

# TOP 5 **IDENTITY AND ACCESS MANAGEMENT** CHALLENGES OF 2021 AND HOW TO OVERCOME THEM



Presented by,  
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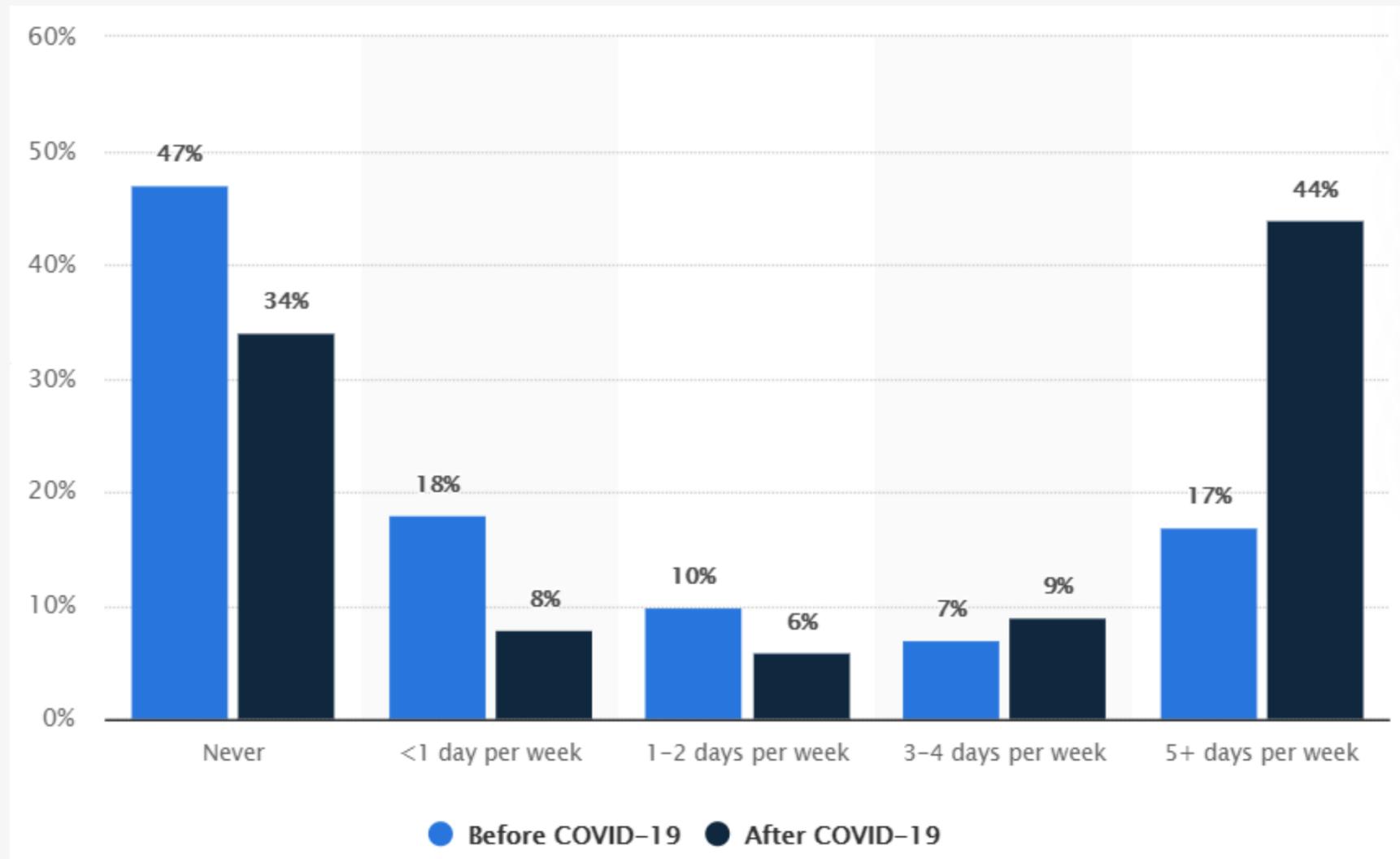
# What we'll discuss today:

- The shift from 'workplace' to 'workspace'
- Identity: The new perimeter.
- 5 Identity and access management challenges of 2021
  - Prediction #1** - Accelerating cloud adoptions
  - Prediction #2** - Bottlenecks in the employee onboarding process
  - Prediction #3** - Legal risk associated with expanded employee data collection
  - Prediction #4** - Increase in contingent workers
  - Prediction #5** - New working conditions may drive up the risk of human error
- How AD360 can help overcome these challenges

# The shift from 'workplace' to 'workspace'

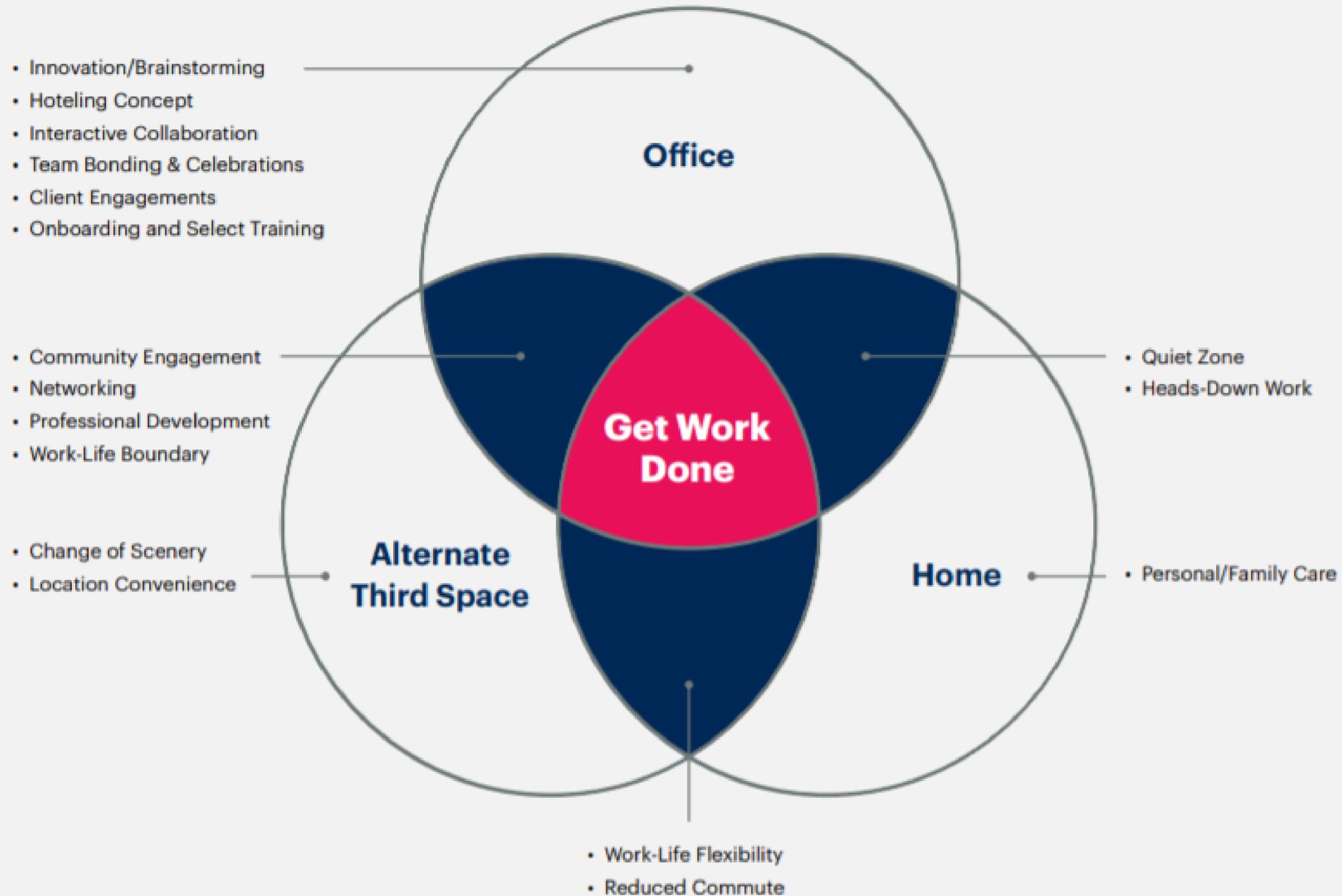


# Post-COVID-19 era: what is different?



The virus has broken through cultural and technological barriers that prevented remote work in the past, setting in motion a structural shift in where work takes place, at least for some people.

