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Microsoft Entra Internet & Private Access FTW

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Speaker

Gerry Hampson

Senior Consultant, Microsoft MVP

@GerryHampson

Can’t see the slides? Can’t hear? Need to repeat the question?

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We will NOT be talking about…….

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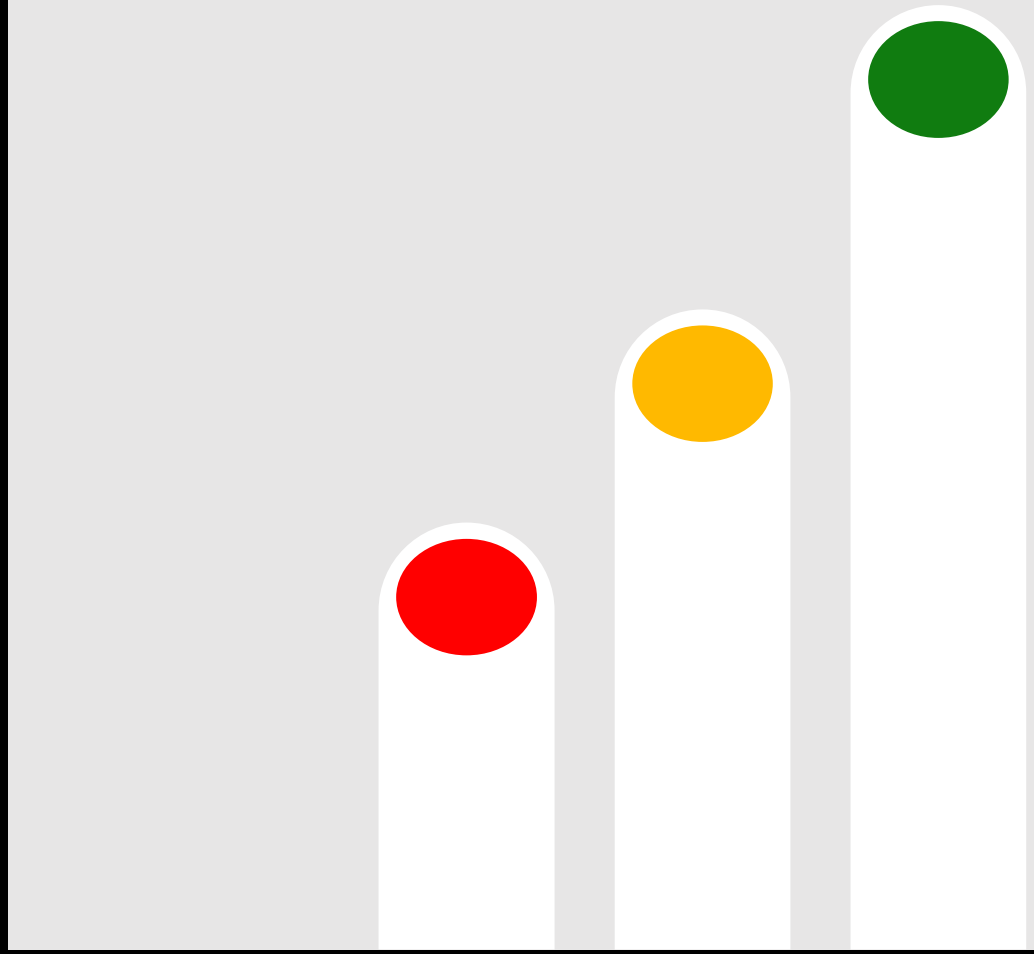
Agenda

- Legacy network security challenges
- Microsoft’s Security Service Edge Solution
- Microsoft Entra Internet Access (Preview)
- Microsoft Entra Private Access (Preview)
- It’s just Entra ID Application Proxy, right?
- Steps to enable Entra Internet Access
- Steps to enable Entra Private Access
- Entra Private & Internet Access in action



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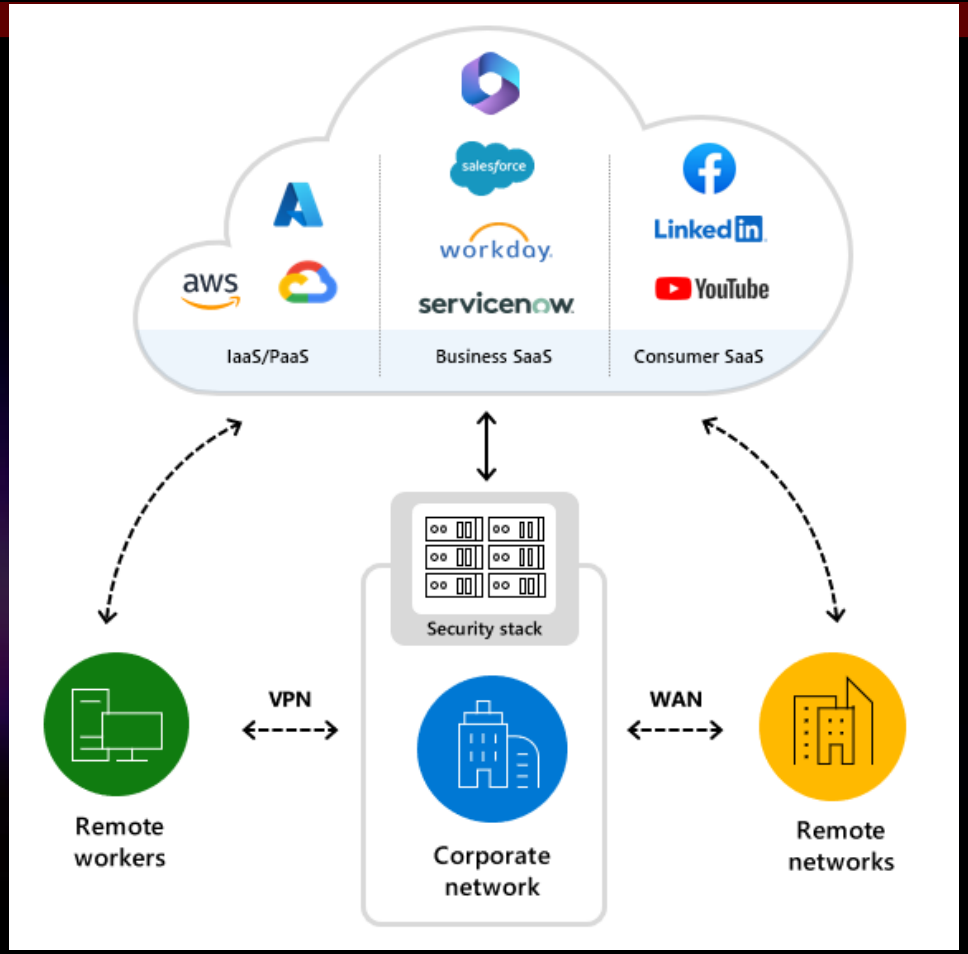
Legacy network security no longer sufficient

