



# Oceus Networks® VPN

SECURE ACCESS AND SEAMLESS CONNECTIVITY FOR ANY MISSION

**OCEUS NETWORKS IS  
DESIGNATED AS AN  
NSA COMMERCIAL  
SOLUTIONS FOR  
CLASSIFIED (CSfC)  
PROGRAMS TRUSTED  
INTEGRATOR**

Oceus Networks® VPN is a complete, full featured, NIAP certified Android client that allows users, OEMs and system integrators to easily integrate VPN functionality into devices that need to establish encrypted tunnels of communication into critical business and enterprise resources.

Oceus Networks VPN allows Android devices to access enterprise resources remotely and securely by setting up an IPsec based VPN tunnel from Android end points to enterprise VPN gateways. It uses IKEv1/v2 as the key establishment protocol between end point and gateway. Oceus Networks VPN is an interoperable, standards based solution that does not require prior collaboration with VPN gateway vendors for end-to-end implementation.

**Oceus Networks® VPN is eligible to be used as a VPN Client component in a CSfC solution.**

# Key Benefits

- Oceus Networks VPN supports integration with Samsung® KNOX enterprise mobile security solution
- Oceus Networks VPN supports Android – Lollipop (5.1) and Marshmallow (6.0)
- Available as installable APKs for Samsung and other Android platforms
- Split tunneling allows for securing of only sensitive traffic for longer battery life
- Enterprise authentication methods – Hybrid RSA, EAP-MSCHAPv2, EAP-MD5, RSA Secured ID
- NIST-Approved Suite B Algorithms and FIPS 140-2 Level 1 cryptography meets Government security requirements

## VPNC (VPN Consortium) Certified Interoperable:

- No additional equipment to buy
- Compatible with existing and popular VPN gateways (ASA, Aruba, Cisco IOS, strongSwan)
- Maximum compatibility with the use of industry standard protocols

## Ease of Use:

- **Highly Customizable:** Connect securely to almost any commercial or open-source IPsec-based VPN server software or appliance
- **Multi-Purpose:** Leverage single IPsec core support for both IMS 4G and VPN enterprise connectivity
- **Intuitive Design:** Easy to use and user friendly optimized for minimal number of clicks

## Split-Tunnel Mode:

- Supports VPN and non-VPN traffic simultaneously
- Provides clean and smooth user experience
- Removes enterprise network as the bandwidth bottleneck

## NIST-Approved Suite B Algorithms and Optional FIPS 140-2 Level 1 Certified Cryptography.

## NIST validated FIPS 186-4 cryptographic implementations and CAVP certificates awarded.

## NIAP Certified

## Common Criteria Mode supported

## IPsec/IPsec Key Component:

- Oceus VPN when used with Oceus' Secure Mobile Platform's (SMP) VPN Manager provides the key components for a successful nested IPsec/IPsec dual DIT protection solution on COTS Samsung devices.
- More information about SMP may be found at [www.oceusnetworks.com](http://www.oceusnetworks.com)

## Built-In Error Detection and Logging Mechanism:

- Saves time and money
- Quick troubleshooting and resolution of issues or IT tickets

## Back-Up Server:

- Automatically attempts to connect to back-up VPN gateway when primary gateway fails

## Multilingual:

- OVPN client supports multiple languages: English, German, Spanish, French, Italian, Dutch, Portuguese, and Chinese and multiple screen layouts and resolutions to make sure it is easy to operate no matter the platform or the native spoken language.

FEATURE	SPECIFICATIONS
<b>Supported Mobile OS Platforms</b>	<ul style="list-style-type: none"> <li>• Android 5.1 Lollipop</li> <li>• Android 6.0 Marshmallow</li> </ul>
<b>Protocol Support</b>	<ul style="list-style-type: none"> <li>• Internet Key Exchange IKE v1 (Aggressive and Main Mode)</li> <li>• IKEv2/IPv4/IPv6/XUATH/NAT Traversal</li> </ul>
<b>Encryption/Authentication</b>	<ul style="list-style-type: none"> <li>• IPsec (ESP) using Data Encryption Standard (DES)/Triple DES (3DES) (56/168-bit) with MD5 or SHA</li> <li>• RSA, Diffie-Hellman (DH), Elliptic Curve and full support for NIST-Approved Suite B Cryptography</li> <li>• DH groups supported include 1,2,5,14,15,16,17,18,19,20, and 24</li> <li>• When in Common Criteria Mode DH Groups supported include 5,14,15,16,17,18,19,20, and 24</li> <li>• RSA SecurID, Hybrid RSA,EAP-MD5, EAP-MSCHAPv2</li> </ul>
<b>Connectivity Support</b>	<ul style="list-style-type: none"> <li>• Wi-Fi (802.11a/b/g/n)</li> <li>• GPRS</li> <li>• 3G/4G</li> <li>• Edge</li> <li>• UMTS</li> </ul>
<b>Digital Certificate and Advanced Key Management Support</b>	<ul style="list-style-type: none"> <li>• X.509 v3 certificate support</li> <li>• PKCS #12, Certificate provisioning support</li> <li>• (Digital certificates) Diffie-Hellman (DH) Groups 1,2, and 5 Perfect Forward Secrecy (PFS) Rekeying</li> </ul>
<b>ORDERING INFORMATION</b>	Part Number: OVI 901 1001 at <a href="http://www.oceusnetworks.com">www.oceusnetworks.com</a>

