

Microsoft's Security Service Edge (SSE) solution

Sean McNeill, Sr. Technical Specialist – Cloud Endpoint

Microsoft Entra Internet Access
Microsoft Entra Private Access

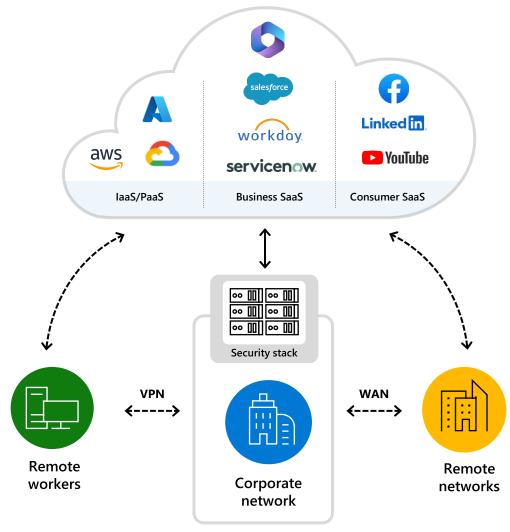


Agenda

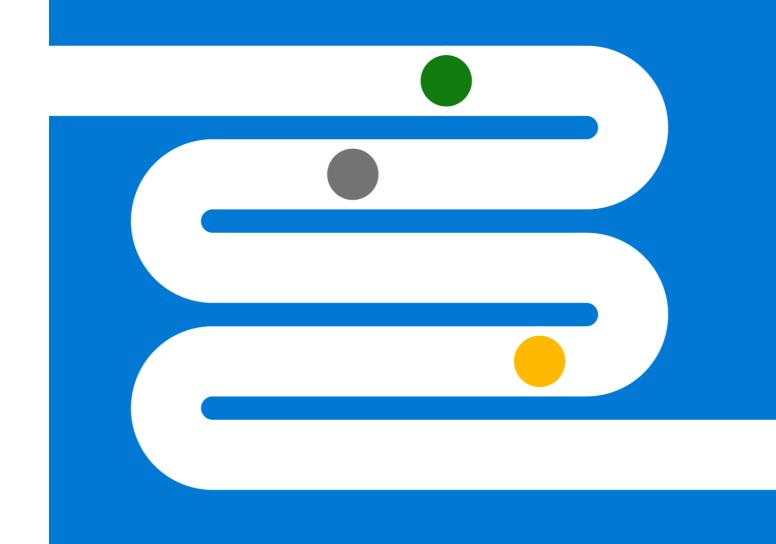
- >> Legacy network security challenges
- » Microsoft's Security Service Edge Solution
- » Microsoft Entra Internet Access (Preview)
- Microsoft Entra Private Access (Preview)
- Learn more and join product previews

Legacy network security approaches are no longer sufficient

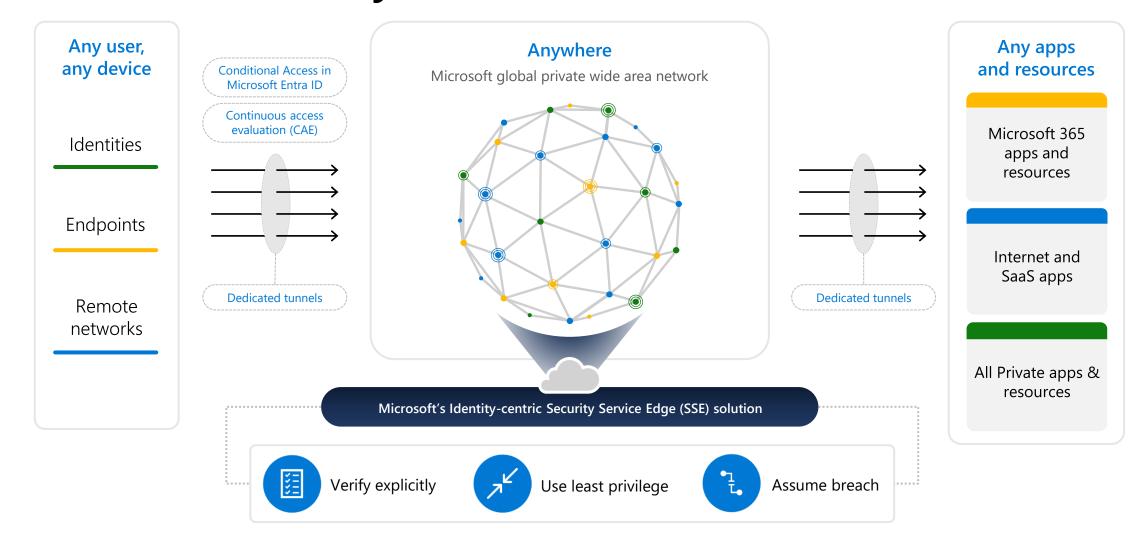
- >> Inconsistent and inefficient security controls
- Security gaps from siloed solutions and policies
- » Higher operational complexities and cost
- » Poor user experience
- >> Limited resources and technical skills



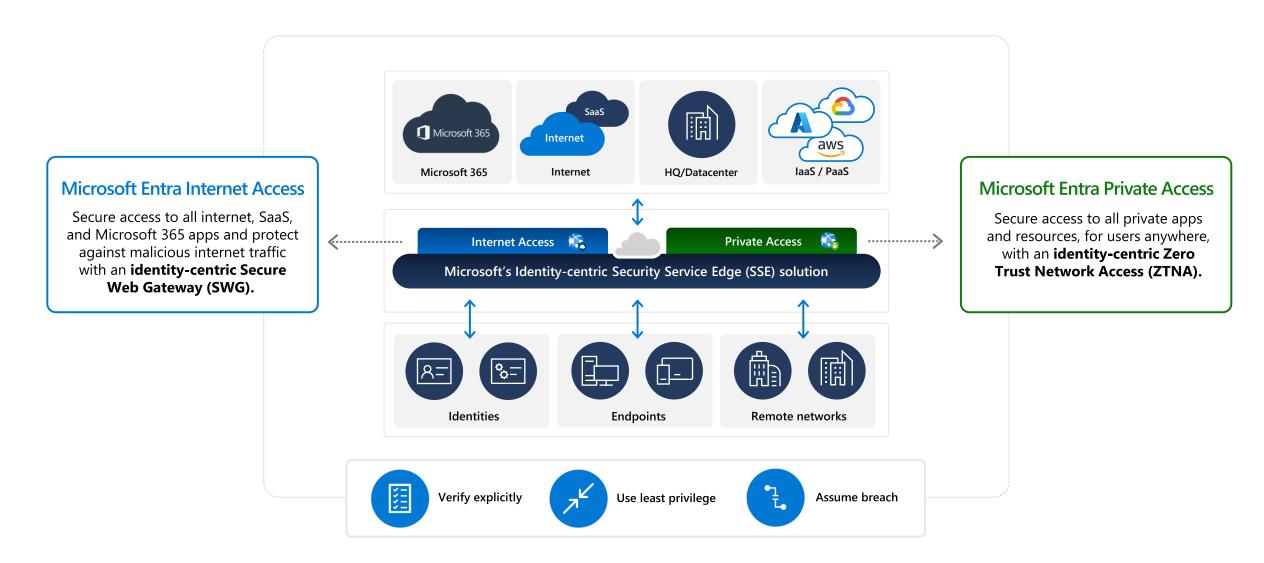
Microsoft's Security
Service Edge (SSE)
Solution



