Identity, SaaS & CASB

Matthias Geiser

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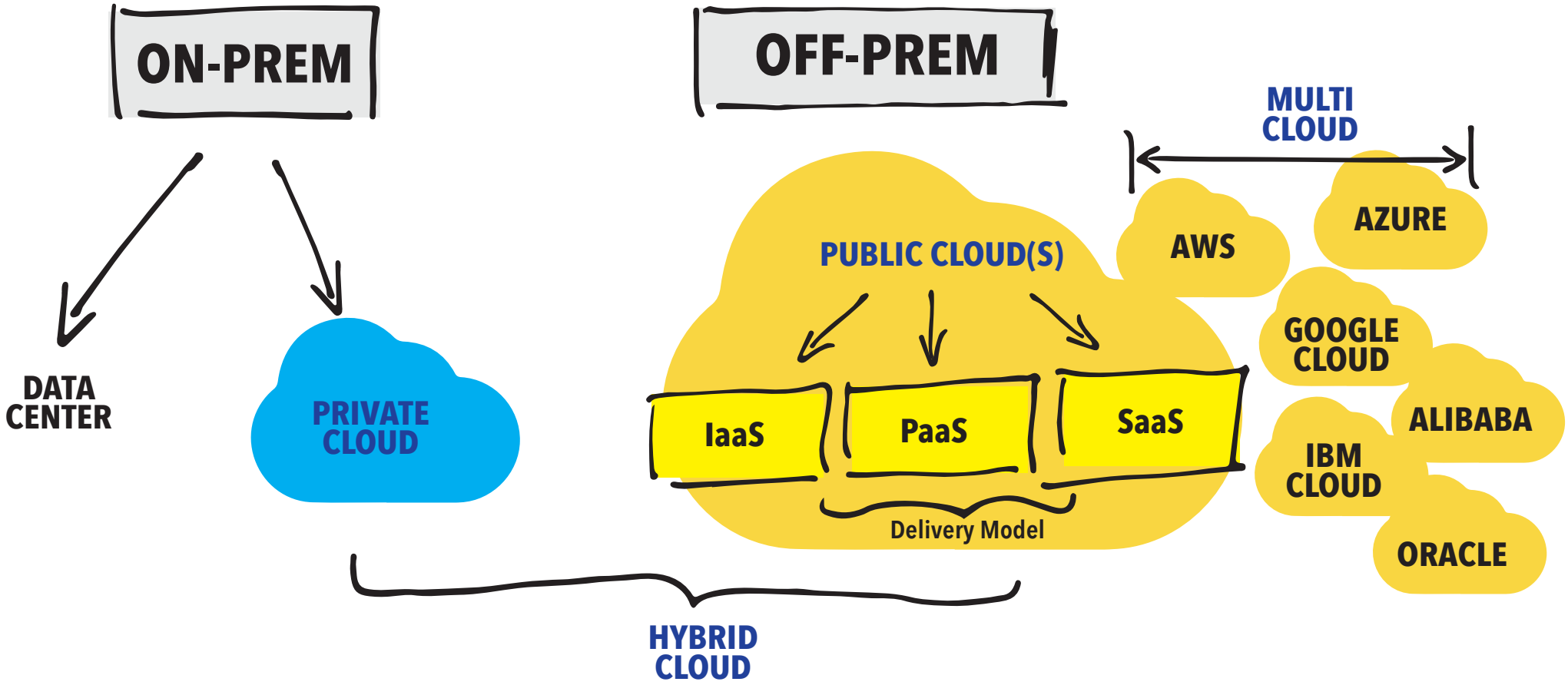