- Inconsistent and inefficient security controls
- Security gaps from siloed solutions and policies
- Higher operational complexities and cost
- Poor user experience
- Limited resources and technical skills



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Microsoft’s Security Service Edge (SSE) Solution

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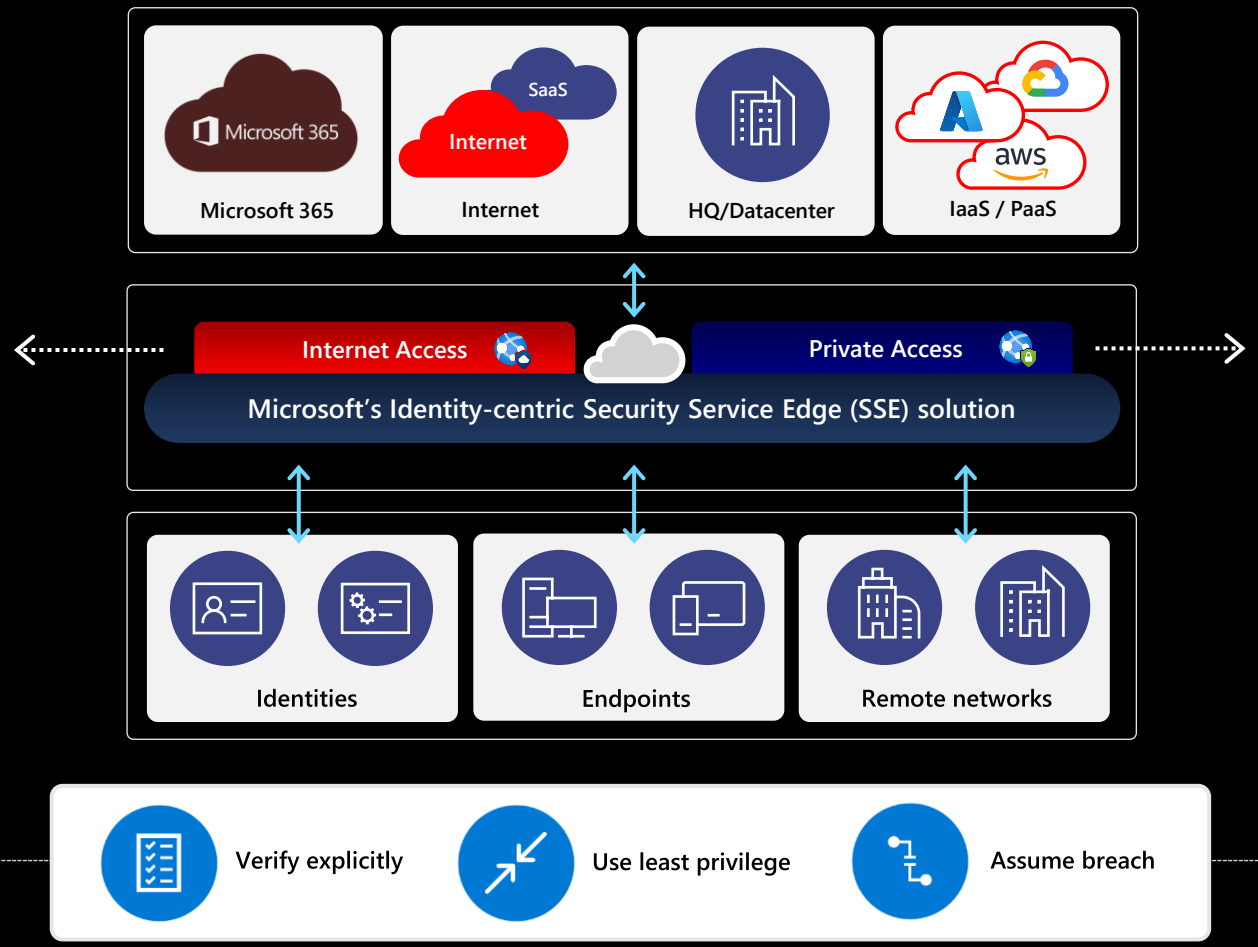
Microsoft's Identity-centric SSE solution

Microsoft Entra Internet Access

Secure access to all internet, SaaS, and Microsoft 365 apps and protect against malicious internet traffic with an **identity-centric Secure Web Gateway (SWG).**



Microsoft Entra Private Access

Secure access to all private apps and resources, for users anywhere, with an **identity-centric Zero Trust Network Access (ZTNA).**