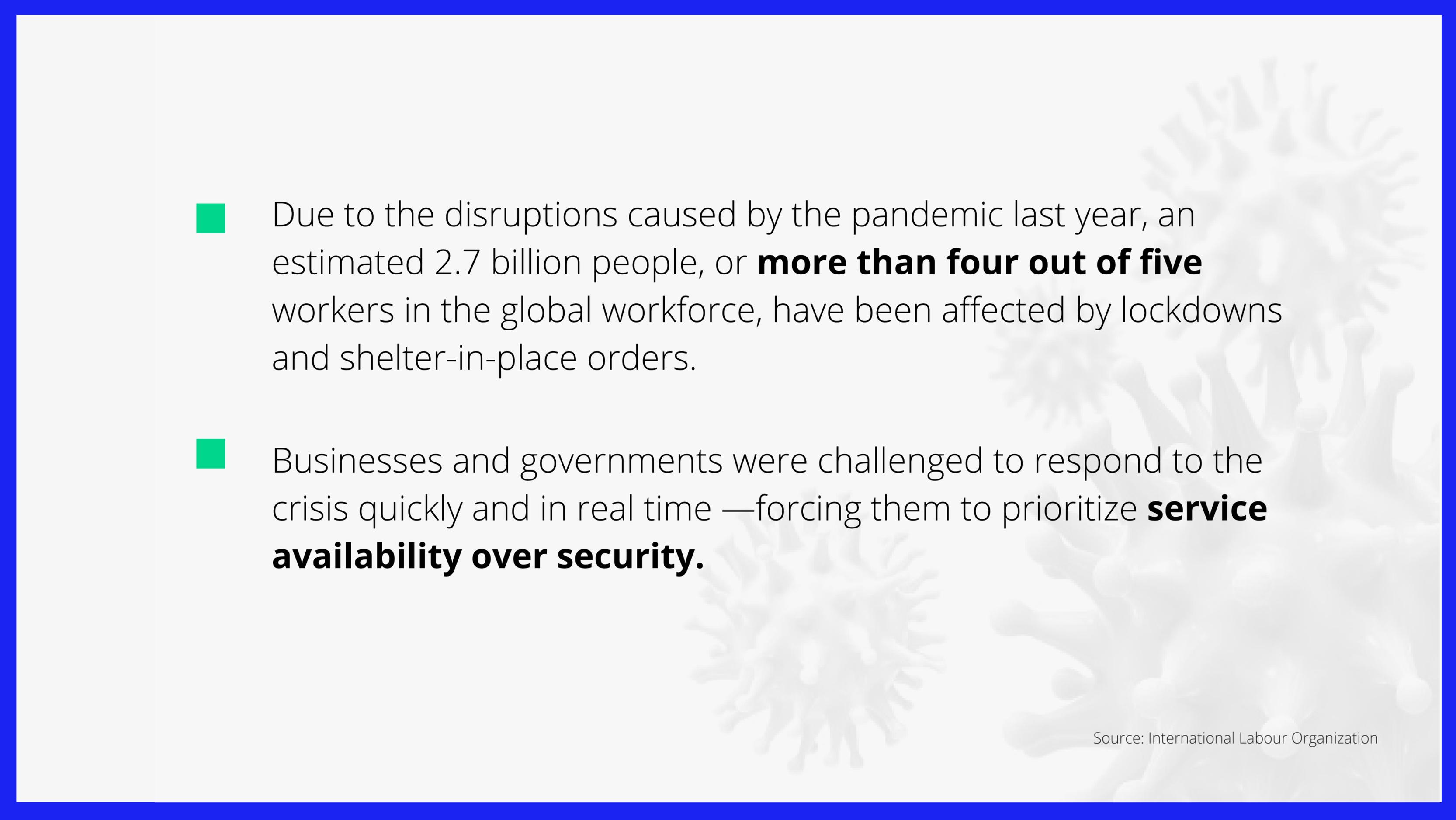
# Rethinking how (and where) work is done





**300 percent**  
increase in remote work  
compared to pre-COVID  
levels

Source: Forrester

- 
- Due to the disruptions caused by the pandemic last year, an estimated 2.7 billion people, or **more than four out of five** workers in the global workforce, have been affected by lockdowns and shelter-in-place orders.
  - Businesses and governments were challenged to respond to the crisis quickly and in real time —forcing them to prioritize **service availability over security.**

# Result?

## INCREASE IN CYBER ATTACKS!

Cyber scams and ransomware booming amid Covid-19 lockdowns – Europol

Huge rise in hacking attacks on home workers during lockdown

2020: The Year the COVID-19 Crisis Brought a Cyber Pandemic

**Cyber Risks: An Increased Threat During**

*Cyber criminals are attempting to take advantage of the upheaval caused by the CO*

**Big increase in cyber-attacks during the Covid-19 pandemic**

Cyber crime will cost the global economy \$6.1 trillion annually if we are not careful

WHO reports fivefold increase in cyber attacks, urges vigilance

Top Cyber Security Experts Report: 4,000 Cyber Attacks a Day Since COVID-19 Pandemic

Cybersecurity companies, and law enforcement report 800% surge.

UK sees a 31% increase in cyber crime amid the pandemic

**Cybercrime Skyrockets 300% Since COVID-19**

**Cybercrime soars in 2020 as hackers take advantage of COVID-19 pandemic; here's how you can protect yourself**

Microsoft report reveals increasing sophistication of cyber threats globally

UN reports sharp increase in cybercrime during coronavirus pandemic

**Roundup: COVID-19 pandemic delivers extraordinary array of cybersecurity challenges**

**Cybercrime ramps up amid coronavirus chaos, costing companies billions**

**Online Education Due to Covid-19 is Causing Massive Spike in Cyber Attacks on Schools, Colleges**

**Report Finds 63% Increase in Cybercrime**

**WHAT DO I DO?**



Office workstations became laptops at the kitchen table, in-person meetings became video chats and wired networks became at-home Wi-Fi connections.



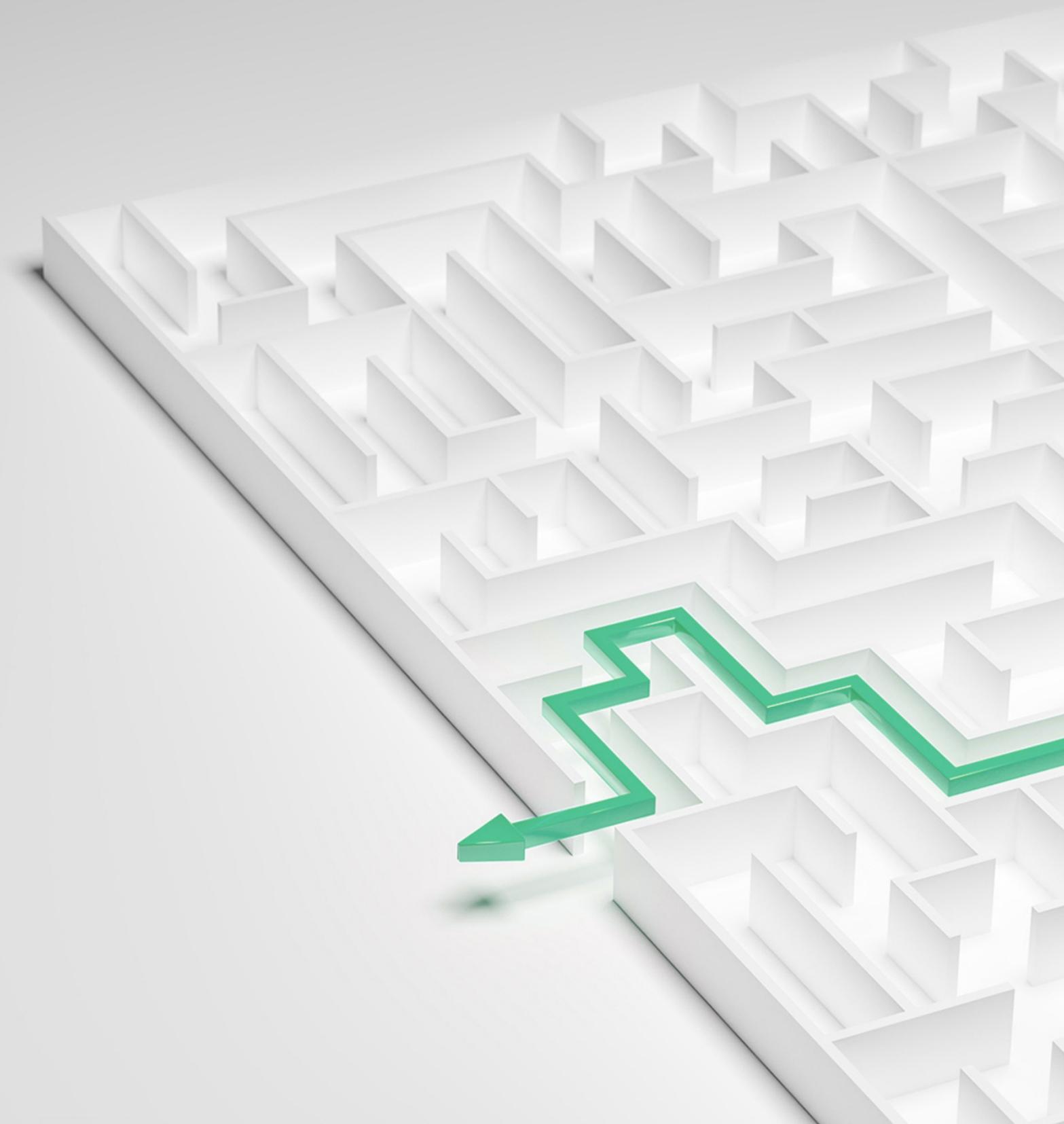
Data is flowing **everywhere!**

The network is no longer a position of advantage.

**Identity is now the new perimeter.**



Now that organizations are comfortable with the new normal, it's time for IT teams to **re-evaluate** their strategies to discover if and where their old strategies fall short, and prioritize their efforts to **plug any security loopholes** waiting to be exploited by cybercriminals.



**5 PREDICTIONS  
ON IDENTITY  
AND ACCESS  
MANAGEMENT  
TRENDS FOR  
2021**



# Prediction #1 - Accelerating cloud adoptions

The Forrester logo is displayed in white, serif, all-caps font on a black rectangular background.

FORRESTER®

Forrester predicts that in 2021 remote work will rise to 300% of pre-covid levels.

It also predicts that the global public cloud infrastructure market will grow 35% to \$120 billion in 2021.

What was once a "nice to have" for employees and organizations became "must have" in the midst of the pandemic, and this trend is here to stay.

The Gartner logo is displayed in a bold, black, sans-serif font within a light gray rectangular box.

According to a Gartner survey, 48% of employees will work remotely after the pandemic, compared to 30% pre-pandemic.

Another Gartner survey revealed that 82% of company leaders plan to allow employees to work remotely at least some of the time.

**For organizations that have employees both onsite and working remotely, it becomes a huge challenge for IT teams to adapt to managing a new, more complex hybrid workforce.**



## **Prediction #2** - Bottlenecks in the employee onboarding process

While industries such as aviation, retail, finance, real estate, and automotive are among the worst affected by the pandemic—resulting in record job losses—other industries such as healthcare are **ramping up** hiring to meet demand.

