

Empower Remote Workers with Tunnel-Free SD-WAN:

Remote work has not only become increasingly common in recent years, it's grown essential to enterprises during times of crisis.

INTRODUCTION

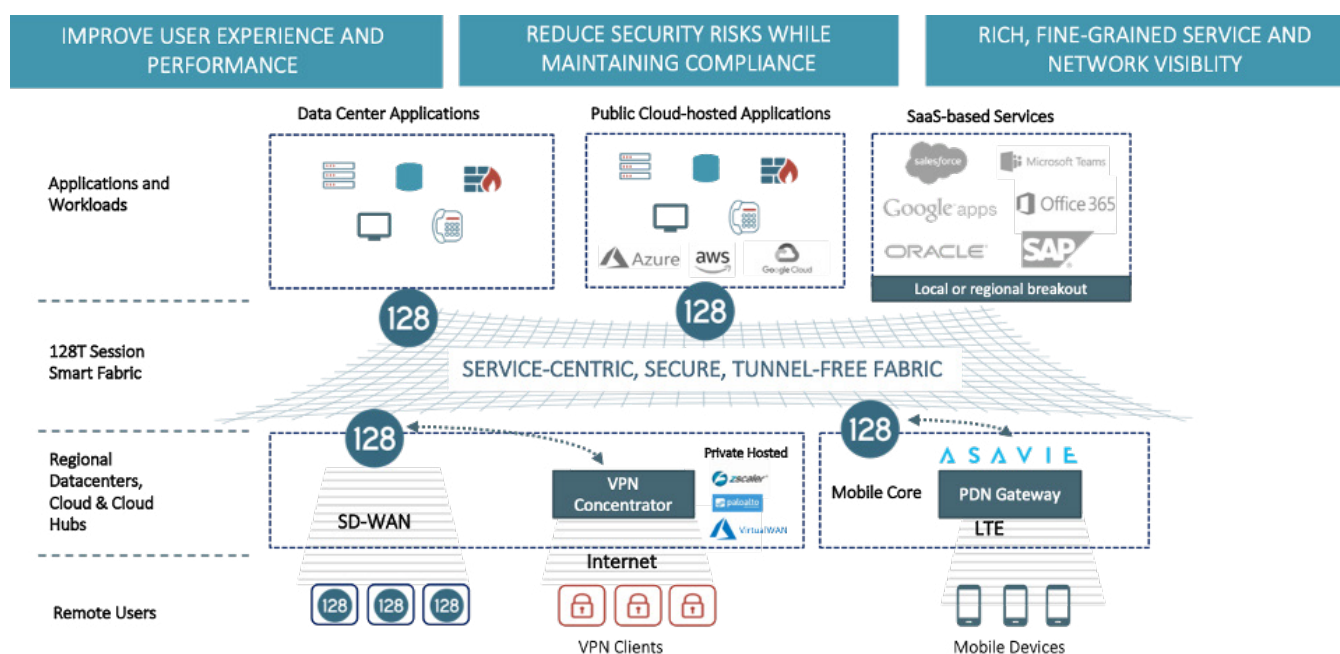
The COVID-19 pandemic has made companies acutely aware of their shortcomings when it comes to providing flexible, secure, and productive work from home (WFH) environments. This is especially true when it comes to virtual private networks (VPNs), which are integral to working from home – or anywhere outside of the office.

The Basics of VPN

Given the increased demand for remote working set-ups, the availability and security of VPN services are now the focus of enterprise IT departments across the globe. VPNs typically route all traffic through a tunnel to the company network for security reasons. This includes secure public SaaS applications (e.g., Microsoft Teams, Salesforce, and Google Suites), standard internet access, and services hosted on customer premises.

Traditionally, VPN solutions are based on IPSec or SSL based tunneling technology. These types of VPNs are complex and difficult to scale – and do not allow for application control or visibility. As businesses embrace the cloud, the Internet of Things (IoT) expands, users go mobile, and applications require more responsiveness, the rigid routing model provided by these tunneling technologies makes enabling remote work quite challenging. That's why many enterprises are frustrated by high VPN/WAN costs and are seeking to refresh these services. By transforming their networks at the same time, businesses can maximize the investments they're making in the WAN.