Microsoft's Identity-centric SSE solution

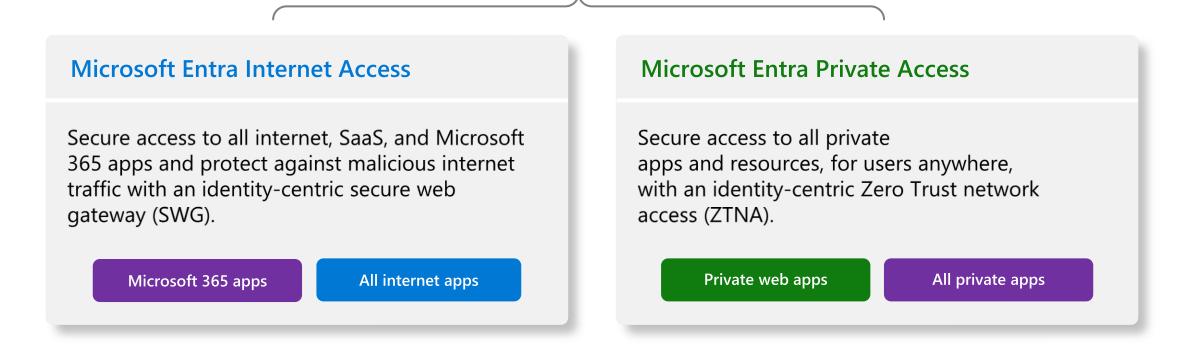


Microsoft's Identity-centric SSE solution



Microsoft's identity-centric SSE solution

An identity-centric security service edge (SSE) solution

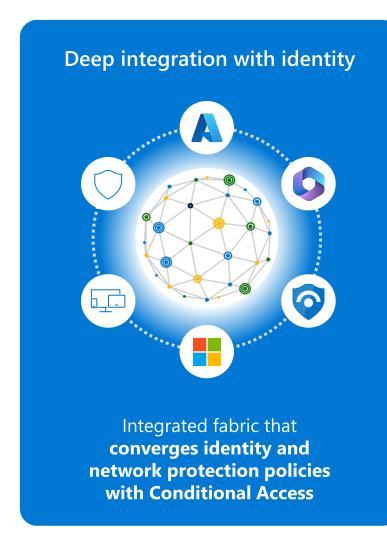


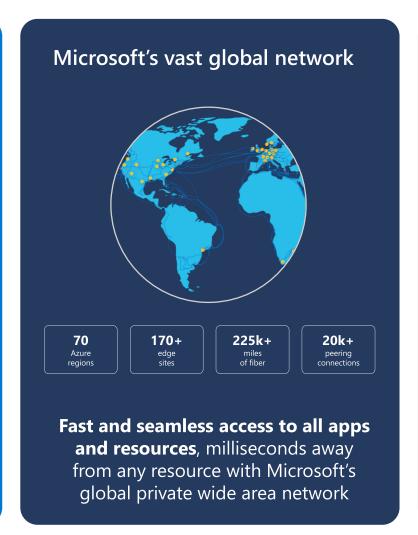
July 11th,2023

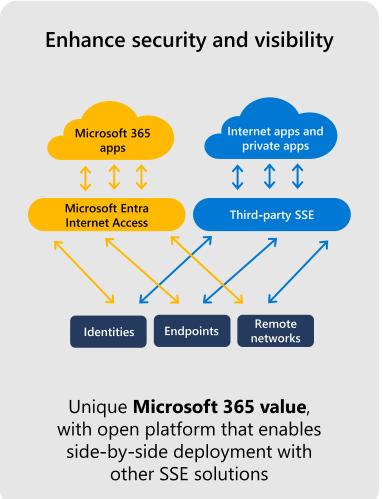
Legend

Public preview Private preview

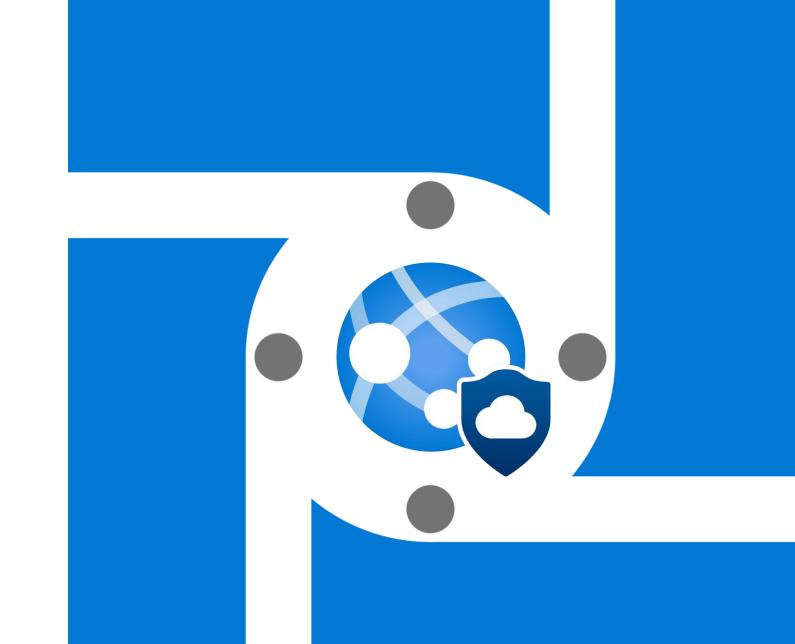
Microsoft's SSE unique differentiations





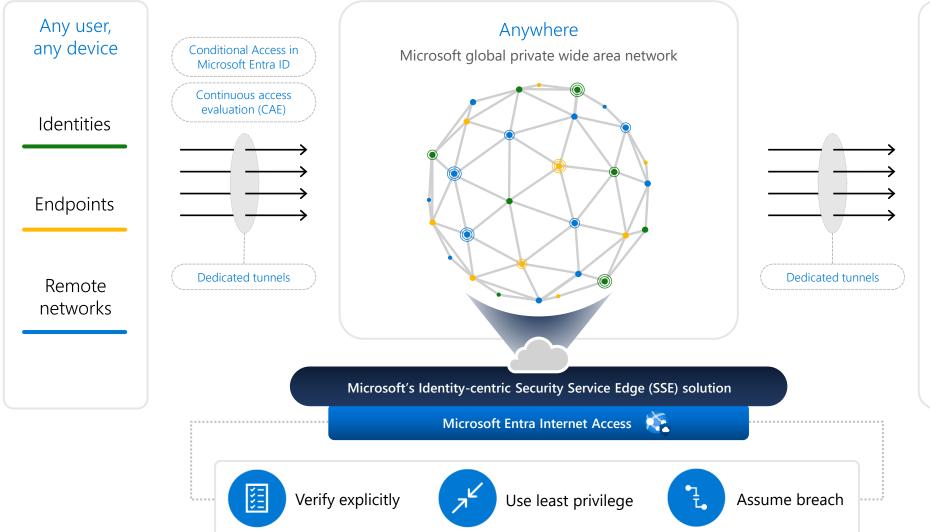


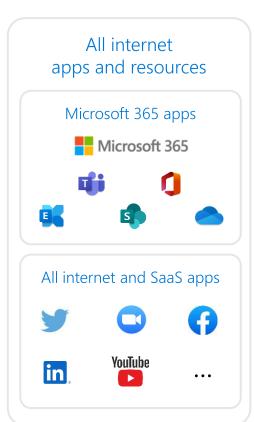
Microsoft Entra Internet Access (Preview)



Microsoft Entra Internet Access

An identity-centric Secure Web Gateway (SWG) solution

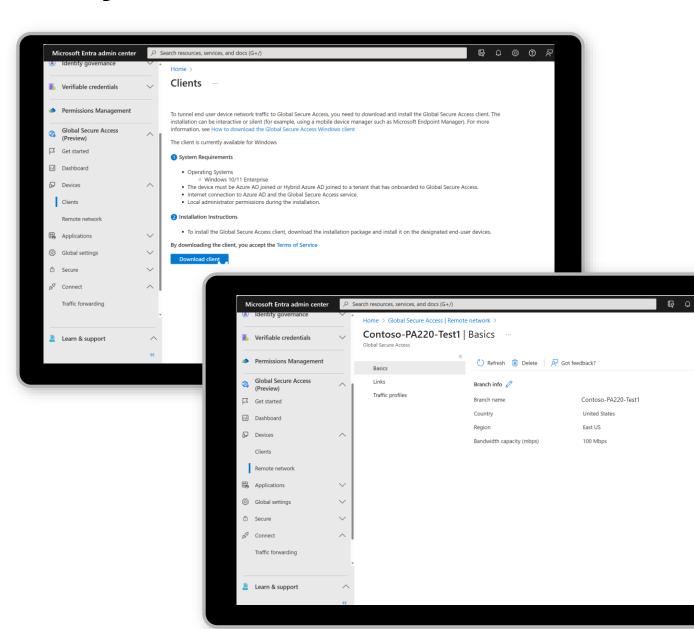




Client and branch connectivity

Connect from any device, any network

- » All OS types supported for client connectivity
 - » Public preview: Support for Windows
 - » Coming soon: MacOS, Android, iOS
 - » Coming soon: Inbuilt into Windows OS stack
 - » Coming soon: One Client (Integrated with Microsoft Endpoint Manager, Microsoft Defender for Endpoint)
- >>> Branch office support through IPSec VPN tunnels
 - » Private preview: Support for all mainstream CPE providers
- Side-by-side support with 3rd Party SSE / Traditional DMZ



Security Capabilities - User and Context-Aware SWG

Identity Integrations

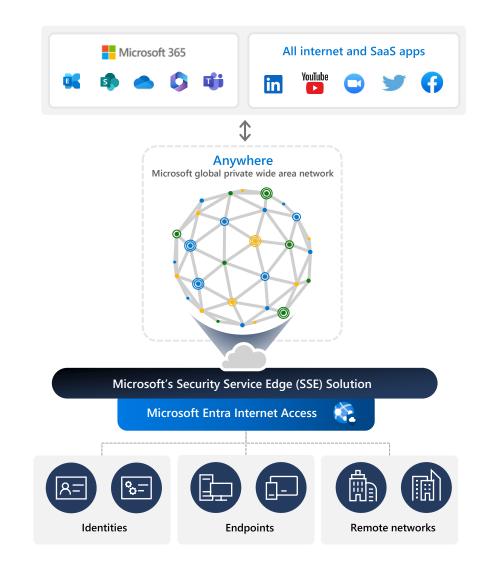
- » Public preview: Location checks and data exfiltration controls for all Microsoft Entra ID integrated Cloud Apps
- » Public preview: Universal Conditional Access for any network destination