Also, the vaccine rollout and general optimism about the economy has led to a spike in hiring. Even companies that had to lay off employees due to COVID-19 may need to **fill existing and new positions.**

A seamless onboarding and off-boarding process is critical for both the start and end of a positive employer-employee experience and the safety of sensitive corporate data.



## What happens in most cases?

1. The HR manager exports the user details in a CSV file from their human resource management system (HRMS)
2. Shares the file with the IT team via email.
3. The IT admin then creates new user accounts—either individually or in bulk using PowerShell scripts
4. Grants appropriate access to resources based on the role of the employee.

This process creates unnecessary bottlenecks since it is challenging to ensure **real-time collaboration** between the HR department and the IT department. Also, creating user accounts manually is often **tedious, time-consuming,** and **error-prone.**

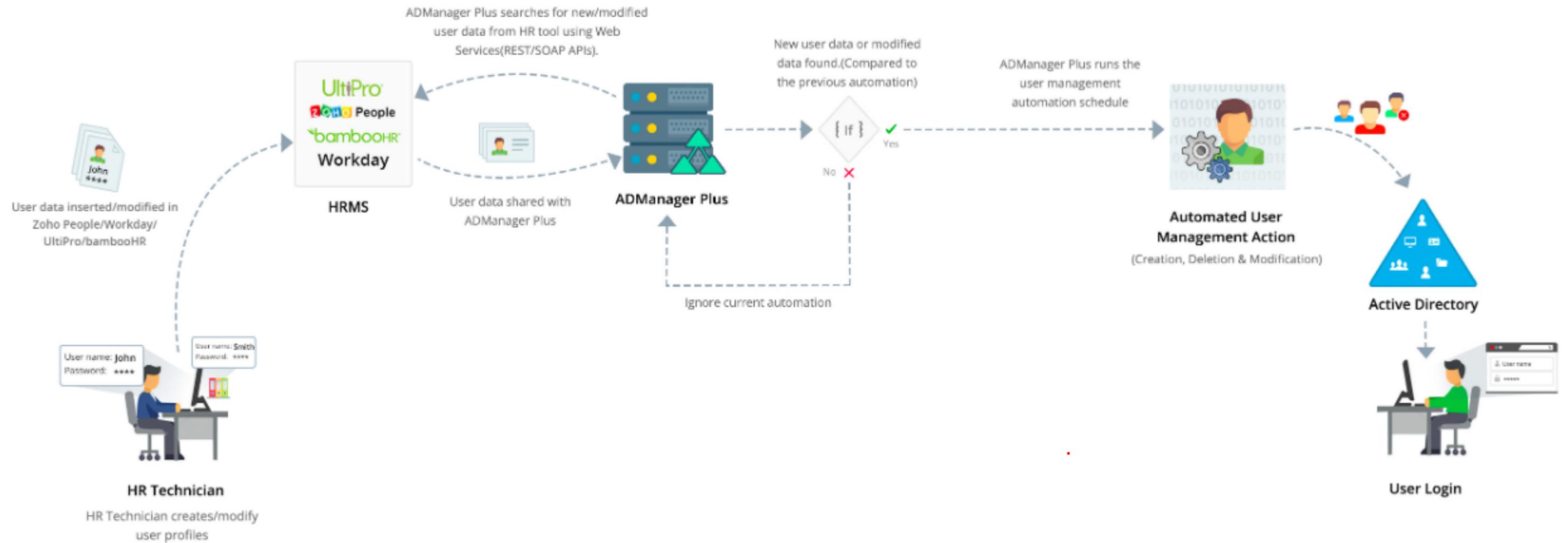
# AD360 integration with some of the important IT applications



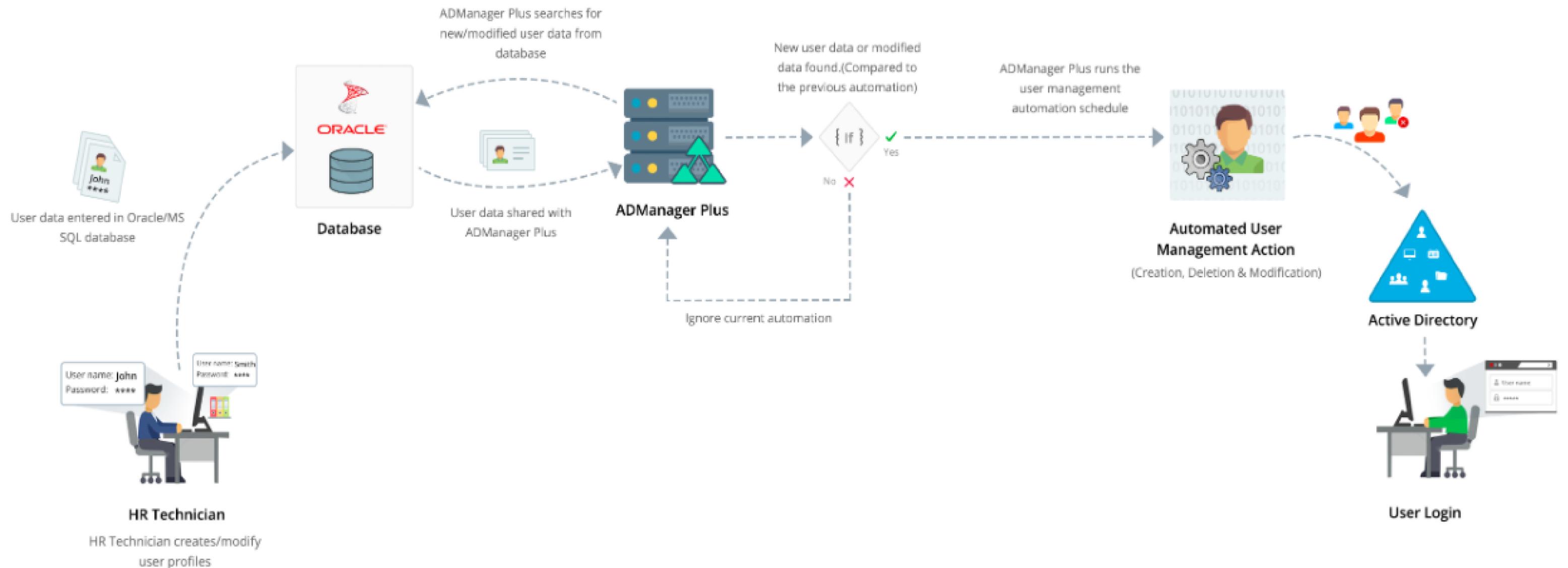
# Seamless employee onboarding using AD360

- AD360's capability to integrate with HRMS applications helps overcome all the common challenges in a typical employee on-boarding process.
- Once the user details are entered in the HRMS application, you can use AD360 to automatically provision accounts in AD, Microsoft 365, Exchange, Skype for Business, and Google Workspace.
- Also, any changes made in the HRMS application thereafter are reflected across all accounts in real time.

# Integration with human resource management systems



# Integrating with databases used by HR applications



## **Prediction #3:** Legal risk associated with expanded employee data collection

- According to Gartner, even before the pandemic, organizations were increasingly using **nontraditional employee monitoring tools** to keep track of employee activities.
- Gartner's analysis shows that this trend will only accelerate in 2021 given the increased adoption of remote work due to the pandemic. In addition, Forrester believes that regulatory and legal activity regarding employee privacy will **double in 2021**.

To ensure compliance with regulations such as **SOX, HIPAA, PCI DSS, the GLBA, and the GDPR**, organizations must have elaborate records of all the data collected on employees' day-to-day activities.

Much of the data these regulations pertain to involves organizational activities occurring in AD, but most organizations **lack a comprehensive reporting system** for activity in AD.

**Unfortunately, using native AD tools is highly laborious and time-consuming.**

# Compliance reporting with AD360

The screenshot displays the AD360 interface with the 'Compliance Reports' section active. The navigation bar includes 'Home', 'Reports', 'Management', 'Audit', 'Alerts', 'Delegation', 'Automation', 'Settings', and 'Support'. A secondary navigation bar lists various categories: Mailbox, Mail Traffic, User, Group, Contact, License, OneDrive, Skype, Yammer, Security, and Compliance. The main content area is titled 'Compliance Reports' and is organized into several sections based on regulatory frameworks:

- SOX:** Includes reports such as User Logon Activity, Mailbox Deleted, Address Book Policy by Users, Mailbox Quota Changes, OneDrive Events Log, Mail Traffic Policy Match Summary, Mailbox Size Changes, OWA Attachment Policies, Recent Successful Logon, Recent Logon Failure, OWA Attachment Policy by Users, and Mailbox Created, Address Book Policies.
- HIPAA:** Includes reports such as Non-Owner Mailbox Access, User Logon Activity, Mailbox Deleted, Undelivered Emails, Recent Successful Logon, OneDrive Events Log, Messages by Subject, Recent Logon Failure, OWA Logon by Users, Mailbox Auditing, User To User Email Activity, and Mailbox Created.
- PCI-DSS:** Includes reports such as Messages by Subject, Admin Roles, Mailbox Created, Mails Sent by Shared Mailbox, Recent Logon Failure, Mailbox Deleted, Mails Received by Shared Mailbox, OneDrive Events Log, Mailbox Permission Changes, User Logon Activity, and User Mailbox Security, Recent Successful Logon.
- GLBA:** Includes reports such as Exchange Admin Activity, Mailbox Delegate Changes, Non-Owner Mailbox Access, User Logon Activity, Mailbox Permission Changes, Recent Successful Logon, User Mailbox Security, Recent Logon Failure, Admin Roles, Azure Admin Activity.
- FISMA:** Includes reports such as OneDrive Events Log, Exchange Admin Activity, Malware Detections, Recent Successful Logon, Spam Detections, Recent Logon Failure, User Logon Activity, Azure Admin Activity, and OWA Logon by Users.