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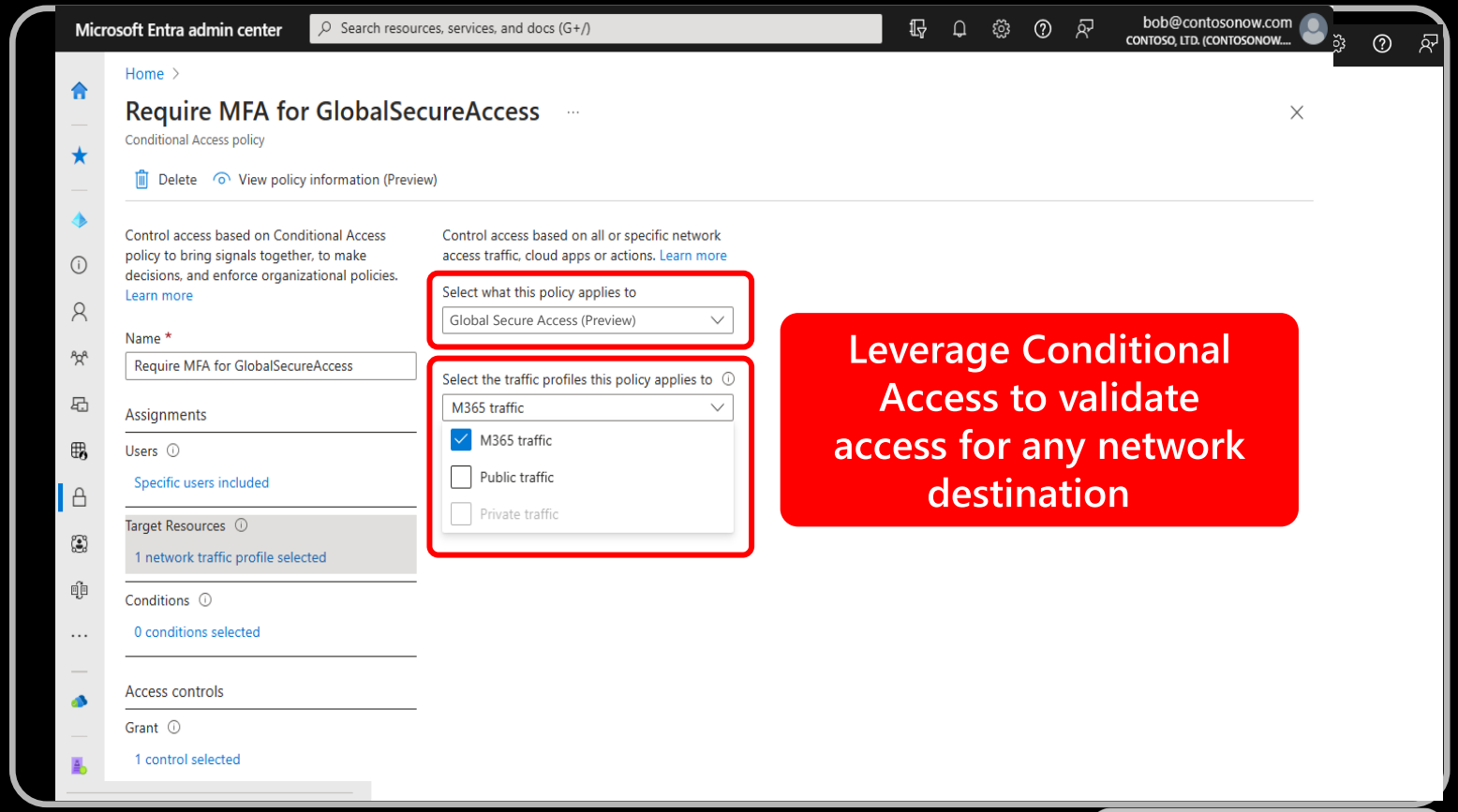
Universal Conditional Access

Extend the power of Conditional Access to any network destination

- Applies Conditional Access to network scope
  - Introduces Global Secure Access as a new resource type in Conditional Access
  - Integrated construct to enforce adaptive access controls when connecting to SSE
- Support for differentiated Conditional Access policies across Microsoft 365, Internet and Private traffic profiles
- Extend seamless Zero Trust access controls to all network destinations, agnostic of client or application readiness
- Continuous access evaluation to instantaneously revoke access on changing conditions
- Source IP Restoration



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Microsoft Entra Internet Access

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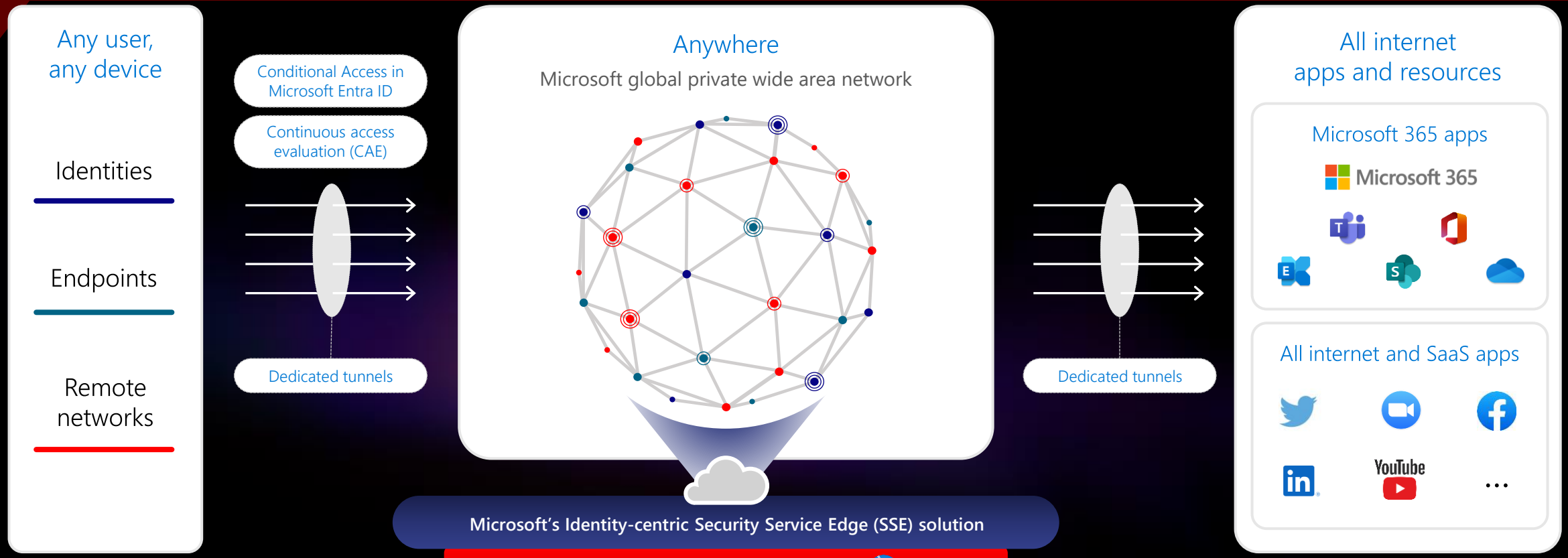
Microsoft Entra Internet Access

