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# SASE Explained: Introduction to Secure Access Service Edge

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# IT NATION SECURE

### **Cloud Security: The Growth Opportunity for MSPs**

Your customers are dealing with: Cloud transformation \* Hybrid work \* Advanced Cyberthreats \* Compliance \* Cyber-insurance

They need a modern, complete security stack that delivers defense in depth and implements zero trust, not legacy point solutions.

... and: They need your help to get there.



Growing at 27%, Cloud security is the strongest category for IT growth in 2023.

Top three factors: remote work, shift to cloud, and the rise of zero trust. -G

Gartner

# Agenda

What is Zero Trust?

What is SASE?

SASE use cases

Why should I deploy SASE for my clients?

**5** ConnectWise Ecosystem

Who do I contact?



### What Is Zero Trust?





Vista Vs Mac - Security

NOITAN TI (T)

## CISA Zero Trust Maturity Model v 2.0

The ZTMM represents a gradient of implementation across five distinct pillars, in which minor advancements can be made over time toward optimization. The pillars, depicted in Figure 1, include Identity, Devices, Networks, Applications and Workloads, and Data. Each pillar includes general details regarding the following cross-cutting capabilities: Visibility and Analytics, Automation and Orchestration, and Governance.





### Zero Trust Defined

Zero trust is an information security model that denies access to applications and data by default. Threat prevention is achieved by only granting access to networks and workloads utilizing policy informed by continuous, contextual, risk-based verification across users and their associated devices. Zero trust advocates these three core principles: All entities are untrusted by default; least privilege access is enforced; and comprehensive security monitoring is implemented.

The Definition Of Modern Zero Trust (forrester.com)



### Zero Trust & SASE Relationship

Zero Trust is a framework
SASE includes Zero Trust implementation



### Secure Access Service Edge (SASE) is...

How SASE enables zero trust



### **SASE** is Cloud Transformation for Network & Security

SASE simplifies networking & security by delivering it as an integrated service from the cloud.

#### **Legacy Security Stack**

Firewall/VPN

















**Integrated security services** 

New capabilities such as Zero-trust and Threat Prevention

Access anywhere over the Internet

### **Secure Access Service Edge**

Introduced by Gartner in 2018, SASE is a modern security framework for all endpoint, data resource, and network connection, without compromise

#### **Unified**

**Security and Network Automation** on a single cloud native platform, eliminating hardware clutter and service chaining.

#### **Zero-trust & Identity Centric**

The user is the center of policy creation, not the technology. Whether on or off corporate premises the focus shifts from traffic-flow-centric to identity-centric. Authenticate, define access guardrails, secure the traffic, ensure performance & monitor everything 24x7.

#### Comprehensive

SASE covers all network and user endpoints:

Users, IoT devices, Locations & Application destinations.

SASE **service** is real-time scalable and complete – no point products e.g., Internet security for users includes DNS, URL filtering, secure web gateway, threat prevention, and CASB etc. all tightly integrated.