## Prediction #4: Increase in contingent workers

Gartner predicts that organizations will look to increase hiring contingent workers in order to maintain more flexibility in workforce management post-COVID-19.

- Although a contingent worker's tenure is limited, they must be given **appropriate access to company resources** based on their role and job function.

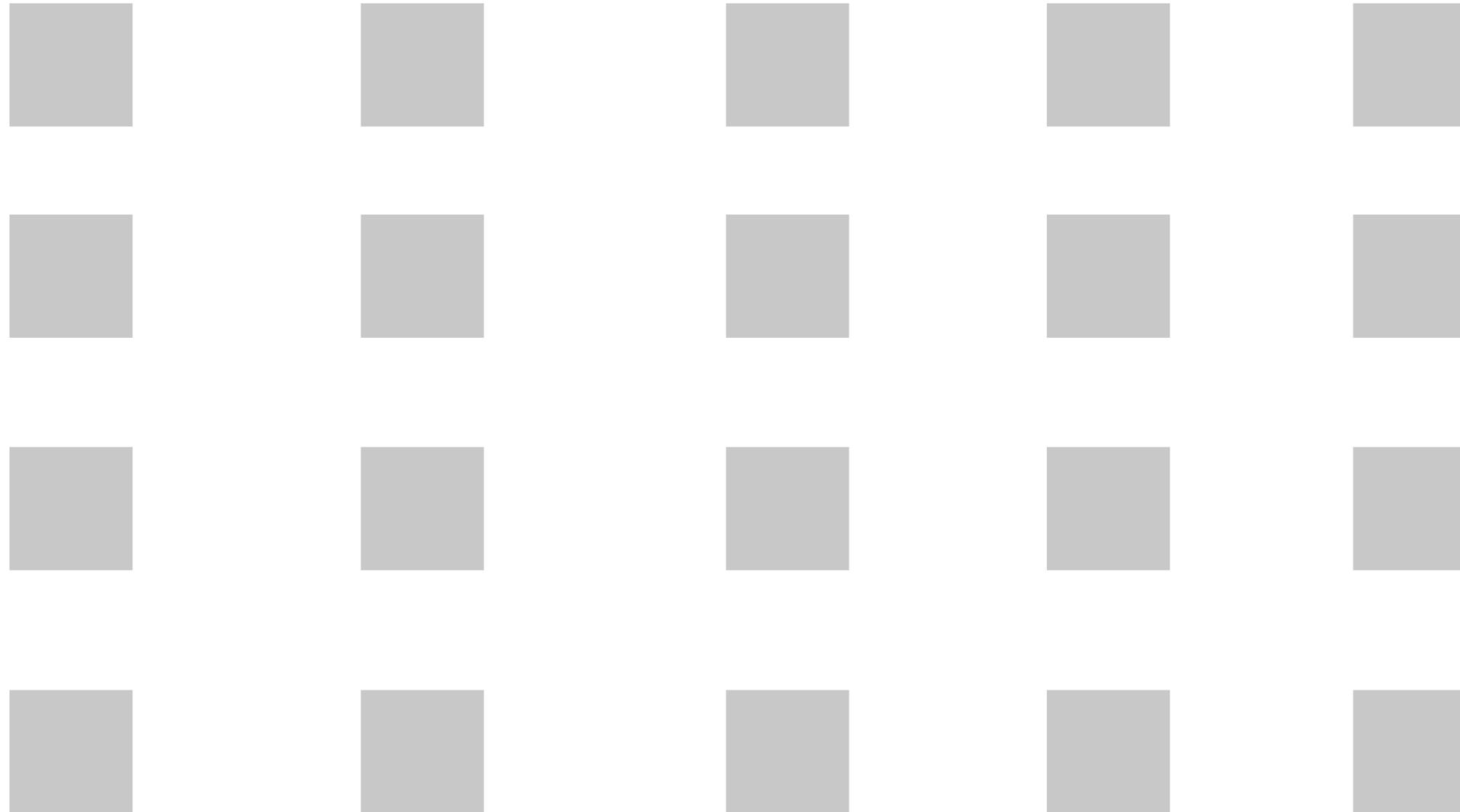
- However, once their job is done and they are no longer part of the organization, all the access pertaining to their user account must be revoked and the account must be **purged permanently**.
- If this action is done manually on an ad hoc basis, there is a risk of **account compromise attacks** if the IT administrator forgets to delete the contingent worker's account.

**The risk is higher if the account belongs to a privileged user.**

**A SINGLE ACCOUNT  
COMPROMISE CAN  
POTENTIALLY  
PARALYZE YOUR  
ENTIRE NETWORK**



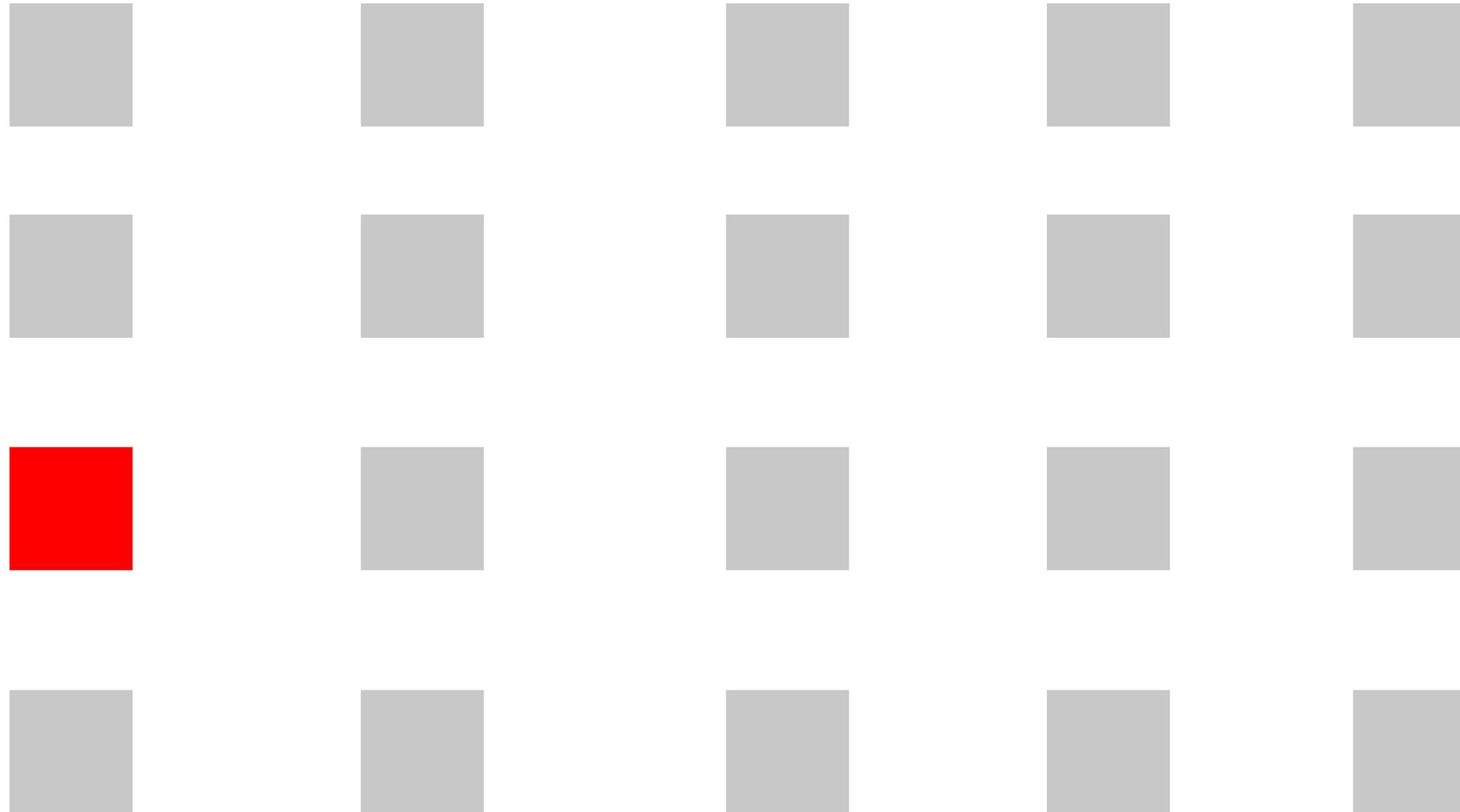
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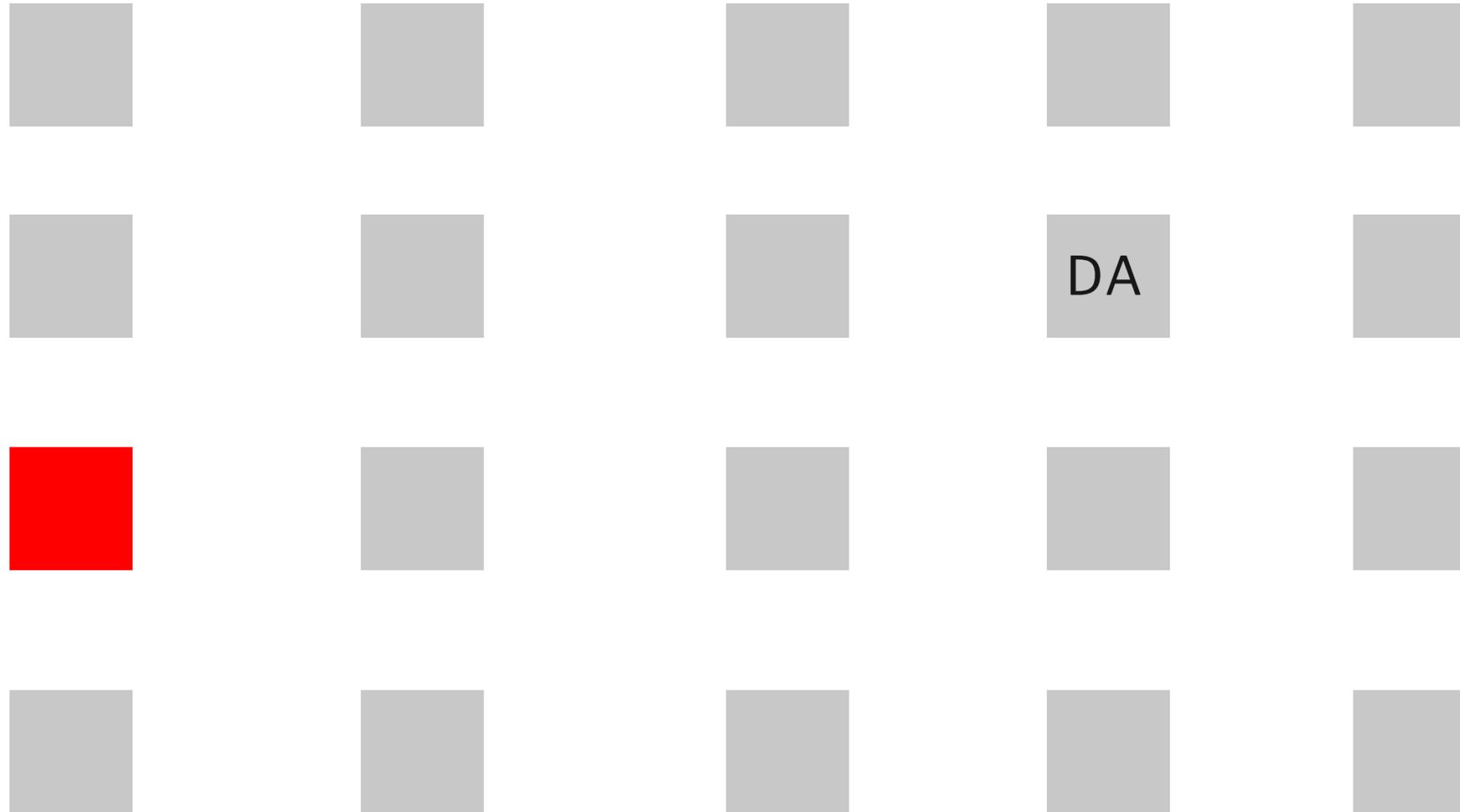
initial foothold by compromising an inactive account