An identity-centric Secure Web Gateway (SWG) solution



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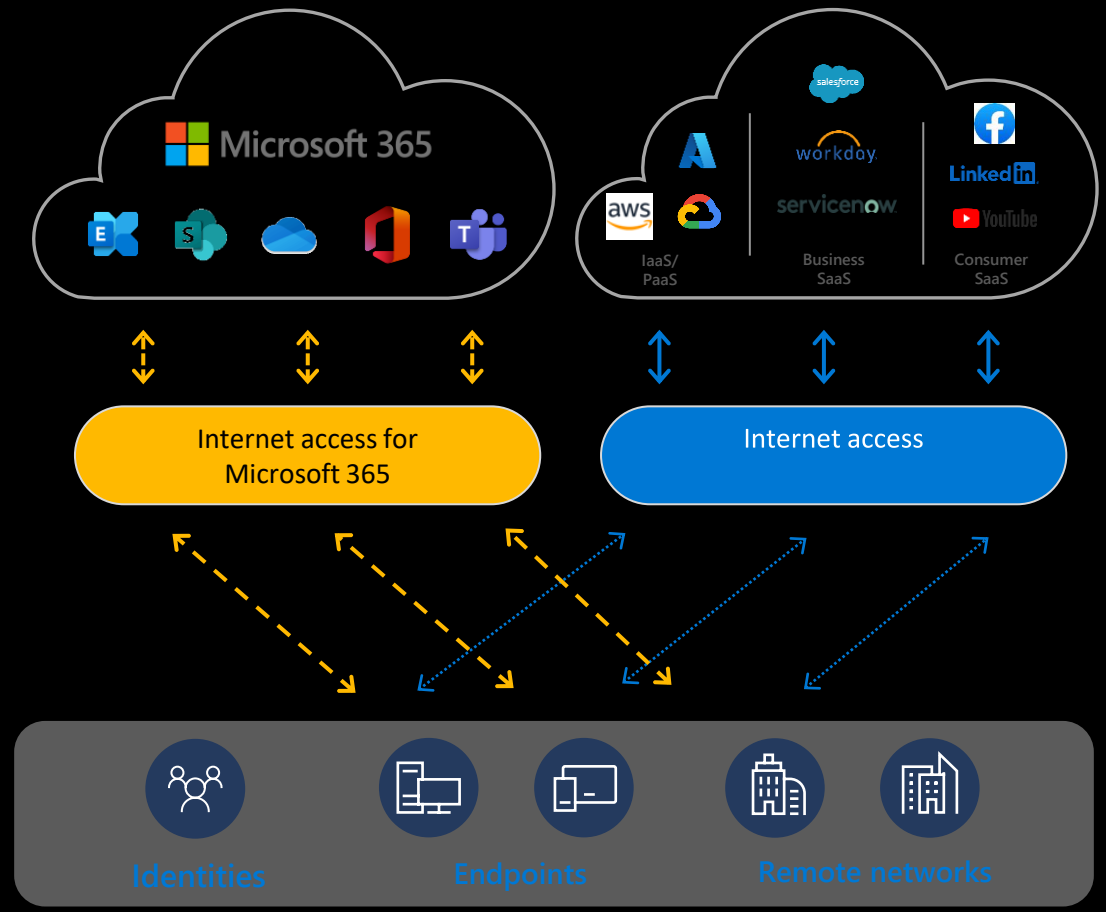
Microsoft Entra Internet Access

- Easy to activate, zero maintenance
- Adaptive access controls
- Gain visibility into your environment
- Optimized end-user experience
- Web filtering



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Microsoft Entra Internet Access- prerequisites

- Entra
  - Entra ID P1 license
  - M365 E3 (for Microsoft 365 traffic forwarding)
  - Role: Global Secure Access Administrator, Application Administrator, Security Administrator
  - Test user
- Infrastructure
  - Test Windows client
    - Windows 10/11 64-bit
    - Entra ID or hybrid
    - Internet connection, no VPN
    - Need to be able to install Global Secure Access agent (Intune or local admin)
  - Disable DNS over HTTP
  - Prefer IPv4 over IPv6

Disable DNS over HTTP

```
function CreateIfNotExists
{
    param($Path)
    if (-NOT (Test-Path $Path))
    {
        New-Item -Path $Path -Force | Out-Null
    }
}
$disableBuiltInDNS = 0x00
# This disables browser based secure DNS lookup for the Microsoft Edge browser:
CreateIfNotExists "HKLM:\SOFTWARE\Policies\Microsoft"
CreateIfNotExists "HKLM:\SOFTWARE\Policies\Microsoft\Edge"
Set-ItemProperty -Path "HKLM:\SOFTWARE\Policies\Microsoft\Edge" -Name "DnsOverHttpsMode" -Value "off"
Set-ItemProperty -Path "HKLM:\SOFTWARE\Policies\Microsoft\Edge" -Name "BuiltInDnsClientEnabled" -Type DWord -
Value $disableBuiltInDNS
# This disables browser based secure DNS lookup for the Google Chrome browser:
CreateIfNotExists "HKLM:\SOFTWARE\Policies\Google"
CreateIfNotExists "HKLM:\SOFTWARE\Policies\Google\Chrome"
Set-ItemProperty -Path "HKLM:\SOFTWARE\Policies\Google\Chrome" -Name "DnsOverHttpsMode" -Value "off"
Set-ItemProperty -Path "HKLM:\SOFTWARE\Policies\Google\Chrome" -Name "BuiltInDnsClientEnabled" -Type DWord -
Value $disableBuiltInDNS
```