Access control

- » Private preview: User/ Context aware URL/ FQDN and web category filtering
- » Coming soon: User/ Context aware cloud firewall (5-tuple)
- » Coming soon: Universal continuous access evaluation for any destination

Threat protection

- » Coming soon: TLS termination and inspection
- » Coming soon: Threat detection & Intrusion Detection and Prevention



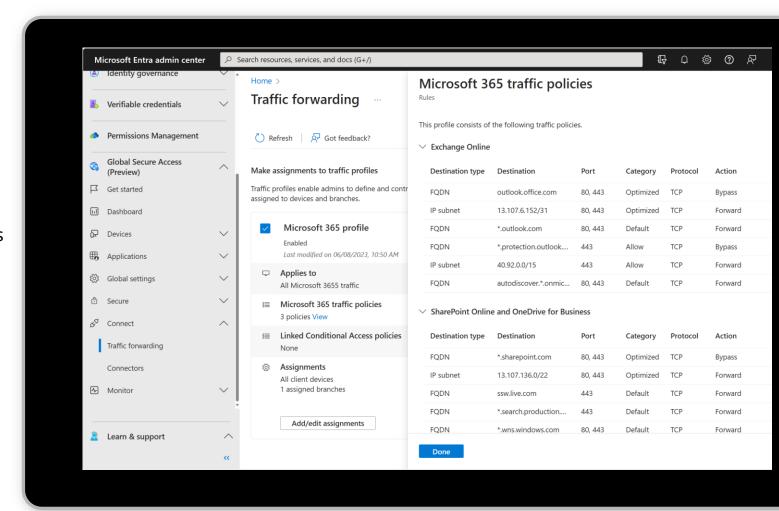
Features will continue to roll-in, on the road to general availability!



Seamless Microsoft 365 traffic acquisition

Zero-touch maintenance of Microsoft 365 traffic profile

- Acquisition by Port, Protocol, IP, FQDN
- Pre-populated Microsoft 365 traffic profile
 - » Easy to split Microsoft 365 traffic from 3rd Party SSE in side-by-side scenario
- Easy assignment of traffic profile for acquisition
 - » Profile auto-detected by domain-joined devices
 - » Assign profile to any Customer Premises Equipment device
 - » Coming soon: User Group, Device Group support
- Customizable options to either forward (acquire) or bypass specific traffic
- Coming soon: Internet Access Traffic Profile



Deep Identity Integrations



Zero Trust access

Universal Conditional Access and continuous access evaluation to any endpoint

- Verify users and conditions before granting access to network
- Block access to any network destination if Conditional Access checks fail
- Instantaneously revoke access when conditions change – continuous access evaluation



Token theft protection

Easy to manage location controls integrated with Conditional Access

- Defense in depth against token theft – verify user access from your tenant's trusted connectivity
- Easy to manage and no hairpinning of users necessary
- » Restore user's original Source IP in Conditional Access, Risk detection, activity logs



Data exfiltration control

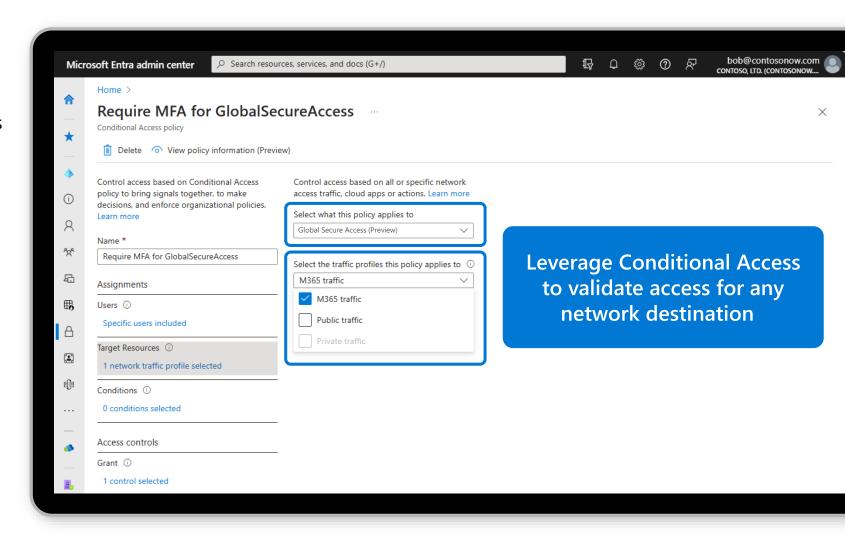
Manage insider attacks by controlling foreign identities usage in your enterprise

- Enforce granular list of foreign users and applications to allow
- Protect Microsoft 365 apps against token infiltration and anonymous access
- Protection without compromising user productivity and performance

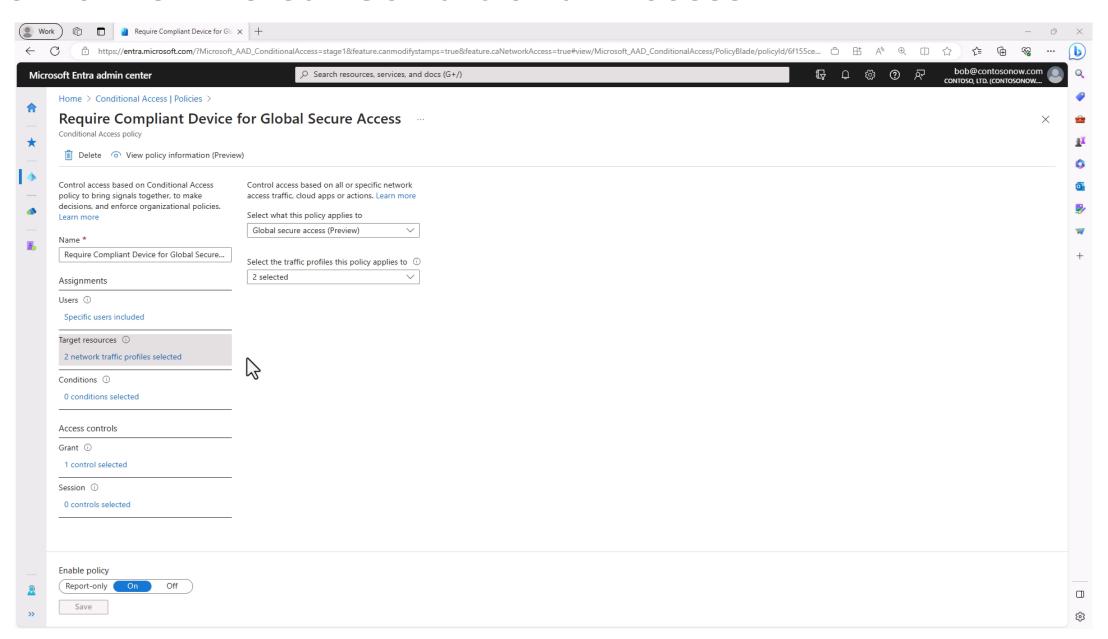
Universal Conditional Access

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
- Coming Soon: Continuous access evaluation to instantaneously revoke access on changing conditions