To learn more about our products and solutions, visit: [www.oceusnetworks.com](http://www.oceusnetworks.com)

Oceus Networks® VPN Client is built on top of Mocana's industry-leading NaboSec™ & NanoCrypto™ security modules to provide a complete VPN solution that easily integrates into Android OS.

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# Oceus Networks® VPN Functionality & Implementation

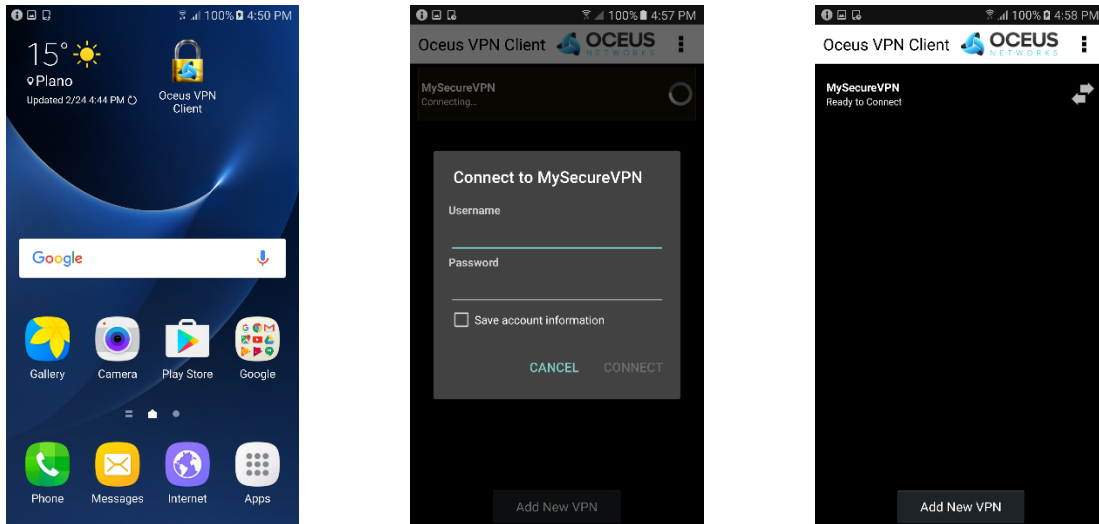


Figure 1: User Interface & Home Screen End Users will see a VPN application icon on their mobile device home screen.