Prefer IPv4 over IPv6

```
Set-ItemProperty -Path
"HKLM:\SYSTEM\CurrentControlSet\Services\Tcpip
6\Parameters" -Name "DisabledComponents" -Type
DWord -Value $setIpv6Value
```

Microsoft Entra Internet Access- implementation steps

- Enable Global Secure Access
- Enable Traffic Forwarding
- Create a web content filtering policy
- Create a security profile
- Create a conditional access policy
- Install the Global Secure Access client on W10/11
- Test and verify Entra Internet access

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Entra Internet Access

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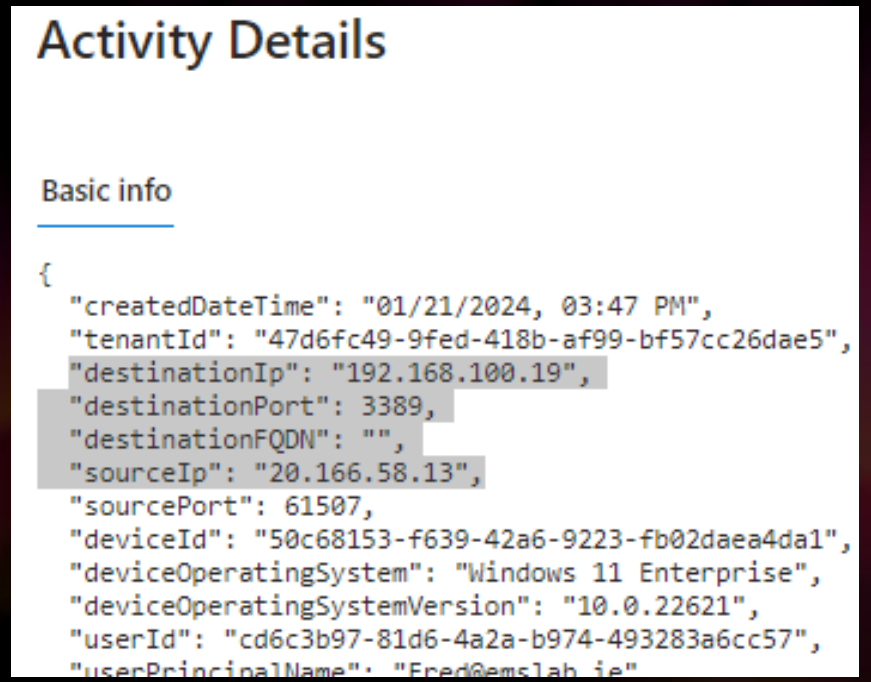

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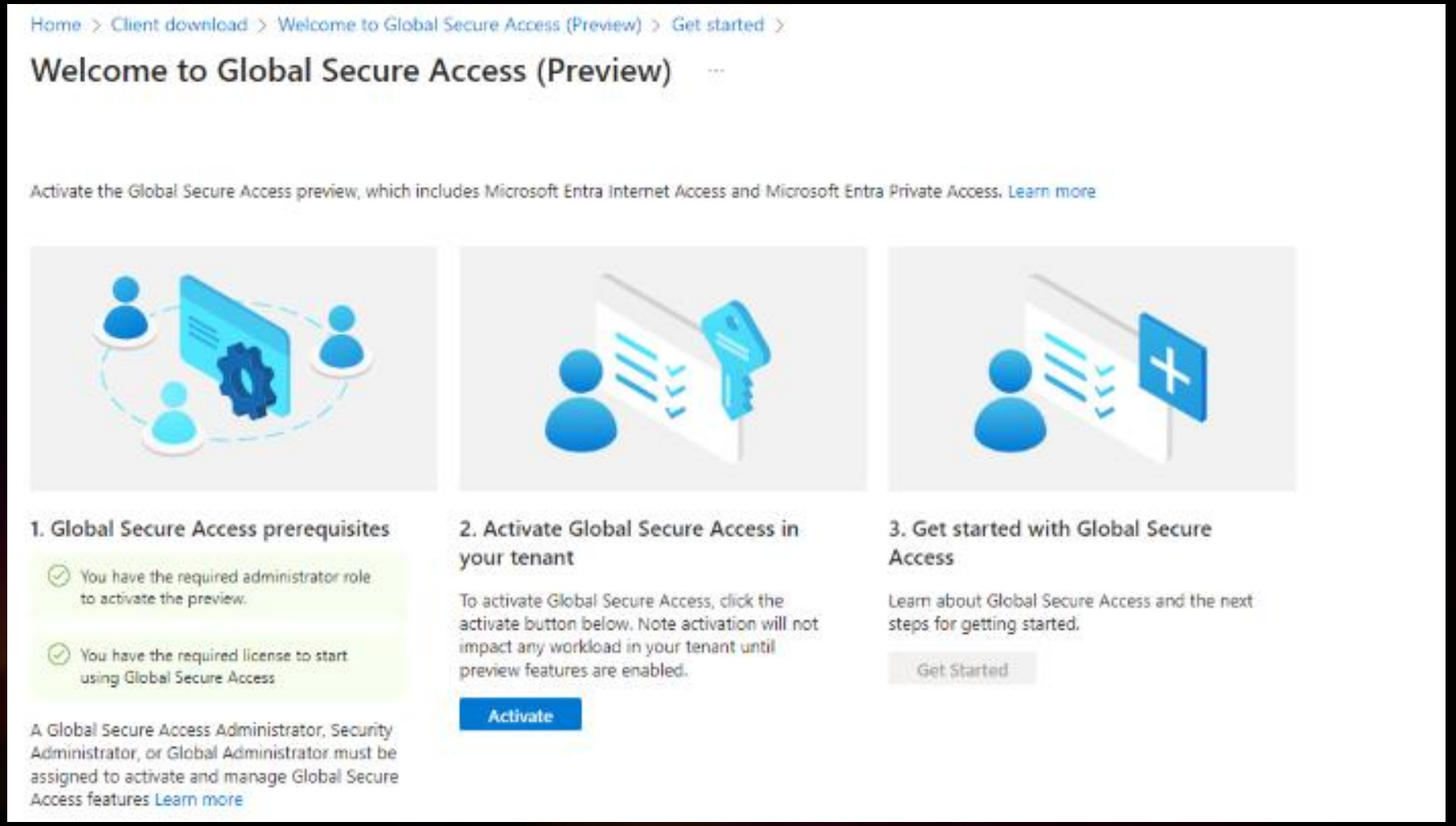