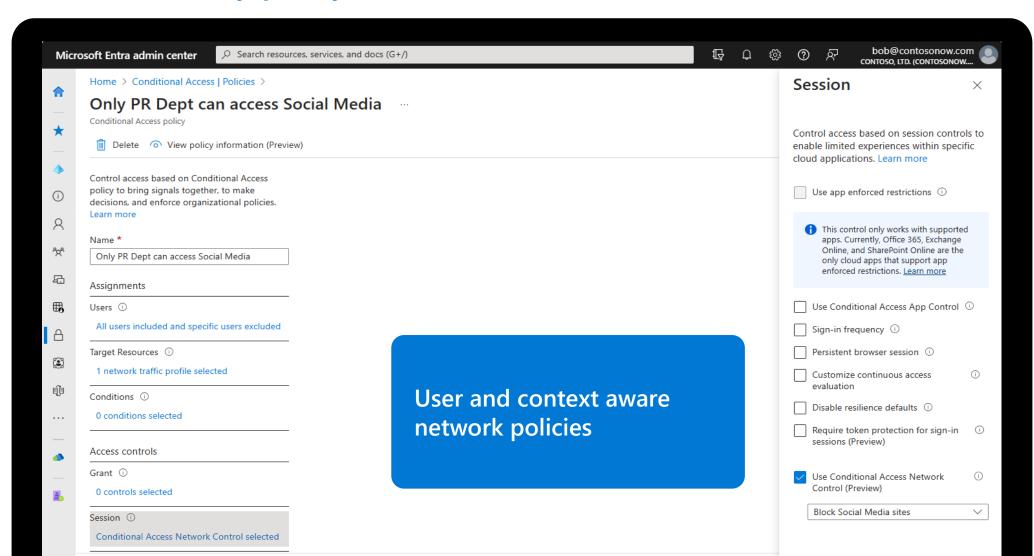


Demo - Universal Conditional Access

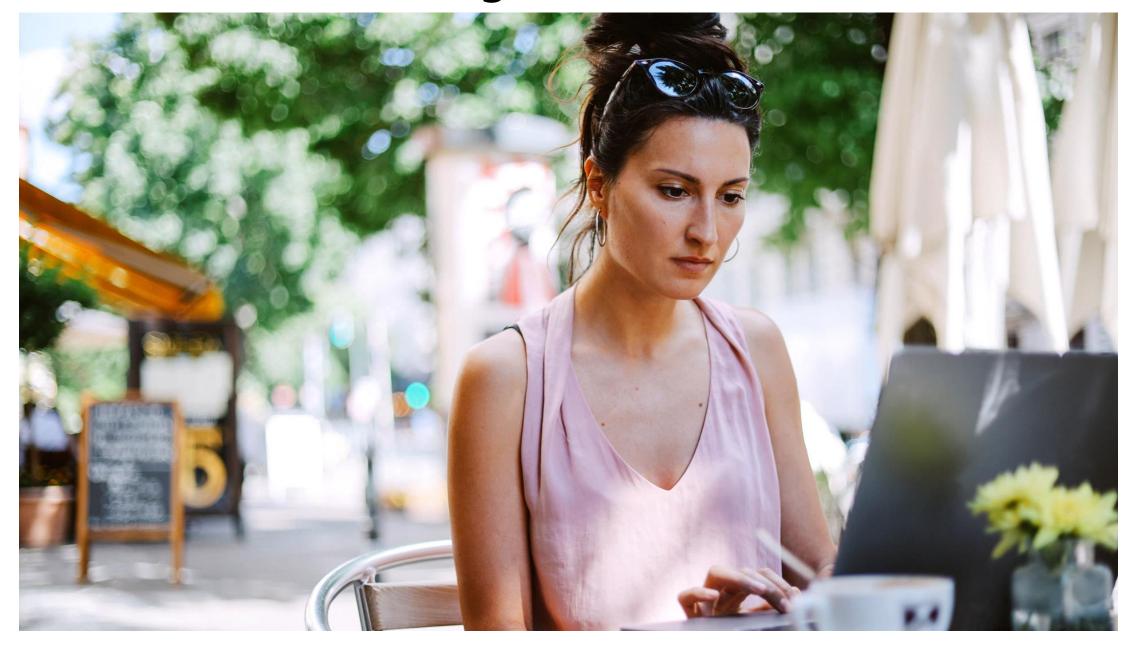


Extend Condition Richness to Network Filtering

Leverage rich user, device, location awareness of Conditional Access for Network security policy enforcement



Demo – Network Filtering

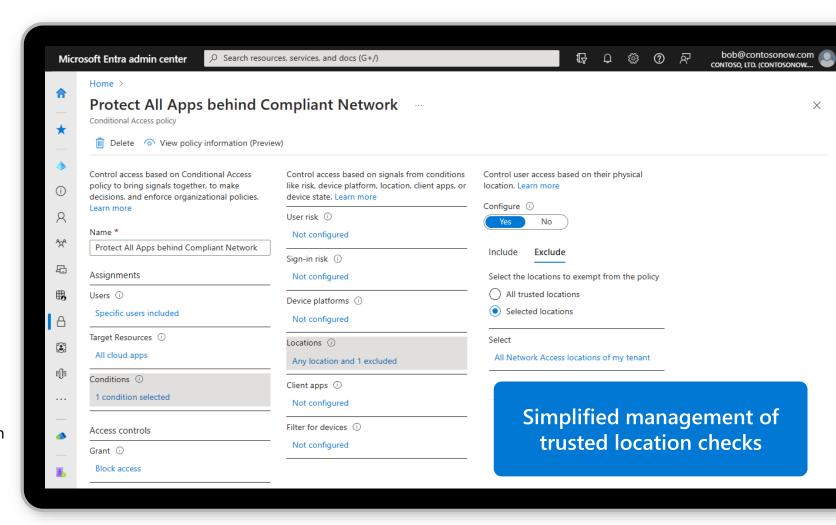


Compliant Network Check

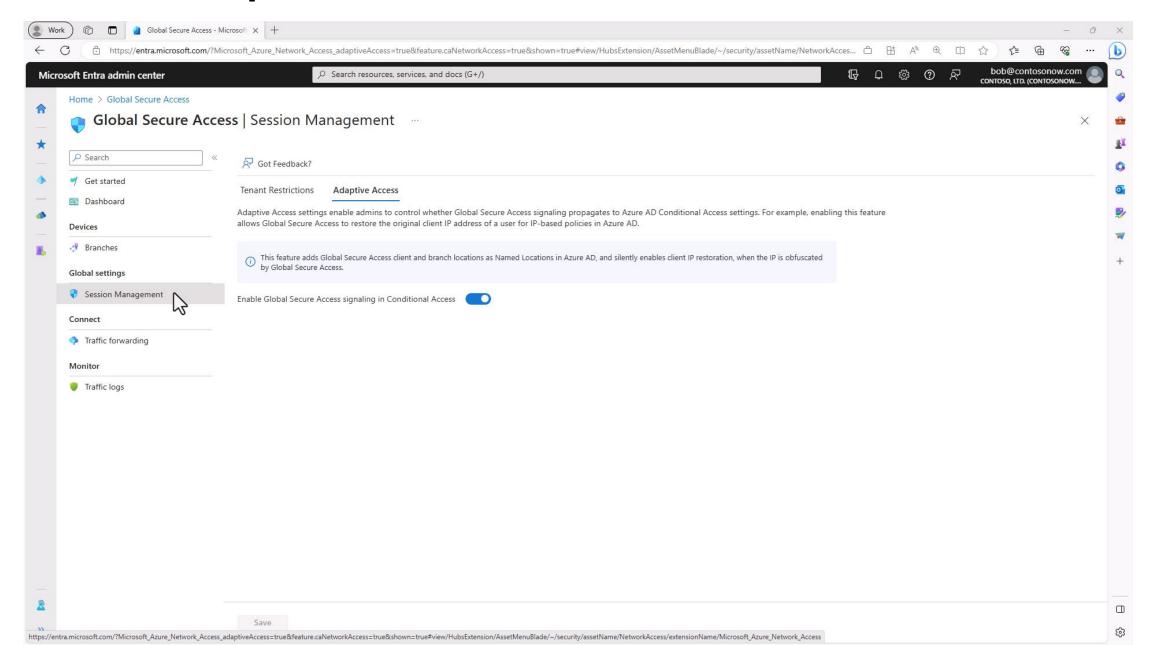
Stop user bypass of edge security stack & protect against token theft

Prevent token thefts

- » Validate user is connecting from verified device/network of your tenant
- » Inbuilt support for tenant level granularity
- Ensures that user has not bypassed underlying security controls of SWG/SSE
- It's the better Location Control
 - » All the security, without any of the Source IP management overhead
 - » No need to hairpin remote users to central egress points to enforce Source IP checks
 - » Integrated with Trusted location construct
- Coming soon: Continuous access evaluation and B2B integration
 - » Integrated for instantaneous access revocation for Microsoft 365 applications
 - » Availability in XTAP-B2B scenarios to validate access from partner tenants