### **SASE** Benefits

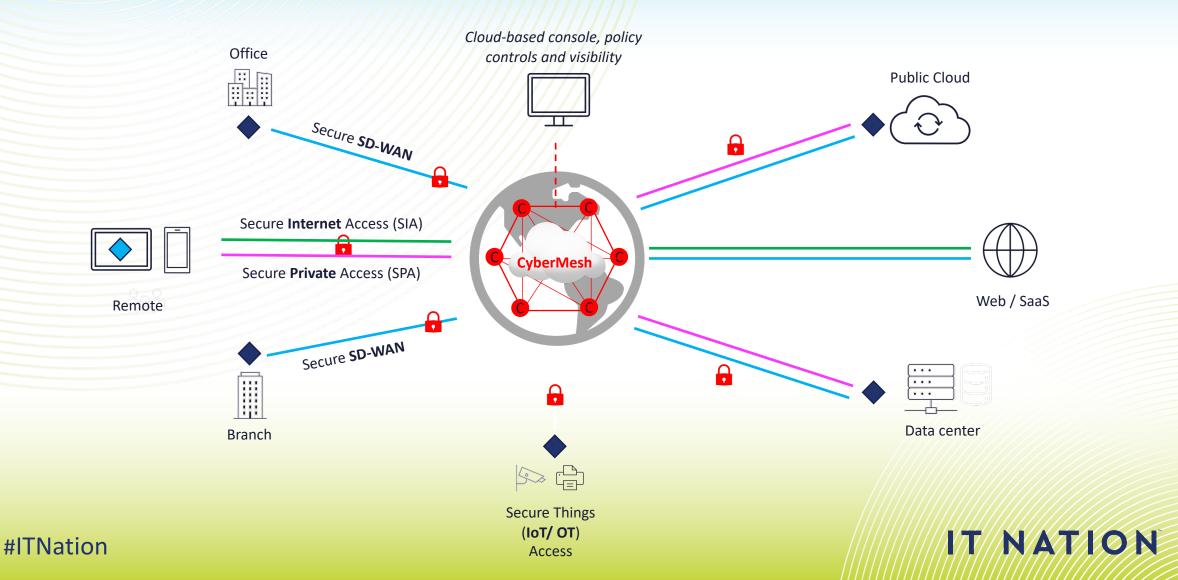
#### Improved security posture

- Reduces attack surface and shortens remediation times
- Reduces *operational complexity* through consolidation of vendors, consoles, policies and contracts, thereby reducing chances of misconfiguration or mistakes
- Consistently enforces security policy across all access channels: web, cloud services and private applications; the
  policy can be applied whether the user is on-premises in a branch or working remotely

#### Improved network and security staff efficacy

- Reduces deployment time for new users, locations, applications and devices
- Eliminates *overlapping policies* and standardizes application policies and policy objects across security policy enforcement points such as SWG, CASB and firewalls

## SASE: Cloud-Delivered Security and Networking



## How Does It Work – The Cyber Mesh

- CyberMesh runs globally on all major clouds to provide highavailability and low latency connectivity
- Anycast routing securely connects users via the closest Cybernode
- High-resiliency (auto failover) in case a cloud region becomes unavailable

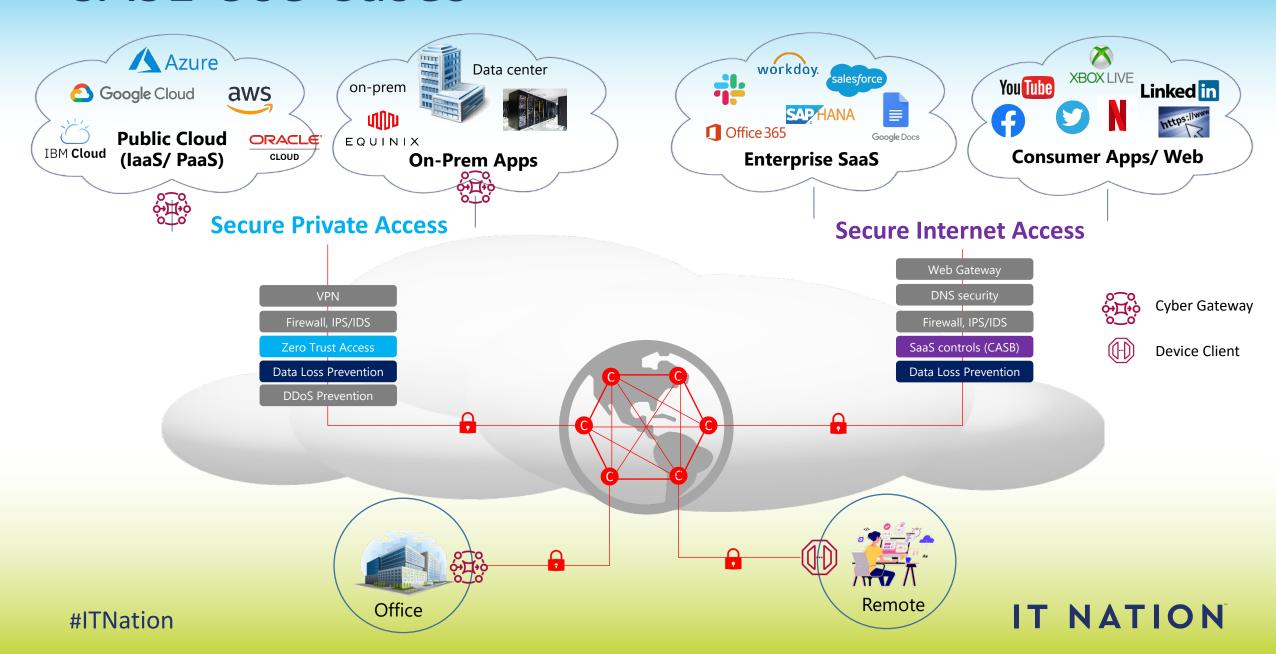


<u>Cybernodes</u> can be deployed at the Edge or in the cloud. Exium operates ~150 nodes globally as a Mesh to augment customer locations.

