

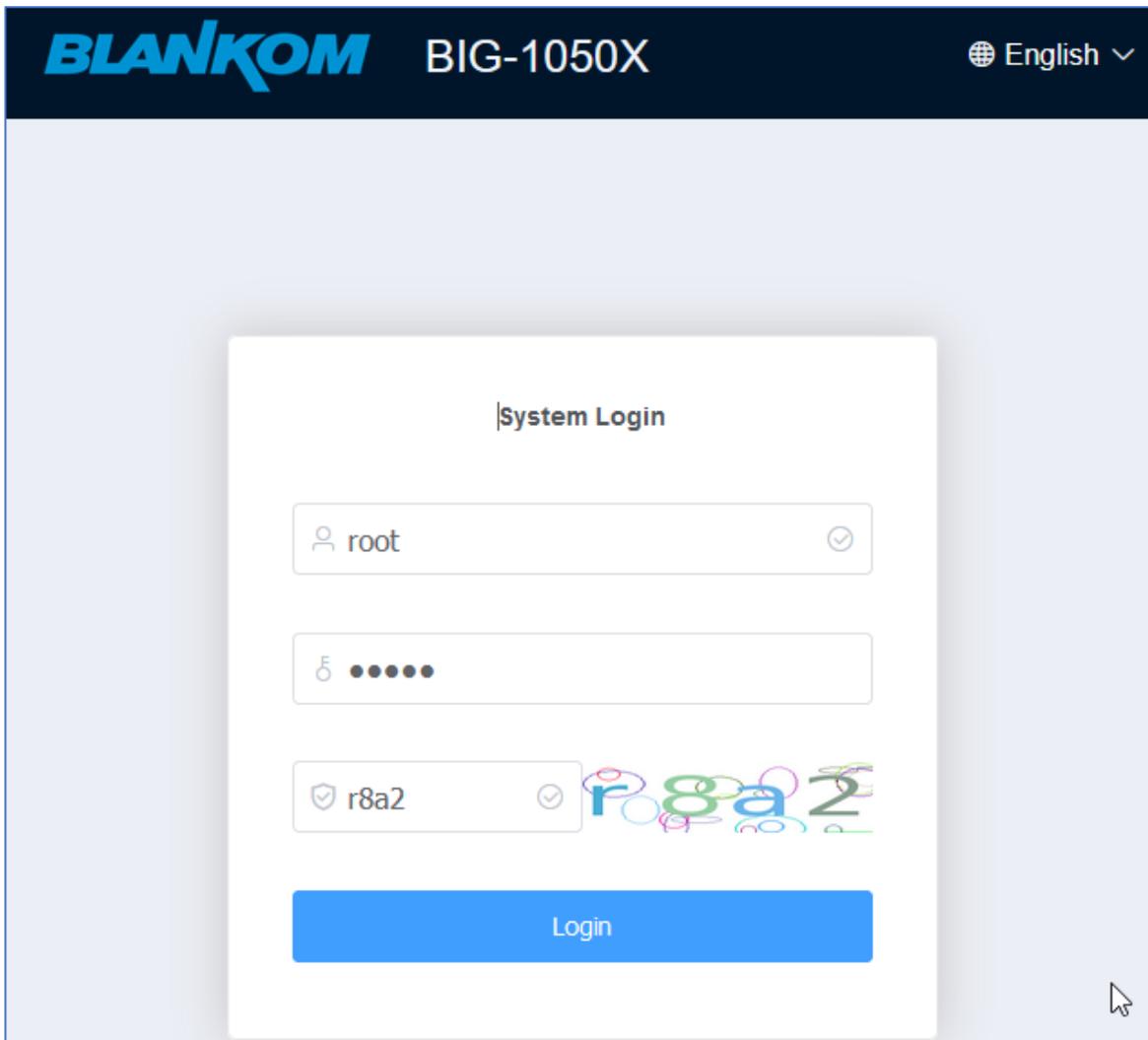


Connect all Network-cables see-> Rear panel, Consider the numbers: Eth1 = network 1...

Connect both PSU-cable...

Switch on after connected. The LCD should show the NMS-IP Address to be used for Web-management.

