



Quick Start Guide

ThruLink™ IP Transmission Solution



Introduction

Welcome to the KBC Networks' Quick Start Guide for the ThruLink standard, standard plus, high capacity and high capacity plus. This document outlines a few useful tips and user interface configurations enabling a quick and easy setup in order to get you up and running. More detailed manuals and support can be found on our website (See Downloads).

Features

- Network environment agnostic. Minimum configuration required
- Can be PoE (7 – 20V) powered through WAN port (Standard capacity range only)
- AES, Blowfish, Camellia 128 – 256 bit packet encryption, 2048 bit RSA Token seeds, SHA256 hashed & packet and packet sequence numbered
- DHCP server on LAN side
- Hardened against DOS and known common networks attacks
- Level 2 & Level 3 capable device
- Enables usage of existing network services
- Complete standards-enabled web configuration interface
- Fully functional over NAT, firewalls, proxy & SOCKS5 protocols
- Autodetect LAN speed settings (10/100/1000 duplex -10/100 capable if standard capacity)
- Auto re-syncing/authentication after network failure, enabling a self-healing encryption tunnel network
- Variable MTU (max transmission unit) between devices
- Embedded 3G/4G capability (optional addition)

ThruLink™ SC,SP,HC & HP

- Variable MTU (maximum transmission unit) between devices
- Embedded 3G/4G option

Downloads

Full specifications, installation manual, features and additional detailed information can be found on the KBC Networks website:

- <http://www.kbcnetworks.com/thrulink>
- <http://www.kbcnetworks.com/downloads>

System Contents

Qty	Description
1	ThruLink unit; wall-mount or 1U chassis
1	Regional power supply*

*PoE injection supply unit optional

Note: A CAT5, 5e or 6 capable Ethernet cable is required if configuring via the LAN port.

Configuring ThruLink

Important: Plan your implementation before you start. Each ThruLink needs to have a “logical” name and chosen IP address subnet within a class that hasn’t already been used on the network (i.e. MASTERONE: 193.163.1.1, LIENTONE: 193.163.2.1 – gets assigned to device LAN port).

By default ThruLink has a DHCP server available on the LAN port. Enable your PC/Web browser device to be DHCP enabled and disable any wireless interfaces. The default IP for the LAN port is 193.163.1.1, with the DHCP server issuing range 193.163.1.5-10. If you don’t have DHCP capability, set your IP address to be within the 193.163.1.2-255 range (i.e. IP address: 193.163.1.10, Gateway: 193.163.1.1).

1. Connect an Ethernet patch cable between yourself and the ThruLink LAN port.
2. Connect your existing LAN Ethernet cable into the WAN port. If your LAN is issuing DHCP, ThruLink will configure the WAN port IP address automatically.
3. Power up the ThruLink device and after a short while (about 50 seconds), you should have a DHCP IP address and ready to configure.
4. Using a web browser go to address <http://193.163.1.1> (username: admin, password: admin)



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ThruLink

- Click on GENERAL->Configuration and give the ThruLink device a name (i.e. MASTERONE – all names will be saved uppercase even if typed out in lower). Next you have the option to change the default password (please make use of a password that you will remember. If forgotten, only a factory default firmware re- flash is available.), change the default port 80 for http or enable https with a different port than the default 443. As port 80 normally wouldn't be forwarded onto a ThruLink device, you don't have to set or change the defaults.
- Set the ThruLink device timezone. The default NTP server (Network Time Protocol) can be changed if desired but the defaults here are suitable.
- Click on NETWORK->Interfaces and change the WAN setting to Static if this device is the server. Use an unused IP address that is available on your existing network (i.e. IPv4: 192.168.1.33, subnet: 255.255.255.0, gateway: 192.168.1.1). **Note:** The reason for the static address on the server is to allow encrypted traffic to be forwarded via the firewall/router. A static address is not required on any client device.
- Specify a unique subnet for the LAN address (i.e. 193.163.1.1 or 178.143.1.1 – the remainder of devices must follow either 193.163.x.x or 178.143.x.x on their LAN ports). **Note:** Once the LAN address has been changed, the DHCP range will automatically adjust to the same subnet. Once changes have been saved, you will be asked to reboot the device. Remember to change the http request to match the new subnet address i.e. http://193.163.2.1 (where 193.163.2.1 has been assigned to the LAN address) once the device has rebooted.

The screenshot shows the 'WAN Interface' configuration page. The 'WAN Interface' is set to 'DHCP - Connection Type' with a note: 'In DHCP mode an IP address will automatically be assigned by the network.' The 'LAN Interface' is set to 'Static Connection Type'. The LAN IPv4 address is 193.163.4.1 and the subnet mask is 255.255.255.0. The 'DHCP on LAN' is set to 'Enable'. The LAN IPv4 range from address is 193.163.4.5 and the IPv4 range to address is 193.163.4.10. A 'Save Update' button is visible at the bottom.

- Click on NETWORK->Encryption tunnel and select the type of ThruLink device required (select Client if you wish to authenticate against and already configured Server, else configure the interface for type Server). **Important:** If configuring a server remember to forward all traffic on "encryption port" (i.e. 32000) to this device on your firewall/router. When configuring a client device ensure you specify the external IP address of the server, also ensure you specify the same preshared key, encryption and port used throughout the encryption tunnel. **Remember to select the enabled toggle.**

The screenshot shows the 'Encryption tunnel' configuration page. The 'Enabled' toggle is checked. The 'Type' is set to 'Client'. The 'Preshared key' is PDKPDKPK. The 'Remote hostname' is thrlink01. The 'Remote connection' is 212.206.200.200. The 'Encryption' is set to 'AES-128 (128 bit)'. The 'Mode' is set to 'route'. The 'Port' is 32000. A 'Save Update' button is visible at the bottom.



- If everything has been configured correctly, you should now be able to see the status of the encryption tunnel by clicking STATUS->System

The screenshot shows the 'System' status page. The 'System Date' is Mon Jul 28 14:23:50 BST 2014. The 'Uptime' is 00:30. The 'Last config change' is Mon Jul 28 14:23:46 BST 2014. The 'Connection status' is 'Enabled and actively connected to THRLINK01'.

Further information is available by clicking STATUS->Tunnel information.

You will now be able to communicate with devices connected on any ThruLink device. i.e. http://193.163.1.1 (Server http GUI portal), rstp://193.163.5.123 (RSTP enable camera), \\193.163.22.15 (DHCP enabled network computer at a remote location).

Need Help?

Visit our website <http://www.kbcnetworks.com> or contact your nearest KBC office or dealer:

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