technology to these questions:

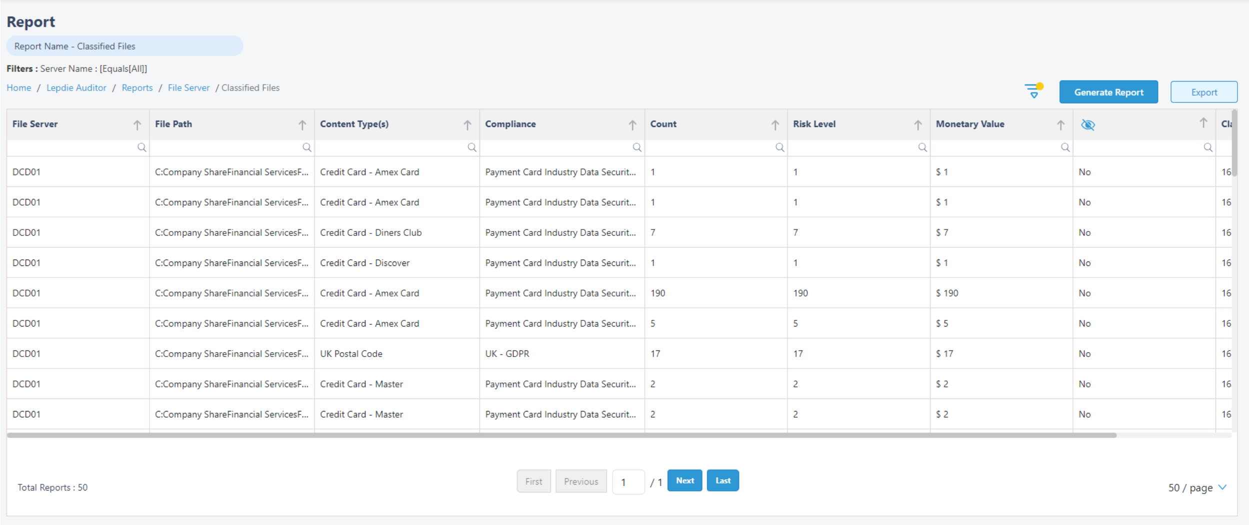
Category	Actions to Take	Technology to Implement
Detect	Detect changes in user behavior of a specific user account	Anomaly Detection and Analysis (Lepide Detect)
	Detect 'en-mass' encryption events taking place across File Servers, OneDrive etc.	
	Detect permissions escalation of a specific user account	Potential Ransomware Attack Threat Model (Lepide Detect) Permissions Escalation (Groups) Threat Model (Lepide Detect)
	Detect multiple instances of failed access attempts that look abnormal	
	Detect user or group of users quickly trying to access large volumes of data	
Prevent	Reduce your attack surface by limiting access to data based on only what is needed	Inactive Users Report (Lepide Audit) Excessive Permissions by User Report (Lepide Trust) Permissions by User Report (Lepide Trust) Users with Admin Privileges Report (Lepide Trust) Open Shares (Lepide Trust) Data Classification (Lepide Identify) Increased Threat Surface Area Threat Model (Lepide Detect) Permissions Remediation (Lepide Protect)
Investigate	Identify the potential source of the threat without having to rely on Windows event logs	All Modifications in File Server (Lepide Audit) Potential Ransomware Attack Threat Model (Lepide Detect) Files Renamed (Lepide Audit)
	See what data could be affected by the threat based upon what the affected user has access to	

		Read Failed (Lepide Audit) Permissions by User Report (Lepide Trust) Excessive Permissions by User (Lepide Trust)
Respond	Automate the response when symptoms of a ransomware attack are detected	Potential Ransomware Attack Threat Model with automated script (Lepide Detect)
	Instruct your SIEM or SOAR platform to engage based on these behaviors	SIEM Integration (Lepide Detect)
	Respond to a threat like this out of hours from your mobile device	Set up an alert to mobile app with automated script (Lepide Detect)

3 Lepide Core Capabilities

3.1 - Lepide Identify

Automatically scan, discover and classify data at the point of creation to help you stay on top of where your sensitive data is located. Remove false positives with proximity scanning technology. This helps to improve the accuracy even further than most classification solutions. Categorize and score data based on compliance, risk, occurrence, monetary value, and more to stay on top of your most sensitive data.