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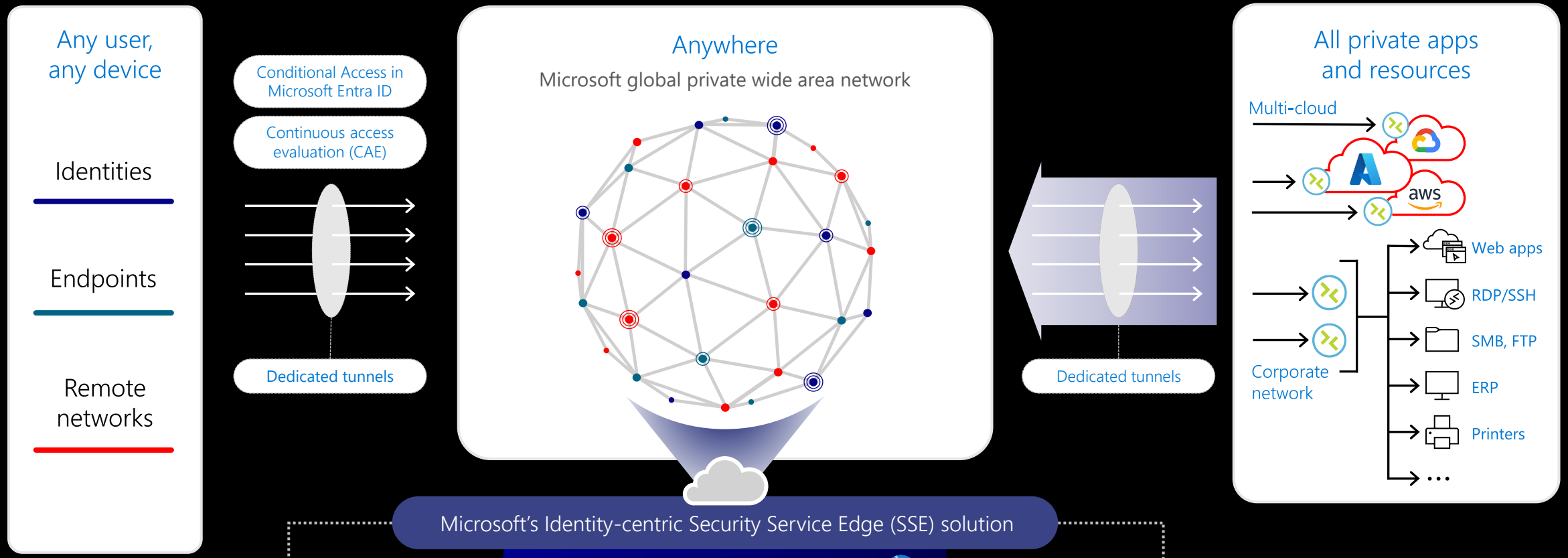
Microsoft Entra Private Access

An identity-centric Zero Trust Network Access (ZTNA)



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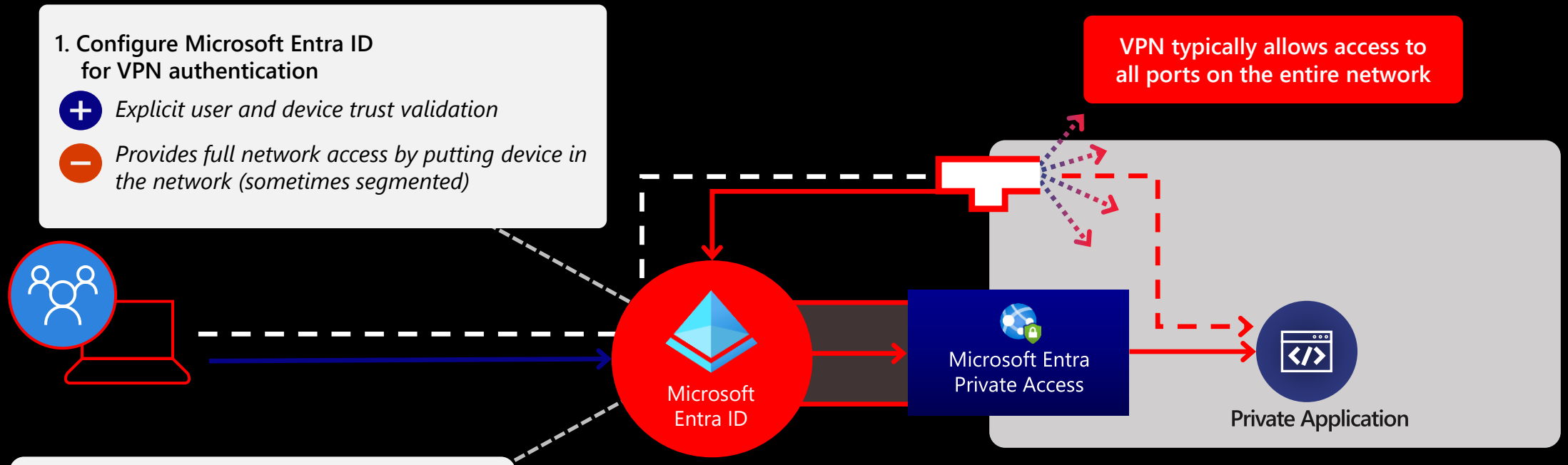
Moving beyond VPNs