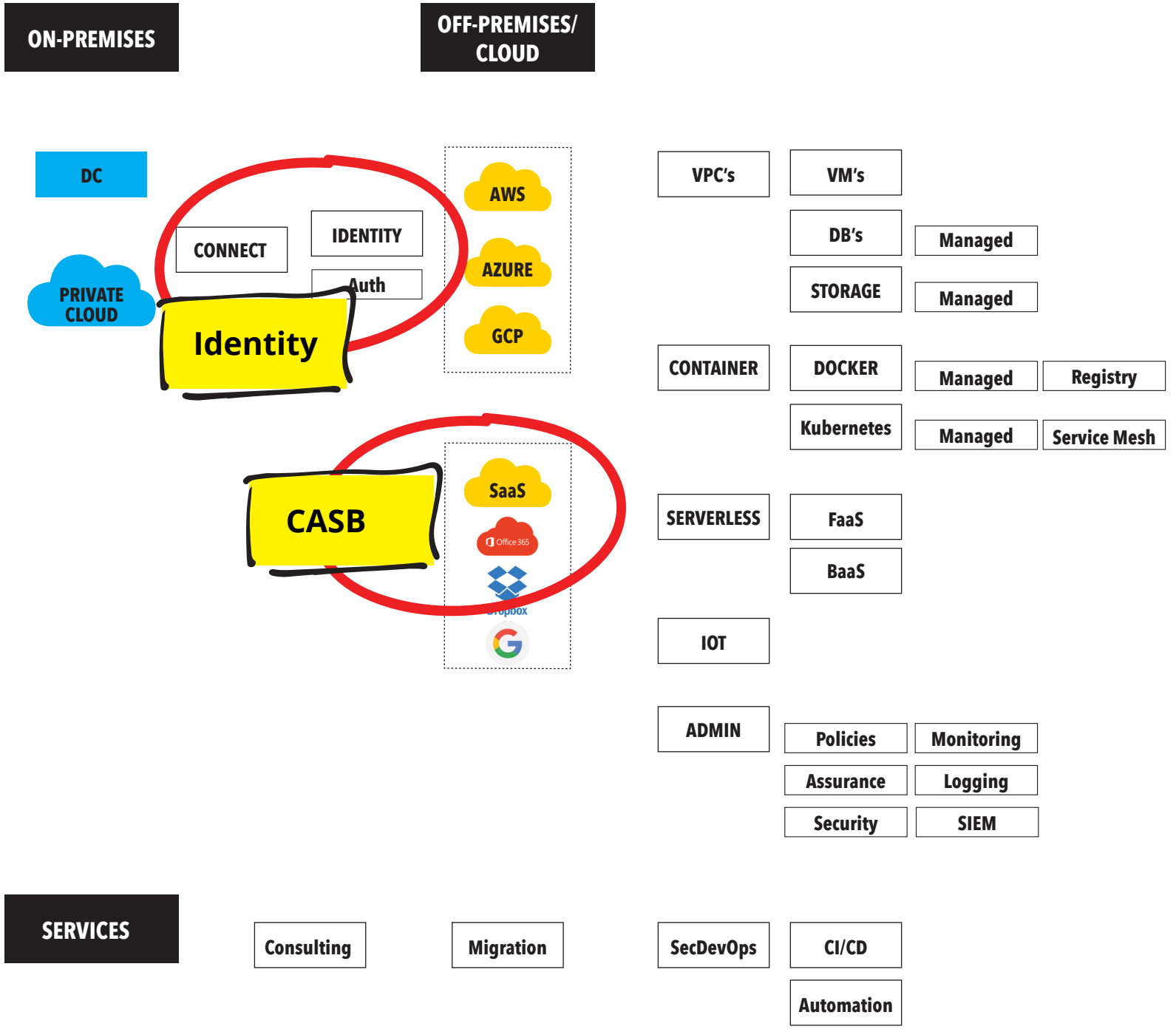

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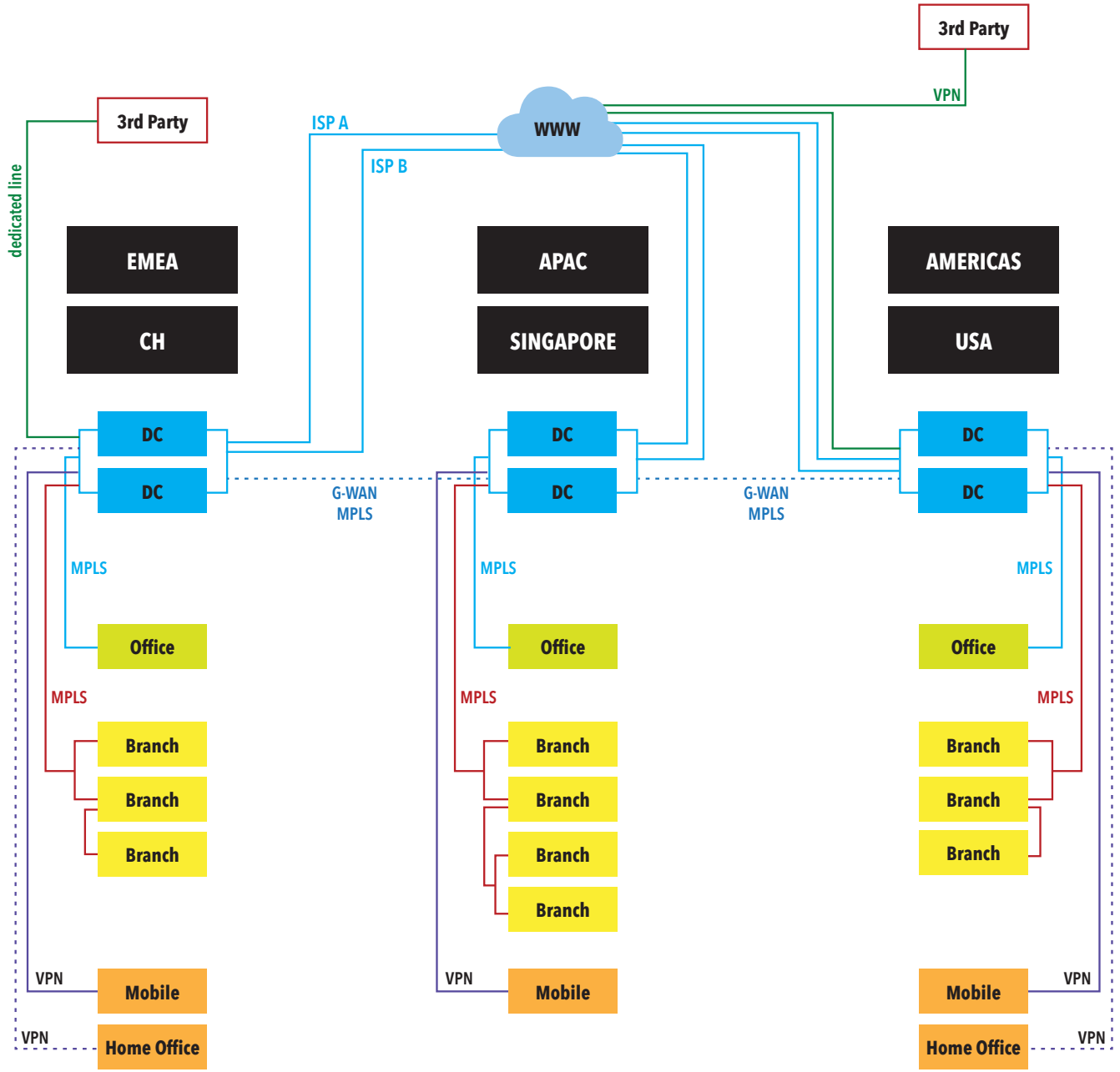
3rd Party
VPN
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dedicated line
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TecBite Industries doesn’t use cloud services.

Except Anna in Marketing.
She’s using Dropbox.

And Peter, in Sales.
He’s using G-Suite with his whole team.

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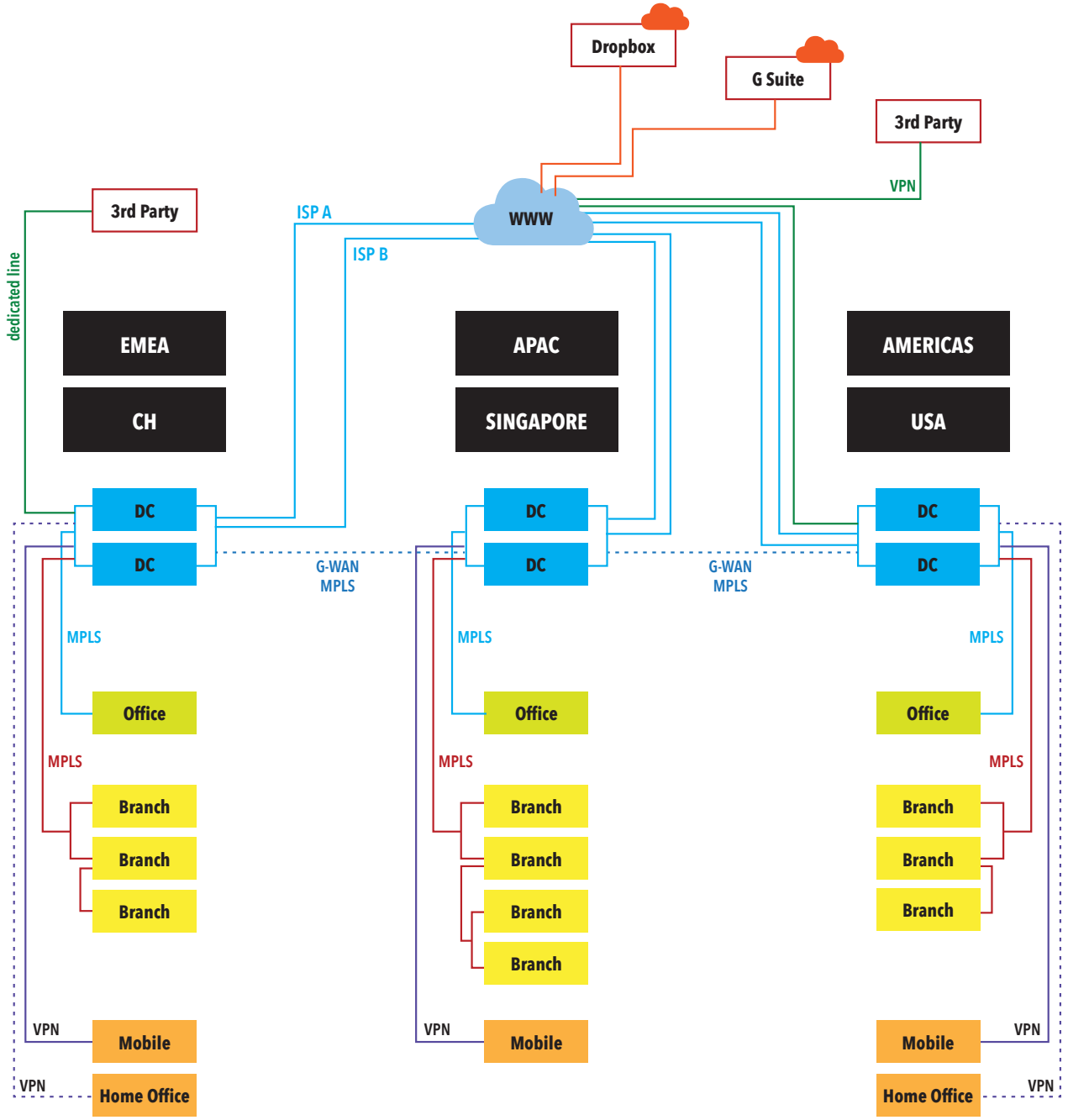
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On average* >1200 Cloud Apps are in use in a Fortune-1000 company.

Approx. 50% for personal use.

The average employee actively uses 36 cloud services at work.

*McAfee Cloud Adoption Report

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And how many of those is your Organisation aware of?

How do you find out what Cloud Apps your Organisation is using?

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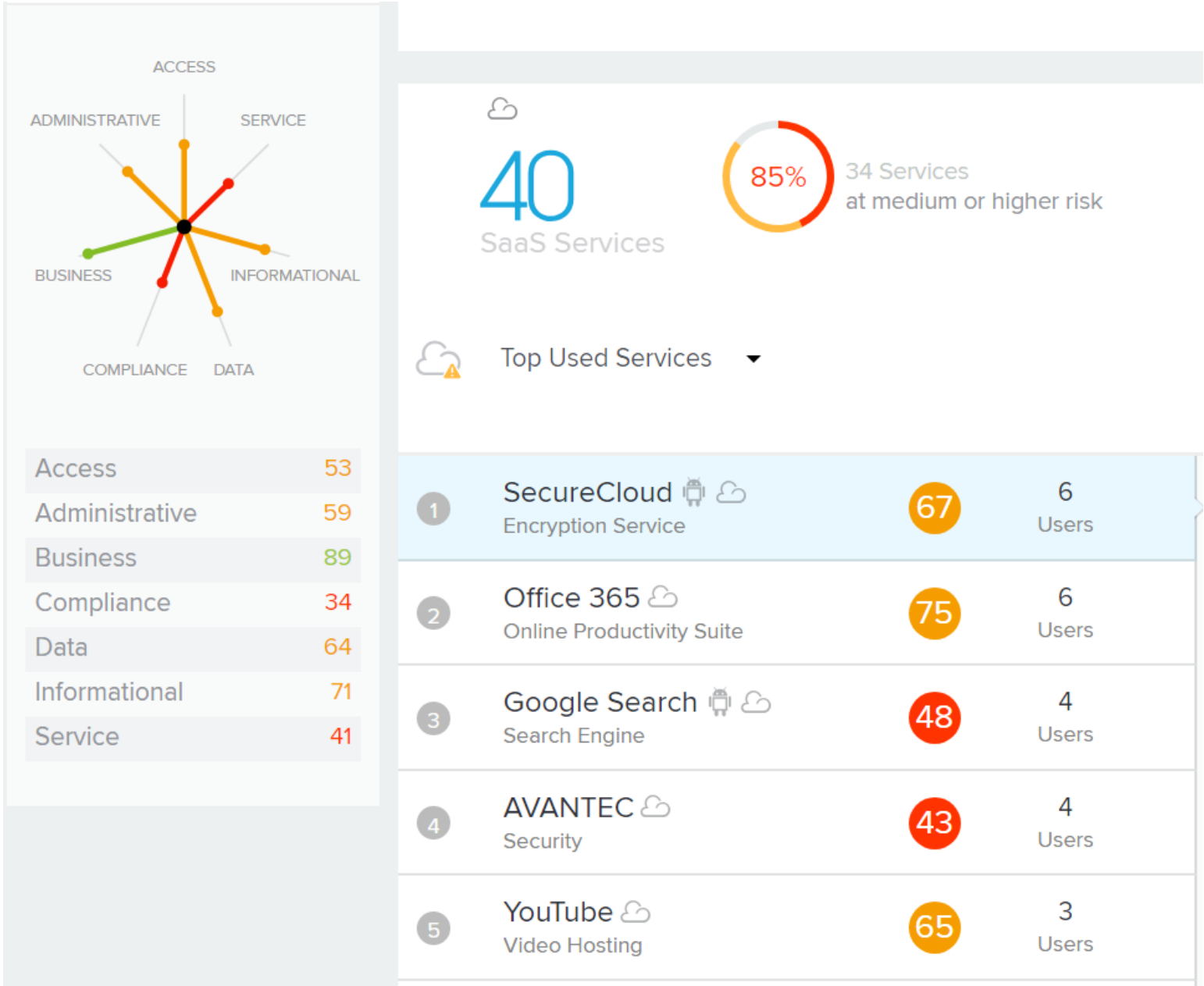
CASB: Audit