Exium's Global Mesh securely connects remote users, edge locations, cloud services, and private data centers.



### **SASE Use Cases**



### **Complete Security – Not Piecemeal Security**

SASE services are designed as complete, integrated packages with all the relevant features included:

Service	What is Included	
Secure Internet Access (SIA) Online security for users and devices to protect them when using web apps or websites	DNS security, URL filter, Secure Web Gateway Cloud Firewall, Bandwidth & Geo Location Controls Digital Experience SaaS security, Cloud Access Security Broker (CASB) Data Loss Prevention (DLP)	
Secure Private Access (SPA) Zero-trust network access (ZTNA) for access internal (private) network resources from anywhere	Direct to cloud Zero-trust VPN Cloud Firewall, Bandwidth & Geo Location Controls Digital Experience	

Data Loss Prevention (DLP)

### SASE vs. Traditional Networking & Security Value Comparison

Security,
Compliance, and
User Experience
GAPS
of legacy solutions

Zero Trust Network Access

VoIP and Printer IoT Security

Intrusion Detection & Prevention (IDPS)

Cloud Access Security Broker (CASB)

Data Loss Prevention (DLP)

**Operational Costs** 

of integrating and managing multiple solutions

Other point solutions

**DNS Filter** 

Secure Web Gateway

**VPN/ Remote Access** 

SD-WAN

Firewall

Missing Capabilities

your clients need to be fully compliant and better protected

SASE and Zero Trust Access Complete,
Integrated
Security Stack
at over 40%
Savings

Traditional
Networking & Security

Your clients need these ... but cannot afford it!

Full stack security, cloud delivered.

# Meet Compliance and Cyber Insurance Needs

SASE exceeds network security requirements for major compliance standards

#### **SASE Supported Compliance Controls**

- ✓ Access controls: Restricts access to authorized personnel only (zero-trust)
- ✓ Audit controls: Continuous monitoring and logging of all access to data
- ✓ Transmission security: highest level of encryption for all transmissions of data
- ✓ Continuous vulnerability management
- ✓ Cloud firewall for users/apps/devices/locations
- ✓ Protects data in transit data
- ✓ Helps maintain secure systems
- ✓ Regularly tests security systems and processes

#### **Compliance Standards Enabled**



















... and Cyber Insurance Coverage Requirements

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#### **How a Business Owner Should Think About SASE**

SASE is the transformation of networking and security to the cloud. As businesses become more digital, they need security that adapts with their changes.

Things to Consider	Traditional Networking & Security	SASE
Security	Is it just good enough for today? Buy more solutions as your business grows or new threats emerge?	SASE is easy to expand and constantly evolves to protect against emerging threats.
Compliance	Does not meet emerging compliance needs such as zero-trust.	Meets emerging compliance needs and is thorough in addressing compliance regulations.
Agility	Any expansion/changes require new hardware purchases. Does not mix well with Cloud.	Very high agility and is cloud-native. Expansion/changes are simple.
Digital Experience	Users must live with poor experience or use workarounds.  Static; Changes require replacement.	Designed for modern, hybrid-work and delivers better performance.  Adaptive;  Evolution is built-in.

# Why Use SASE at Your MSP?

- Augment or replace Firewall
- Deploy ZTNA to augment or replace legacy VPN to limit investment in legacy technology.
- Extend a zero trust security posture using ZTNA to support inbound and outbound communications for IoT/OT devices.
- Combine branch office and remote access in a single implementation to ensure consistent policies and minimize the number of vendors required.
- For enterprises where mergers and acquisitions are common or planned, quickly onboard or migrate new entities to the SASE platform to reduce redundancies and retire legacy approaches to security.

