

Migration to cloud Use case 1



Overview

Moving applications out of the data center and into the cloud offers many benefits. This includes access to the most up-to-date versions, lower capital expenses, and reduced overhead.



Business challenge

- Each time a user interacts with a cloud application, communications are required between their device and the resource, which is causing a massive increase in network traffic. This uptick in activity is overloading transport circuits, contributing to latency and a poor user experience.
- Technology teams often don't know which cloud applications are in use, which makes it impossible to control access or protect sensitive data.



- Accelerate application performance by connecting users directly to cloud applications without backhauling traffic to the data center
- Prioritize bandwidth to business-critical applications such as voice over Internet Protocol (VoIP) and video conferencing with intelligent path routing
- Gain visibility into all applications being utilized, including unsanctioned programs, then apply policies that specify what may be accessed and how data may be shared



Use case 1 Migration to cloud - How does it work?





Accelerate application performance

Branch and remote users connect directly to cloud applications over the internet. Secure Access Service Edge (SASE) provides cloud-based security services including firewall-as-a-service (FWaaS) and secure web gateway (SWG).

Recommended solution: AT&T SASE with AT&T Secure Web Gateway

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Prioritize business critical applications

Edge appliances at the branch provide intelligent path routing, using software defined wide-area network (SD-WAN), to the application. Recommended solution: AT&T SASE with AT&T SD-WAN



Eliminate shadow IT

Identify web-based applications being utilized, including unsanctioned and tolerated applications. Cloud access security broker (CASB) provides centralized visibility and reporting, both in-line and using application programming interface (API) integrations with cloud providers.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway, and CASB

Enforce Policy

Apply policies, based on zero trust network access (ZTNA) principles that specify what may be accessed, by who, when, and how. Recommended solution: AT&T SASE with AT&T Secure Web Gateway



Use case 2 Connected branch



Overview

Many organizations are modernizing their network by connecting branch locations directly to the internet, using multiple widely available transport circuits, then deploying software defined wide-area network (SD-WAN) to manage the data flows.



Business challenge

- Each connected branch creates a new gateway into the network that can be exploited.
- Traffic that does not flow through the data center bypasses any security controls hosted there.
- The security features native to stand-alone SD-WAN solutions may be insufficient to protect branch offices against all modern attacks.



- Prioritize bandwidth to business-critical applications such as voice over Internet Protocol (VoIP) and video conferencing with intelligent path routing
- Gain visibility into the health of the network circuits and security policies across locations and users
- Reduce risk with integrated and unified security that protects every device and user from a wide range of modern threats



Use case 2 Connected branch - How does it work?





Prioritize bandwidth to business-critical applications

Edge appliances provide intelligent path routing and bandwidth prioritization, using software defined wide-area network (SD-WAN), to ensure continued and optimal connectivity to the application across available circuits. The application could be cloud-based or hosted in the corporate data center.

Recommended solution: AT&T SASE with AT&T SD-WAN and AT&T Secure Web Gateway

Visibility into network health and security policies

Edge appliances provide detailed visibility and reporting of the health of network circuits and end-to-end connectivity to business-critical applications.

The Secure Access Service Edge (SASE) architecture applies global security policies to ensure a consistent security policy based on zero trust network access (ZTNA) principles.

Recommended solution: AT&T SASE with AT&T SD-WAN and AT&T Secure Web Gateway

Reduce risk with integrated and unified security

SASE provides global, cloud-based security including firewall-asa-service (FWaaS), secure web gateway (SWG), ZTNA, cloud access security broker (CASB) and other optional services.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway, CASB and data loss prevention (DLP)

Use case 3 **Remote workforce**



Overview

With the rise in cloud-based applications and mobility, many workers have been trading their cubicles for home offices, airports, or even coffee shops. The global health events of 2020 accelerated this trend, with many businesses finding themselves in the position of suddenly having to support an entirely remote workforce.



Business challenge

- Legacy virtual private networks (VPNs) were never designed to support a large percentage of the work force connecting simultaneously. As a result, users may find it difficult to connect to VPN at all, or experience sluggish connections.
- Users work from many locations, using company-issued and personal devices. They may work off-network or use company devices for purposes completely unrelated to work.



- Reduce unauthorized access by providing identity-based access to precise applications and data users require to do their job
- Enhance user experience by connecting users directly to cloud applications without hairpinning traffic to the data center
- Enable safer internet browsing with cloud-based security that protects users from web-based threats, including zero-day attacks, regardless of how or where they connect



Use case 3 **Remote workforce - How does it work?**





Reduce unauthorized access

By integrating with the corporate identity provider, Secure Access Service Edge (SASE) applies zero trust network access (ZTNA) principles that specify what may be accessed, by who, when, and how.

Users connect to global SASE points of presence (PoPs) using an endpoint client or clientless virtual private network (VPN) access. Recommended solution: AT&T SASE with AT&T Secure Remote Access, identity provider

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Enhance user experience

Remote users connect directly to cloud applications over the internet, minimizing latency and removing other bottlenecks. Recommended solution: AT&T SASE with AT&T Secure Remote Access

Safer Internet browsing

Users are protected from malicious websites and other webbased threats, including zero-day attacks with sandboxing and remote browser isolation technologies.