- **Audit directly on the Proxy**
- **Evaluate Proxy / Firewall Logs**



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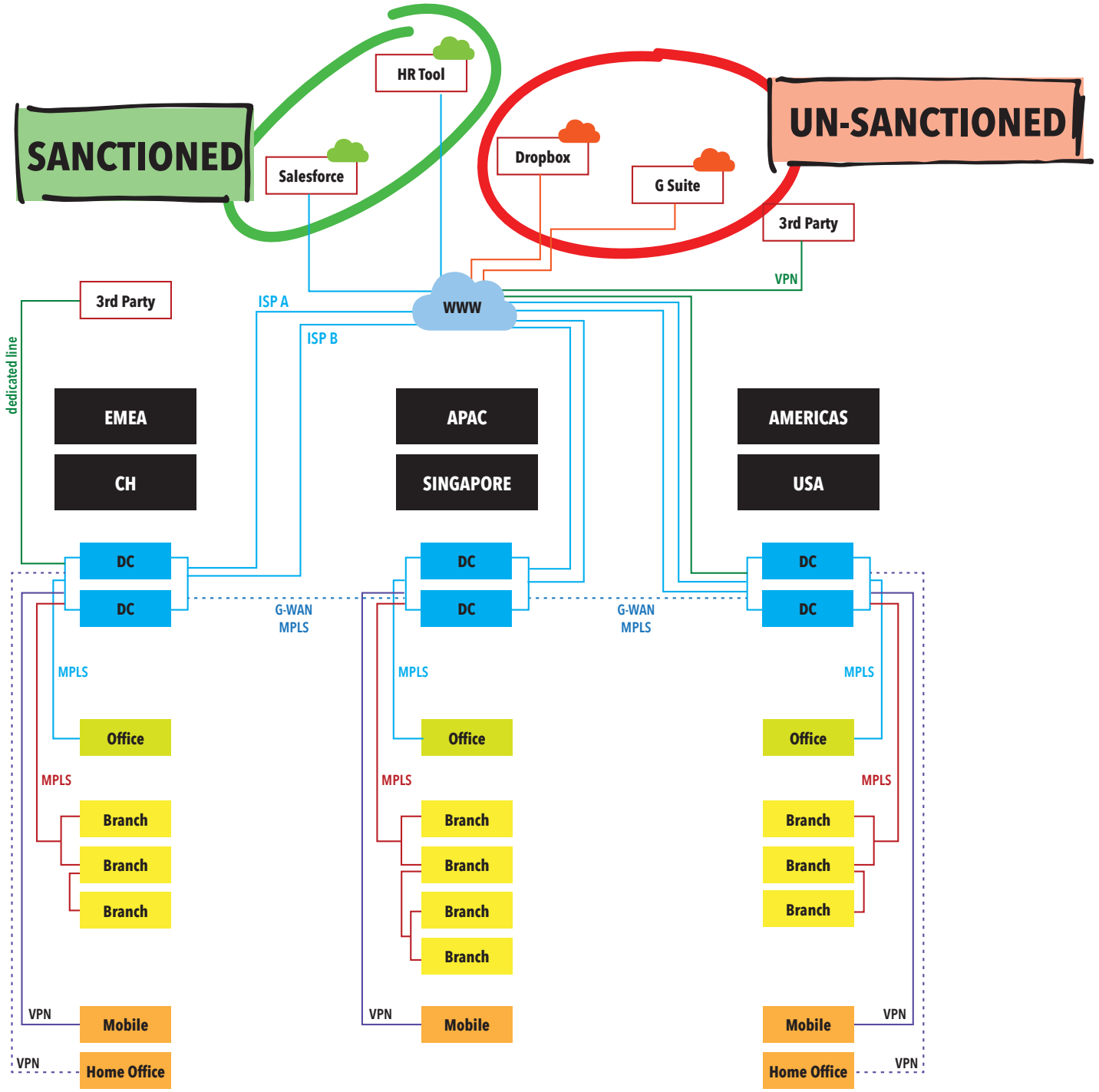
SANCTIONED
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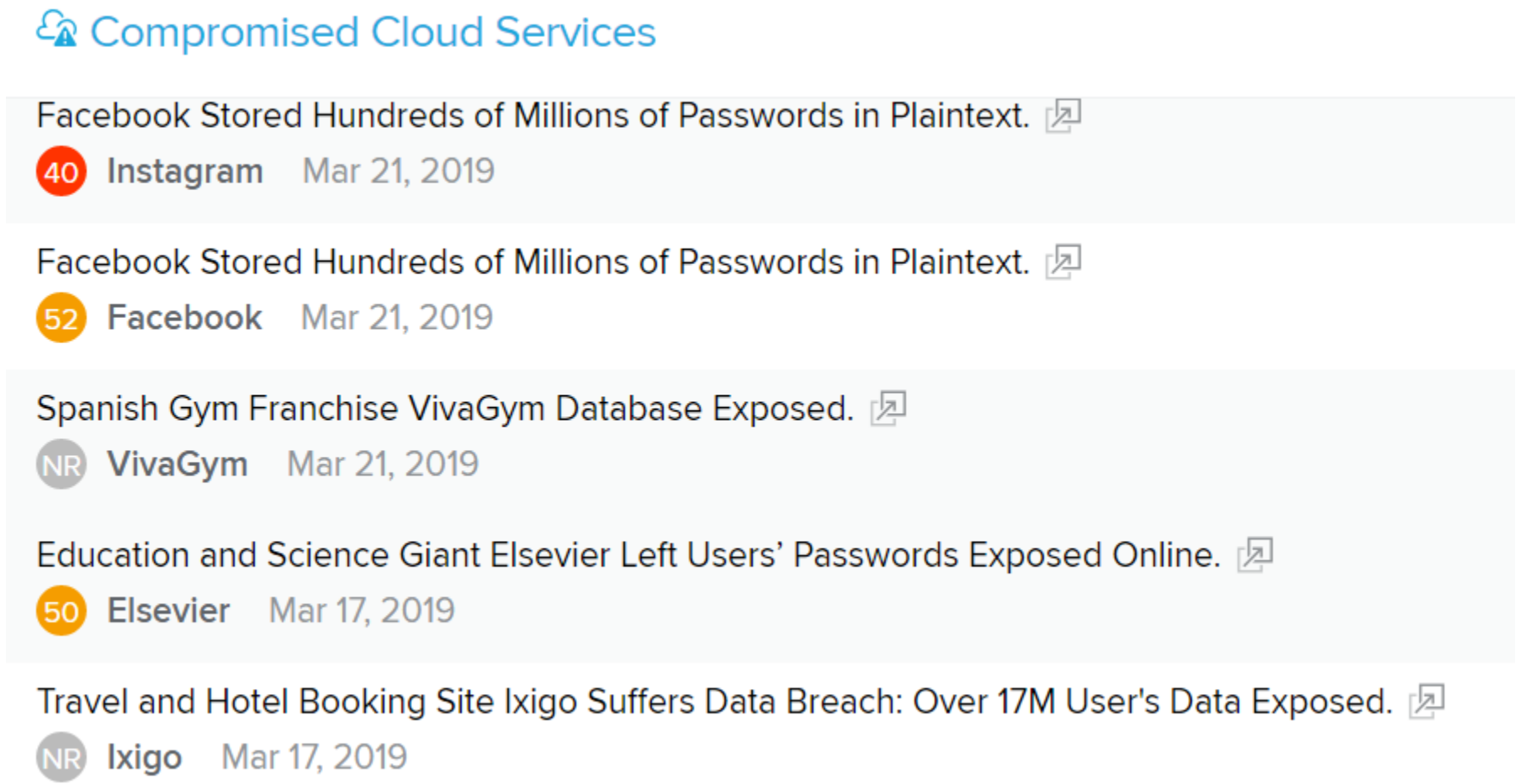
Authenticate in a secure way