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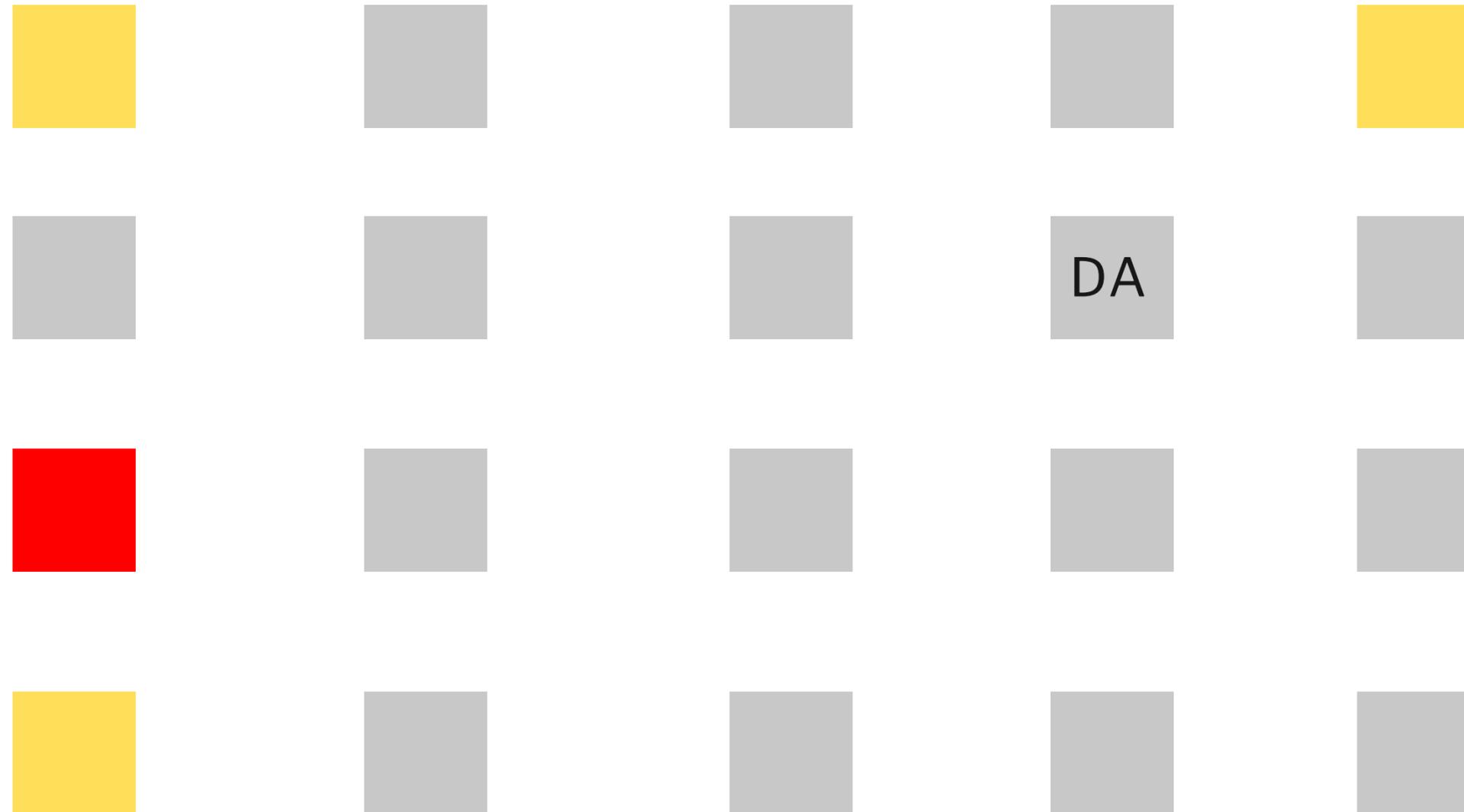
initial foothold by compromising an inactive account