Solutions for a Remote Workforce



Service-Centric, Tenant-Based Security Architecture

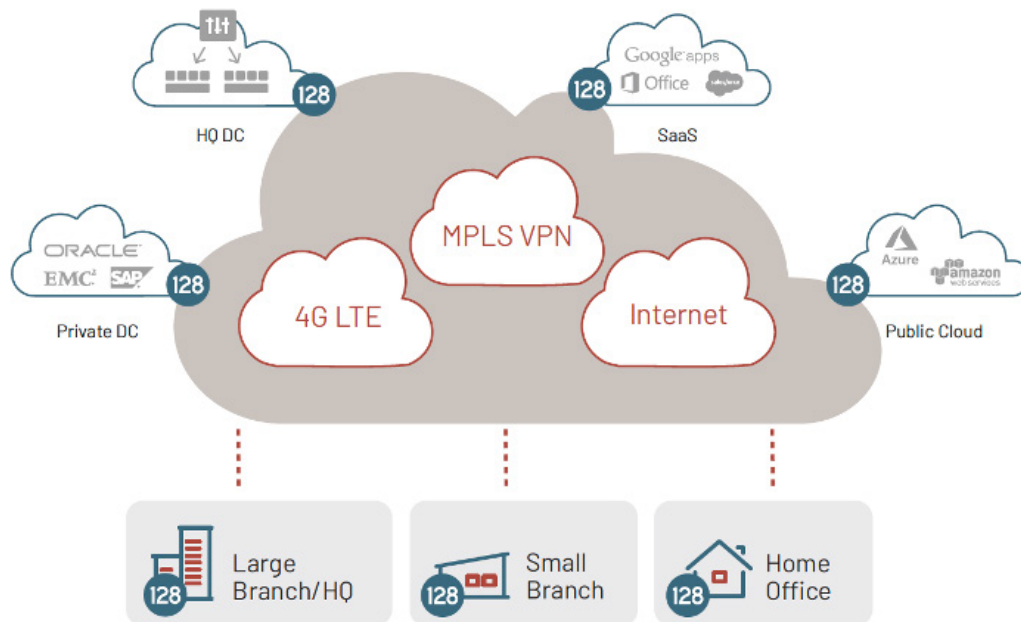
Never before has networking been so critical to our lives and our livelihoods. Indeed, the demand for highly distributed and secure network solutions that can deliver the quality, reliability, and agility needed to respond to such a crisis has never been more apparent. 128 Technology's Session Smart Routers and service-centric fabric enable a "work from anywhere" architecture that is uniquely able to deliver a quality user experience.

128T Routers dynamically adapt to application performance needs and route traffic accordingly. The tunnel-free approach reduces application latency while increasing available bandwidth for video and other network-intensive applications. Native session optimization can be used to improve application speed and reliability, as well as quality, security, and compliance.

This highly distributed "work from anywhere" world challenges the legacy perimeter-based security approach, demanding that security is baked into networks. 128T Routers deliver a zero trust fabric that provides unparalleled control of access to critical resources and data workers need – and the routing that delivers it all.

The 128T Session Smart Router Advantage

The 128T Session Smart™ Router eliminates the need for inefficient VPN tunnels and brings contextual awareness to the network by associating transient sessions with the applications and services they enable. This technology simplifies how enterprises support the needs of remote employees by providing centralized management, granular control, individualized flows, and integrated functions – all with infused security and dynamic traffic management. Together, the intelligent features built into the network help enterprises deliver unsurpassed quality, reliability, and scale to the applications and services that help businesses thrive – even under heavy usage from remote workers.



Not only does the 128T Networking Platform eliminate the need for overlays and tunnels, but it also centralizes services, tenancy, and policy information. This solution removes the need for automation tools, minimizes complexity, improves visibility, and maximizes savings. Additionally, this context-aware approach can better support the needs of businesses and help fuel success, especially as unexpected challenges arise and the ability to support remote workers becomes critical. 128 Technology delivers on that promise with:



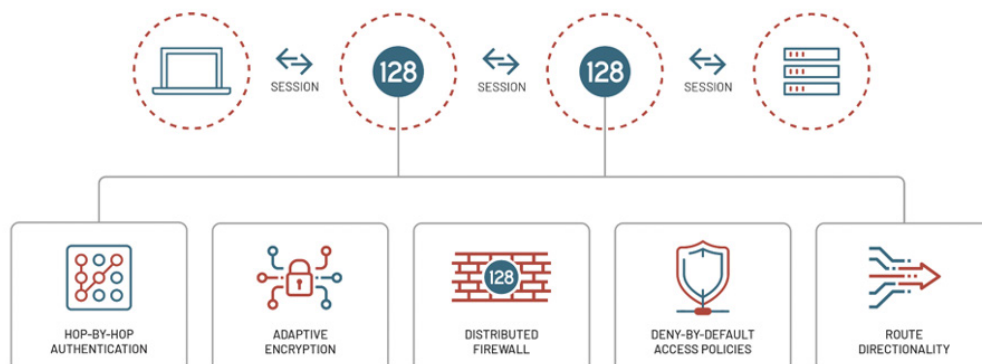
Application-aware routing

IT departments can improve how their networks perform by providing application-aware routing. For example, the 128T Session Smart Router recognizes applications like Microsoft Office 365, Google GSuite, and other SaaS services and directly offloads that traffic to the WAN. Only applications hosted by the enterprise are routed to the data center. Additionally, dynamic session and application awareness provide load balancing and traffic steering based on session policies and the status of the network – features that become critical when hundreds of employees are suddenly working off-site.



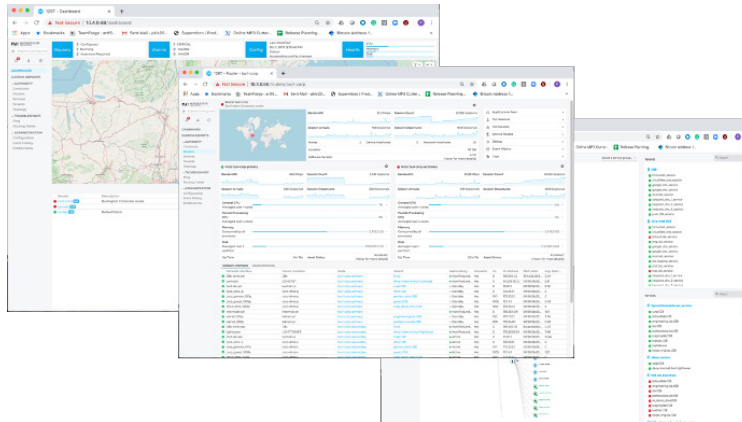
FIPS 140-2 certification

The U.S. government computer security standard, FIPS-140-2, is used to approve cryptographic modules and maintain confidentiality. 128 Technology meets this certification and allows enterprises to build a payment card industry (PCI) and Health Insurance Portability and Accountability Act (HIPAA) compliant network. In addition, the Session Smart Router is ICSA Labs Network Firewall Certified and has achieved PCI attestation. Businesses can feel safe knowing that no matter where employees are based, their networks – and their data – are secure.



Zero Trust Security

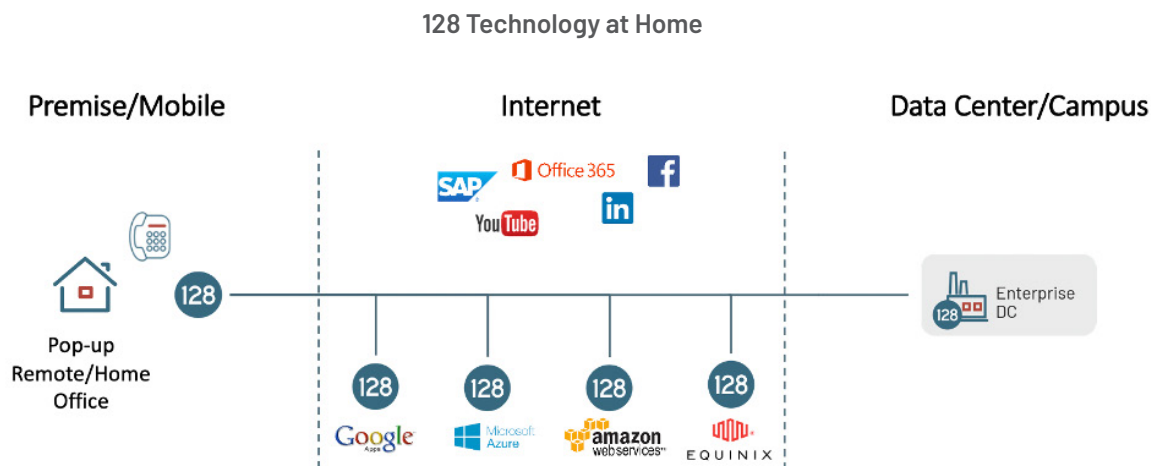
The 128T Session Smart Router allows enterprises to build a network based on Zero Trust Security (ZTS), ensuring each flow is encrypted and authenticated based on associated security policies. This enables enterprise leaders to remain confident in the knowledge that even with employees working from home, they can offer secure micro-segmented connections or individualized VPNs to different lines of business within a large organization.



