



WYRESTORM NETWORKHD™ 100 & 200 SERIES SWITCH RECOMMENDATIONS GUIDE

NetworkHD 100 and 200 series systems have very different switch requirements to NHD-IP series products. Please read the following guide carefully to ensure the best possible installation experience of these systems.

WyreStorm NetworkHD is built to run over a standard network infrastructure, however the quality of this infrastructure is critical. We have tested many brands of switches all of which perform well in small system configurations of around 10 Encoders and Decoders. However, for larger installations, WyreStorm highly recommends using CISCO SG500 or CATALYST series switches.

NetworkHD requires a Layer 2 managed switch with support for Multicast & IGMP snooping enabled. Do not connect any encoders to the switch until this has been configured. For switch configuration guides for these switches please see the 'downloads' section of any NetworkHD device at wyrestorm.com.

Most NetworkHD installations use POE (Power Over Ethernet) to power the RX & TX units. NetworkHD 100 & 200 components are Class 0 rated POE devices meaning that they can require up to 15.4W of power each.

In order to calculate the number of devices that can be used on a switch please divide the total POE power capability of the switch by 15.4 and round down. For Example the CISCO SG300-52P with a POE power output of 375W: $375 / 15.4 = 24.35$. Therefore 24 devices can be powered by this switch.

In order to have all ports powered by POE on a switch an MP series should be used in this example an SG300-52MP which provides 740W. $740 / 15.4 = 48$. Therefore 48 devices can be powered by this switch.

To ensure the best possible power supply to the switch – WyreStorm highly recommends a UPS be installed in all installation scenarios.

To ensure the best possible experience when installing NetworkHD, WyreStorm recommends the following switches and connectivity for the following size of systems.

!Please Note! Numbers in brackets () are the maximum number of POE devices supported by the switch. Using more than the recommended number of devices on POE will lead to erratic behaviour.

Single switch Installs

Cisco

SG300-10	(0)	SG300-10MP	(8)	SG300-28P	(11)
SG300-10P	(4)	SG300-10MPP	(8)	SG300-28PP	(11)
SG300-10PP	(4)	SG300-28	(0)	SG300-28MP	(24)

SG300-52	(0)	SG500-28	(0)	SG500-52	(0)
SG300-52P	(24)	SG500-28P	(12)	SG500-52P	(24)
SG300-52MP	(48)	SG500-28MP	(24)	SG500-52MP	(48)

Dual switch Installs with less than 20 Encoders per switch

* 1Gigabit SFP Fibre connections recommended between switches

Cisco

SG500-28	(0)	SG500-28MP	(24)	SG500-52P	(24)
SG500-28P	(12)	SG500-52	(0)	SG500-52MP	(48)

Multi switch installations with up to 40 encoders

*Requires dual 1Gigabit SFP Fibre connections between switches

Cisco

SG500-28	(0)	2960S-48FPD-L	(48)	2960S-48LPS-L	(24)
SG500-28P	(12)	2960S-48LPD-L	(24)	2960S-48TS-L	(0)
SG500-28MP	(24)	2960S-24PD-L	(24)	2960S-24TS-L	(0)
SG500-52	(0)	2960S-48TD-L	(0)	2960S-48TS-S	(0)
SG500-52P	(24)	2960S-24TD-L	(0)	2960S-24TS-S	(0)
SG500-52MP	(48)	2960S-48FPS-L	(28)		

Multi switch installations with 40+ encoders up to 200

*Requires 1 or more 10Gigabit SFP Fibre connections between switches

Cisco

SG500X-24	(0)	SG500X-48	(0)	SG500XG-8F8T(0)
SG500X-24P	(12)	SG500X-48P	(24)	
SG500X-24MPP(24)		SG500X-48MP	(48)	

!Please Note! For systems with more than 200 encoders, please contact WyreStorm technical support for assistance

You will find guides to how to configure these switches at wyrestorm.com in the downloads section of each NetworkHD product.