We recommend to use the first eth1 as Management connection which default IP address is 192.168.1.56:
Login admin/admin or root/12345 if you know what you are doing 😊



The dashboard displays the following information:

- Hardware Info:** Four circular gauges showing CPU Usage (20%), CPU Temp (41°C), Memory Usage (10%), and Disk Usage (3%).
- System Info:**
 - Device Name: BIG-1050X
 - Serial Number: 56F74C48-87F6-36AC-A2A2-91A01597FCF2
 - Version Number: 2.1.1.5
 - Run Time: 0 Days 0 Hour 7 Minutes 54 Second
 - System Time: 2024/02/09 11:40:06
 - License: Empower Normal
- Netcard Status:**
 - Total Rx Speed: 95.84Mb/s
 - Total Tx Speed: 23.97Mb/s
 - Table with columns: Status, Name, Bootproto, IP, Linked Speed, Rx Speed, Tx Speed, Rx Error, Tx Error, Gateway, MAC.

	Status	Name	Bootproto	IP	Linked Speed	Rx Speed	Tx Speed	Rx Error	Tx Error	Gateway	MAC
1	Linked	eth1	none	192.168.1.56	1000Mb/s	34.80 mb/s	17.28 mb/s	0	0	192.168.1.1	28:b1:33:01:d5:b2
2	Linked	eth2	none	192.168.10.56	1000Mb/s	61.04 mb/s	0.00 mb/s	0	0	192.168.10.1	28:b1:33:01:d5:b3
3	Linked	eth3	none	192.168.20.56	1000Mb/s	0.00 mb/s	4.11 mb/s	0	0	192.168.20.1	28:b1:33:01:d5:b4
4	Linked	eth4	none	192.168.30.56	1000Mb/s	0.00 mb/s	2.58 mb/s	0	0	192.168.30.1	28:b1:33:01:d5:b5
5	Linked	eth5	none	192.168.40.56	1000Mb/s	0.00 mb/s	0.00 mb/s	0	0	192.168.40.1	28:b1:33:01:d5:b6
6	Linked	eth6	none	192.168.50.56	1000Mb/s	0.00 mb/s	0.00 mb/s	0	0	192.168.50.1	28:b1:33:01:d5:b7

Setup your network:

The Netcard configuration page shows a table with the following data:

	Name	Status	Bootproto	Linked Speed	IP	Gateway	Netmask	MAC	
1	eth1	Linked	none	1000Mb/s	192.168.1.56	192.168.1.1	255.255.255.0	28:b1:33:01:d5:b2	Edit
2	eth2	Linked	none	1000Mb/s	192.168.10.56	192.168.10.1	255.255.255.0	28:b1:33:01:d5:b3	Edit
3	eth3	Linked	none	1000Mb/s	192.168.20.56	192.168.20.1	255.255.255.0	28:b1:33:01:d5:b4	Edit
4	eth4	Linked	none	1000Mb/s	192.168.30.56	192.168.30.1	255.255.255.0	28:b1:33:01:d5:b5	Edit
5	eth5	Linked	none	1000Mb/s	192.168.40.56	192.168.40.1	255.255.255.0	28:b1:33:01:d5:b6	Edit
6	eth6	Linked	none	1000Mb/s	192.168.50.56	192.168.50.1	255.255.255.0	28:b1:33:01:d5:b7	Edit

Check whether your IP addresses are OK and matching your environment – otherwise change them:

Note: for simply only streaming out UDP/RTP multicasts, the IP address of the network-card eth1-6 are doesn't matter as long as it is in a valid range. But: If you want to I/O Unicast streams like pull mode in SRT, arrange them accordingly so that source and destination can 'see each other'. If you are transmitting via a router, make sure a proper port-forwarding has been arranged.

Example:

We should configure the IP addresses and NM/GW of eth2-eth6 to free addresses according to the connected router:

In this case we have connected all eth's to the same network and HP-2530 48G Network switch handled by the router:

LAN/DHCP Settings

LAN/DHCP Settings Table

Interface/Circuit ID	DHCP Mode:	Range/Relay Server
<input type="checkbox"/> VLAN1	IPv4:server IPv6:server	192.168.1.89-192.168.1.149 fec0:1::1-fec0:1::fe

To get free addresses of this common GbE Switch/Router we need to check occupied IP addresses and act accordingly:

DHCP Bindings

DHCP Bindings Table

Host Name	IPv4/IPv6 Address	MAC Address	Lease Expires	Type
MSI-The-Machine	192.168.1.97	d8:bb:c1:22:25:ca	0 days, 2 hours, 15 min...	Dynamic
ireni-filebox	192.168.1.144	00:19:99:d5:d3:1f	0 days, 2 hours, 23 min...	Dynamic

IPv4 ARP Table on LAN (3 active devices)

Hostname	IPv4 Address	MAC Address	Type	Interface
-	192.168.1.56	28:b1:33:01:d5:b2	Static	VLAN1
MSI-The-Machine	192.168.1.97	d8:bb:c1:22:25:ca	Dynamic	VLAN1
-	192.168.1.178	48:d7:ff:01:55:74	Static	VLAN1

If a IGMP Proxy can be used in your router, do it.