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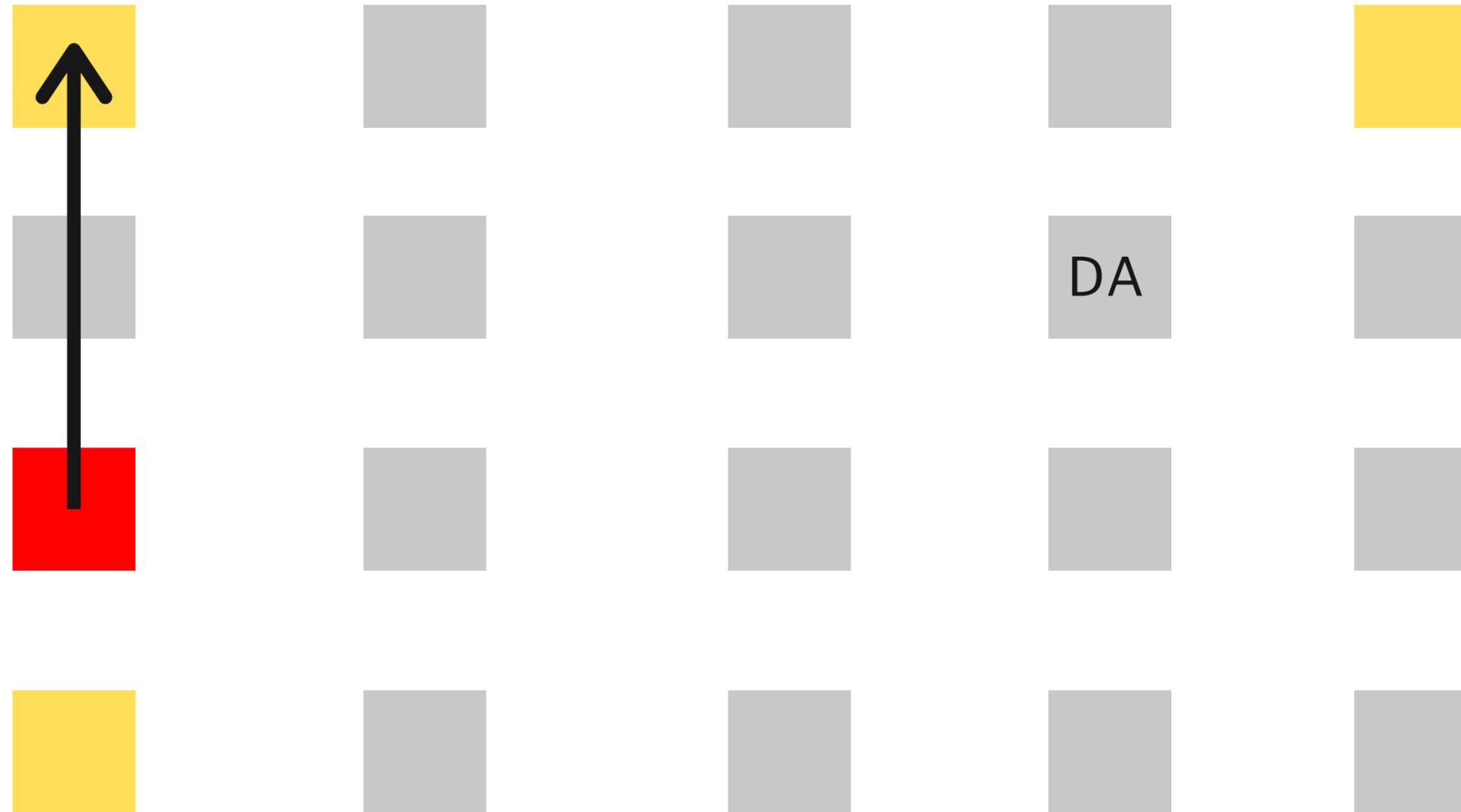
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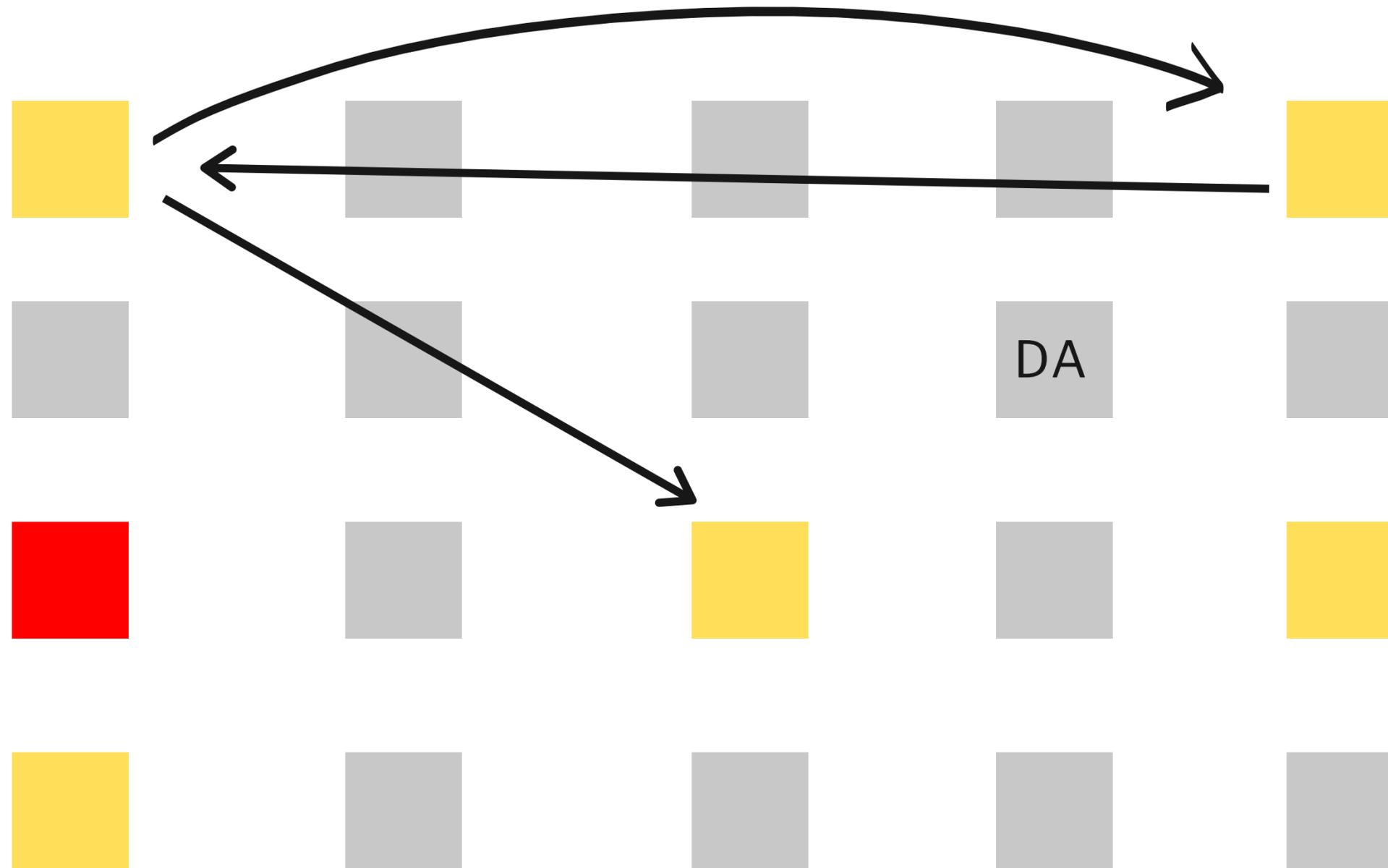
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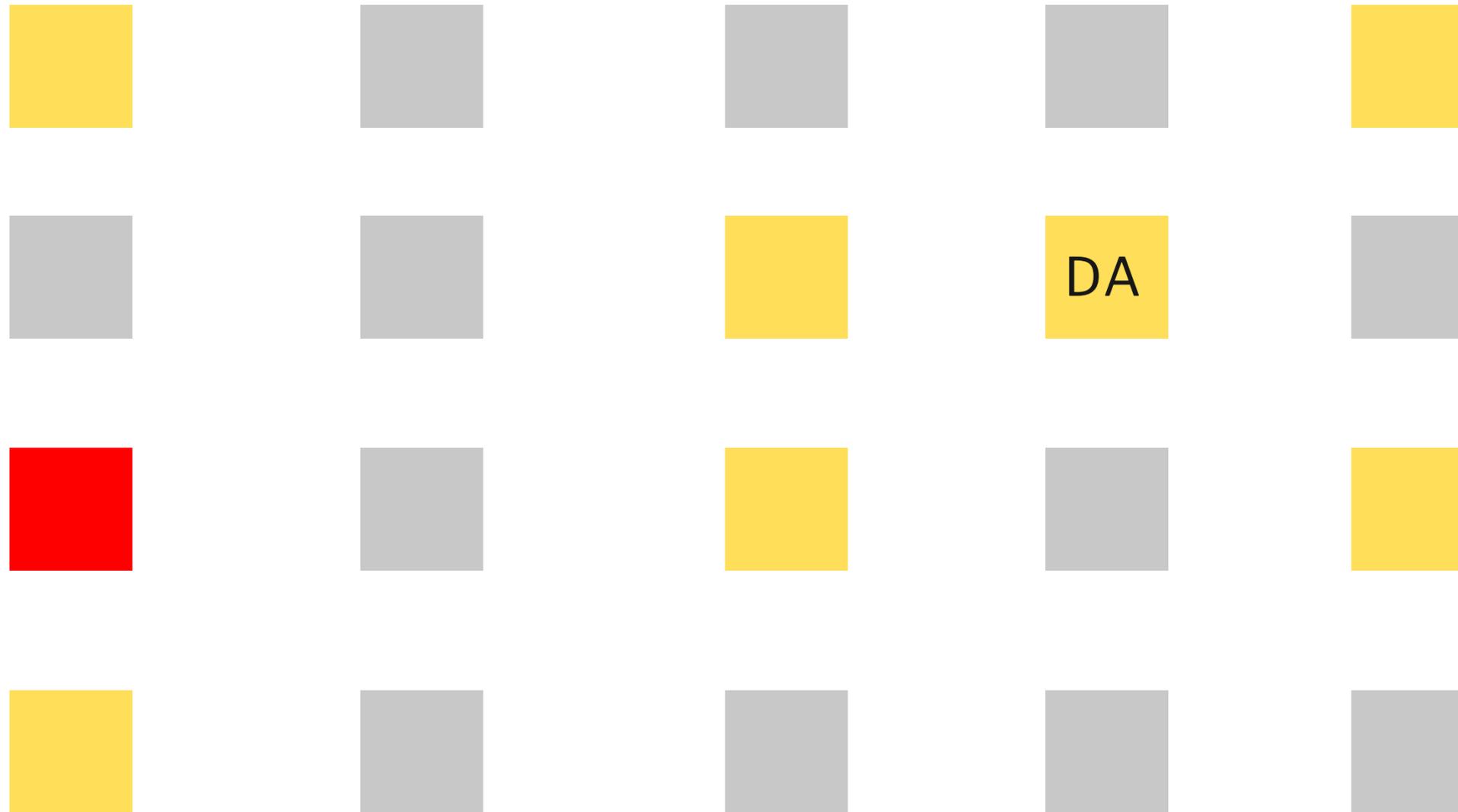
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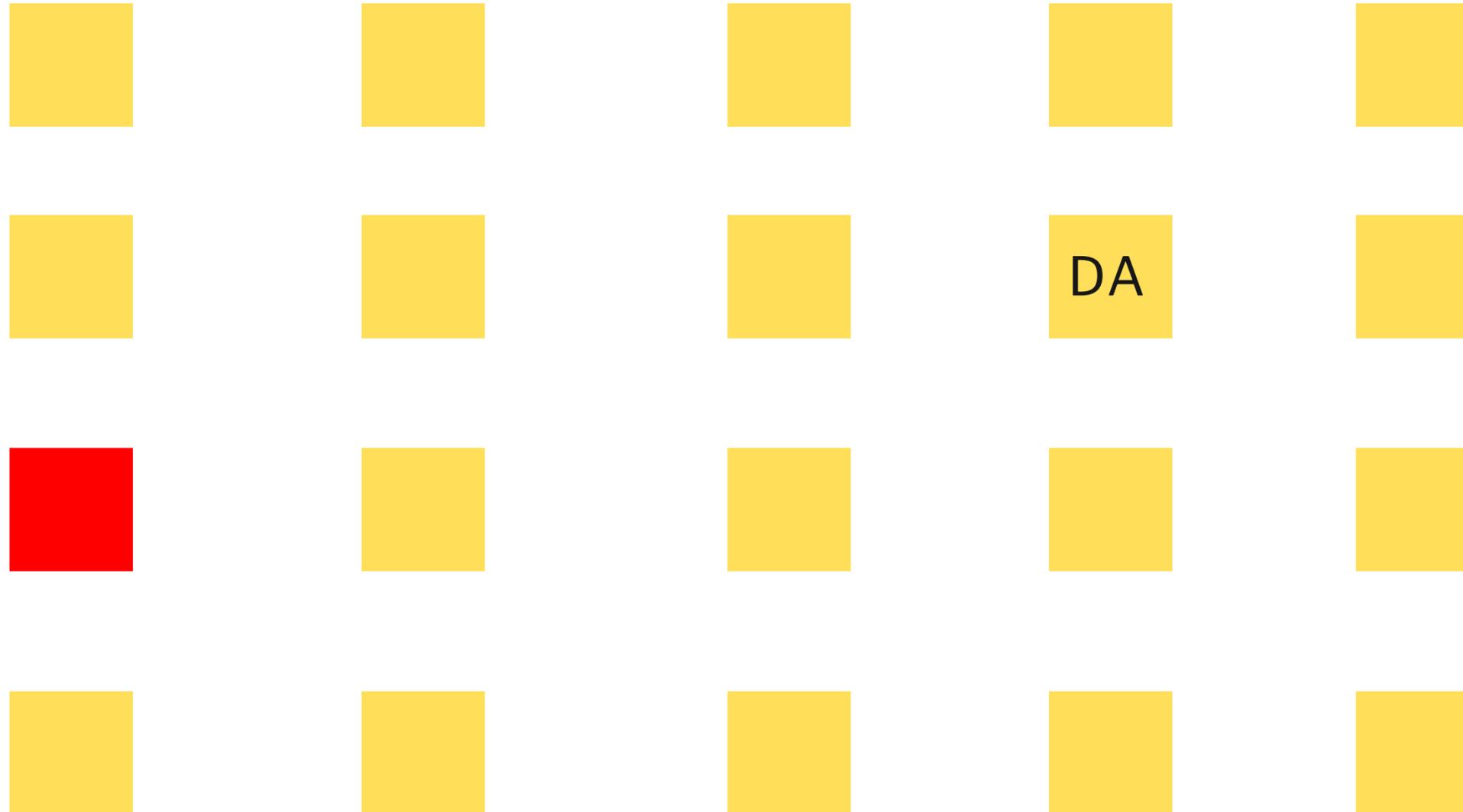
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initial foothold by compromising an inactive account