Report

Report Name - Classified Files

Filters : Server Name : [Equals[All]]

Home / Lepdie Auditor / Reports / File Server / Classified Files

File Server	File Path	Content Type(s)	Compliance	Count	Risk Level	Monetary Value		Cl
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Amex Card	Payment Card Industry Data Securit...	1	1	$ 1	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Amex Card	Payment Card Industry Data Securit...	1	1	$ 1	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Diners Club	Payment Card Industry Data Securit...	7	7	$ 7	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Discover	Payment Card Industry Data Securit...	1	1	$ 1	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Amex Card	Payment Card Industry Data Securit...	190	190	$ 190	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Amex Card	Payment Card Industry Data Securit...	5	5	$ 5	No	16
DCD01	C:Company ShareFinancial ServicesF...	UK Postal Code	UK - GDPR	17	17	$ 17	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Master	Payment Card Industry Data Securit...	2	2	$ 2	No	16
DCD01	C:Company ShareFinancial ServicesF...	Credit Card - Master	Payment Card Industry Data Securit...	2	2	$ 2	No	16

Total Reports : 50

In Summary:

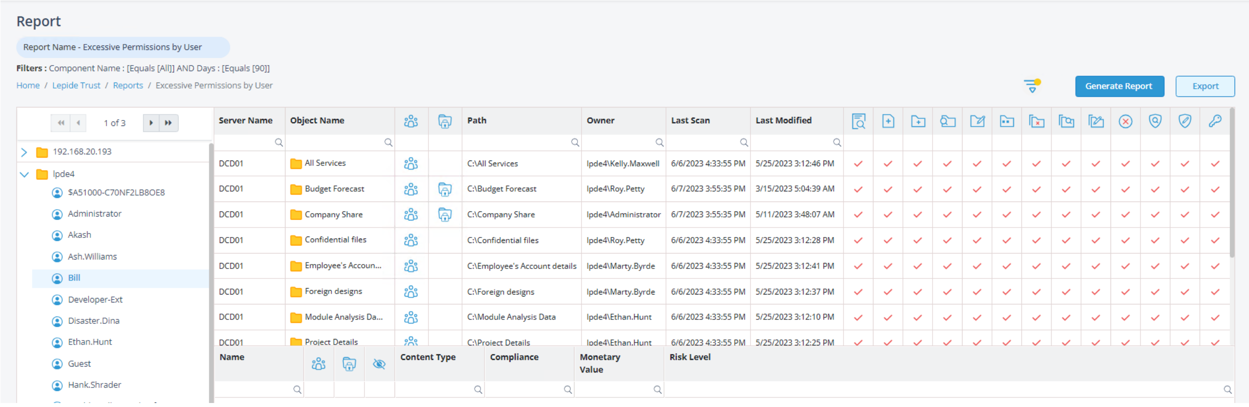
- Discover and classify data in real Tag data.
- Data valuation.
- Identify data most at risk.

For More Information:

https://www.lepide.com/lepide-identify/

3.2 - Lepide Trust

Report on who has access to your most sensitive data and how they were granted that access. Specific reports for users with excessive permissions enable you to spot which users are most likely to be insider threats. Maintain your zero-trust policy by spotting when permissions change and reversing them.



Report

Report Name - Excessive Permissions by User

Filters : Component Name : [Equals [All]] AND Days : [Equals [90]]

Home / Lepide Trust / Reports / Excessive Permissions by User

- 192.168.20.193
- lpde4
  - $A51000-C70NF2LB8OE8
  - Administrator
  - Akash
  - Ash.Williams
  - Bill
  - Developer-Ext
  - Disaster.Dina
  - Ethan.Hunt
  - Guest
  - Hank.Shrader