IGMP Proxy

Enable IGMP Proxy

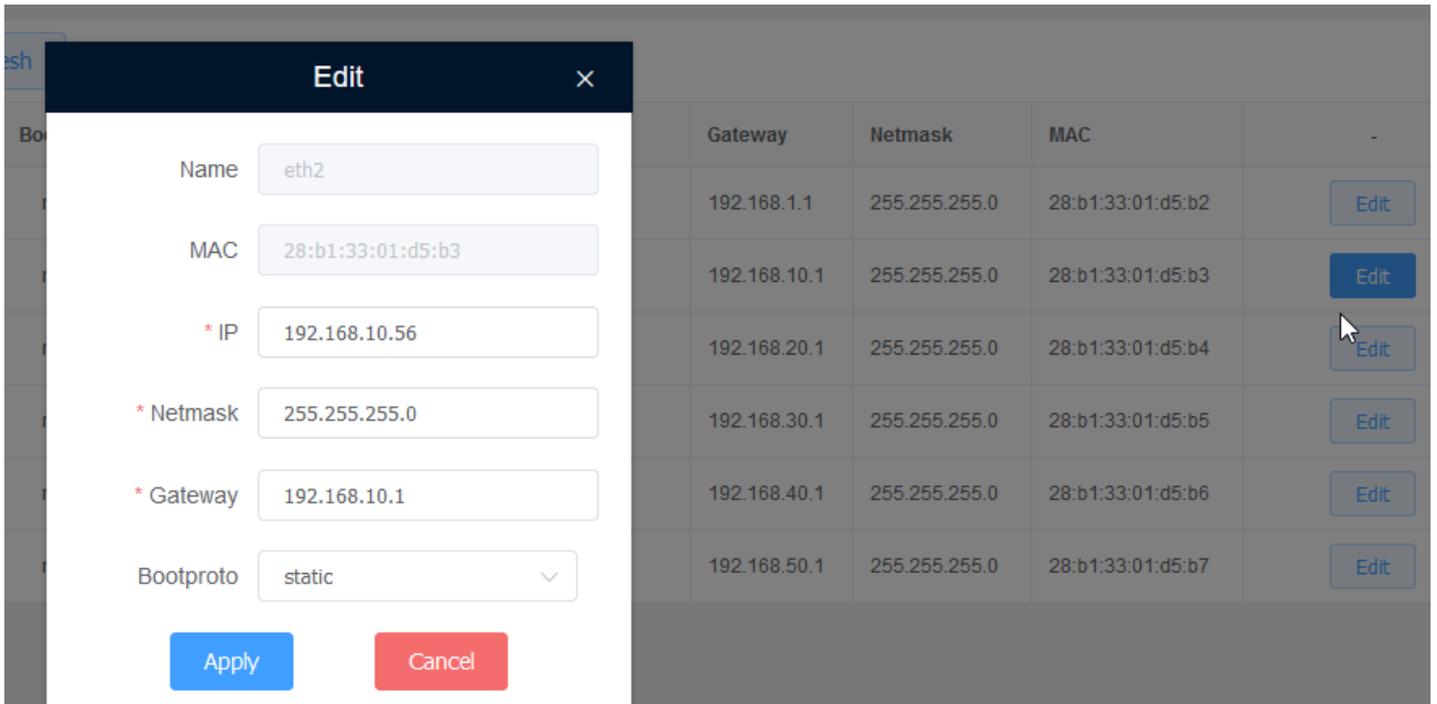
Upstream Interface: WAN-Auto Fixed Interface

WAN1 WAN2 VLAN1

Downstream Interface: WAN VLAN1

So, we have just the eth1 in its routing actually.

