



# Comparing *PEGASUS* and KVM Over IP Systems

This document compares the newly introduced PEGASUS system, employing our patent pending NIRA technology and authentication algorithm, with the KVM Over IP systems.

While both systems provide Remote Desktop Access and incorporate the use of Video Stream and Keyboard and Mouse commands to interact with the remotely accessed machine (here after referred to as target machine), this comparison highlights the major advantages incorporated into the PEGASUS system.



|                                   | KVM Over IP  | PEGASUS   |
|-----------------------------------|--|---|
| Maintaining Airgap                | No<br>The USB connection between the KVM and a target computer can be used to transfer files and/or device connections | Effectively Yes<br>The USB connection between PEGASUS and a target computer is strictly limited by hardware to keyboard and mouse commands; no other signal types may be transferred under any condition or configuration   |
| Authentication                    | Good usual authentication technique using username(s) and password(s)  | PEGASUS has multiple layers of authentications, most important is the session authentication (patent pending), which is double encrypted time limited and hardware locked authentication algorithm that is impossible to break even using a quantum computer. Without this authentication a session cannot be established to control or view the target machine |
| Hardware Security                 | Regular screws which is vulnerable to unauthorized physical access and allows tampering and booby trapping             | PEGASUS enclosure is secured using "KEY-REX" screws, the world's most secure fastener; this drops the possibility of unnoticed tampering of the device hardware to 6.4E-23% which is virtually impossible †   |
| Multiple Simultaneous Connections | Supported which make it vulnerable to hijacking a connection   | Only one user can connect to PEGASUS at a time and any change in the connection will be detected and based on pre-configured option, it will result in immediate session termination, user logout and/or shutting down PEGASUS completely   |

† calculation is based on effectiveness of 99.9998% per screw and the need to remove and reinstall 6 screws to get access to PEGASUS internal components. <https://www.brycefastener.com/key-rex-tamper-proof-screws-bolts.html>

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|                                   | KVM Over IP  | PEGASUS  |
|-----------------------------------|--|--|
| Target Machine Interchangeability | Interchangeable<br>Which makes the system vulnerable to booby trapping and shipment interception | PEGASUS will only work on the target machine it is assigned to. Target machine may be changed only by changing licenses (free of charge) and authentication algorithm through contacting WYLMAN customer support ‡ |
| Design Basis                      | Designed to be a remote desktop access device with good security features                        | Designed and produced from ground up as cybersecurity device that gives the most secured remote desktop access while maintaining the air-gapping of the target machine and any network(s) it is connected to       |

‡ PEGASUS licenses are protected using military-grade strong asymmetric encryption (RSA, 2048 bit key).