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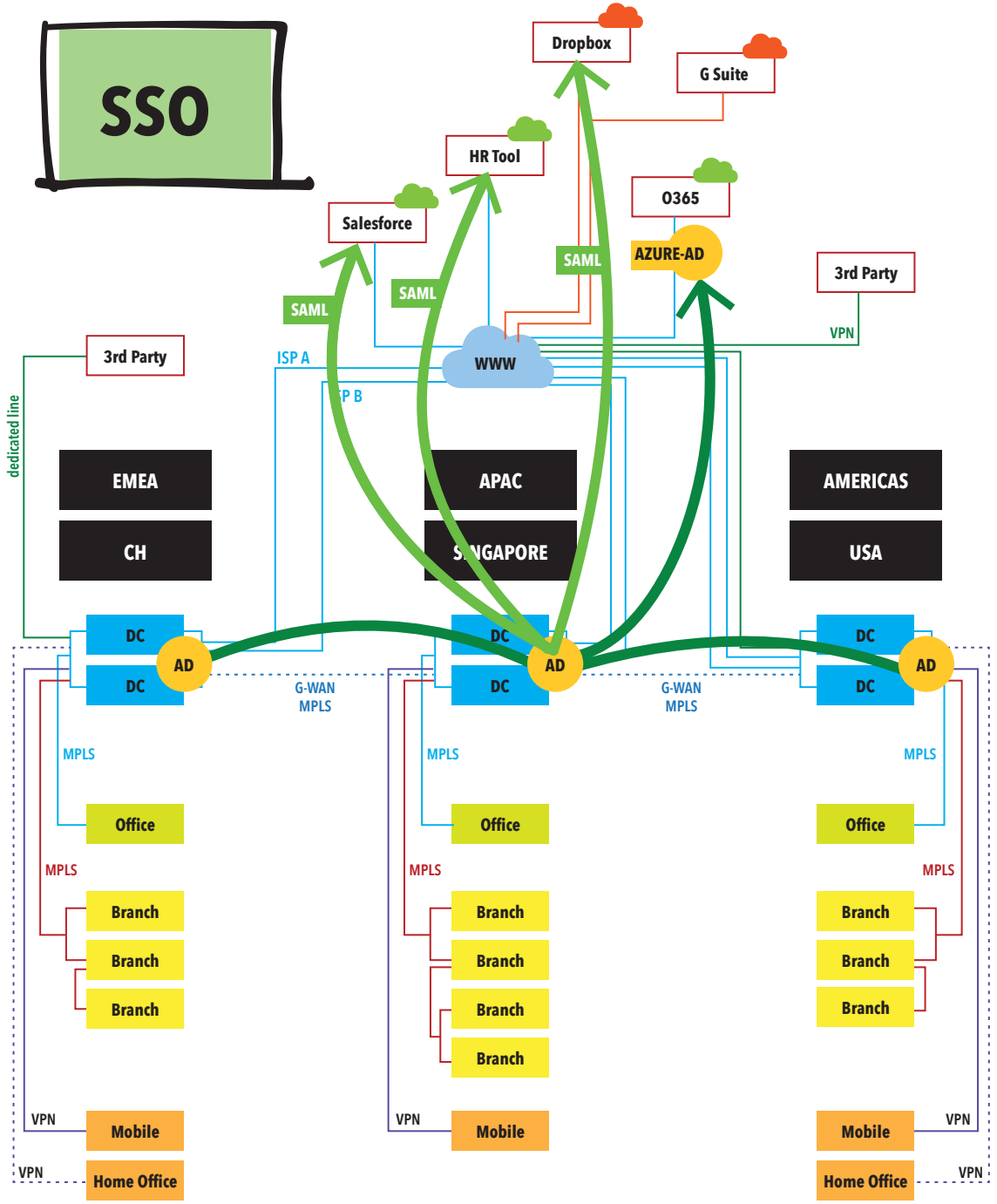
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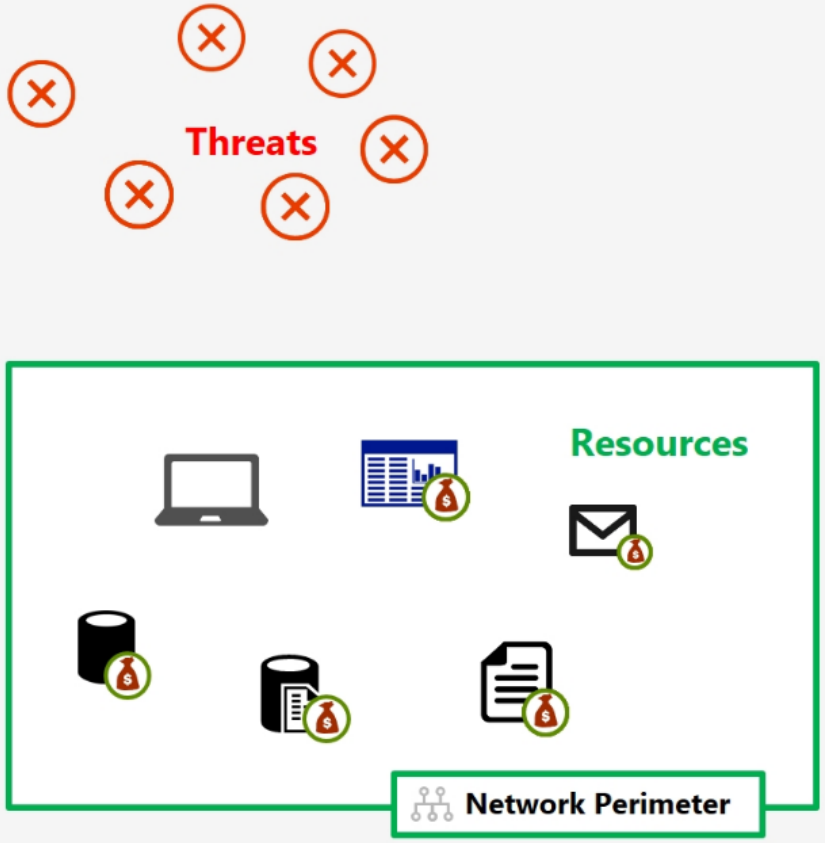
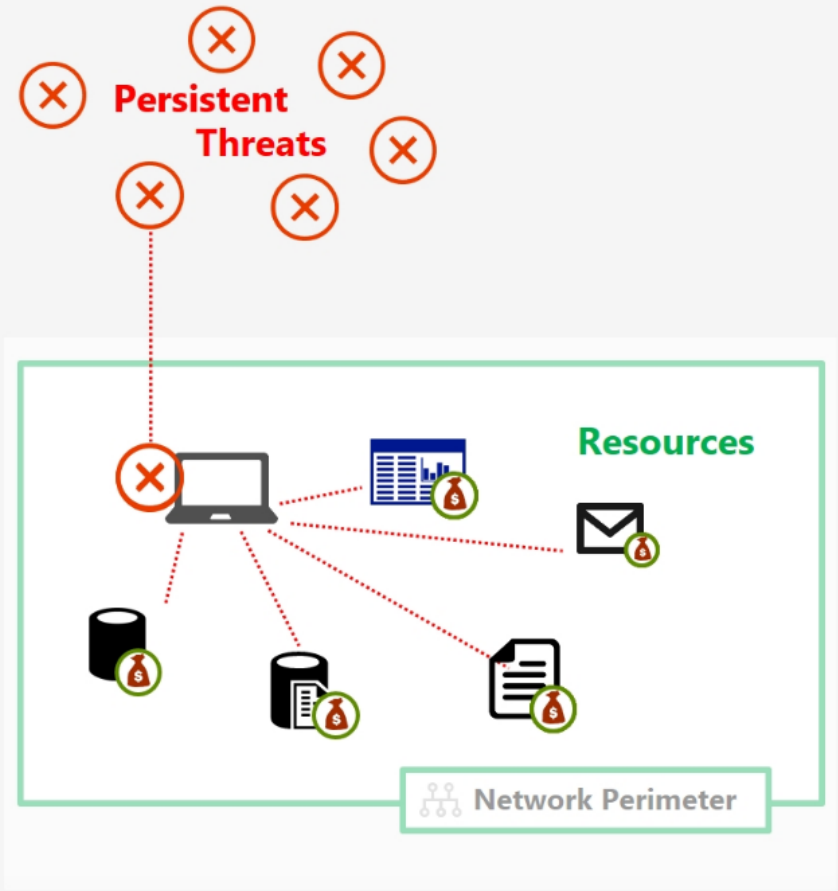
Modernizing the Security Perimeter