Move to identity-centric ZTNA and modernize access to private applications



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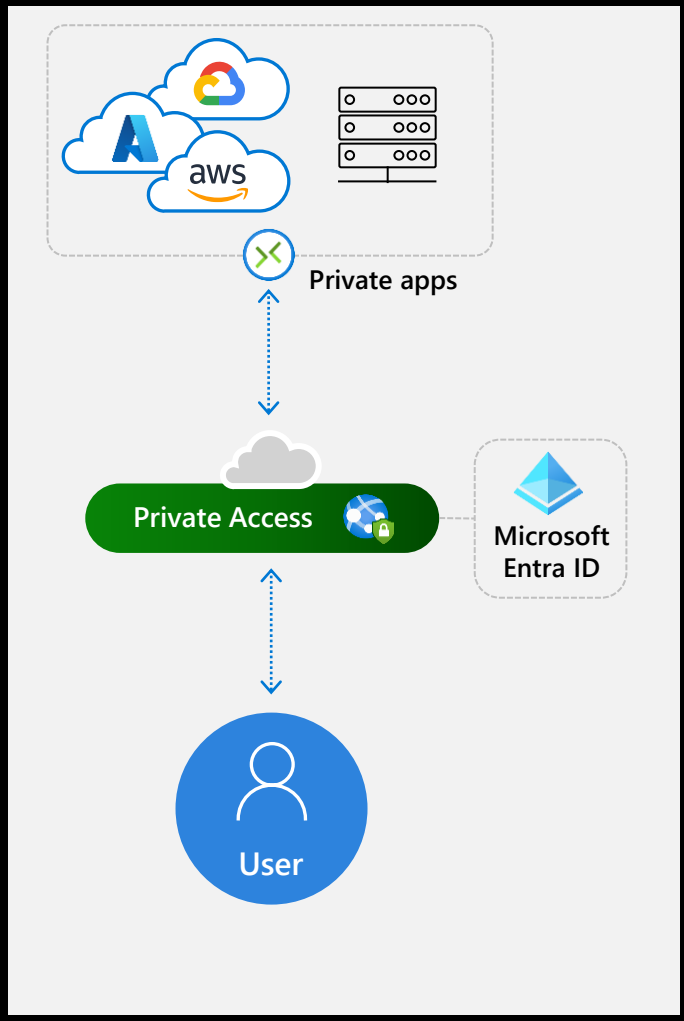
  - Role: Global Secure Access Administrator, Application Administrator, Security Administrator
  - Test user
- Infrastructure
  - Test Windows client
    - Windows 10/11 64-bit
    - Entra ID or hybrid
    - Internet connection, no VPN
    - Need to be able to install Global Secure Access agent (Intune or local admin)
  - Server to install connector (Proxy)
    - Server and client should not be on same network and able to communicate
    - Use Hyper V host with HV virtual switch NAT translation
  - Target for services



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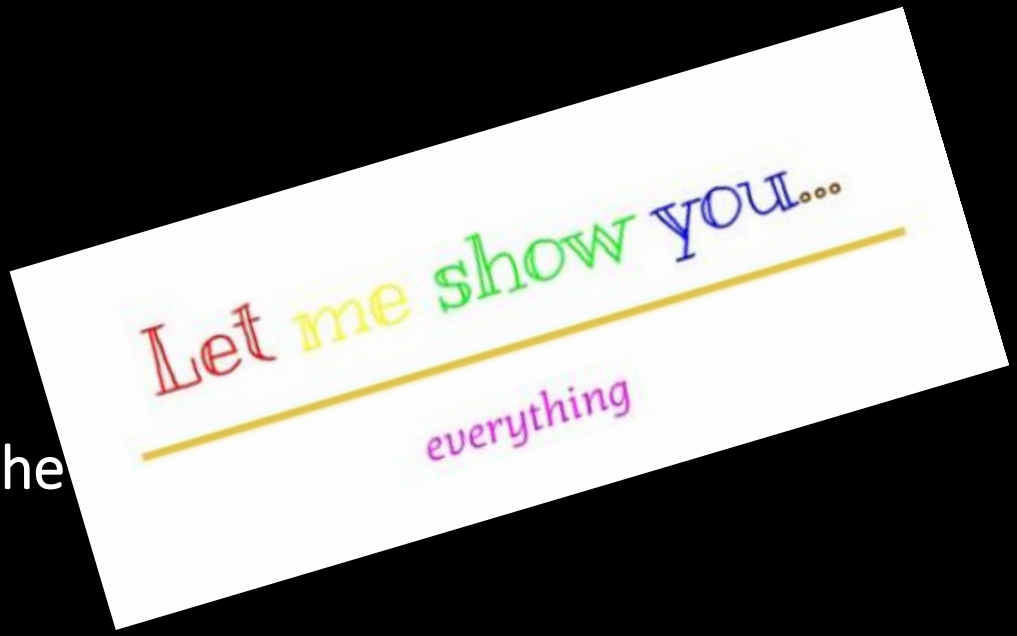
Microsoft Entra Private Access- implementation steps

- Enable Global Secure Access
- Enable Traffic Forwarding
- Install the Application Proxy connector
- Create Connector group
- Create and publish a private application for the
- Assign user/group to private application
- Enable Adaptive Access
- Install the Global Secure Access client on W10/11
- Test and verify Entra Private access