Enhanced Visibility

The 128T Conductor provides centralized orchestration, administration, zero-touch provisioning, monitoring, and analytics for distributed 128T Routers. These tools provide a unified view of the entire network and enhanced session statistics, which becomes increasingly important in WFH environments. With them, administrators can generate customized charts based on selected KPIs and detailed reports on security and traffic events. This allows enterprises to detect and prevent network attacks, even across a dispersed workforce, while satisfying enterprise compliance requirements.

128 Technology Tunnel-Free VPN Deployment Models



Customer Benefits:

User Experience

- Simple connection to appliance
- Low latency and high throughput
- Zero-touch provisioning

Security and Compliance

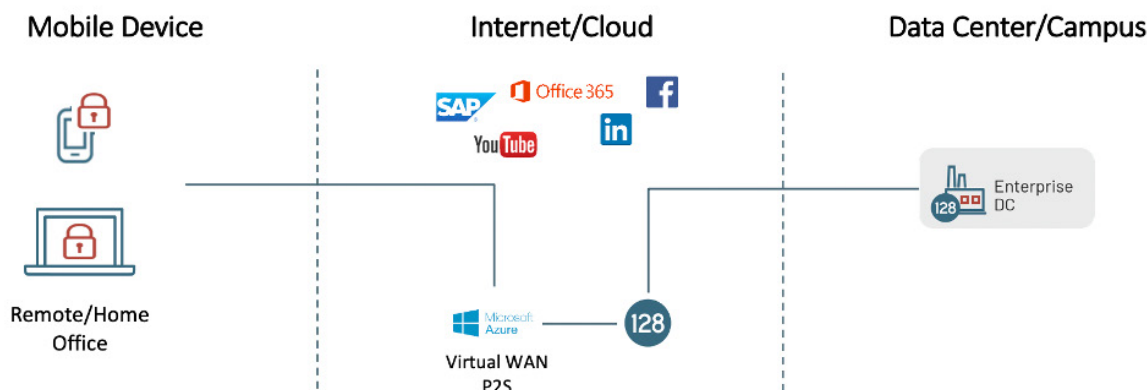
- FIPS 140-2
- Inside-out connectivity
- Hyper-segmented access

Visibility

- Per session auditing
- Tenant and service performance
- Fully distributed analytics

In the first model, one 128T Router is deployed at home, and another is deployed in the data center or the cloud. Applications are then intelligently routed based on their destination. For example, while SaaS applications will be offloaded directly to the WAN, enterprise applications requiring advanced Unified Threat Management (UTM) treatment can be routed to the enterprise data center.

128 Technology in the Cloud



Customer Benefits:

User Experience

- VPN client experience (portal/login)
- Cloud-based scaling
- Seamless connectivity

Security and Compliance

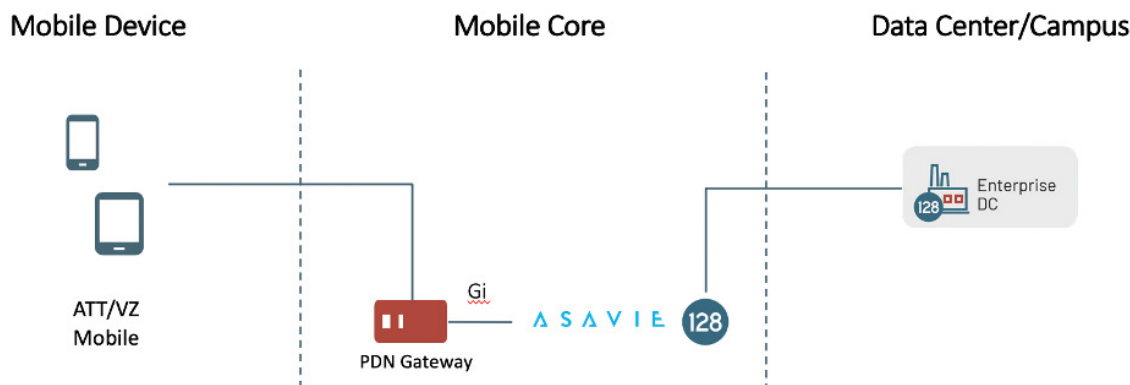
- FIPS 140-2
- Inside-out connectivity
- Hyper-segmented access

