

# AutoVPN

Easy cost-effective deployment of IPsec VPN networks on SRX Series Services Gateways

## Challenge

VPNs can be costly and complex to deploy, even with basic topologies. With limited IT security resources, organizations require an easy to configure IPsec VPN solution, especially in networks with a large number of spokes.

## Solution

AutoVPN delivers easy, no touch deployment for site-to-site, IPsec VPN configurations. Juniper's IPsec solution is built for service organizations of any size from small and medium sized businesses to the largest of enterprises and service providers.

## Benefits

- Requires no hub configuration effort for adding new spokes
- Minimizes IT admin time to reduce costs for configuring VPN hub and spokes
- Minimizes impact to network and security uptime
- Seamlessly adds new spokes without changes to the network to eliminate configuration risks

In today's world, 24/7 access to corporate resources is key to business productivity for the distributed workforce. Therefore, IT's role is to ensure that network connectivity and security is extended to all users at any location.

As such, this expectation of IT extends to the deployment of IPsec VPN. The most common deployment model is hub-and-spoke, with the hub representing headquarters and the spokes representing branch offices. Just having a VPN solution is not enough. To meet the needs of today's growing businesses, IT needs a high performing VPN solution that is easy to use and reduces cost, complexity, and risks.

## The Challenge

As companies grow their businesses, IT is chartered to ensure that the growth of the network and its security is seamless for employees at all locations—headquarters, branch offices, and other sites. And in light of limited IT resources, especially at branch offices, it is of utmost importance to implement a VPN solution with operational simplicity and scalability.

Consider IT's practical challenges in implementing and configuring IPsec VPN. The task can be time-consuming, complex, and not easily scalable. These challenges are especially true for larger, distributed businesses. For example, the current method of deploying the hub-and-spoke model is to configure the IPsec parameters for each spoke as it is added to the network. In addition, each time a spoke or tunnel is added or deleted, the hub configuration needs to be updated too. This extra work causes significant configuration overhead and is a tremendous burden on IT resources.

On top of the configuration effort, making manual configuration changes can lead to unintended risks to the existing network and its security. Errors can lead to network downtime and impact security effectiveness.

## The Juniper Networks AutoVPN Solution

The solution to this set of IT challenges is AutoVPN, a key feature available with the security, routing, and switching delivered by Juniper Networks® SRX Series Services Gateways. AutoVPN simplifies the planning, design, and provisioning process by enabling IT to configure the hub just once, even when new spokes are deployed at a later time. Specifically, IT needs to configure the routing, interfaces, Internet Key Exchange (IKE), and IPsec hub settings only once. No subsequent hub configuration changes are needed. This capability reduces IT effort to save time and costs for configuring the VPN hub-and-spoke devices.

By reducing hub configuration for the VPN network to just one time for initial design, AutoVPN reduces the deployment and configuration complexity and risks associated with these changes. AutoVPN enables the automatic acceptance of permissible spokes with zero impact on existing connections. In aggregate, these capabilities reduce the risk of network and security downtime, ensuring business productivity and the delivery of company commitment and service-level agreements (SLAs).

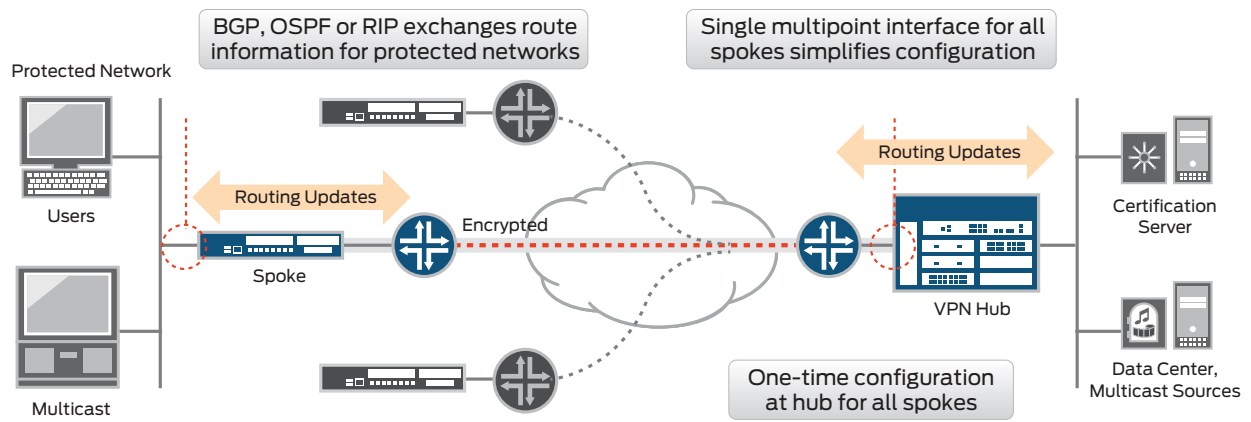


Figure 1: AutoVPN simplifies the planning, design, and provisioning process by enabling IT to configure the hub just once, even when new spokes are deployed at a later time.

Features	Benefits
Easy, no touch deployment	<ul style="list-style-type: none"> <li>Requires no hub configuration effort for adding new spokes</li> <li>Minimizes IT admin time to reduce costs for configuring VPN hub and spokes</li> <li>Simplifies design process as fewer components such as only routing and public key infrastructure (PKI) need to be considered</li> <li>Centralizes VPN management to ensure consistent policy</li> </ul>
Maximum network and security uptime	<ul style="list-style-type: none"> <li>Minimizes impact to network and security uptime</li> <li>Seamlessly adds new spokes without changes to the network</li> <li>Eliminates risk due to configuration issues to the existing network when adding spokes</li> </ul>

## Solution Components

AutoVPN consists of a number of key components:

- Dial-up style hub configuration:** There is a single, shared gateway entry for each and every spoke so that a single hub configuration applies to all spokes. As discussed, adding or removing a spoke or VPN tunnel does not require any additional hub configuration.
- Dynamic route-based VPN:** Routing protocols such as IBGP, RIP, and OSPF are used to manage the network. The network automatically advertises the spoke connections for VPN deployment.
- PKI certificate-based authentication:** Spokes are approved or denied based on revocation status with admission policy based on the spokes DN.

## Summary—Easy, No Touch Deployment Reduces VPN Time, Costs, and Risks

With the costs, complexity, and risks of a growing site-to-site VPN network, IT security teams require a solution with operational simplicity and scalability. AutoVPN offers easy, no touch deployment that ensures maximum network and security uptime for businesses of any size.

### Next Steps

For more information about the SRX Series Services Gateways and AutoVPN, please contact your Juniper Networks representative.

## About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at [www.juniper.net](http://www.juniper.net).

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