Quantum Secured VPN

World's first Quantum Secured VPN (Virtual Private Network)

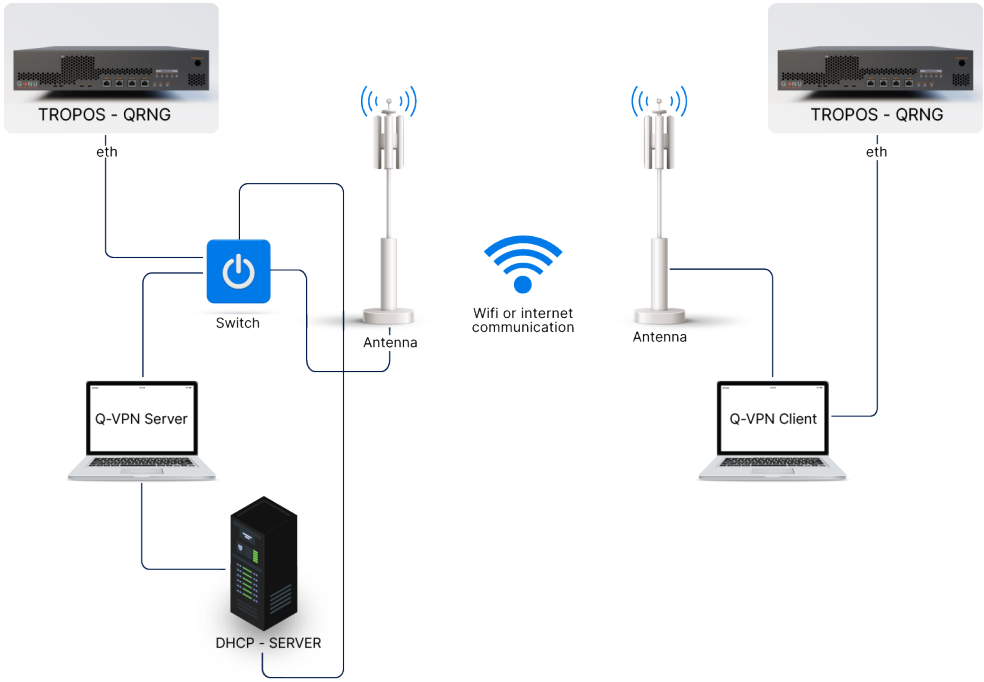
- *Strong Encryption*
- *Low Latency*
- *Utmost Privacy*

INTRODUCTION

LeveragingL quantum-secureL encryptionL algorithms,L QNuL LabsL hasL developedL aL 2uantum-securedL VPNL forL protectionL ofL dataL inL transit.L ThisL communicationL technologyLsecuresldataloverlun-trustedllinkslfromlthreatslofltodaylandlC1)1331R.

OrganizationsLwidelyLuseLVPNLtechnologyLtoLsecureLcommunicationsLoverLpublicL networkslprovidinglLinkLencryptionlforLvariousL SEwL TfEvsEtchLasLconnectinglremoteL sites,LconnectingLbranchesLtoLheadLofficeLorLsecuringLlinksLbetweenLprimaryLandL secondaryL dataL centres.L VPNL isL alsoL aL primaryL technologyL offeredL toL remoteL employeesLforLWorkLFromLHomeL(WFH)Lsetup.LWithLtheLwidespreadLuseLofLVPN,LitL becomesLextremelyLcriticalLthatLtheLsecurityLandLintegrityLisLmaintainedLforLtheL quantumLera.LTheL 2uantumLenabledLVPNLsolutionLfromLQNuLLabsLthusLisLtheLnextL generationL ofLtechnologyLthatLprovidesL 1ACW)f(lsecurityLforLallLcommunicationL needs.

PRODUCT ARCHITECTURE



PRODUCT FEATURES

QUANTUM ENHANCED ENCRYPTION

Communication is secured by the high-end security provided by the Quantum resistant cryptographic protocols.

HIGHLY UNPREDICTABLE AND STRONG KEYS

Strength of encryption is directly co-related to the strength of the keys. Qnu's Q-VPN solution ensures that the keys used are completely unpredictable and extremely strong leveraging the Tropos Quantum random numbers generator (QRNG) which is tightly integrated into the solution.

COMPLETE FORWARD SECURITY

The Q-VPN session keys are regularly re-keyed using strong, unique keys generated from Tropos QRNG, that further enhances security.

HIGHLY SCALABLE

This solution is built for high scalability and robustness in implementation.

MULTIPLE AUTHENTICATION PROTOCOLS

Authentication for clients available with certificates, username/passwords or any centralised directories; The Q-VPN solution allows for integration with all the industry standard authentication protocols.

SUPPORTS WORK FROM HOME

The solution offers quantum security for in-field personnel and work-from-home employees by deploying equally secure quantum resistant encryption algorithms that also secure the inter-office tunnels.

MINIMUM LATENCY

The solution ensures that the encryption induced latencies are virtually non-existent.

KEY BENEFITS

1. Advanced Quantum resistant encryption algorithms that provide forward secrecy.
2. Highly unpredictable keys used to encrypt data by using random numbers generated from quantum phenomenon.
3. Easy to use, easy to implement.

USE CASES

1. Securing data in-transit between any two locations
2. Securing ship to shore communication over un-trusted links
3. In campus quantum secure mobility (WiFi, LiFi, etc.)
4. Secured communication within buildings reducing risks associated with snooping or eavesdropping
5. Secured watch-tower communications (voice, video, etc.)

SPECIFICATIONS

COMPONENTS	DESCRIPTION
ON-PREM SERVER (VPN SERVER AND CLIENT)	
Operating System (OS)	Ubuntu 18 or higher ↑
Memory	16 GB RAM (Minimum for up to 25 users)
Storage	500 GB
Ethernet Port	Gigabit or higher ↑
TROPOS (QRNG)	
Dedicated hardware for generating quantum secure keys OR Qosmos	
QOSMOS SERVICE	
Active License (if used, instead of Tropos)	

Q→NU

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