CERTES NETWORKS

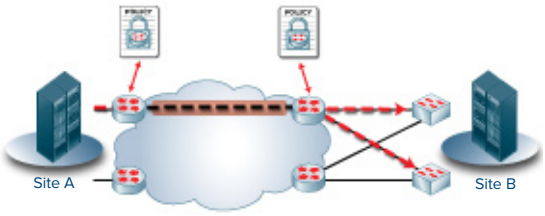
Solution Note

The CipherEngine Difference

CipherEngine is an innovative security policy and encryption key management solution providing scalable network-wide encryption. By providing global control of the generation of policies and dynamic distribution of keys, CipherEngine enables organizations to encrypt data transmissions over any type of network without compromising application or network performance. CipherEngine introduces three areas of improvement over traditional IPsec for network-wide encryption deployments: group policy definition, dynamic traffic flow and encryption without tunnels.

Group Policy Definition

Traditional IPsec



Traditional IPsec policies are strictly device oriented

- This requires encrypted traffic be routed from a specific device to another specific device
- The result is static tunnels across the network

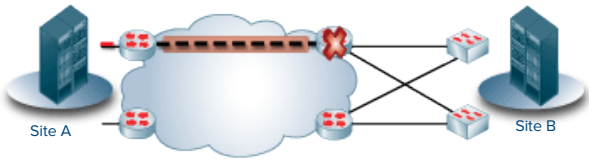
CipherEngine

CipherEngine policies are network oriented, not device specific

- Enforcement points can be grouped together as a single, secure endpoint
- This results in policies based on simple site-to-site mapping

Dynamic Traffic Flow

Traditional IPsec



Traditional IPsec requires encrypted traffic be routed from a specific device to another specific device

- If a router goes down, the data cannot be decrypted without being re-transmitted
- The result is the inability to route traffic around congestion

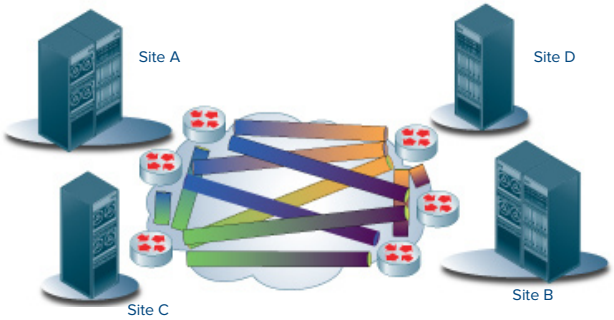
CipherEngine

With **CipherEngine Enforcement Points**, the original header is preserved

- PEP groups and shared keys enable secure load balancing
- The result is encrypted data traveling the most efficient route to the destination site

Encryption Without Tunnels

Traditional IPsec



Traditional IPsec requires additional tunnels for new sites

- Complexity increases exponentially as static tunnels are added
- The result is a complex and static routing cloud on top of a flexible and dynamic network

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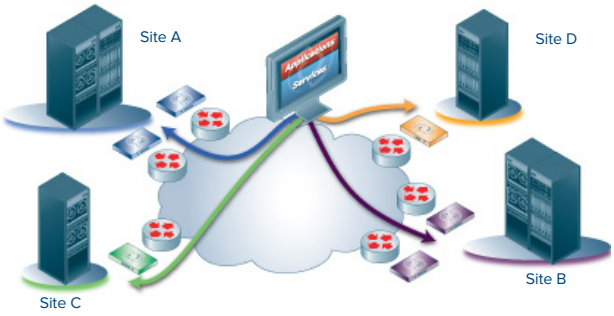


The **CipherEngine** solution encrypts data without disrupting network operations or application performance

- Additional sites are easily added using site-based policies
- The result is a scalable, flexible, dynamic and secure network