Modernizing the Security Perimeter

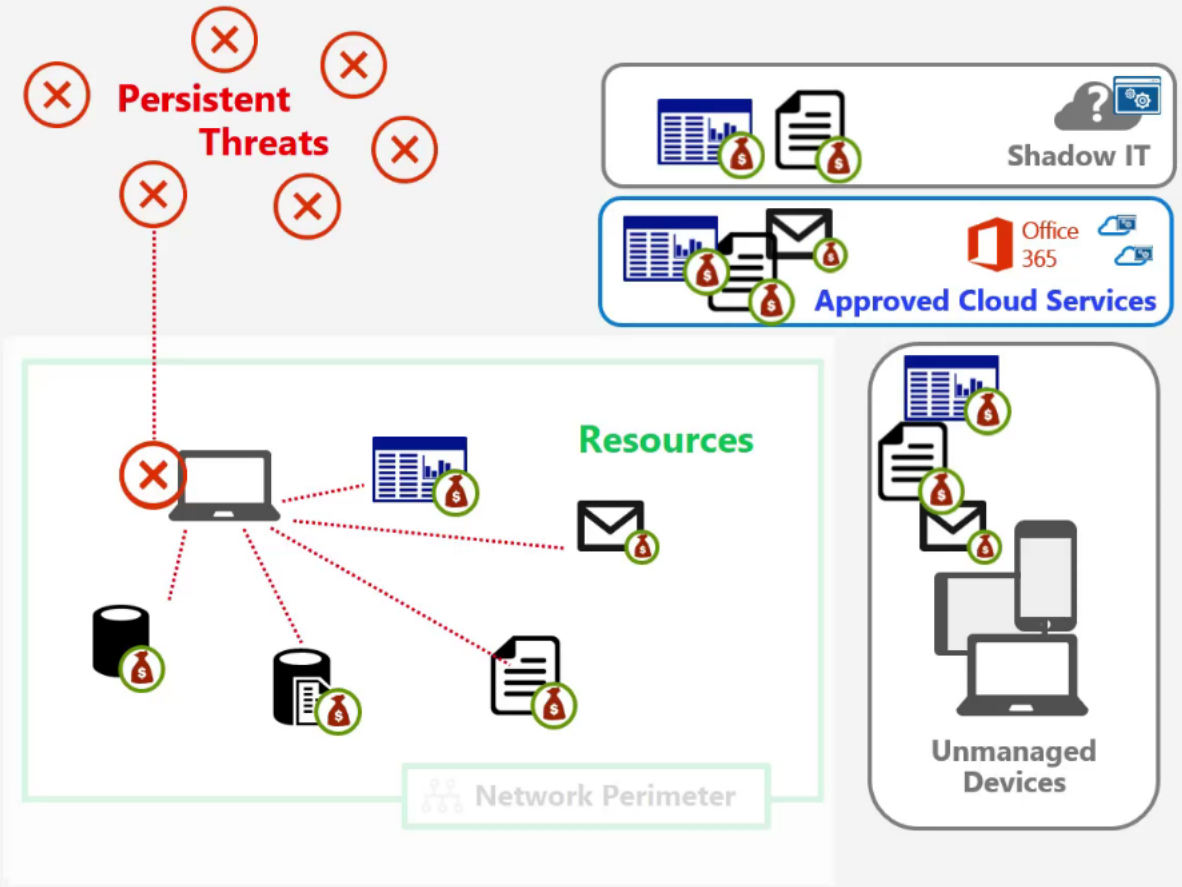


Network protects against classic attacks...

...but bypassed reliably with

- Phishing
- Credential theft

Modernizing the Security Perimeter



Network protects against classic attacks...

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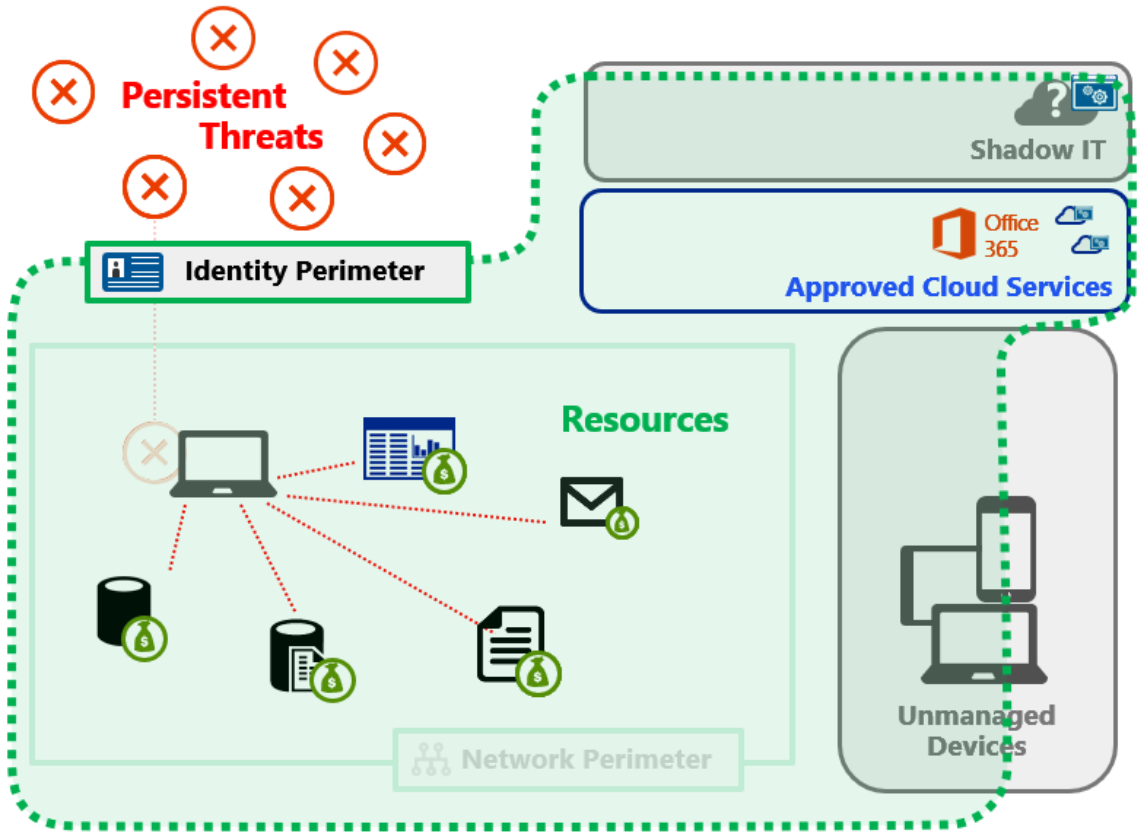
\+ Data moving out of the network