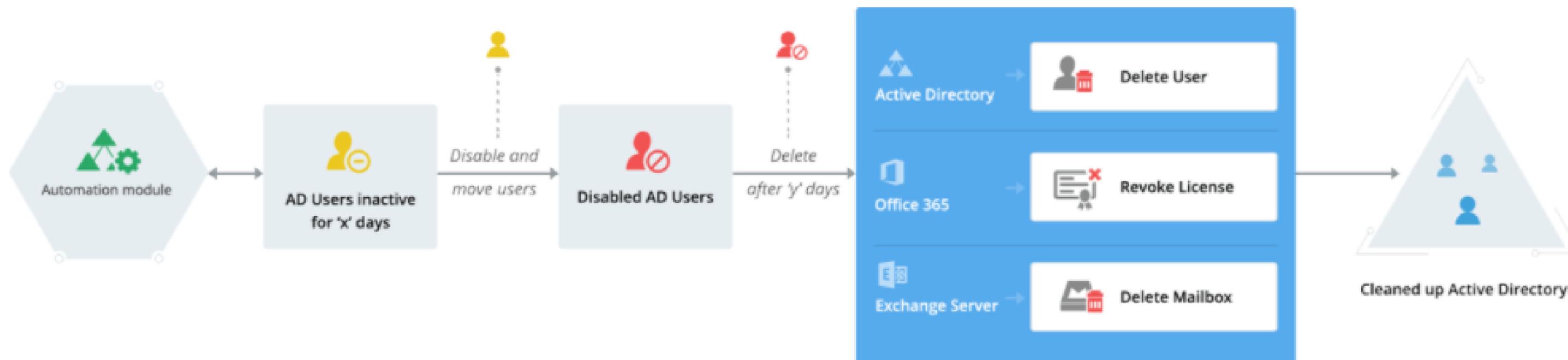


- This is why it's crucial to identify such inactive accounts and **immediately purge them**. However, the only way to ensure that all inactive accounts are removed immediately is by automating the process.
- While native AD has provisions to track down and eliminate inactive user accounts, it **cannot remove them in bulk or automate the process**.

# Move, disable or delete dormant or stale user or computer accounts

- AD360 lets you effortlessly report on **all inactive user accounts, disabled user accounts, and expired user accounts**. Right from these reports, you can delete or disable these accounts in bulk instantly.
- If required, you can also move them to a separate organizational unit, **quarantine them for a desired period**, and then delete them eventually. Best of all, you can automate these tasks and specify how often you want this automation to run.

# How it works



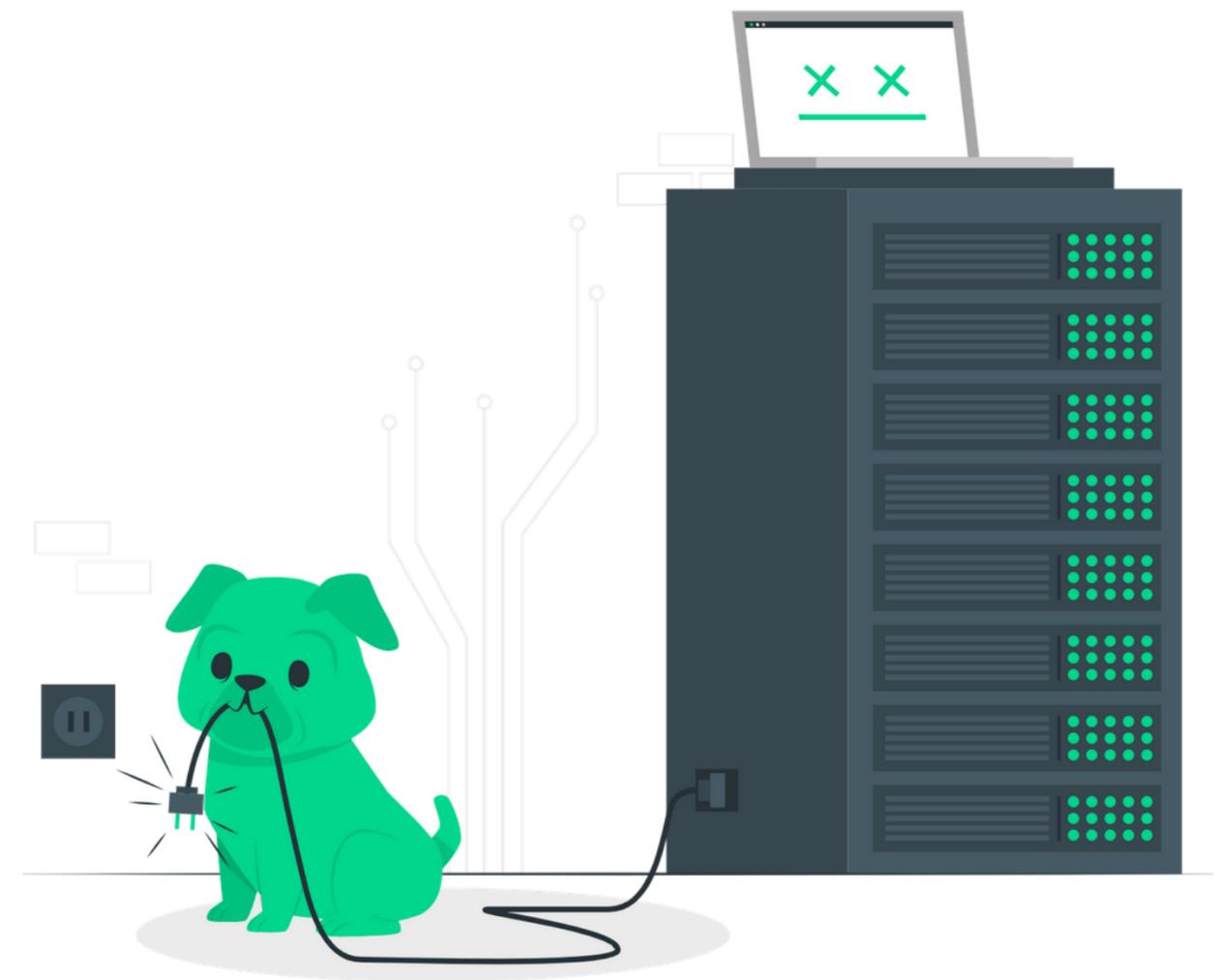
# **Prediction #5: New working conditions may drive up the risk of human error**

Some organizations found themselves already equipped with the right technologies and protocols to sustain a sudden transition to remote work, while some organizations were forced to adopt remote work hastily to maintain business continuity.

However, the scale at which this transition had to occur was certainly not anticipated by IT teams on either side.

Remote work at this scale is somewhat unfamiliar territory for IT teams that are already overburdened, mistakes are bound to happen.

These mistakes could be an unintended modification or deletion that affects a single user, perhaps preventing them from logging in or accessing a file, or it could be an error that brings down the whole domain controller and affects multiple users at once.



# THE **AD360** ADVANTAGE

01

Effortlessly back up and restore AD objects, Exchange mailboxes, Office 365 mailboxes, SharePoint Online sites, OneDrive for Business folders, etc.

02

Perform item-level or attribute-level restorations, and speed up the backup process by making incremental backups.

03

Schedule backups to run during non-business hours, and more.

# CRUCIAL INSIDER THREAT STATISTICS

- Businesses in the US encounter about **2,500 internal security breaches daily**.
- **More than 34% of businesses** around the globe are affected by insider threats yearly.
- 66% of organizations consider malicious insider attacks or **accidental breaches** more likely than external attacks.
- Over the last two years, the number of insider incidents **has increased by 47%**.
- The cost of insider threats (related to credential theft) for organizations in 2020 is **\$2.79 million**.
- Insider threat stats reveal that **more than 70% of attacks** are not reported externally.

# MITIGATE THREATS

The screenshot shows a web interface for configuring alert actions. On the left, under the heading "Alert Actions", there are three checkboxes: "E-mail Notification" (unchecked), "SMS Notification" (unchecked), and "Execute Script" (checked). Below these is a "Script Location" field with an "[Add]" button. Below the field, the syntax is defined as "<Script\_File\_Path> <Command\_Line\_Variables>" and an example is provided: "C:\Program Files (x86)\ManageEngine\ADAudit Plus\Test.bat %USERNAME%". At the bottom of the main form are "Save" and "Cancel" buttons.