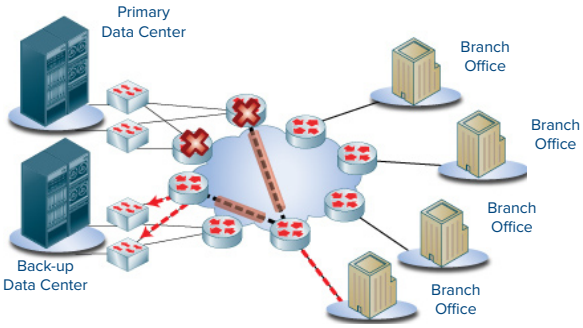
Solution Note

The CipherEngine Difference

CipherEngine's group policy definition, dynamic flow of encrypted traffic and encryption without tunnels combine to enable simplified network-wide encryption deployments for redundant hub and spoke networks, multicast applications and any other network, regardless of size, type or topology.

Redundant Hub and Spoke

Traditional IPsec



VPNs require static **IPsec tunnels**

- IPsec tunnels require pre-determined paths for encrypted data, which negates load balancing
- In the event of a primary data center failure, traffic must be resent to the back-up site
- The result is unnecessary complexity, loss of load balancing and delayed failover with the risk of packet loss

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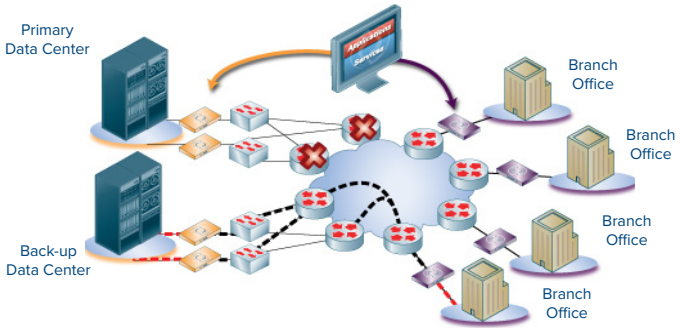
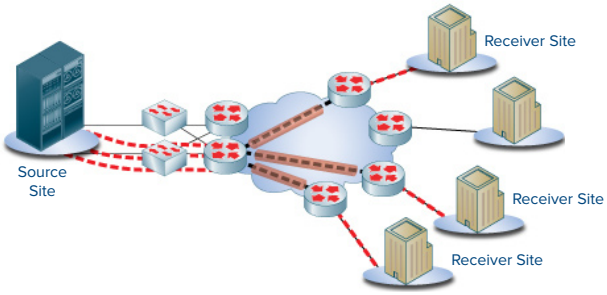


With a **CipherEngine** hub and spoke policy, all sites are defined and grouped as hub or spoke sites

- All devices in a group are given a common group encryption key
- Grouping enables hot failover without down time or packet loss
- The result is an encrypted network that routes and performs services as normal in the event of a failure

Multicast Applications

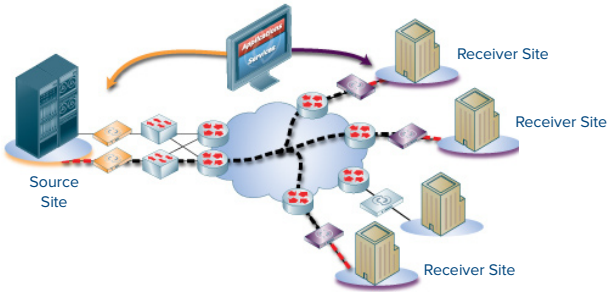
Traditional IPsec



With **IPsec VPNs**, traffic must be routed from a specific device to another specific device

- Data streams must be replicated to each device before entering the static tunnel
- The result is excessive traffic congestion and network performance degradation

CipherEngine



A **CipherEngine** multicast policy defines source and receiver sites

- All devices in a multicast group are given a common group key
- Encryption is wire-speed and does not disrupt latency-sensitive applications
- The result is encrypted multicast transmissions without data stream replication or network changes

About Certes Networks

Certes Networks is the leader in developing scalable security solutions for high performance networks. Our advanced encryption and policy and key management solutions help organizations improve security and decrease risk while allowing them to take full advantage of modern network and cloud architectures.

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