Microsoft Azure Networking with 128 Technology: The 128T Networking Platform makes networking for Microsoft Azure deployments simple, secure, high performing, and reliable for enterprises.

**Executive Overview**
At 128 Technology we make your network do what your business needs. For many enterprises traditional networking is too complicated, unsecure, non-performant, and unreliable to effectively leverage Microsoft Azure. The 128T Networking Platform provides a fabric of 128T Session Smart™ Routers managed by the 128T Conductor, to make deploying new cloud applications simple, secure, high performing, and reliable.

**Opportunities**
Enterprises are adopting Microsoft Azure for a wide range of benefits. The capital and operational expenses of maintaining a private cloud data center can be exorbitant, so purchasing Infrastructure as a Service (IaaS) has a compelling cost savings. Since many enterprises have computing needs which vary over time, the elasticity and scalability of Azure allows a business to only purchase the cloud computing that they need. For many enterprises, IT infrastructure is not the primary business focus, so they don’t have the in-house technical expertise to maintain up-to-date infrastructure with high reliability and redundancy. By leveraging Azure, businesses benefit from the massive technical resources of Microsoft. Finally, since so many enterprises develop internal or Software as a Service (SaaS) applications, the feature-rich Azure development and hosting environment enables much faster time to revenue.

**Challenges**
While organizations are eager to realize the benefits of Azure, the network often produces challenges to adoption. While Azure provides sophisticated tools to network and operate within Azure, inevitably Azure solutions must connect via a network, producing numerous challenges.

- **Complexity**: Provisioning network elements inside and outside of Azure can be complicated and time-consuming. This can be magnified with heterogeneous networking solutions and staff which lack Azure experience.
- **Inconsistent security**: Moving critical applications from familiar internal systems to a new Azure Virtual Network (VNet) can increase security risk. Maintaining consistent security across diverse and permissive networks can be challenging, even for experts.
- **Poor Performance**: IPSec tunnels are often employed for connectivity to applications and data in Azure. Unfortunately, tunnels can dramatically reduce performance by adding overhead, fragmenting packets, obfuscating flows, and limiting path selection.
- **Unreliability**: When applications are shifted to Azure, poor connectivity from outside the cloud makes services ineffective or unusable. With migration to the cloud the wide-area network (WAN) becomes far more important than when services were local.

**AVAILABLE AT THE AZURE MARKETPLACE**

![Azure Marketplace Image]
128 Technology Solution

The 128T Networking Platform makes Azure deployments simple, secure, high performing, and reliable. The solution is 100% software which can be deployed anywhere, from Microsoft Azure to on premises. Deploying 128T Session Smart Routers across the network creates a service-centric fabric with several benefits.

- **Simple**: The same 128T Session Smart Router software can be deployed across all compute platforms, enabling Zero Touch Provisioning (ZTP) and simple lifecycle management. The data model uses business-language to abstract complexity, and the 128T Conductor manages all systems with a single pane-of-glass.

- **Secure**: The platform is zero-trust, so no access is allowed without explicit permission. Fine-grain, global policies enable consistent, universal provisioning of hypersegmented access rules for enterprise-wide security compliance, and FIPS 140-2 compliance ensures data is safely encrypted.

- **High Performing**: Instead of utilizing IPSec tunnels which limit performance, 128T Session Smart Routers securely maintain each session across networks. Eliminating IPSec overhead and reducing fragmentation lowers bandwidth requirements, and preserving sessions optimizes performance and visibility.

- **Reliable**: The 128T Session Smart Router identifies each application session, applies the service-specific policies, and then makes multi-path routing decisions on a per-session basis. A highly-available design and optimal usage of multiple network paths, creates reliable connections to Azure and private cloud applications.

Use Cases

**Hybrid Cloud Interconnect**
A government agency operates applications in Azure and on-campus in Azure Stack with hypersegmented access security, global policies, and simple deployment.

**SaaS Infrastructure**
A leading consumer healthcare funding platform secures back-end developer access from branch offices to production and non-production SaaS application instances in Microsoft Azure.

**IoT Cloud Delivery**
A major oil field services firm delivers data from IoT edge applications into Azure with high performance over satellite links and enhanced reliability with multi-path routing.

Summary

The 128 Technology Networking Platform enables enterprises to achieve the tremendous benefits of Microsoft Azure. As many businesses seek to migrate to and deploy applications in Azure, they often encounter heterogeneous complexity, inconsistent security, poor performance, and unreliable application access. 128 Technology makes Azure deployments simple, secure, high performing, and reliable. These unique advantages enable enterprises to migrate applications, create a hybrid cloud, operate SaaS infrastructure, and deliver data into Azure.