### **Use Cases: How To Get Started With SASE**

Use Case	Description	Legacy Products Impacted	New Capabilities
Zero-Trust Network Access (replaces legacy VPN)	Vastly improve security to internal applications by implementing ZTNA for all users regardless of location.	Replaces VPN & IDPS.  Works with existing Firewall; adds protection for remote users with new cloud firewall.	Data Loss Prevention (DLP)  Threat Prevention and Intrusion Detection/Prevention Improved digital experience
Internet Security  (replaces Secure Web Gateway and DNS filters)	Secure users online and saas traffic with comprehensive, always-on internet security regardless of location.	Replaces SWG and DNS filters.  Works with existing Firewall; adds protection for remote users with new cloud firewall.	Cloud Access Security (CASB)  Threat Prevention and Intrusion Detection/Prevention Improved digital experience
Complete Office Security & Networking (replace Firewall and SD-WAN)	Comprehensive security and networking for offices and data centers including all users/devices at those locations.	Replaces Firewall, SD-WAN, SWG, DNS, VPN, and IDPS. Simplifies security and networking via software defined perimeter.	All of the above, plus:  IoT Security for VoIP phones, printers, cameras, etc.  Built-in global secure SD-WAN.

# Why Endpoint Security Is Not Enough

SASE stop Cyberthreats far out before they get closer to you



Antivirus/ endpoint tools only detect (if at all) a malware when it has already made into the devices

Your private ⁴ data

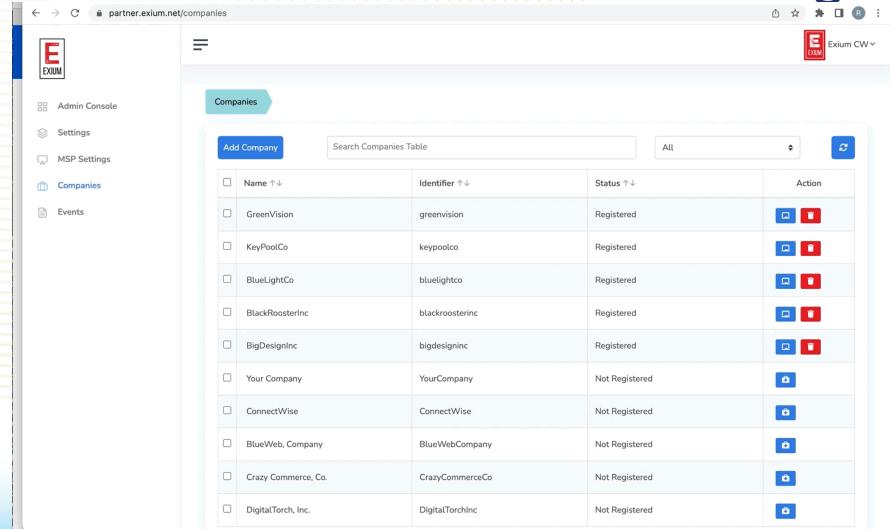
Outbound
Nothing
good
leaves

SASE works here Nothing bad enters

Ransomware
Viruses
Adware etc.