Modernizing the Security Perimeter

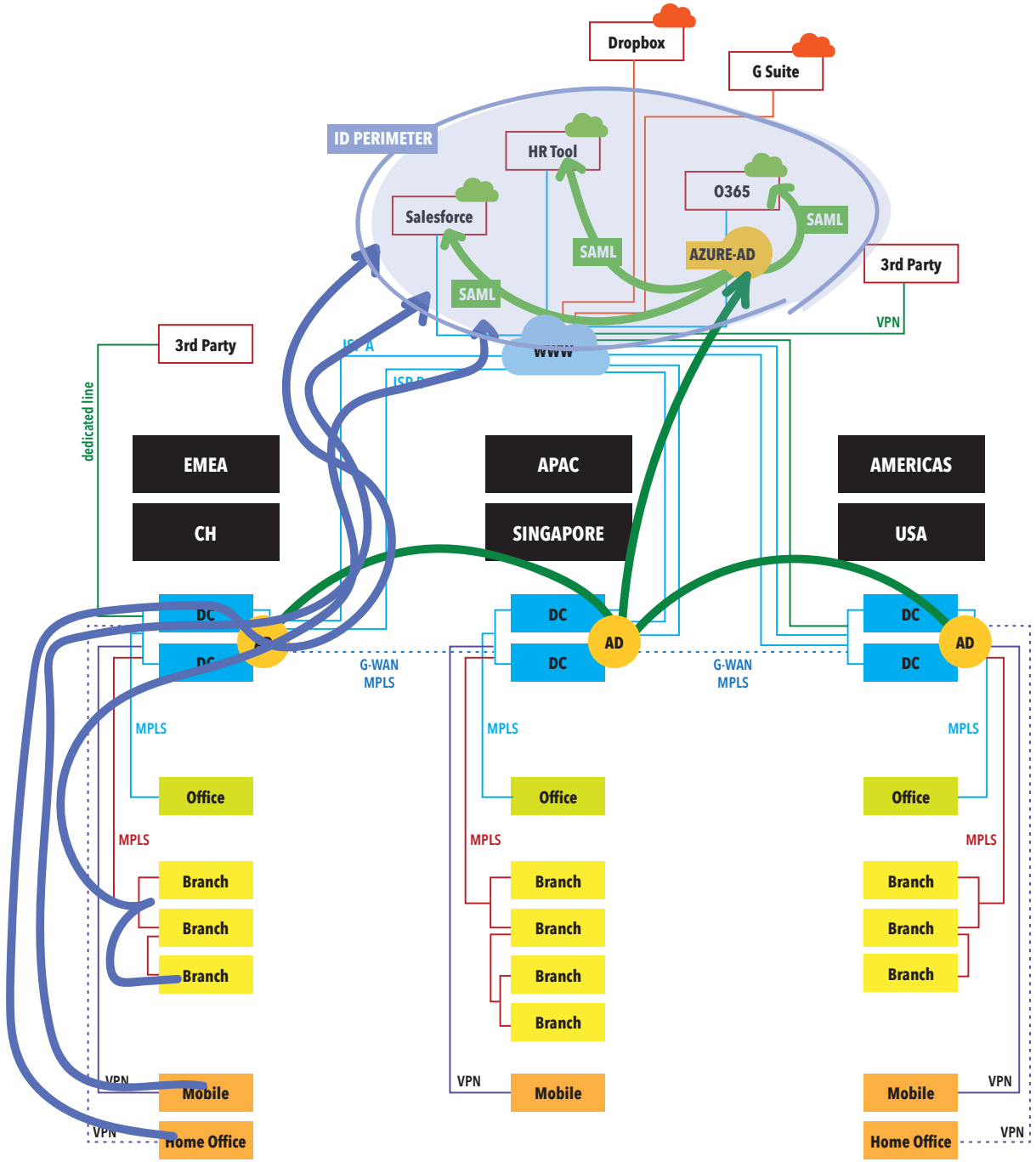


Network protects against classic attacks…

…but bypassed reliably with
- Phishing
- Credential theft

\+ Data moving out of the network

= Critical to build an **Identity security perimeter**
- ***Identity*** - Strong Authentication
- ***Access Management*** – Monitor and enforce access policies
- **Threat intelligence** integration into protections and detections



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Who are you?

Role-based access

Last sign-in?

Where are you coming from?

Corporate, Public Internet, Wi-Fi, Geographic Region

Last seen where from?

What device are you using?

Corporate Laptop, home PC
Tablet, Mobile

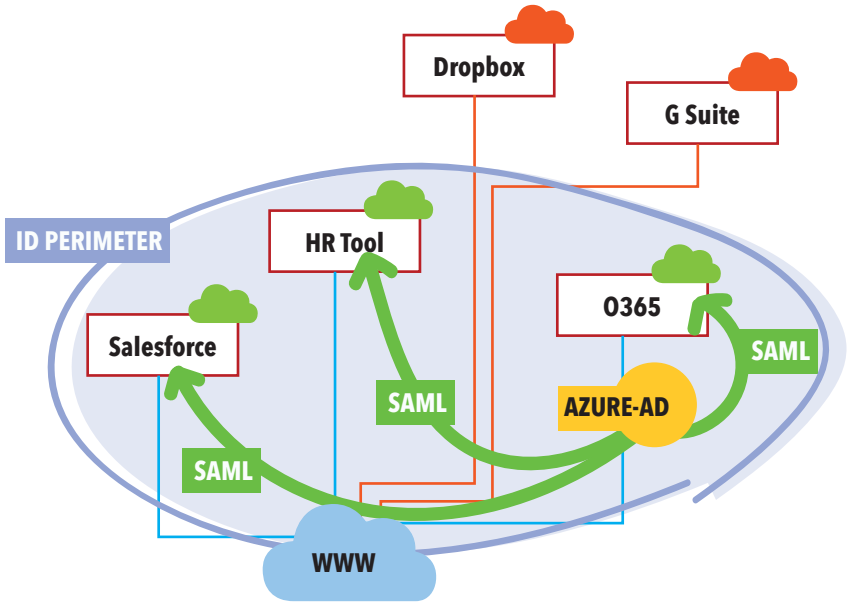
State of device?
Health / Integrity?

Additional factors

What time of day is it?
Are you authorised to access during that time?
Do you usually access during this time?
Correlation...

Conditional access:

- Allow / Block
- Allow read-only
- Enforce 2FA
- Allow restricted access
- Force remediation
- etc.



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Who are you?
Role-based access — Sales

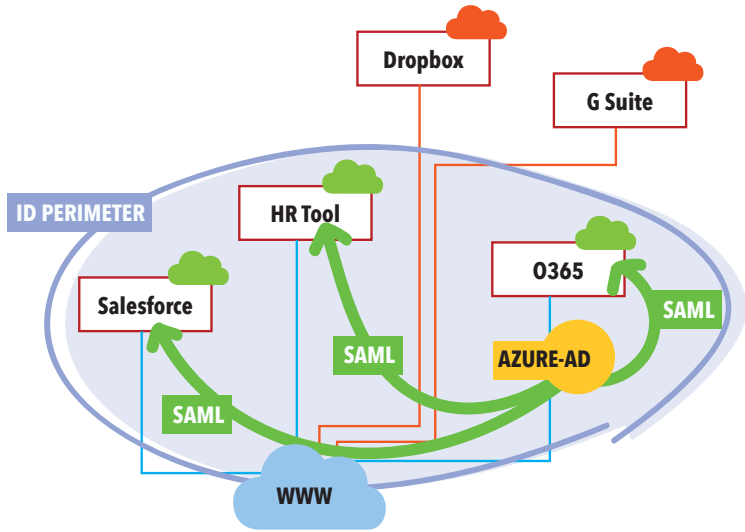
Where are you coming from?
Corporate, Public Internet, Wi-Fi, Geographic Region — Singapore, Public Internet

What device are you using?
Corporate Laptop, home PC Tablet, Mobile — Browser, Config mismatch, Device compromised

Additional factors
What time of day is it?
Are you authorised to access during that time?
Do you usually access during this time?
Correlation... — Now is 02:45 at night - unusual time, Last access from Switzerland, 22:45 - 4 hours ago

Conditional access:
- Block access
- Force remediation
- Generate alert

Or:
- Enforce 2FA
- Grant limited access
- Read-only



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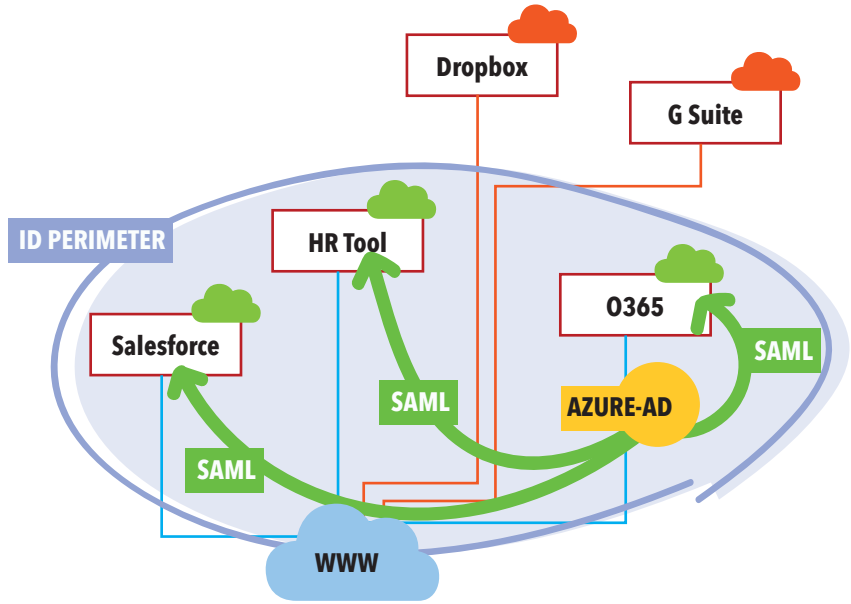
Problems that can be addressed:

- Weak IAM
- Brute-force password
- SMS spoofing
- Endpoint compromise
- Account takeover

Best practices:

- Strong Password policy
- 2FA / MFA
- Least privilege
- Just-in-time authorisation
- Audit-logs



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Now about Anna & Peter:

Anna is using Dropbox.
And Peter’s team is using G-Suite.

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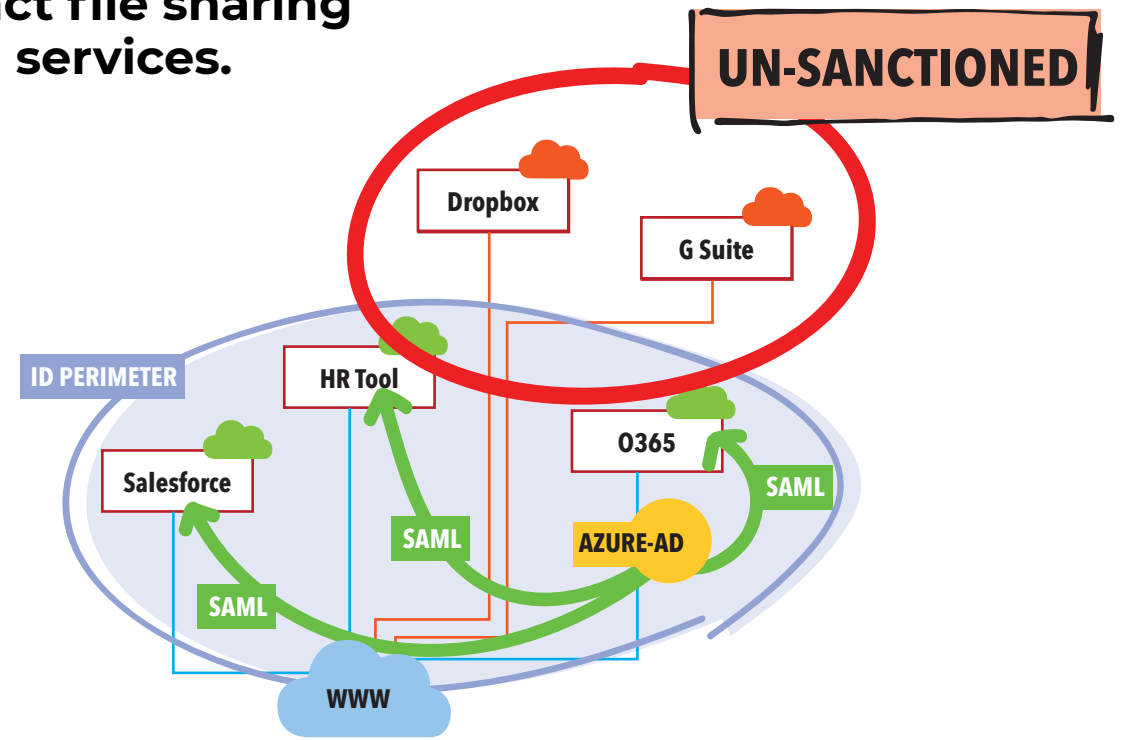
The average enterprise uses 76 distinct file sharing cloud services.

