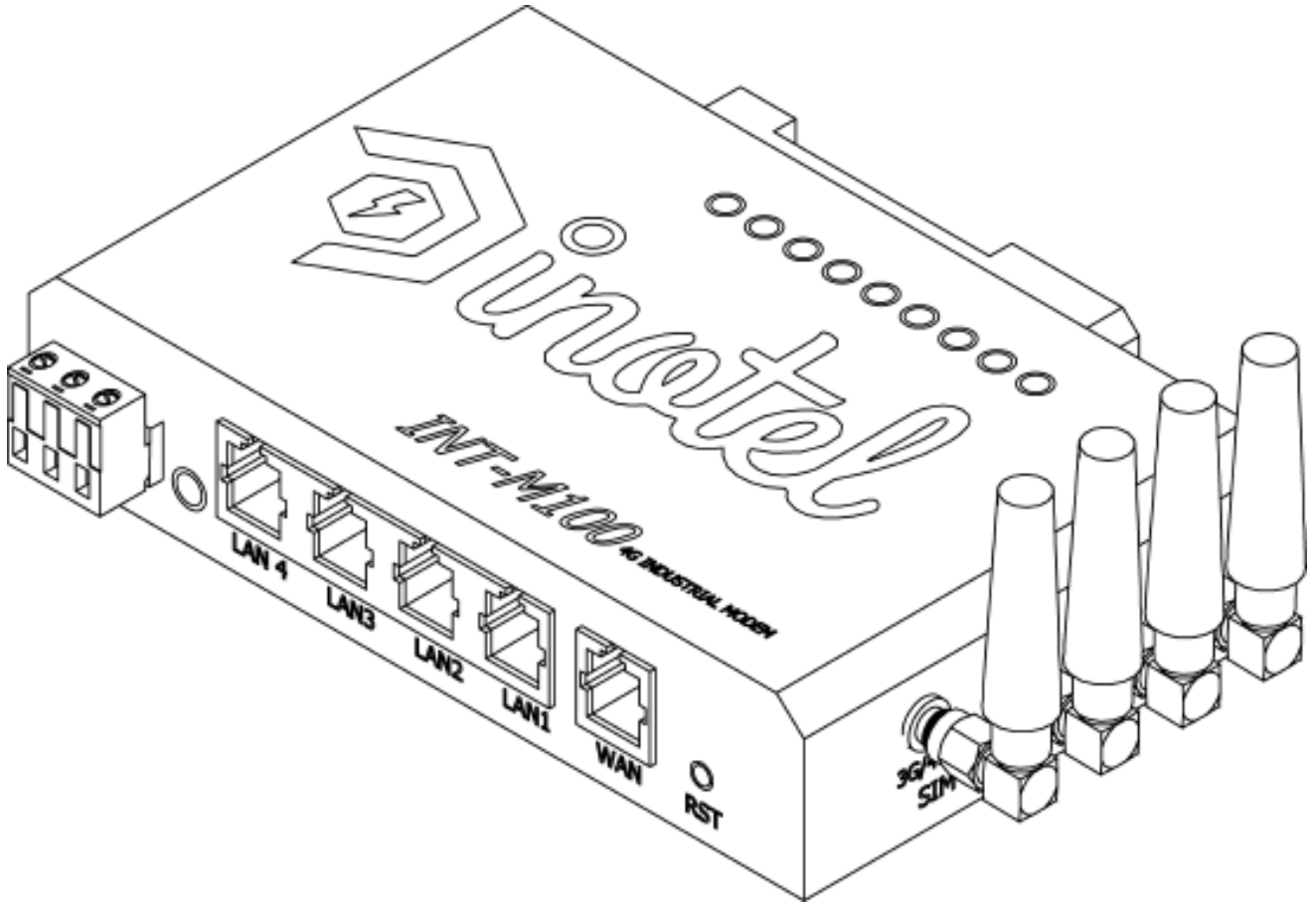




INT-M100 4G MODEM USER MANUAL



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1. Product Information

Inotel INT-M100 Modem is a communication device that enables devices with Ethernet ports and wireless features in the field to communicate with each other and transfer data to external systems via 4G and wired communication line.

1.1 Product Specifications

In terms of physical properties, the product has

- 15-36 VDC operating range,
- IP40 protection class and operating range between -20C and +60C,
- A total of 5 10/100 Ethernet ports, which can be adjusted as desired and preset as 4 LAN + 1 WAN,
- 802.11 b/g/n and WEP/WPA-PSK/WPA2-PSK supported Wi-Fi feature and 2 Wi-Fi antenna outputs,
- Also, a GSM module with 1 SIM card input and 2 antenna outputs that can operate in 850/900/1900/2100 MHz bands in 4G/3G/2G networks.

In terms of software features, the product has

- PPP, PPPoE, DHCP and Static external connection support,
- TCP, UDP, HTTP/HTTPS, ICMP, NAT, DMZ, DNS/DDNS, ARP and QoS general network protocols,
- Also, OpenVPN and IPsec tunnel support.