A modal dialog is open in the foreground, titled "Execute Script" with a checked checkbox. It contains a "Script Location" field with an "[Add]" button. Below the field, the syntax is defined as "<Script\_File\_Path> <Command\_Line\_Variables>" and an example is provided: "C:\Program Files (x86)\ManageEngine\ADAudit Plus\Test.bat %USERNAME%".

Execute a predetermined action when an anomaly gets detected.

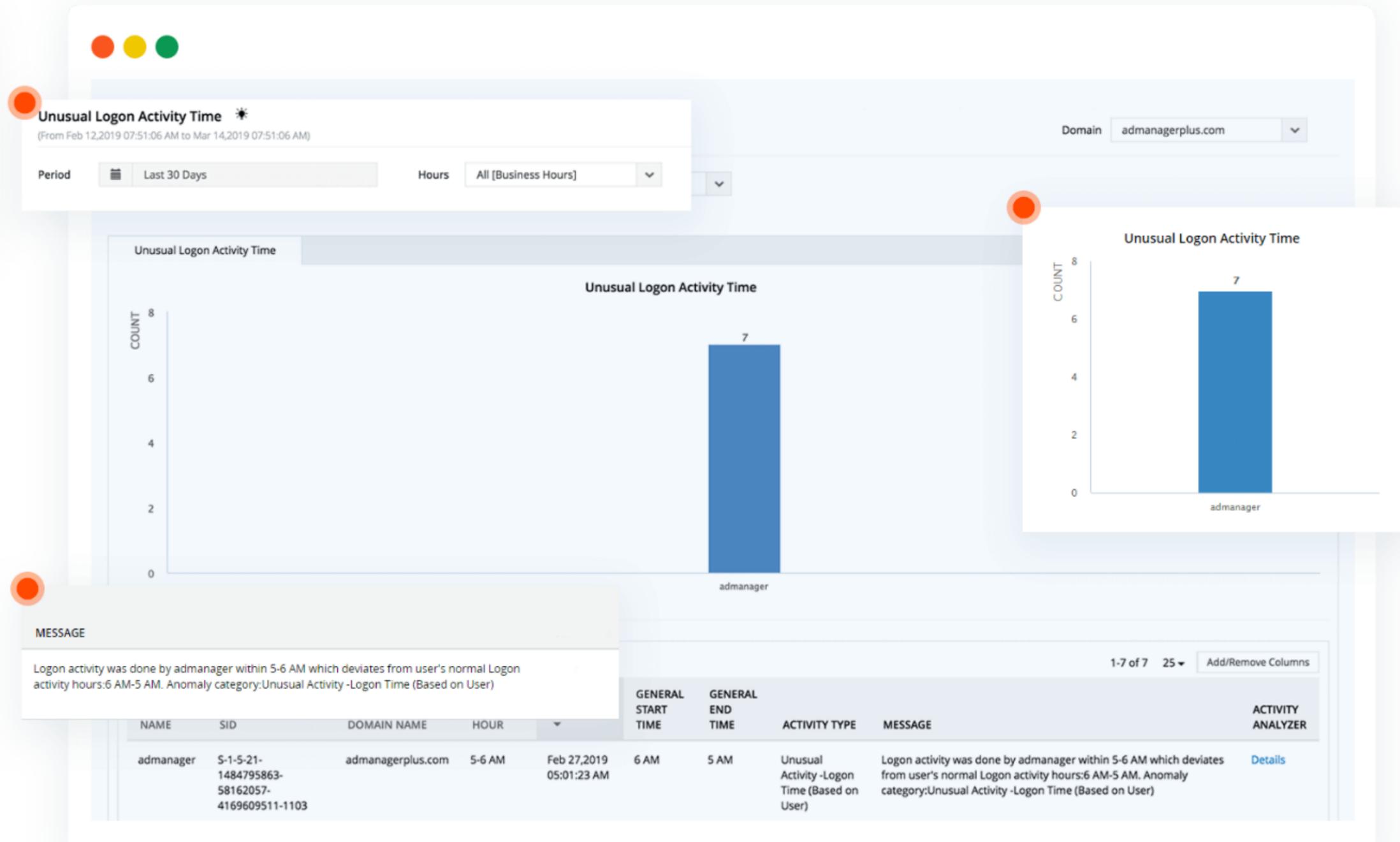
# INVESTIGATE ANAMOLIES

The screenshot displays a security dashboard with a domain of `admanagerplus.com`. A pop-up window titled "Unusual Volume of User Management Activity" (From Feb 17, 2019 06:02:50 AM to Mar 19, 2019 06:02:50 AM) is open. It shows a bar chart with a single bar for "admanager" with a count of 2. Below the chart is a table with columns: USER NAME, HOUR OF ACTIVITY, TIME GENERATED, MEAN COUNT, THRESHOLD COUNT, ACTIVITY TYPE, MESSAGE, and ANALYZER. A message box on the left provides details: "10+ number of User Activity was done by admanager within 12-1 PM. Usual average is 0, Threshold calculated is 10. Anomaly category: Unusual Activity -User Management Activity Count".

USER NAME	HOUR OF ACTIVITY	TIME GENERATED	MEAN COUNT	THRESHOLD COUNT	ACTIVITY TYPE	MESSAGE	ANALYZER
admanagerplus.com	12-1 PM	Feb 26, 2019 12:49:02 PM	10	10	Unusual Activity -User Management Activity Count	10+ number of User Activity was done by admanager within 12-1 PM. Usual average is 0, Threshold calculated is 10. Anomaly category: Unusual Activity -User Management Activity Count	<a href="#">Details</a>

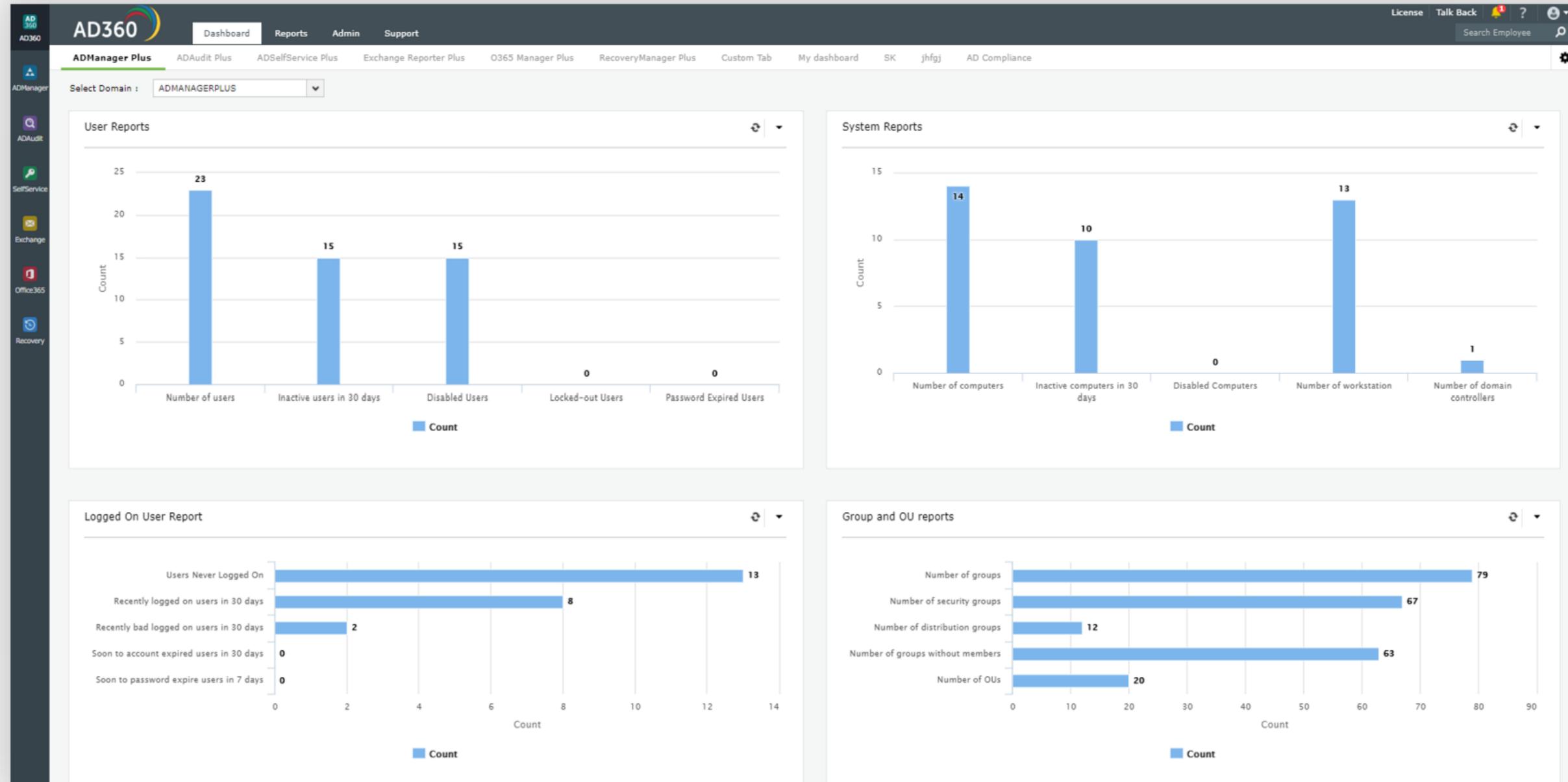
See who did what, when, and where, along with other details surrounding each anomaly.

# MALICIOUS LOGINS



Receive notification if a critical server is accessed during unusual hours, or when there's been an unusual number of login failures.

# AD360 - AN INTEGRATED IAM SOLUTION



ManageEngine 

AD360

ensures that the  
**right** people get the  
**right** access to the  
**right** resources at the  
**right** times for the  
**right** reasons, enabling the  
**right** business outcomes.



# THANK YOU

Write to me. Cheers.

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[www.manageengine.com](http://www.manageengine.com)