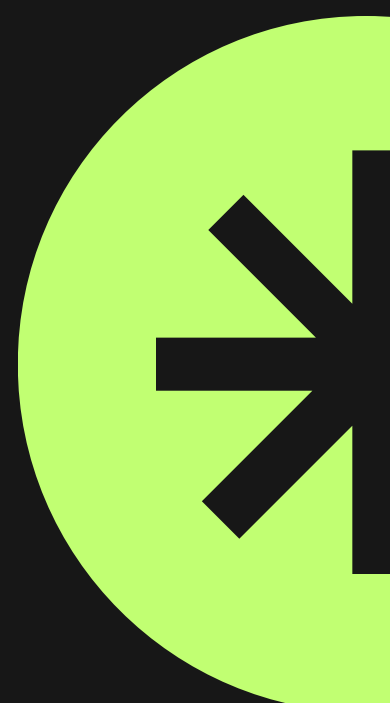


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# Active Directory



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## What is Active Directory?

🔑 Active Directory (AD) is a Microsoft service used to manage users, devices, and resources in a network.

Think of it as a digital directory that helps IT administrators organize and control access across an organization.





## Key Components of Active Directory:

- 1** Domains: A collection of users, groups, and devices managed together.
- 2** Users: Individual accounts (e.g., employees).
- 3** Groups: Bundles of users for easier management (e.g., Marketing Team).
- 4** Organizational Units (OUs): Folders to organize resources logically.
- 5** Domain Controllers (DCs): Servers that run AD and authenticate users.





## How is Active Directory Used?

💡 User Authentication: Confirms you're you when logging in.

💡 Resource Access Control: Determines who gets access to what (files, apps, etc.).

💡 Policy Enforcement: Ensures all devices follow security policies (e.g., password rules).

💡 Centralized Management: Admins can manage everything from one place!



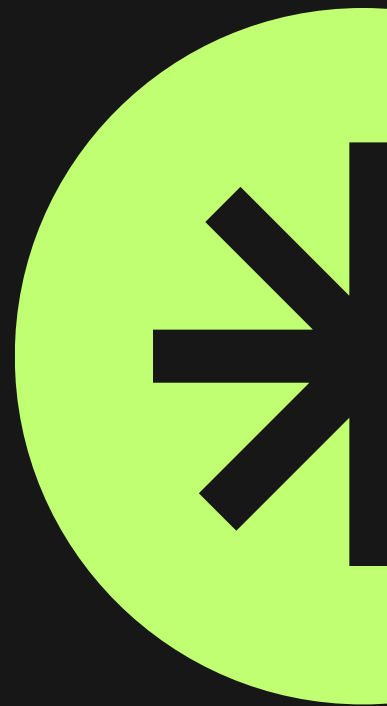


## Why is Active Directory Important?

 Used by organizations of all sizes to manage their IT infrastructure.


 Ensures the right people have access to the right resources.

 Boosts efficiency by simplifying network management.





## Active Directory & Cybersecurity:

 Critical Role: AD is at the heart of network security.

- Authentication: Prevents unauthorized access.
- Group Policies: Enforces security settings across devices.
- Auditing: Tracks user activity to identify suspicious behavior.

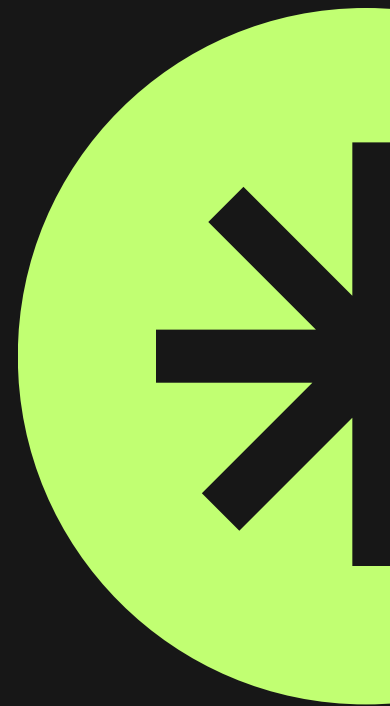
 Target for Hackers: A compromised AD can give attackers control over the entire network!





## Cybersecurity Best Practices for Active Directory:


- 1** Strong Password Policies: Enforce multi-factor authentication (MFA).
- 2** Regular Auditing: Monitor for unusual activity.
- 3** Least Privilege Access: Give users only the access they need.
- 4** Backup AD Data: Prepare for recovery in case of an attack.
- 5** Keep AD Updated: Stay secure with the latest patches.



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## Wrapping Up:

 Active Directory is a cornerstone of IT management and a key player in cybersecurity.

By implementing best practices, organizations can strengthen their defences and ensure smooth operations.