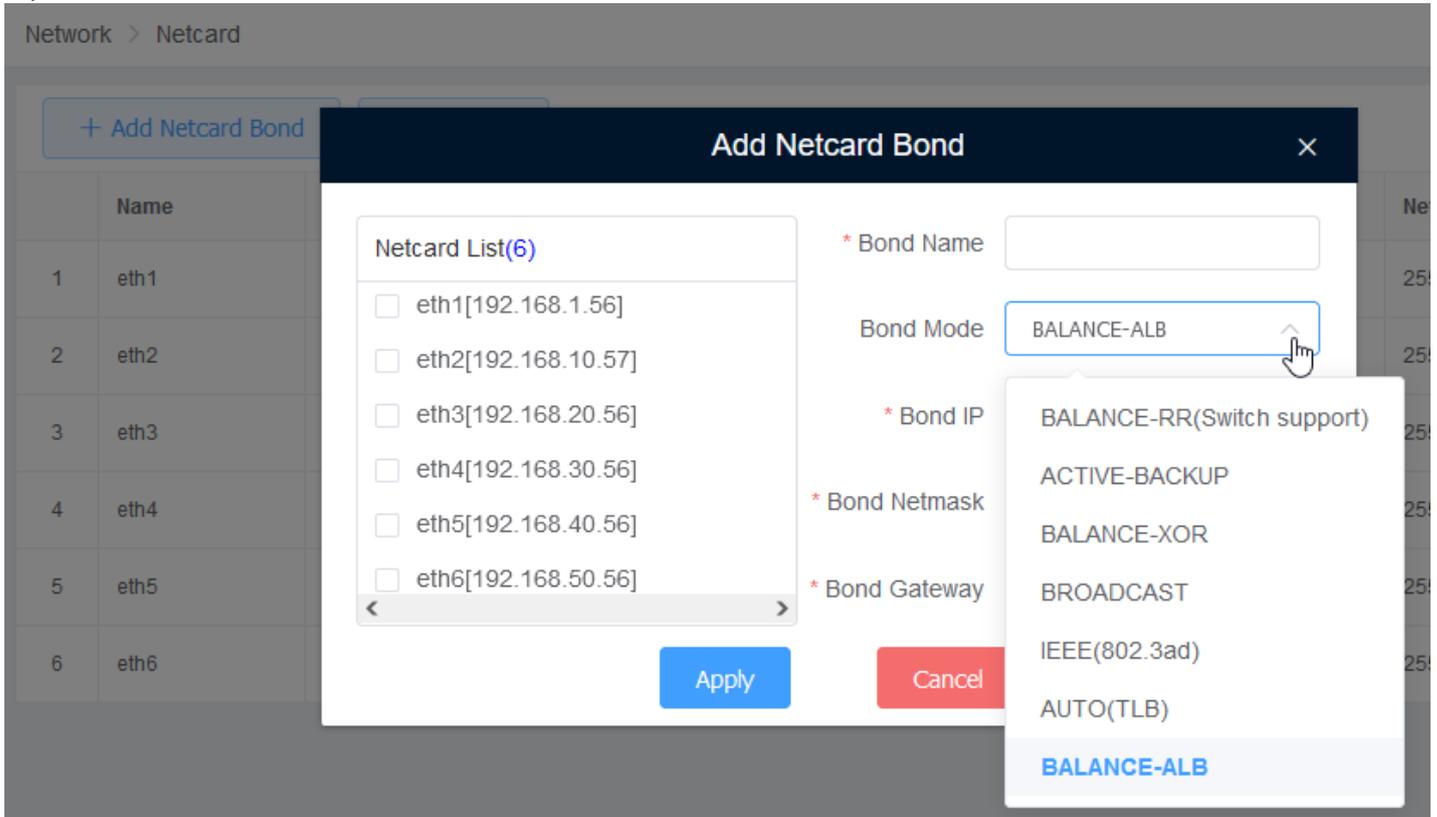
If needed, change the eth2-6 to assign new IP addresses in the network. You need to use different networks IP-ranges for all connected eth-ports and you should change them accordingly.



To avoid collision's, the eth1-6 must have different IP ranges like defaults pre-set.

If you use only 2 Ports like eth1+2, the total streaming capacity of max 50 Streams in and out would be sufficient: A HD stream will have max. 15mb/s: x 50 = 750Mb/s in total. Of course, UHS's will double that, so you need to use more than 1 port at all.