Server Name	Object Name			Path	Owner	Last Scan	Last Modified													
DCD01	All Services	●		C:\All Services	lpde4\Kelly.Maxwell	6/6/2023 4:33:55 PM	5/25/2023 3:12:46 PM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Budget Forecast	●	●	C:\Budget Forecast	lpde4\Roy.Petty	6/7/2023 3:55:35 PM	3/15/2023 5:04:39 AM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Company Share	●	●	C:\Company Share	lpde4\Administrator	6/7/2023 3:55:35 PM	5/11/2023 3:48:07 AM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Confidential files	●		C:\Confidential files	lpde4\Roy.Petty	6/6/2023 4:33:55 PM	5/25/2023 3:12:28 PM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Employee's Accoun...	●		C:\Employee's Account details	lpde4\Marty.Byrde	6/6/2023 4:33:55 PM	5/25/2023 3:12:41 PM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Foreign designs	●		C:\Foreign designs	lpde4\Marty.Byrde	6/6/2023 4:33:55 PM	5/25/2023 3:12:37 PM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Module Analysis Da...	●		C:\Module Analysis Data	lpde4\Ethan.Hunt	6/6/2023 4:33:55 PM	5/25/2023 3:12:10 PM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DCD01	Project Details	●		C:\Project Details	lpde4\Ethan.Hunt	6/6/2023 4:33:55 PM	5/25/2023 3:12:25 PM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Name				Content Type	Compliance	Monetary Value	Risk Level

In Summary:

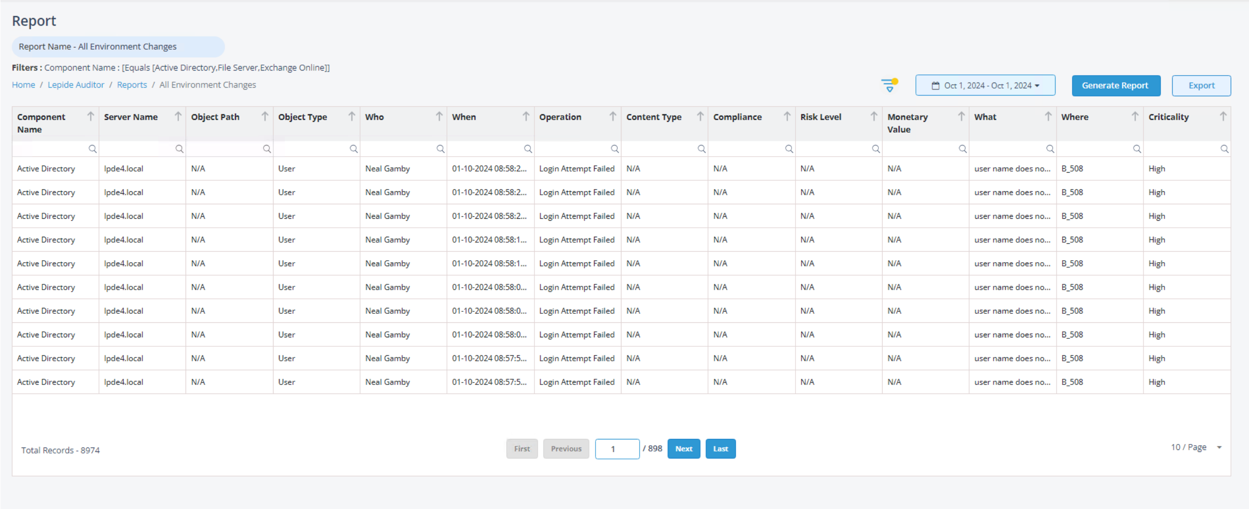
- Analyse permissions.
- Identify over privileged employees (least privilege).
- View historic permissions.
- Track permission changes.

For More Information:

https://www.lepide.com/lepide-trust/

3.3 - Lepide Audit

Audit, report and alert on changes being made to sensitive data and your hybrid environment. Roll back unwanted changes and restore deleted objects to maintain system integrity. Track any changes and modifications users are making to critical files and folders.


Report
Report Name - All Environment Changes

Filters : Component Name : [Equals [Active Directory,File Server,Exchange Online]]

Home / Lepide Auditor / Reports / All Environment Changes
Oct 1, 2024 - Oct 1, 2024
Generate Report
Export

Component Name	Server Name	Object Path	Object Type	Who	When	Operation	Content Type	Compliance	Risk Level	Monetary Value	What	Where	Criticality
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:2...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:2...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:2...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:1...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:1...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:0...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:0...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:58:0...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:57:5...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High
Active Directory	lpde4.local	N/A	User	Neal Gamby	01-10-2024 08:57:5...	Login Attempt Failed	N/A	N/A	N/A	N/A	user name does no...	B_508	High