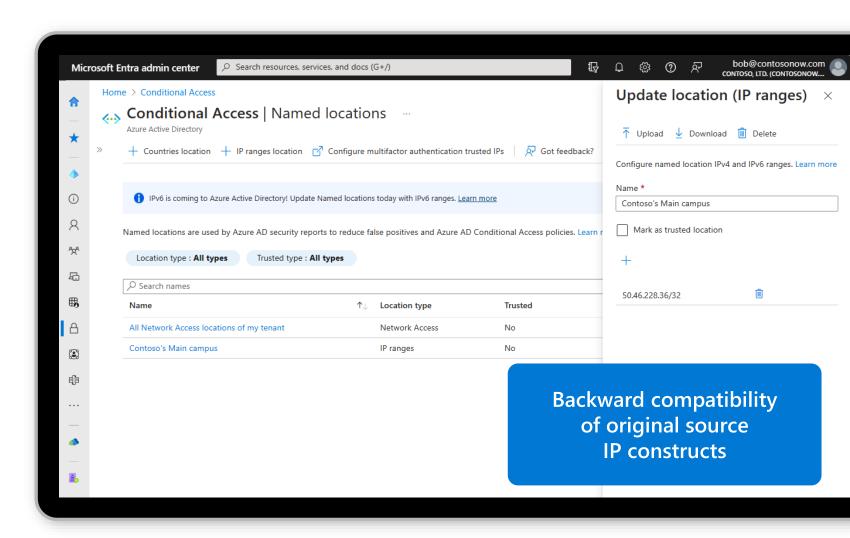
Demo - Compliant Network Check



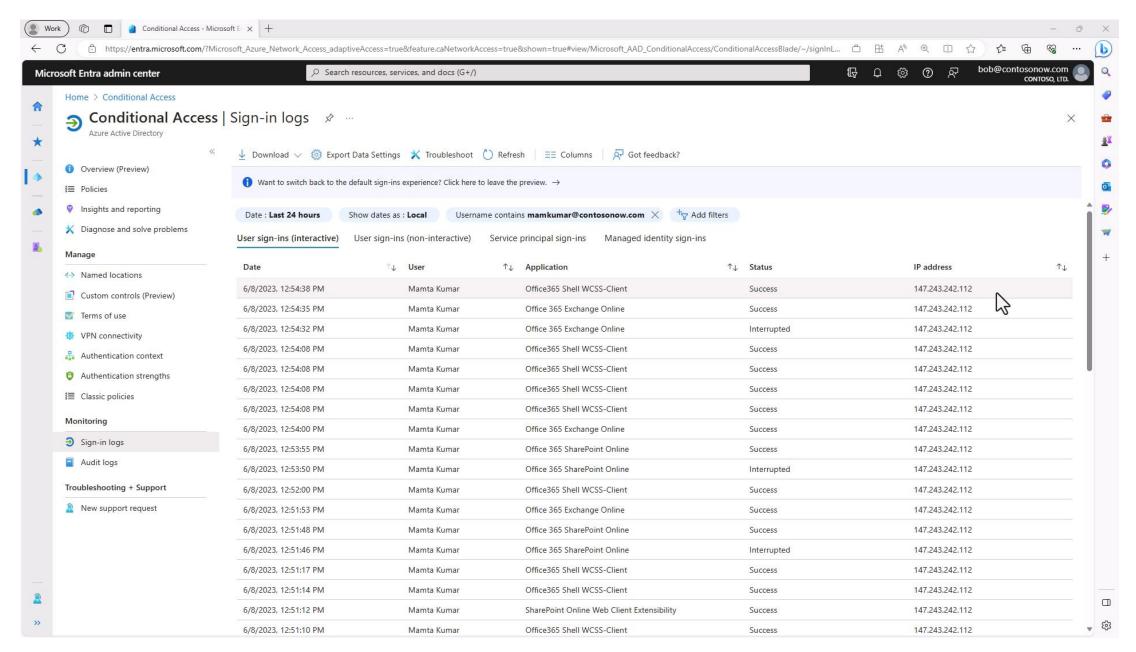
Source IP Restoration

Backward compatibility and continuity

- » Maintain backward compatibility for Source IP based location checks in Conditional Access (CA)
- Maintain backward compatibility for Source IP continuous access evaluation (CAE) location checks in Microsoft 365 applications (Datapath)
- » Restore Source IP context for all Microsoft Entra ID risk assessment – User Risk, Sign-in Risk
- » Restore Source IP context for all Microsoft Entra ID activity logs



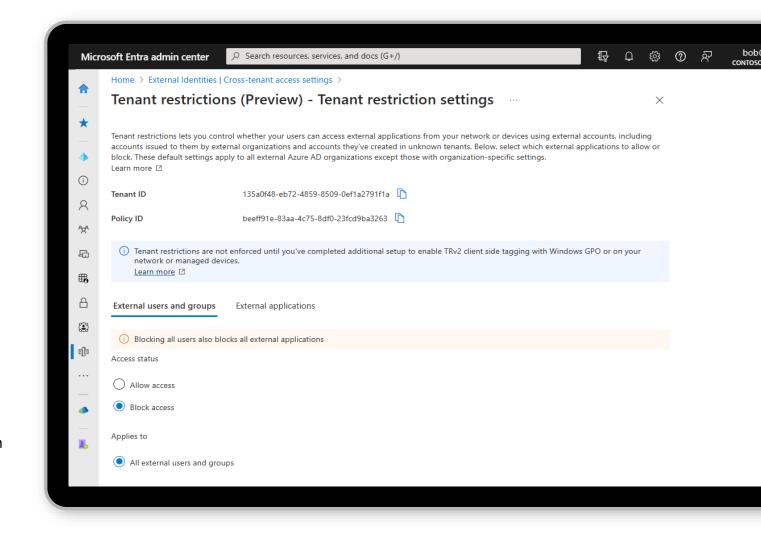
Demo - Source IP Restoration



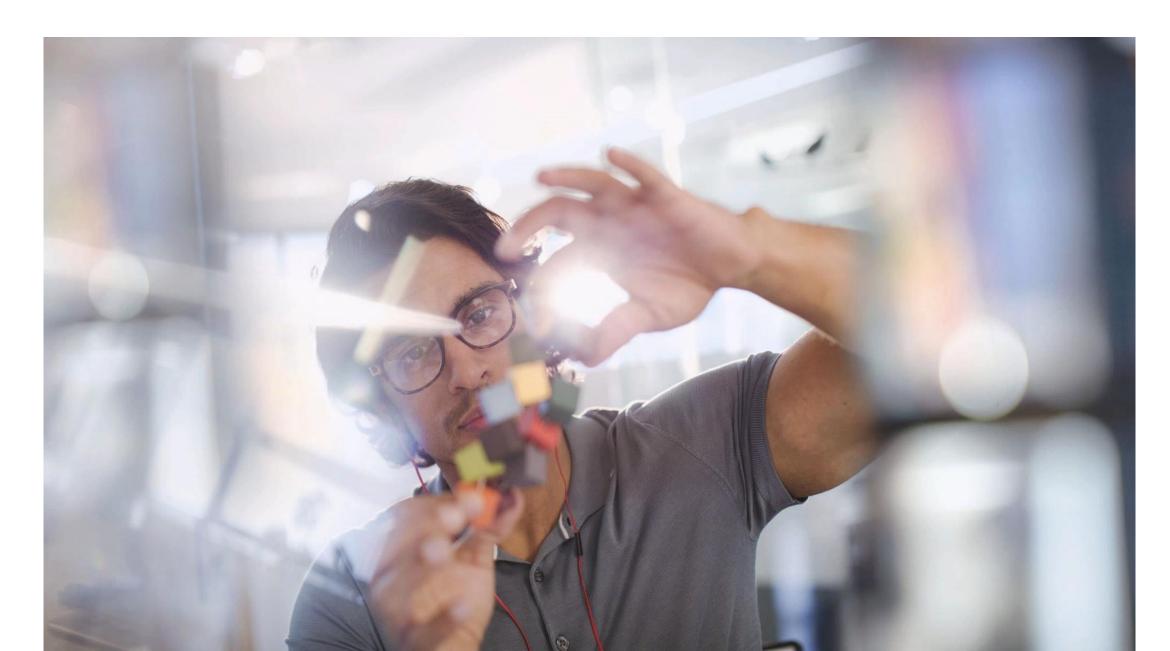
Universal Tenant Restriction

Strong data exfiltration controls

- Microsoft Entra Internet Access integration enables Universal Tenant Restriction across all managed devices and networks (branch) agnostic of OS and Browser platform
 - » Eliminates need for enterprise managed Network proxies
 - » No need to share enterprise certs for inserting TRv2 headers
 - » Secures access for your enterprise without compromising performance/ user experience.
 - » Facilitates Cross-tenant Access monitoring
- Microsoft Entra ID Tenant Restriction v2 (TRv2) protects against data exfiltration by foreign identities to foreign tenants
 - » TRv2 supports tenant, user, group and application granularity
 - » TRv2 enables data path coverage to protect against token infiltration and anonymous access
 - » TRv2 also has provision to control MSA access



Demo - Universal Tenant Restriction



Visibility and Insights

Rich Network and Policy Analytics

In-Product Logging and Reporting

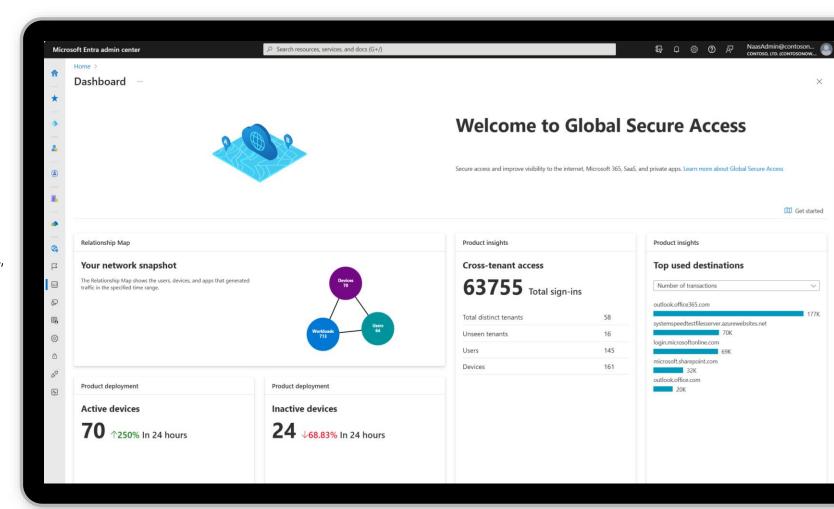
- » Public Preview: Network traffic logs
- » Public Preview: Enriched Microsoft 365 logs (export only)
- » **Coming Soon:** Network security policy logs