If you need to bond them:



Ticked 5+6: give it a name (5-6) and a gateway:

We get:

3	eth3	Linked	none	1000Mb/s	192.168.20.56	192.168.20.1	255.255.255.0	28:b1:33:01:d5:b4	Edit
4	eth4	Linked	none	1000Mb/s	192.168.30.56	192.168.30.1	255.255.255.0	28:b1:33:01:d5:b5	Edit
5	5-6	Linked	none	2000Mb/s	192.168.11.11	192.168.1.1	255.255.255.0		Edit Delete
6	eth5	Linked	none	1000Mb/s				28:b1:33:01:d5:b6	
7	eth6	Linked	none	1000Mb/s				28:b1:33:01:d5:b7	

See the max. useable speed in this bond is double.

The internal route will be updated accordingly automatically:

BLANKOM BIG-1050X

Network > Route

[+ Add Route](#) [+ Modify Default Route](#) [Refresh](#)

Route Info	
1	169.254.0.0/16 dev eth1 scope link metric 1002
2	169.254.0.0/16 dev eth2 scope link metric 1003
3	169.254.0.0/16 dev eth3 scope link metric 1004
4	169.254.0.0/16 dev eth4 scope link metric 1005
5	169.254.0.0/16 dev 5-6 scope link metric 1009
6	192.168.1.0/24 dev eth1 proto kernel scope link src 192.168.1.56
7	192.168.10.0/24 dev eth2 proto kernel scope link src 192.168.10.57
8	192.168.11.0/24 dev 5-6 proto kernel scope link src 192.168.11.11
9	192.168.20.0/24 dev eth3 proto kernel scope link src 192.168.20.56
10	192.168.30.0/24 dev eth4 proto kernel scope link src 192.168.30.56

Another nice tool:

BIG-1050X

- [Home](#)
- [TS/IP](#)
- [Protocol Convert](#)
- [Server](#)
- [Network](#)
- [Netcard](#)
- [Route](#)
- [DNS](#)
- [Detection](#)
- [System](#)

Network > Detection

Netcard Auto Route Switch OFF Ping Number 5

Ping Address IP 192.168.11.11 Start

PING 192.168.11.11 (192.168.11.11) 56(84) bytes of data.

64 bytes from 192.168.11.11: icmp_seq=1 ttl=64 time=0.045 ms

64 bytes from 192.168.11.11: icmp_seq=2 ttl=64 time=0.056 ms

64 bytes from 192.168.11.11: icmp_seq=3 ttl=64 time=0.057 ms

64 bytes from 192.168.11.11: icmp_seq=4 ttl=64 time=0.057 ms

64 bytes from 192.168.11.11: icmp_seq=5 ttl=64 time=0.053 ms

--- 192.168.11.11 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 1999ms

rtt min/avg/max/mdev = 0.045/0.053/0.057/0.009 ms

Coming to the streams...

TS/IP > IP Input

Count(14 / 50)
+ Add
+ Adds By IP
+ Adds By Port
Advanced Setting
Filter
IP:Port

	<input type="checkbox"/>	Status	Channel	Run Time	URL	Netcard	Valid/Total Rate(Mbps)	Min/Max Rate(Mbps)	CC Error
1	<input type="checkbox"/>	Warning	1000	00:06:30	udp://227.7.7.7:10007	eth1[192.168.156]	17.097 / 17.097	17.055 / 17.140	3
2	<input type="checkbox"/>	Warning	1001	00:06:29	udp://226.1.1.111:10111	eth2[192.168.10.57]	30.829 / 33.784	33.753 / 33.826	25
3	<input type="checkbox"/>	UnLock	1002	00:57:09	udp://225.2.2.1:10221	eth1[192.168.156]	0.000 / 0.000	0.000 / 0.000	0
4	<input type="checkbox"/>	UnLock	1003	00:09:33	udp://226.2.2.2:10222	eth2[192.168.10.57]	0.000 / 0.000	0.000 / 0.000	0
5	<input type="checkbox"/>	UnLock	1004	00:09:34	udp://228.1.1.1:10999	eth2[192.168.10.57]	0.000 / 0.000	0.000 / 0.000	0
6	<input type="checkbox"/>	Warning	1005	00:57:08	udp://227.7.7.2:10002	eth1[192.168.156]	3.780 / 3.780	1.232 / 7.317	14
7	<input type="checkbox"/>	Warning	1006	00:06:31	rtp://227.7.7.4:10004	eth2[192.168.10.57]	11.423 / 11.423	1.463 / 12.718	5
8	<input type="checkbox"/>	UnLock	1007	00:00:00	udp://224.2.2.1:3000	eth2[192.168.10.57]	0.000 / 0.000	0.000 / 0.000	0