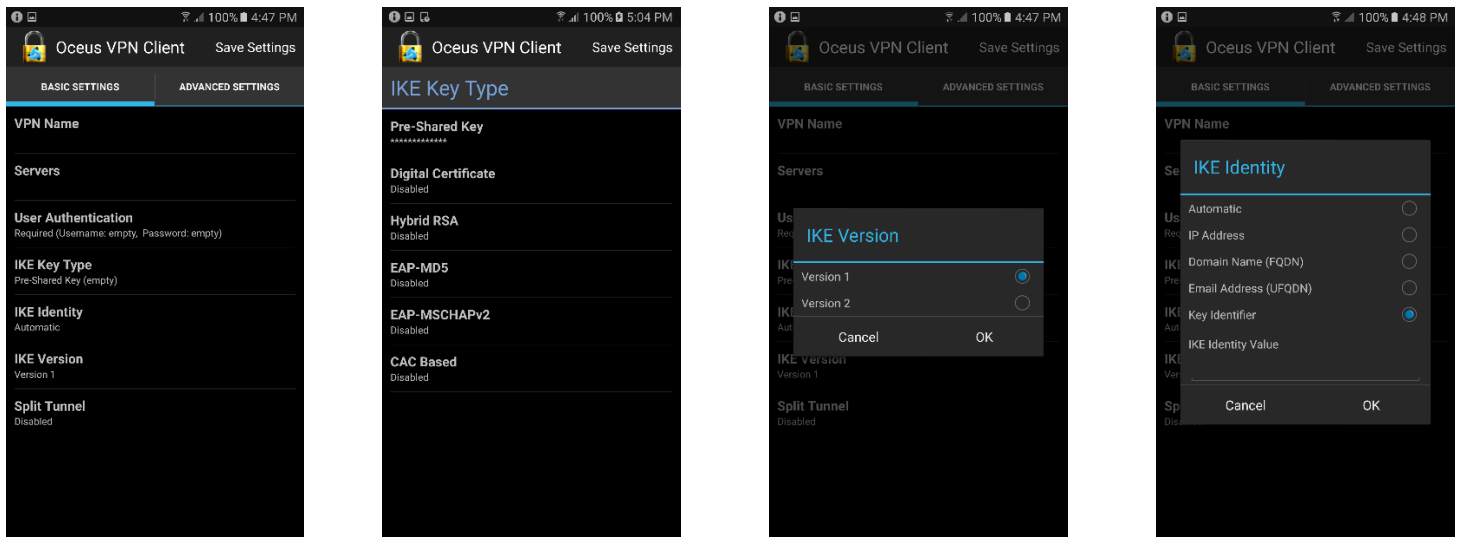


Figure 2: Administrators can choose their IKE version and their authentication method (certificates or pre share keys).



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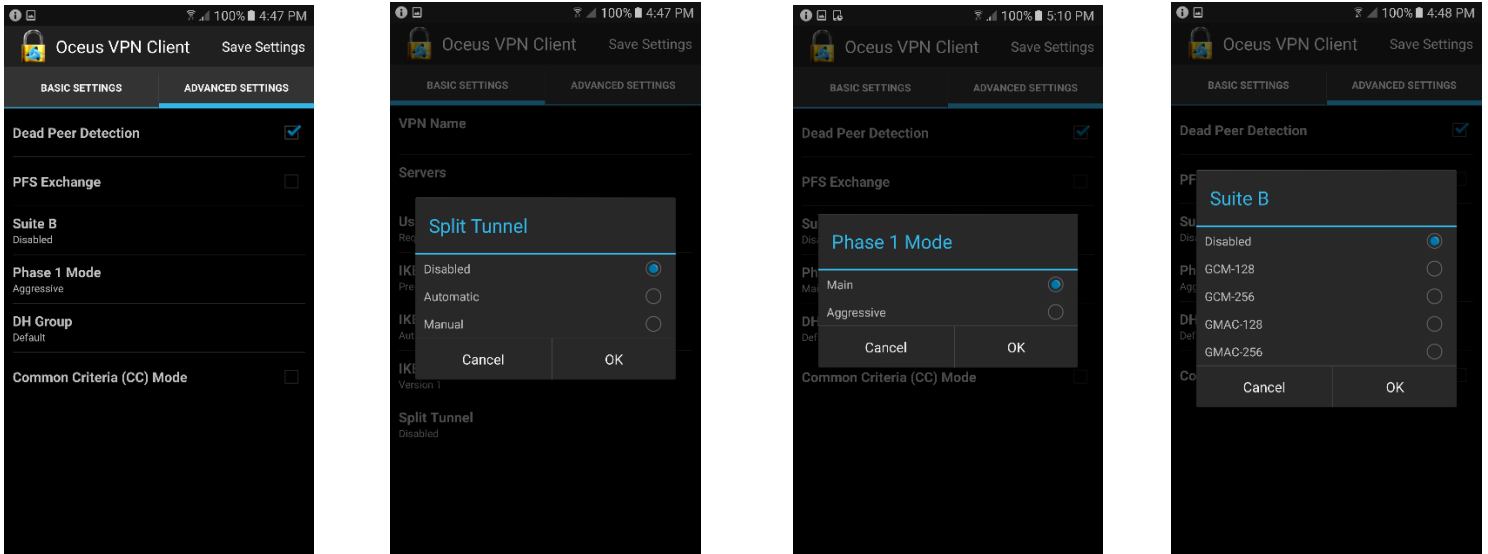


Figure 3: Oceus Networks VPN Client includes more advanced features, such as dead peer detection (DPD, split tunneling, and Common Criteria Mode). Many configuration options are available, such as a choice between main and aggressive modes and choice of Suite B algorithms.