Visibility

- Per session auditing
- Tenant and service performance
- Fully distributed analytics

In this deployment model, a remote employee connects to the cloud VPN gateway using standard technology, which then hands over traffic to the 128T Session Smart Router to intelligently route packets to the right destination. 128T Session Smart Routers can differentiate between RFC1918 networks – which are routed to the company network – and all other traffic, including cloud services – which are either routed directly to the services or through a UTM solution.

128 Technology in the Data Center with Private LTE Access



Customer Benefits:

User Experience

- Client-based experience (portal/login)
- Cloud-based scaling
- Seamless connectivity

Security and Compliance

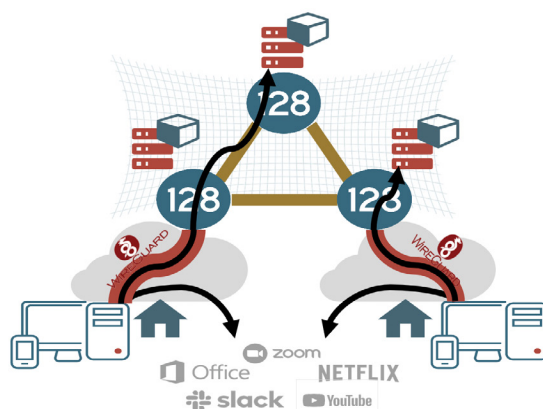
- FIPS 140-2
- Inside-out connectivity
- Hyper-segmented access

Visibility

- Per session auditing
- Tenant and service performance
- Fully distributed analytics

For this deployment model, 128 Technology has partnered with Asavie to provide end-to-end secure private LTE connections to facilitate work from home connections. The 128 Technology Networking Platform is deployed in the LTE core and the enterprise data center, providing network security, network access control, application-aware routing, and compliance.

128 Technology with Wireguard



Customer Benefits:

User Experience

- Zero-touch experience (WiFi join)
- Cloud-based scaling
- Zero-touch provisioning

Security and Compliance

- FIPS 140-2
- Inside-out connectivity
- Hyper-segmented access

Visibility

- Per session auditing
- Tenant and service performance
- Fully distributed analytics

In this final deployment scenario, corporate devices designed to work outside of the office are set up with a lightweight Wireguard – a free and open-source VPN solution – which peers with one (or many) 128T Routers in the corporate topology. It selectively and intelligently sends secure sessions to the 128T Router peers – where services can be accessed – and offloads secure SaaS and consumer services directly to broadband. Wireguard, combined with Session Smart Routing, extends the corporate network access edge to users displaced from the office.

SUMMARY

The 128T Networking Platform provides centralized control, simplified deployment of context-aware networks, intelligent service routing with in-band signaling, fine-grained micro-segmentation, and infused security based on a zero trust model. This mix of features and capabilities goes above and beyond traditional router offerings by solving several underlying network issues that would otherwise inhibit WFH success. The result is a context-aware network that can easily, dynamically, and securely stretch across boundaries, enabling organizations to build application-friendly infrastructures that are flexible enough to cope with the demands of a dispersed workforce.

128
TECHNOLOGY

200 Summit Drive, Suite 600
Burlington, MA 01803
781.203.8400
www.128technology.com

ABOUT 128 TECHNOLOGY

At 128 Technology we help our customers radically reinvent their digital futures based on a new model for virtual networking called Session Smart™. Session-smart networking enables enterprise customers and service providers to create a service-centric fabric that's more simple, agile, and secure, delivering better performance at a lower cost. Whether your enterprise is moving your business to the cloud, modernizing the WAN edge, seeking more reliable unified communications or pursuing an industrial internet of things (IIoT) initiative, session smart networking re-aligns networks with digital transformation initiatives.