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Entra Private Access

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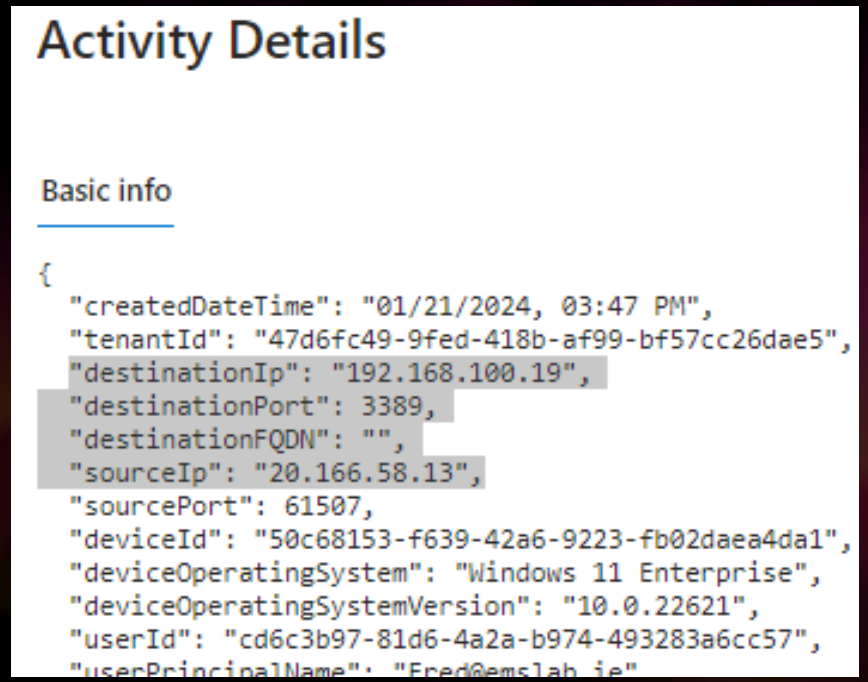

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Mobile devices

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Global Secure Access - Android

- Legacy Device Administrator
- Supported Android Enterprise scenarios:
  - Corporate—owned fully managed, user devices
  - Corporate-owned devices with a work profile
  - Personal devices with a work profile

Web Filtering – Who Wins?

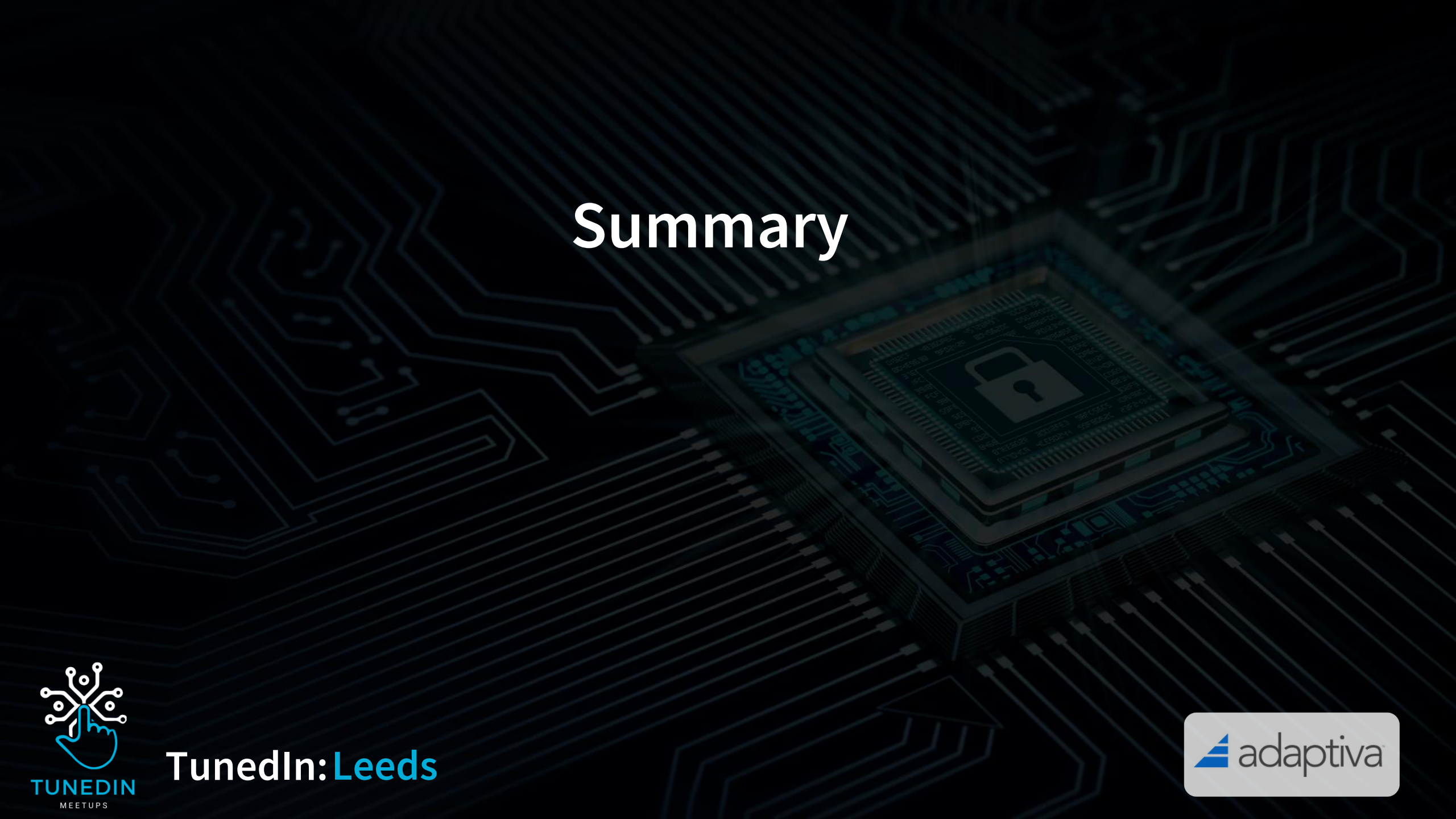
If implementing Web Filtering from both MDE and SSE:

- MDE will filter on the device first
- If allowed, will pass traffic to SSE
- SSE will evaluate and allow/block

What else? – I don’t know all the answers

- Disabling Global Secure Access in Defender app on Android
- Pause GSA client on Windows
- Entra Private Access and routing to external addresses
- Entra Private Access to Exchange on-premises
- Using Entra Private Access for device management (CMG replacement)

Summary



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Q&A

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