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## 1.6 IPsec mCloud VPN

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### IPsec mCloud VPN

**Implementing an IPsec VPN within Micron21 mCloud offers a secure and efficient method for connecting your on-premises network with cloud-based virtual machine instances on Micron21 mCloud. This setup provides numerous benefits that enhance network security, flexibility, and performance, making it an ideal solution for modern businesses seeking robust and scalable networking options.**

**By utilising IPsec VPN, data transmitted between your network and mCloud instances is encrypted, ensuring confidentiality and integrity. This encryption protects sensitive information during transit and helps in complying with data protection regulations. Extending your on-premises VPN to the cloud becomes seamless with Micron21 mCloud VPN. This integration allows you to use your existing VPN solutions to access resources within mCloud, as well as your on-premises assets, creating a unified network environment.**

**Such seamless access improves operational efficiency and enables you to apply established security protocols across both environments without the need for separate configurations, ensuring consistent security policies throughout your network infrastructure.**

**Establishing hardware VPN connections is another significant benefit. By setting up a hardware VPN between your existing network and Micron21 mCloud, you can interact with your virtual machine instances as if they were within your local network. Hardware VPNs offer higher throughput and lower latency compared to software-based solutions, leading to improved performance. They provide stable connections that are less susceptible to software glitches or system overloads, and they are easily scalable to accommodate increasing data loads or additional resources without significant adjustments.**

**The M21 Direct Connect feature, utilising Layer 2 interconnect services, enables you to create a private, dedicated connection from your remote network to your mCloud Virtual Data Center (VDC). This setup allows you to extend your local network into the cloud seamlessly. By combining this**

**connection with a Micron21 Site-to-Site VPN, you establish an IPsec-encrypted connection, adding an extra layer of security to your data transmission. This private connection enhances security and performance, ensuring that your data remains protected while optimising network speed and reliability.**

**Our mCloud control panel provides a graphical interface for managing VPN connections, making configuration straightforward.**

**The mCloud control panel allows for quick deployment of VPN connections without requiring deep technical expertise, reducing deployment time and simplifying network management. It offers centralised management, enabling you to monitor and manage all network resources and VPN connections from a single dashboard, streamlining operations and improving efficiency.**