Recommended solution: AT&T SASE with AT&T Secure Remote Access, endpoint and mobile security



Use case 4 Identity-based application access



Overview

Employees and third-parties need access to applications and data in order to perform their job duties and serve customers. These applications may be hosted in the data center, hosted in public or private clouds, or delivered via software-as-a-service (SaaS).



Business challenge

- Legacy virtual private networks (VPNs) were never designed to support a large percentage of the work force connecting simultaneously. As a result, users may find it difficult to connect to VPN at all, or experience sluggish connections.
- Users often gain access to an entire network segment, which is more than required and may needlessly expose sensitive information.



- Enhance user experience by connecting users directly to cloud applications without hairpinning traffic to the data center
- Reduce unauthorized access by providing identity-based access to precise applications and data users require to do their job
- Inhibit the effects of malware by minimizing access to the network





Use case 4 Identity-based application access - How does it work?





Enhance user experience

Branch and remote users connect directly to cloud applications over the internet, minimizing latency and removing other bottlenecks.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway and AT&T Secure Remote Access



Reduce unauthorized access

By integrating with the corporate identity provider, Secure Access Service Edge (SASE) applies zero trust network access (ZTNA) principles that specify what may be accessed, by who, when, and how.

Users connect to global SASE points of presence (PoPs) using an endpoint client or clientless virtual private network (VPN) access.

The identity provider provides authentication and authorization, as well as conditional access.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway and AT&T Secure Remote Access, identity provider

Inhibit the effects of malware

Users are protected from malicious websites and other webbased threats using content scanning and an intrusion prevention system (IPS). Protection from zero-day attacks with sandboxing and remote browser isolation technologies. Protection of endpoints using with advanced endpoint detection and response.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway and AT&T Secure Remote Access, endpoint and mobile security

Use case 5 Safer internet browsing



Overview

Many organizations are modernizing their network by connecting branch locations directly to the internet, using multiple widely available transport circuits, then deploying software defined wide-area network (SD-WAN) to manage the data flows.



Business challenge

- Users are highly distributed, conducting business from many locations using company issued and personal devices
- Employees often work off-network, connecting to the internet directly to accomplish whatever work is possible without connecting to virtual private network (VPN), which bypasses premises-based security controls



- Enable safer internet browsing with cloud-based security that protects users from web-based threats, including zero-day attacks, regardless of how or where they connect
- Enforce acceptable use policies to reduce productivity loss from time-wasting websites and block those that are inappropriate for the workplace
- Reduce risk by decrypting Secure Socket Layer (SSL) packets to validate that they are free of malware before allowing them onto your network



Use case 5 Safer internet browsing - How does it work?





Enable safer Internet browsing

Users are protected from malicious websites and other webbased threats using content scanning and an intrusion prevention system (IPS). Protection from zero-day attacks with sandboxing and remote browser isolation technologies. Protection of endpoints using with advanced endpoint detection and response.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway and AT&T Secure Remote Access, endpoint and mobile security



Enforce acceptable use policies

Block or restrict access to time-wasting websites that reduce productivity, as well as those inappropriate to the business. Prioritize bandwidth for business-critical applications. Recommended solution: AT&T SASE with AT&T Secure Web Gateway



Reduce risk by decrypting SSL packets

Malware is often hidden inside encrypted sessions and legacy decryption methods using on-prem appliances had serious throughput limitations. Decrypt sessions using cloud-based capabilities with the required scale.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway



Use case 6 Inspection of web traffic



Overview

The vast majority of today's web traffic is encrypted. Encryption technology has been an asset in the protection of privacy for individuals and businesses alike and helps to ensure that any sensitive information captured in a man-in-the-middle attack cannot be disseminated.



Business challenge

- Bad actors are take advantage of the cloak this service provides by hiding various malware in encrypted files in order to bypass network perimeter security.
- Many businesses aren't performing deep packet inspection on Secure Socket Layer/Transport Layer Security (SSL/TLS) traffic originating from the web because of the impact to performance this function has on the firewalls.



- Offload SSL decryption to the cloud, removing the burden of inspection from firewalls, with minimal impact to network performance
- Reduce the number of products to purchase and maintain by eliminating the need for dedicated SSL/TLS decryption appliances



Use case 6 Inspection of web traffic - How does it work?





Offload SSL decryption to the cloud

Secure Socket Layer (SSL) inspection is very processor intensive and performing it at multiple locations is extremely expensive and creates throughput bottlenecks.

Secure Access Service Edge (SASE) performs SSL inspection in the cloud at 'cloud scale,' providing visibility without the performance impairment.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway and AT&T Secure Remote Access

Reduce the number of SSL inspection engines

Performing SSL inspection on multiple appliances is expensive,

difficult to upgrade, complex to manage, and often introduces performance bottlenecks.

Providing cloud-based SSL inspection ensures that resources are available, packets are decrypted just once, as well as centralized management and visibility.

Recommended solution: AT&T SASE with AT&T Secure Web Gateway and AT&T Secure Remote Access