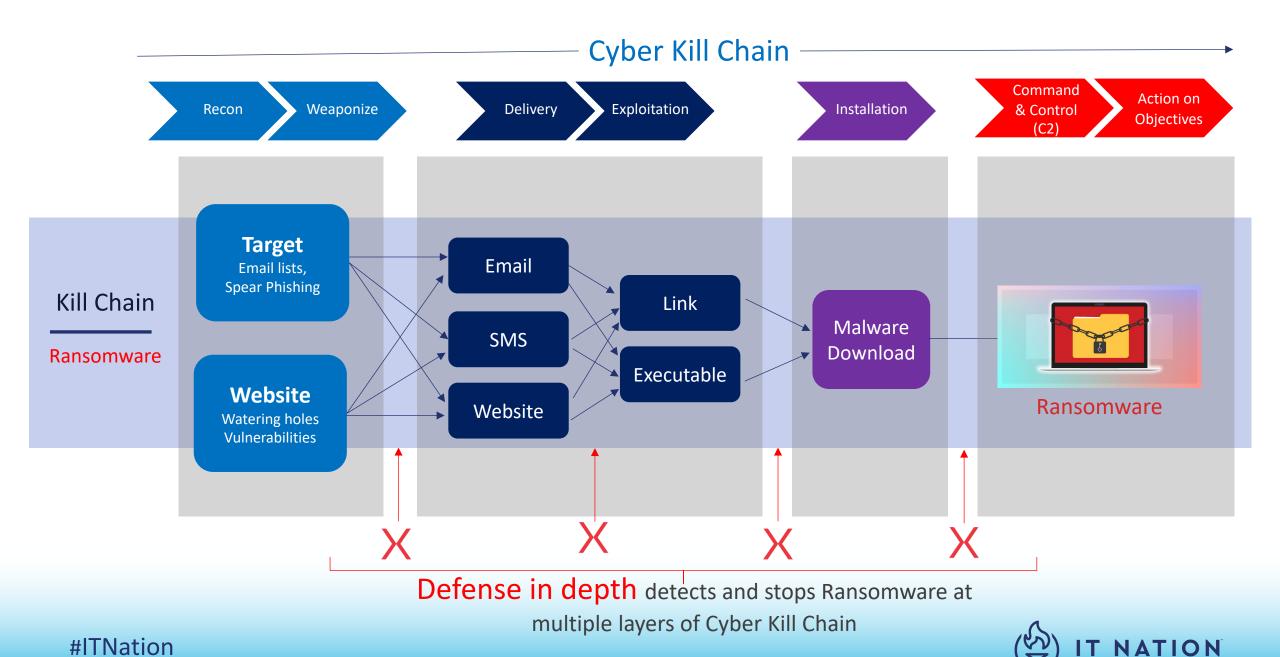


### Demo: Malicious Website Blocking



## How SASE Stops Ransomware





# Demo: Phishing Attack



Rama Reddy

IRS Notification - Please Read This.

To: Rama Reddy

From: Internal Revenue Service [mailto:admin@irs.gov]
Sent: Wednesday, June 6, 2022, 9:02 AM
Subject: IRS Notification - Please Read This.

After reviewing your 2021 tax returns, we have determined that you are eligible to receive an additional tax refund of \$1,263.80. Please submit the tax refund request and allow us 6-9 days in order to process it.

A refund can be delayed for a variety of reasons. For example, submitting invalid records or applying after the deadline.