In-Product Dashboards

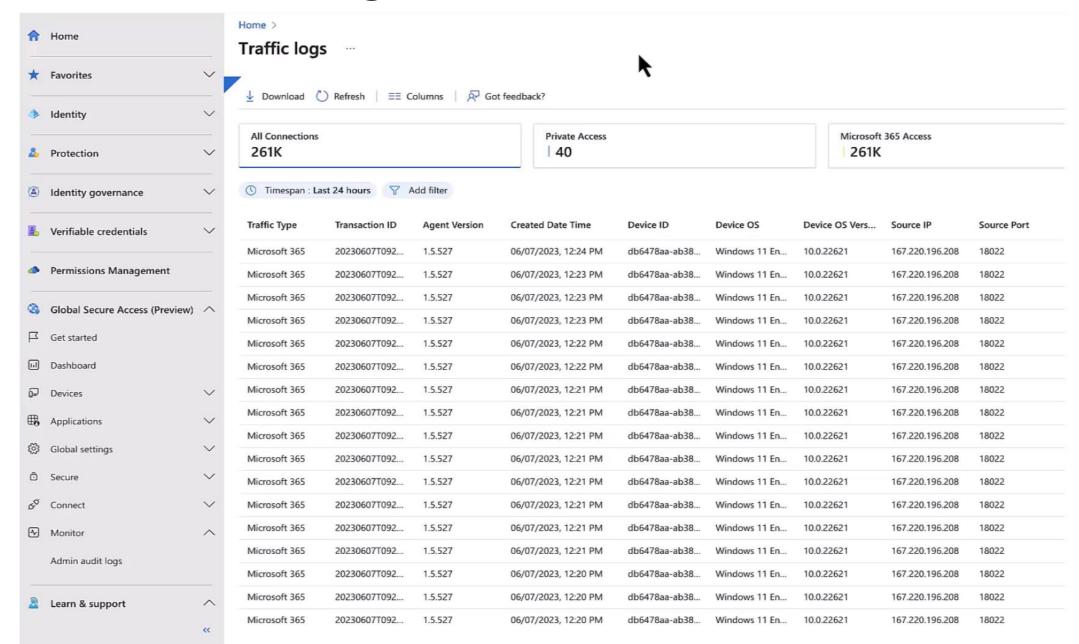
- » Public Preview: User, Device, Endpoint relationship map
- » Public Preview: Cross tenant user activity monitoring
- » Public Preview: Top destinations by user, sessions, devices
- » Coming Soon: Advanced Application and NW discovery
- » Coming Soon: Network security policy analytics

Extensive Data Export Capabilities

- » Public Preview: Log analytics and Workbook integrations
- » Public Preview: Log export APIs
- Public Preview: Integration with 1st Party and 3rd Party SIEM systems



Demo – Traffic Logs



Microsoft 365 visibility features

Enriched logging and real-time visibility



Detect threats faster without break and inspect

Security sensitive events delivered from SharePoint

Deep insights into workload activities without break and inspect

Coming soon: Predictable, consistent SLA and near real-time

detections

Coming soon: Security sensitive events from Microsoft Exchange

and Microsoft Teams



» In-line metadata enrichment for better threat co-relation

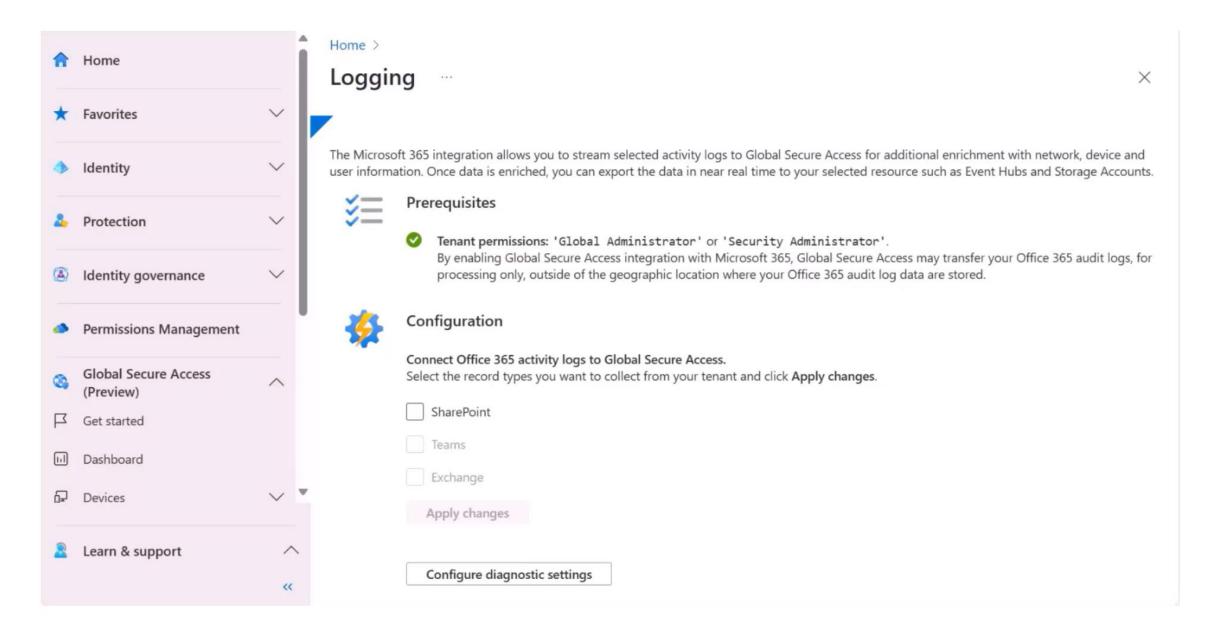
Device context such as OS type and version, device ID, device name, device security posture/score, initiating process, machine group, logged on users (SID, user ID)

Network context such as tunnel and tenant info, ports and protocols, Egress IP, NW location (office/home/roaming), geo location – country, city, state, GPS

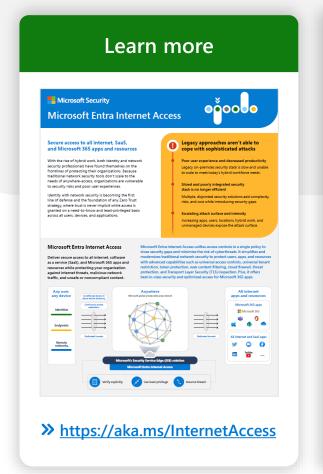
User and token context such as user, department, native/guest, user risk, token ID, tenant ID, token issued at, token application ID, token expiration time

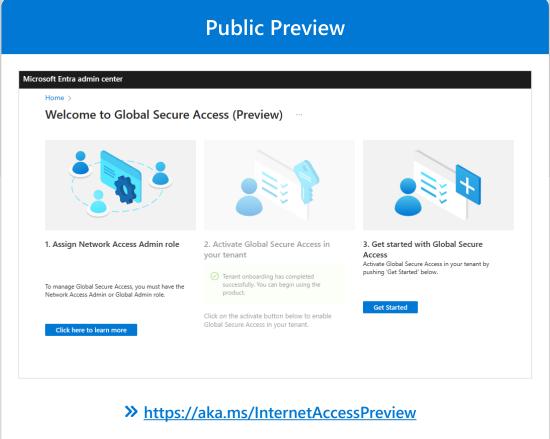
Coming soon: Threat intel such as threat type, name, report, organization, confidence

Demo - Enriched logging and real-time visibility



Learn more and join Internet Access Previews





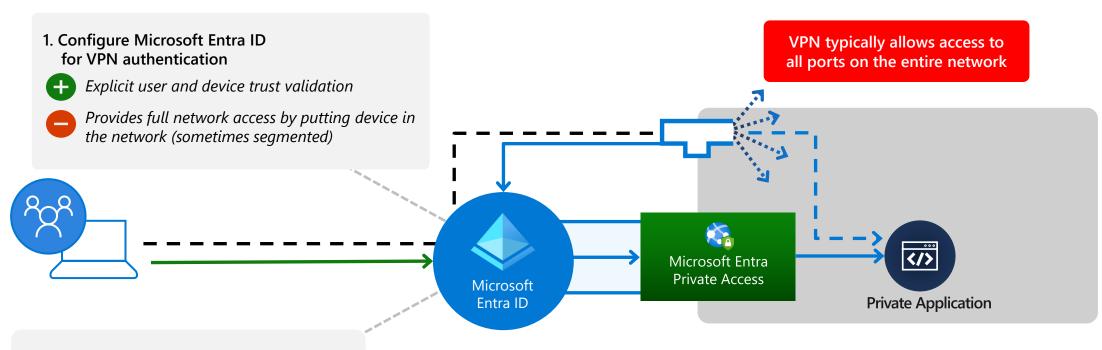


Microsoft Entra Private Access (Preview)