The average enterprise uses 210 distinct collaboration cloud services.

18% percent of files uploaded to cloud-based file-sharing and collaboration services contain sensitive data.



“Shadow IT”

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What’s the problem?

Companies are leaking sensitive files via Box accounts

Leaks discovered at Apple, the Discovery Channel, Herbalife, Schneider Electric, and even Box itself.

By Catalin Cimpanu for Zero Day | March 11, 2019 -- 19:54 GMT (19:54 GMT) | Topic: Security

11.3.2019

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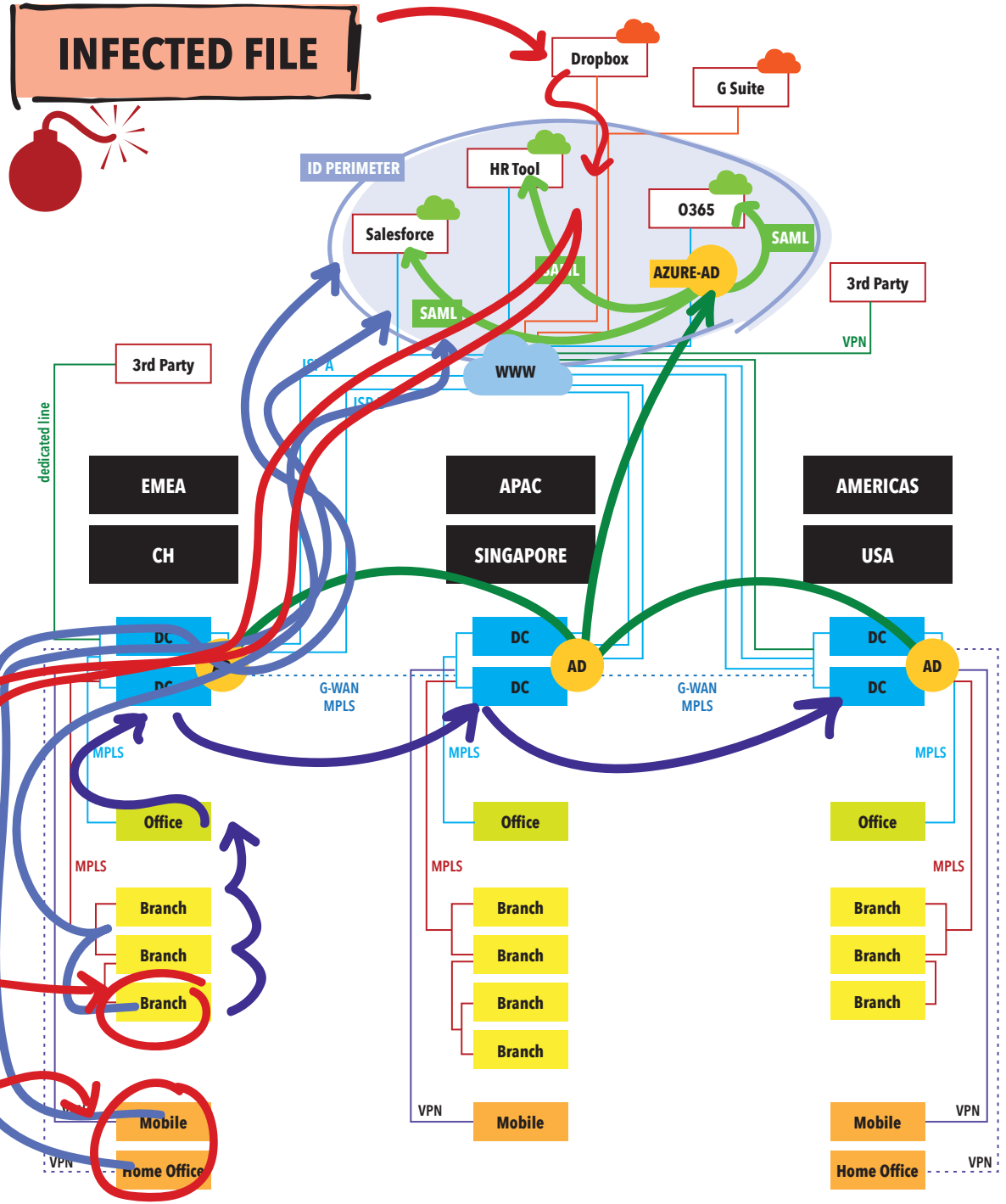

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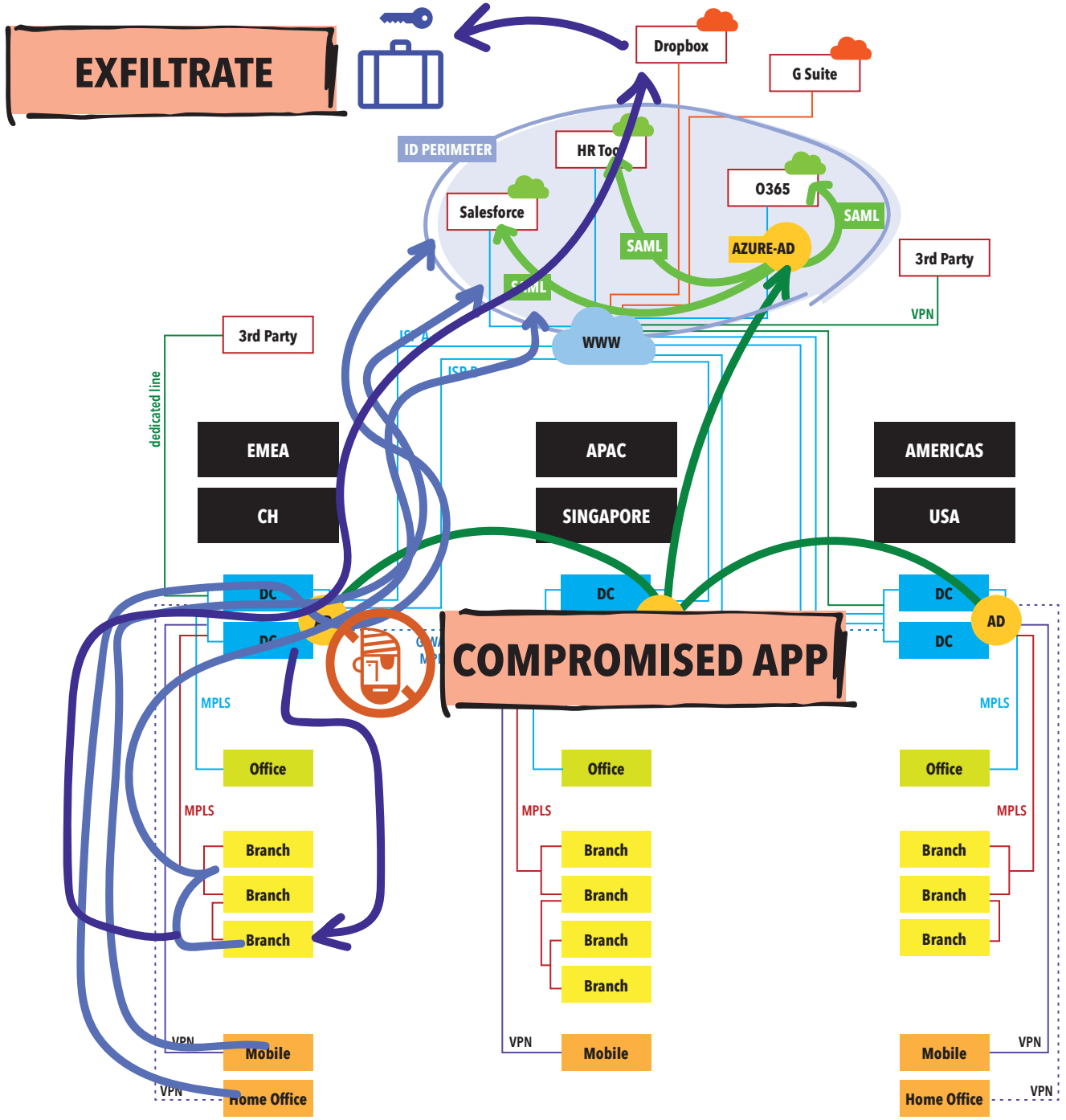