Total Records - 8974

In Summary:

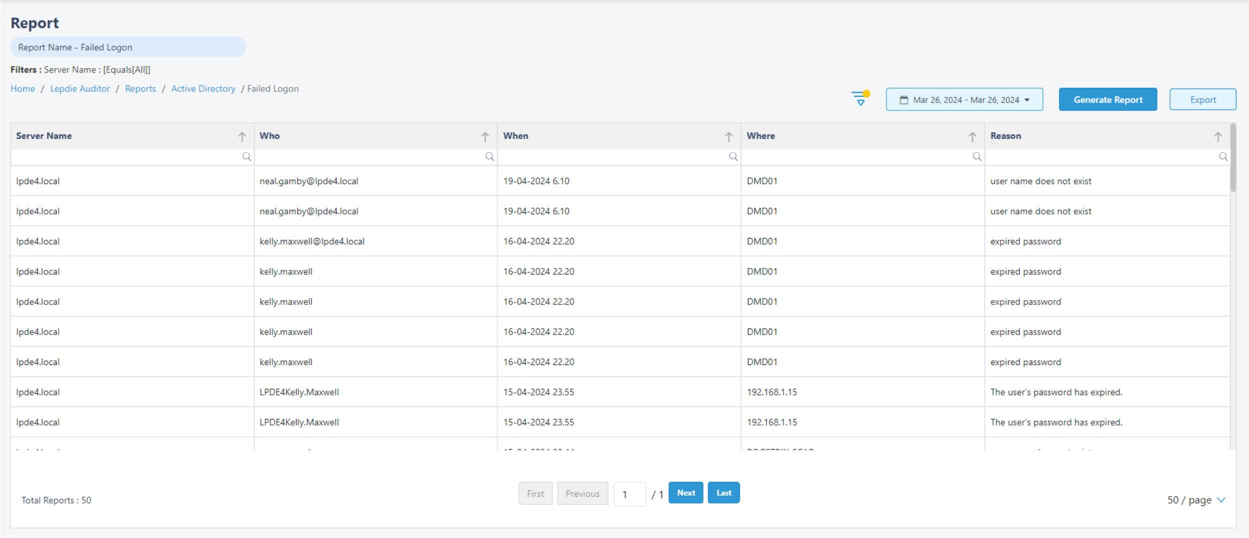
- View interactions with data.
- View interactions with systems governing access to data.
- Employee audit logs.
- Investigate incidents and breach scenarios.

For More Information:

https://www.lepide.com/lepideauditor/

3.4 - Lepide Detect

Machine Learning backed anomaly spotting technology will allow you to determine when one of your users becomes an insider threat. Hundreds of threat models, tailored to specific data security threats, generate real time alerts when the security of your data is in jeopardy. Automated threat responses can be triggered to perform threat mitigations, such as shutting down an affected computer or server.



Report

Report Name - Failed Logon

Filters : Server Name : [Equals[All]]

Home / Lepdie Auditor / Reports / Active Directory / Failed Logon

Server Name	Who	When	Where	Reason
lpde4.local	neal.gamby@lpde4.local	19-04-2024 6.10	DMD01	user name does not exist
lpde4.local	neal.gamby@lpde4.local	19-04-2024 6.10	DMD01	user name does not exist
lpde4.local	kelly.maxwell@lpde4.local	16-04-2024 22.20	DMD01	expired password
lpde4.local	kelly.maxwell	16-04-2024 22.20	DMD01	expired password
lpde4.local	kelly.maxwell	16-04-2024 22.20	DMD01	expired password
lpde4.local	kelly.maxwell	16-04-2024 22.20	DMD01	expired password
lpde4.local	kelly.maxwell	16-04-2024 22.20	DMD01	expired password
lpde4.local	LPDE4Kelly.Maxwell	15-04-2024 23.55	192.168.1.15	The user's password has expired.
lpde4.local	LPDE4Kelly.Maxwell	15-04-2024 23.55	192.168.1.15	The user's password has expired.

