

Network design for Secured VPN using Windows server 2012

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Abstract

A VPN, as its name suggests, is just a virtual version of a secure, physical network—a web of computers linked together to share files and other resources. But VPNs connect to the outside world over the Internet, and they can serve to secure general Internet traffic in addition to corporate assets. In fact, the lion's share of modern VPNs are encrypted, so computers, devices, and other networks that connect to them do so via encrypted.

VPN Security and Design

Introduction

We can use VPN to connect securely to a remote network via the Internet. Most companies maintain VPNs so that employees can access files, applications, printers, and other resources on the office network without compromising security, but you can also set up your own VPN to safely access your secure home network while you're on the road. VPNs are particularly useful for connecting multiple networks together securely. For this reason, most businesses big and small rely on a VPN to share servers and other networked resources among multiple offices or stores across the globe. Even if you don't have a chain of offices to worry about, you can use the same trick to connect multiple home networks or other networks for personal use.

VPN Pros and Cons

VPN Security and Design

Pro – Virtual private networks offer a much higher level of secure communication when compared to other remote methods of communication.

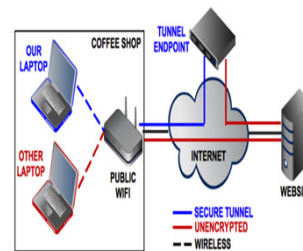
Con – The design and security implementation for a virtual private network can be complex. This means that it requires a professional with a high level of understanding for the best type of VPN configuration and some of the security issues that can occur when using a VPN.

VPN Cost

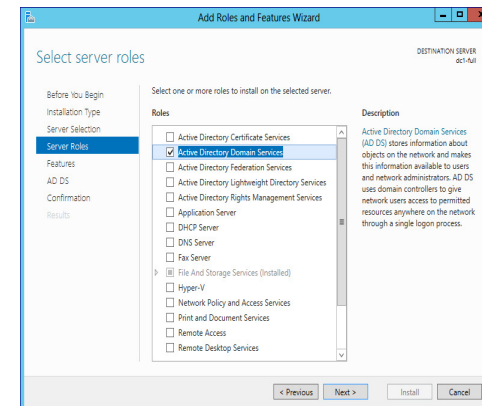
Pro – When it comes to operating a virtual private network within an organization the costs are significantly lower than other types of configurations.

Con – Reliability can become a factor depending upon the service provider that you choose. If the VPN utilizes the Internet it is important to work with a provider that can guarantee minimal downtime.

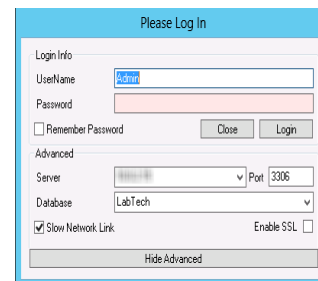
Diagram



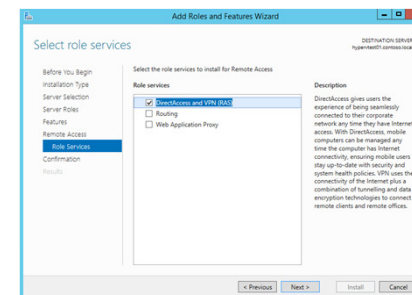
Windows 2012- Active Directory



Login control screen



Direct access and VPN services



Conclusion:

During our project we learned and used real time installation of server and client software, Active directory, DNS, DHCP, VPN and Group policy using in Windows environment.