Moving beyond VPNs

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

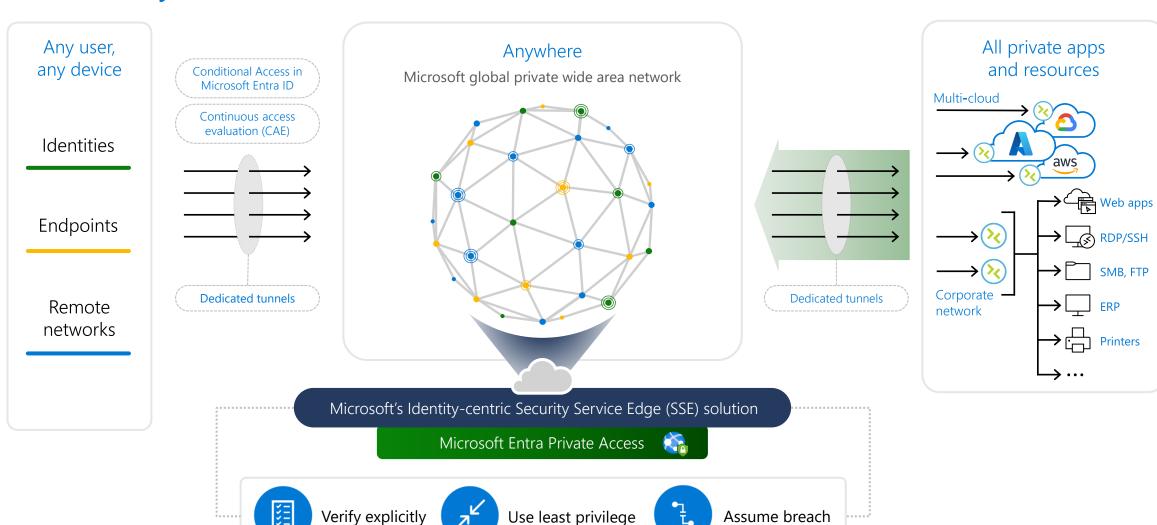


2. Publish apps with Private Access

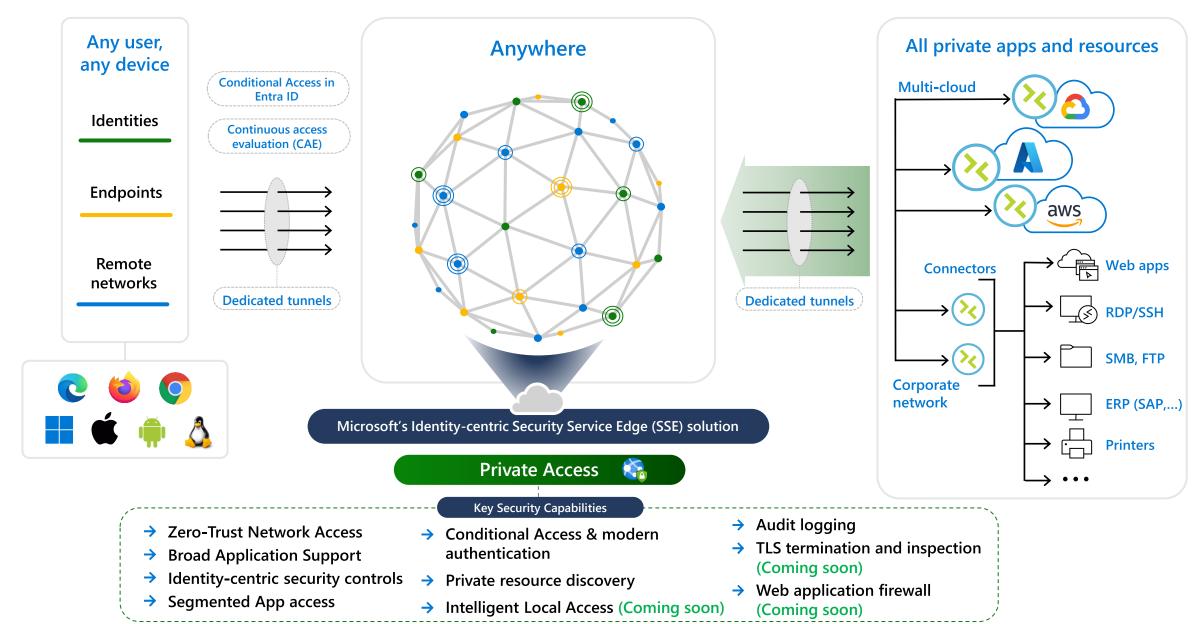
- Explicit user and device trust validation
- Provides access to only private apps (with seamless user experience)
- Device does not get network level access

Microsoft Entra Private Access

An identity-centric Zero Trust Network Access (ZTNA)



Microsoft Entra Private Access - How it works



Microsoft Entra Private Access

>> Broad application support

Provide secure access to all private apps – any app, any port, any protocol Access non-web apps (all TCP/UDP incl. RDP, SSH, SMB, FTP, ...)

>> Identity-centric security controls

Control access using Entra Conditional Access (CA) policies

Coming soon: Revoke access using continuous access evaluation (CAE)

Single sign-on to private apps using SAML, Kerberos, header-based, ...

Segmented app access

Enable access to specific apps as opposed to full network
Segment private app access based on user and device identity

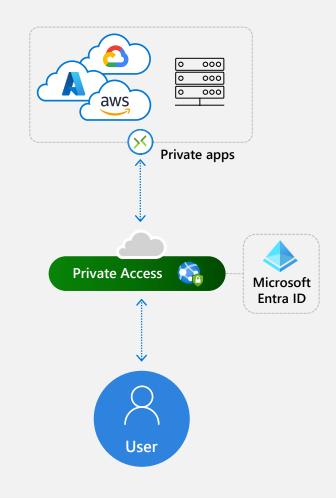
Coming soon: Micro-segment based on process identity

» App discovery and onboarding

Discover private apps and onboard them to segment access to resources

>> Intelligent local access

Coming soon: Adaptive local access to private apps for hybrid users



Scenarios and use cases

QuickAccess

Easy migration from VPNs to zero trust network access to all private apps with a policy

App discovery

Discover apps and onboard/register them in Entra ID

Per app access

Configure access to a well-known private app with a policy

Rich apps and app segments

Support for non-https apps with SSO for legacy protocols like Kerberos

App groups and policies

Assign policies to individual apps or to app group(s)

Quick Access

Fast & easy migration from legacy VPN to identity-centric Zero Trust Network Access (ZTNA)

» Quick experience

First step for Zero Trust Network Access to private resources

Minimal config to get started

Start with broad access

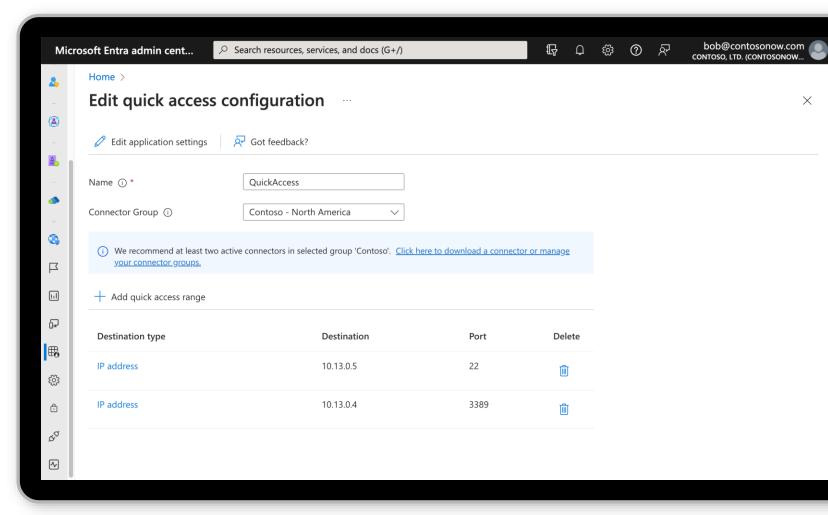
>> Flexibility

Supports IP range, IP addresses, FQDNs, or wildcard suffixes

Segmented Private Access

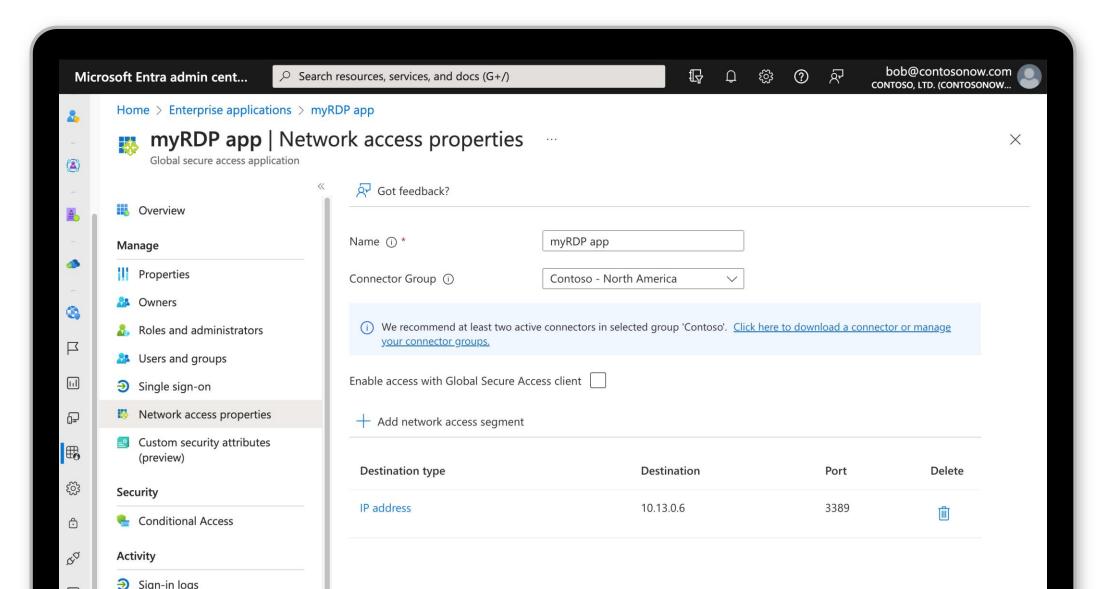
Next step in Zero Trust Network Access journey