To access the form for your tax refund, please click here

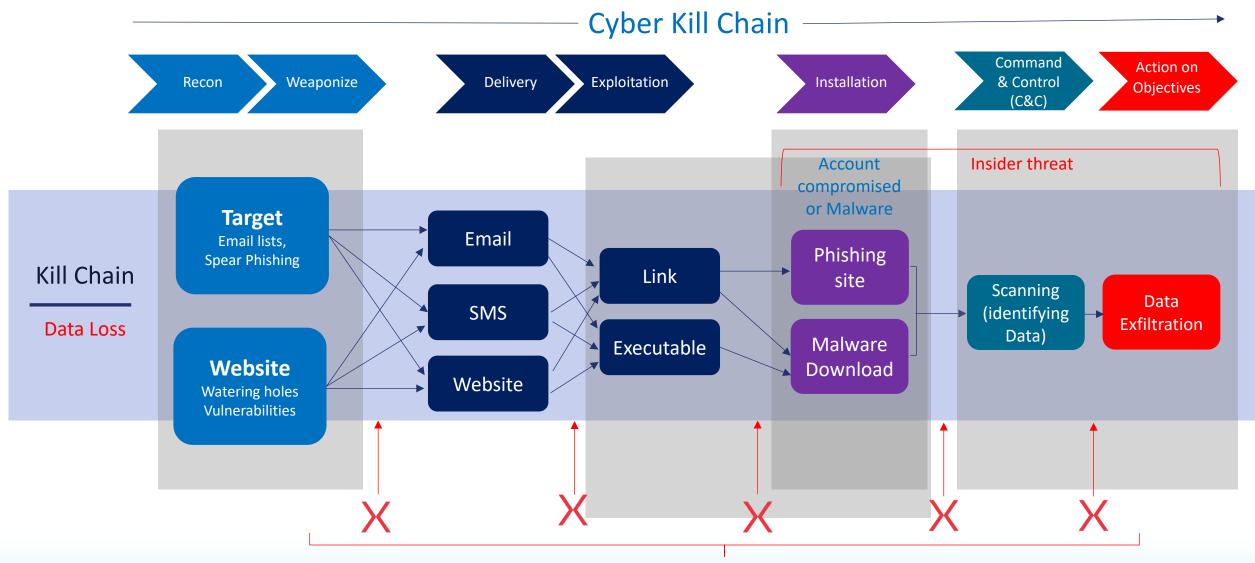
Regards, Internal Revenue Service



□ Inbox - rama.reddy@exium.net 8:51 AM

# How SASE Stops Data Exfiltration

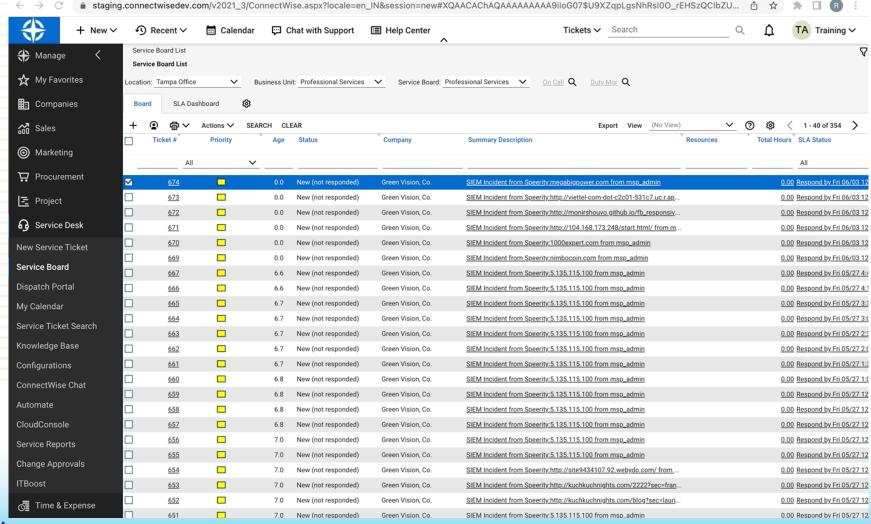




Defense in depth detects and stops Data leakage at multiple layers of Cyber Kill Chain



# Demo: Blocking a Compromised Account





# Key Takeaways

SASE (when done right) helps uplift SMBs cybersecurity posture to Fortune 500 grade

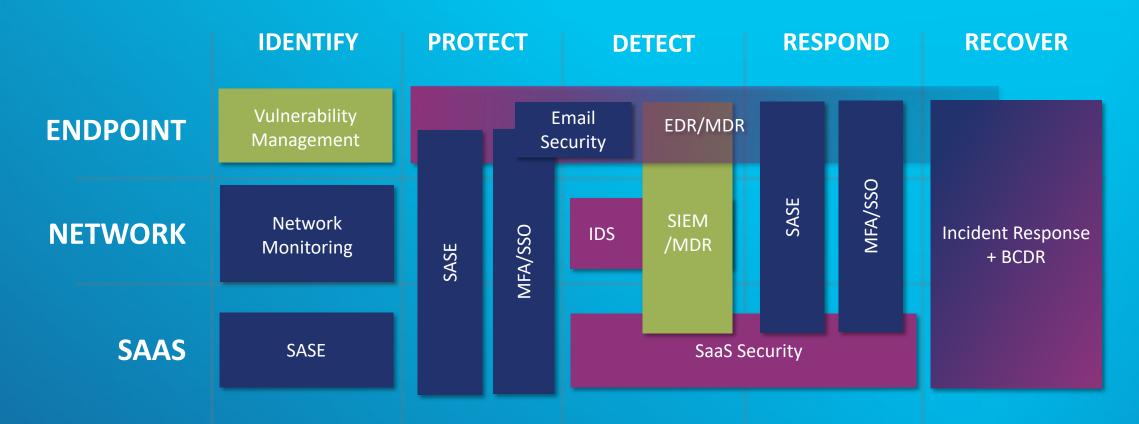
SASE helps implement zero trust and multiple layers of defense-in-depth in a single cloud-delivered service

Your organizations SASE journey can begin today



# ROB lecosystem









### Who do I contact to get more information?

Your ConnectWise Account Manager by logging into ConnectWise Home

#### Reach out to:

Michael Casey, <u>mike.casey@exium.net</u> 609.760.1332

Stop by the Exium Booth #116

Stop by the ConnectWise Booth