Total Reports : 50

In Summary:

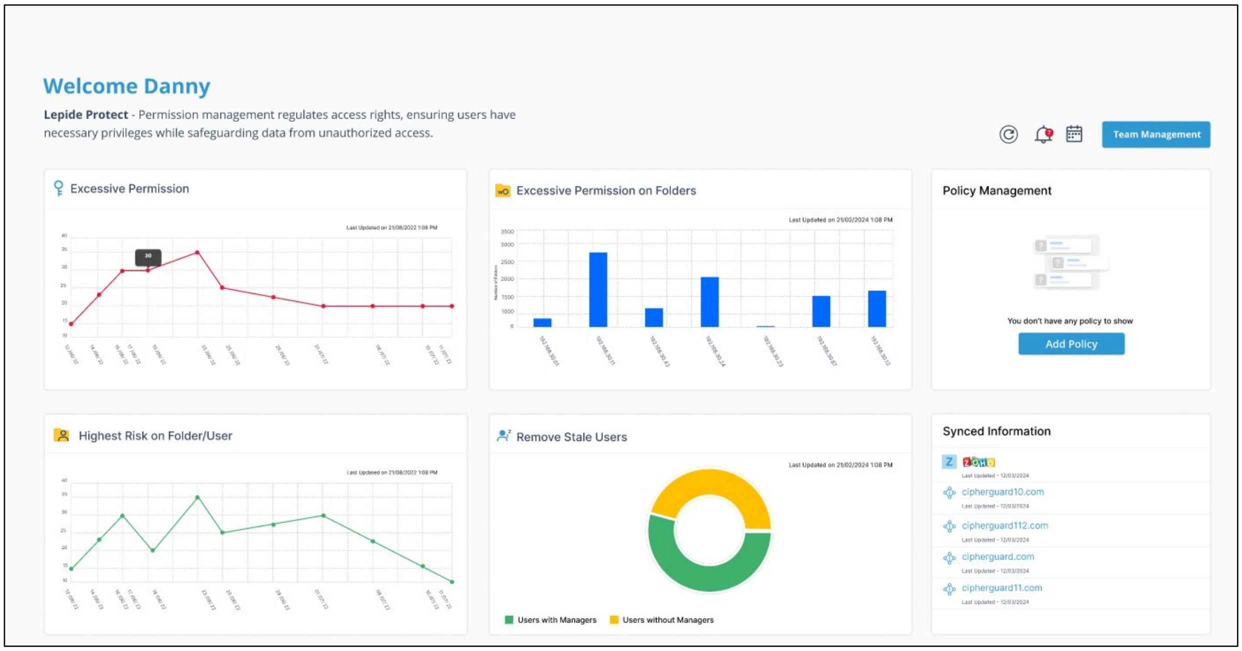
- Detect threats in real time with pre-defined threat models.
- Baseline/profile employee behavior.
- Identify anomalous employee behavior.
- Alert and respond to threats in real time.

For More Information:

https://www.lepide.com/lepide-detect/

3.5 - Lepide Protect

Reduce the complexity of managing user permissions. The permissions management system within Lepide Protect provides a straightforward and efficient way to manage permissions over all shared locations. It provides clear visibility as to who has access to what, including identifying excessive permissions. Once identified, excessive permissions can be revoked, and inactive users removed; permissions policies can be used to do this automatically.



Welcome Danny

Lepide Protect - Permission management regulates access rights, ensuring users have necessary privileges while safeguarding data from unauthorized access.

You don't have any policy to show

In Summary:

- Identify and revoke excessive permissions.
- Remove inactive users to reduce your threat surface.
- Delegate permissions management to team leaders.
- Use policy management to automatically revoke permissions.

For More Information:

https://www.lepide.com/lepide-protect/

4 Support

If you are facing any issues whilst installing, configuring, or using the solution, you can connect with our team using the contact information below.

Product Experts

USA/Canada: +1(0)-800-814-0578

UK/Europe: +44 (0) -208-099-5403

Rest of the World: +91 (0) -991-004-9028

Technical Gurus

USA/Canada: +1(0)-800-814-0578

UK/Europe: +44 (0) -208-099-5403

Rest of the World: +91(0)-991-085-4291

Alternatively, visit https://www.lepide.com/contactus.html to chat live with our team. You can also email your queries to the following addresses:

sales@Lepide.com

support@Lepide.com

To read more about the solution, visit https://www.lepide.com/data-security-platform/.

5 Trademarks

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