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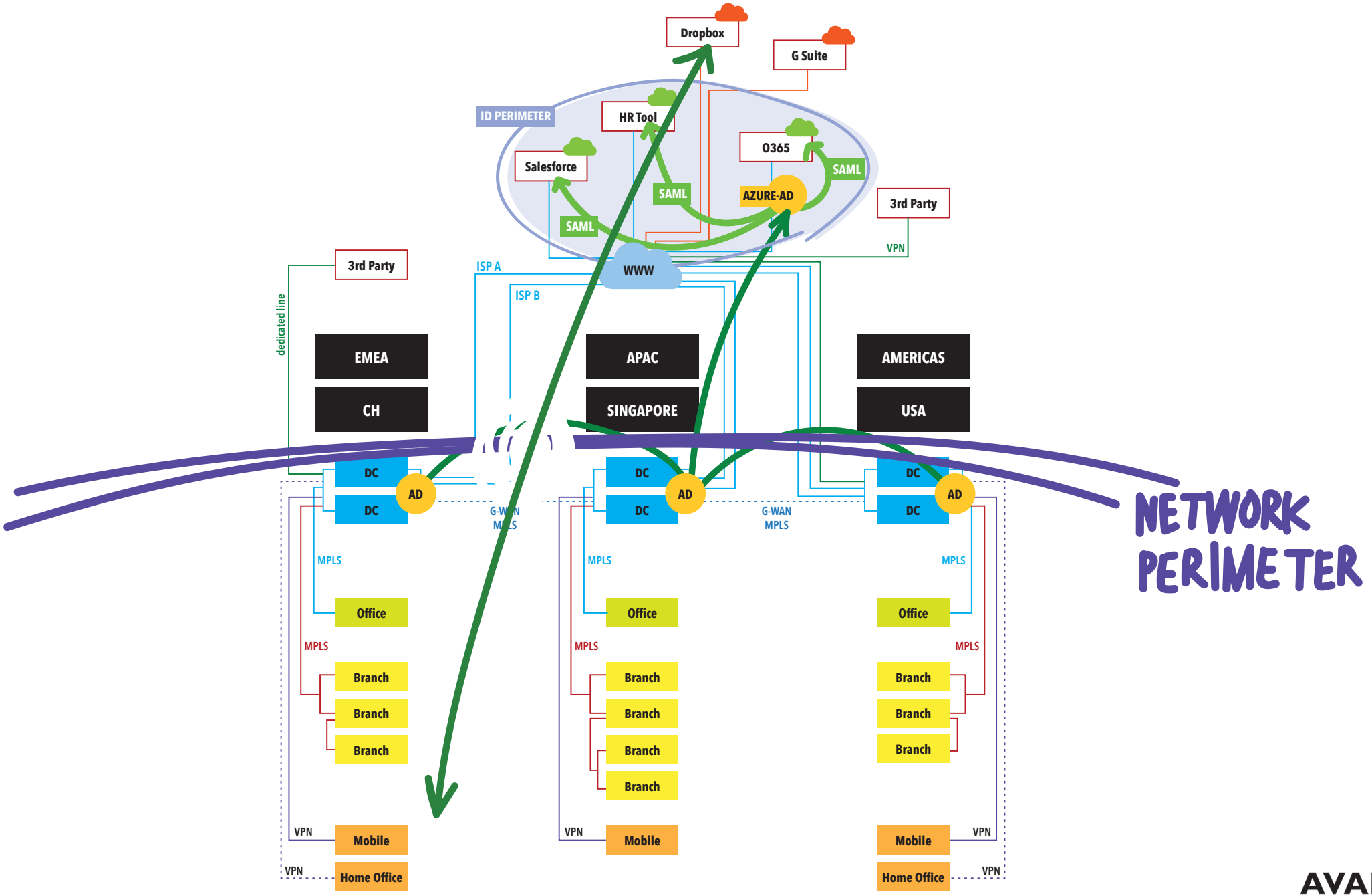

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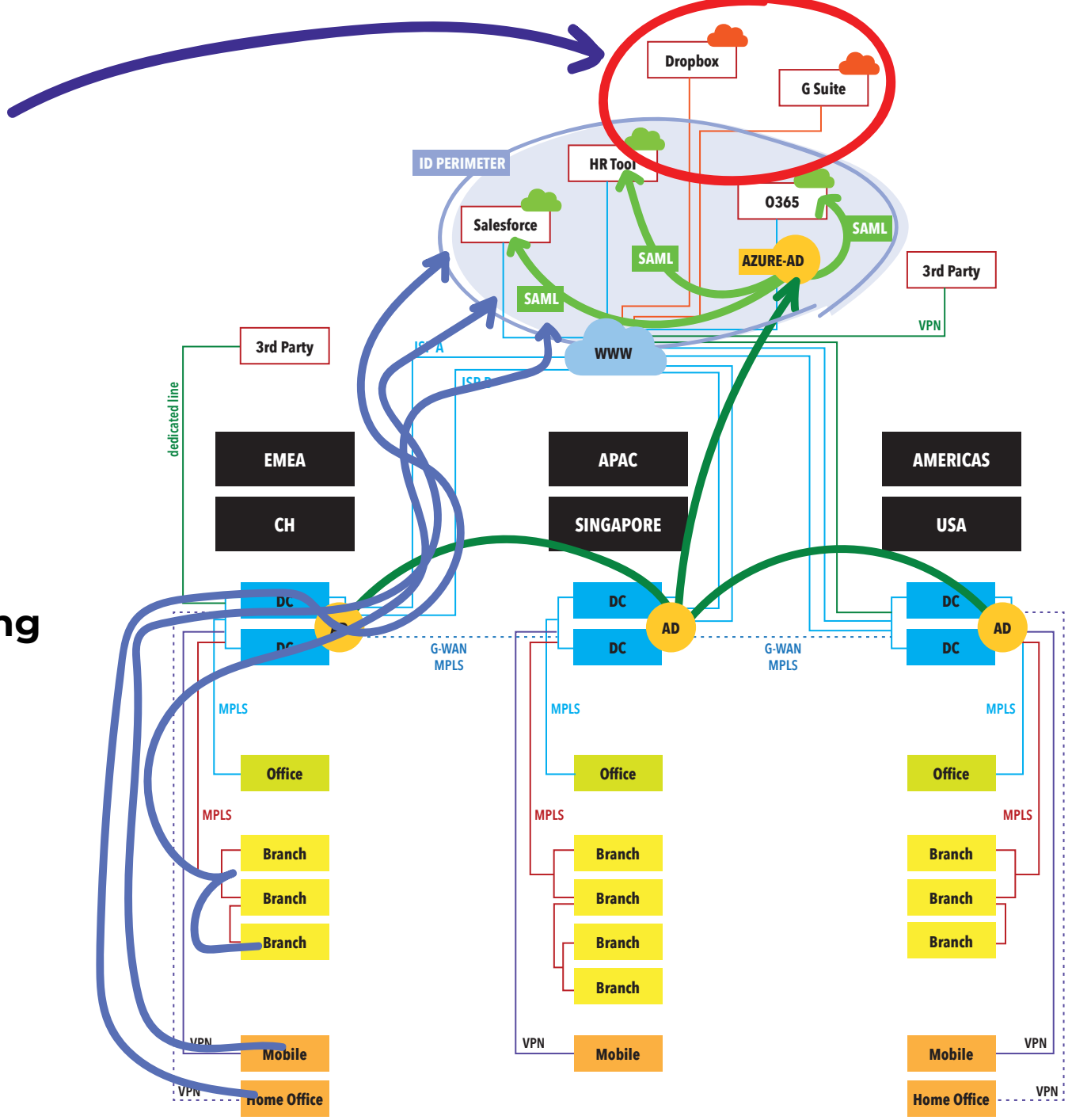
1 IDENTIFY

- CASB connects to cloud services via API
- Using CASB Gateway “inline”

2 ENFORCE

- DLP
- Prevent unauthorised sharing
- Detect compromised accounts
- Detect risky users
- Detect malware
- Detect insider threats
- Limit long sessions
- Identify location change
- Identify privilege escalation
- Log everything



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We have multiple perimeters now:

- Identity Perimeter
- Messaging Perimeter
- Data Perimeter
- Compute Perimeter
- App Perimeter

Identity & CASB have similar concepts:

Who is accessing what, when, how?
Can he/she?
Does he/she usually?
Incoming or outgoing?
Privileged data or account?
Then act accordingly.

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At the end of the day:

Visibility on what Cloud Apps are being used.

Control access adequately.

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Thank you

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