Onboard/register discovered apps to Entra ID



Segmented Per-app Access

Segment your traditional network-based access to specific private apps



Private App Discovery

Discover and onboard private applications for segmented per-app access

» Discover apps

Discover app segments

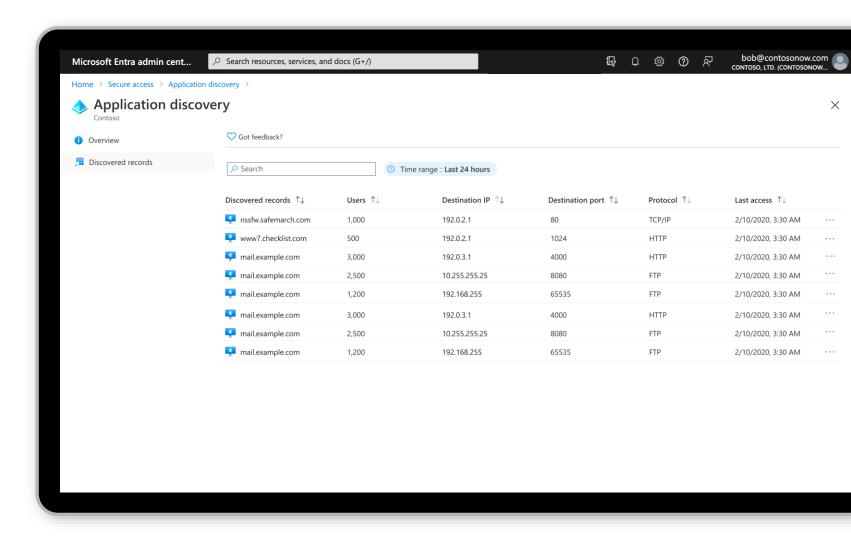
Create private apps using discovered app segments

» Analytics

See app usage trends and relevant insights like usage over time, and more

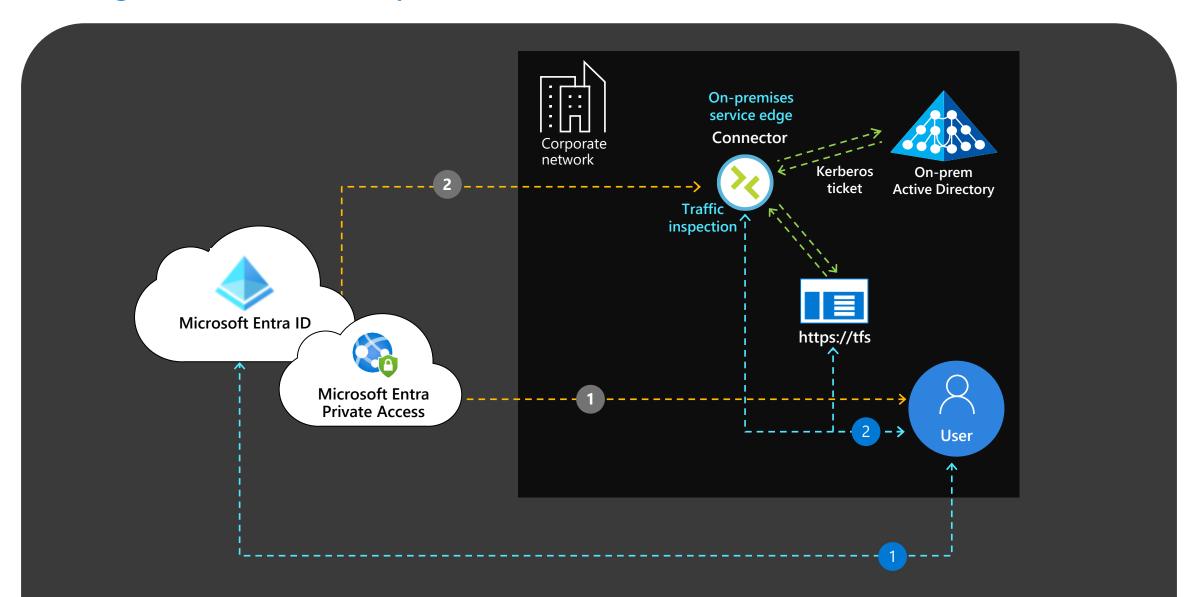
» Auto re-discovery

Intelligently add new discovered app segments to existing apps as additional app segments

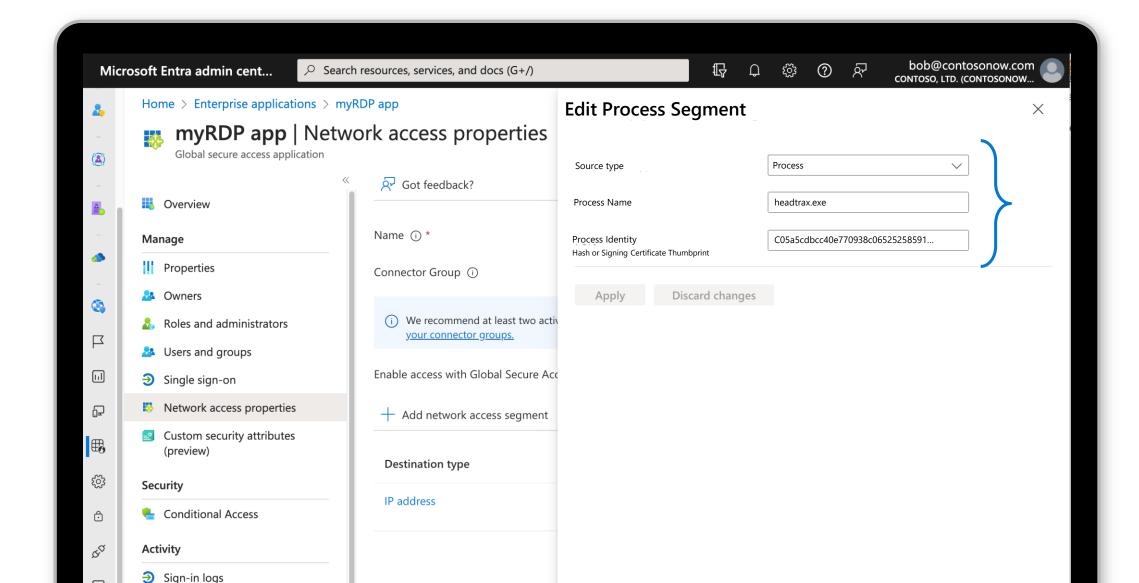


Local Access to Private Apps

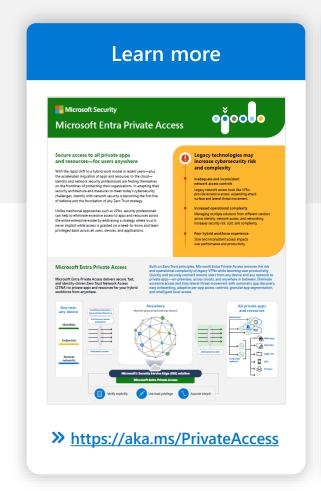
Intelligent, Smart, and Adaptive

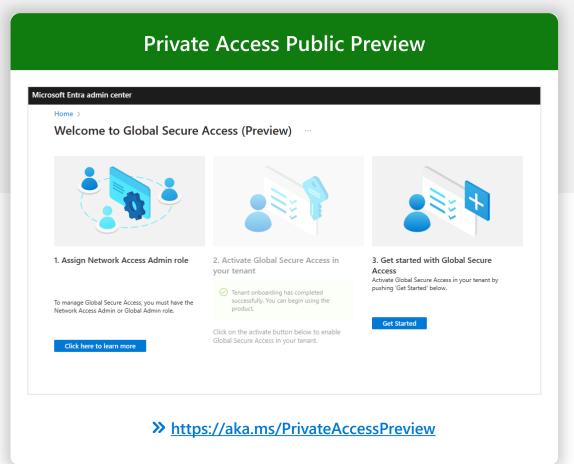


Process Level Segmentation



Learn more and join Private Access Preview





Thank you!