1.2 Product Dimensions

INT-M100 4G Modem has dimensions of 142 x 87 x 32 mm in terms of width, length and depth and a DIN rail for mounting.

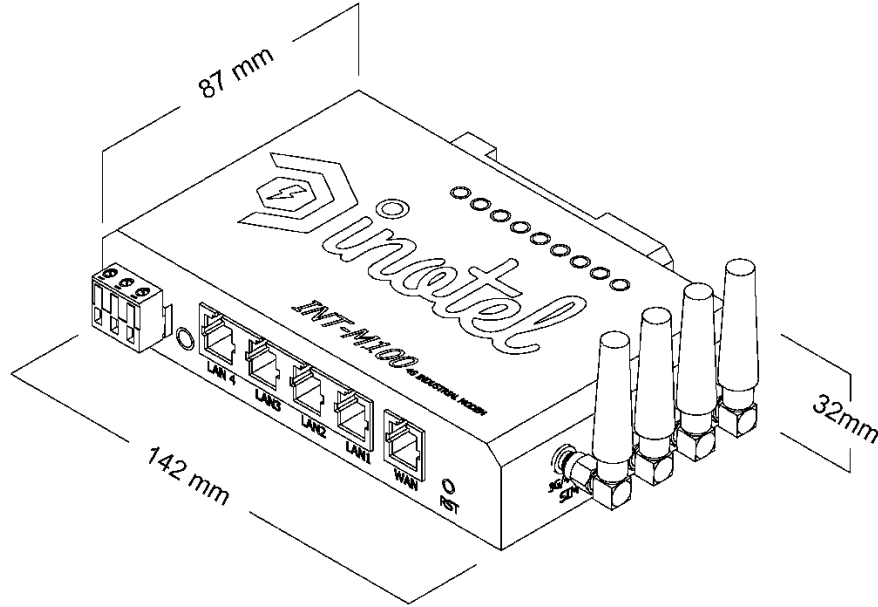


Figure 1 – Width, Length and Depth Measurements of the Modem

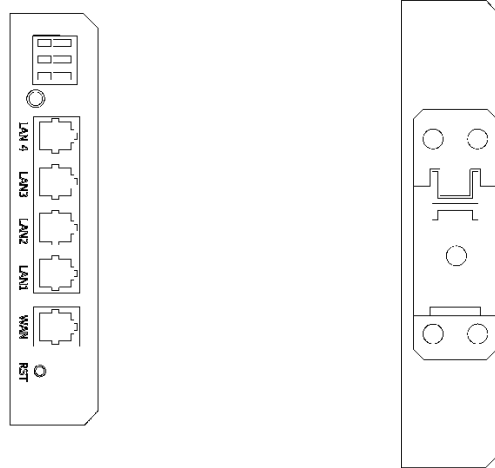


Figure 2 – Front and Back View of the Modem

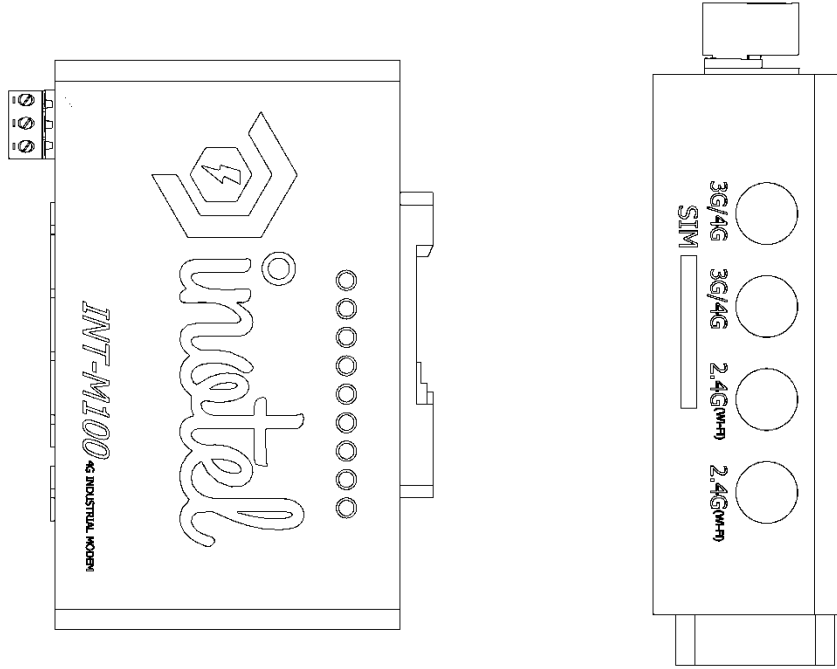


Figure 3 –Top and Side View of the Modem

1.3 Product Contents

The box contents of the product include 1 3G/4G antenna with male SMA input, 1 3 pin 5.08mm female terminal and optionally 1 220v-12v AC-DC converter.



Figure 4 – Product Contents

2. System Settings

2.1 System Status Information

2.1.1 Overview

This section includes the modem's model code, software version, operating time, active internet connection unit and general system statistics.

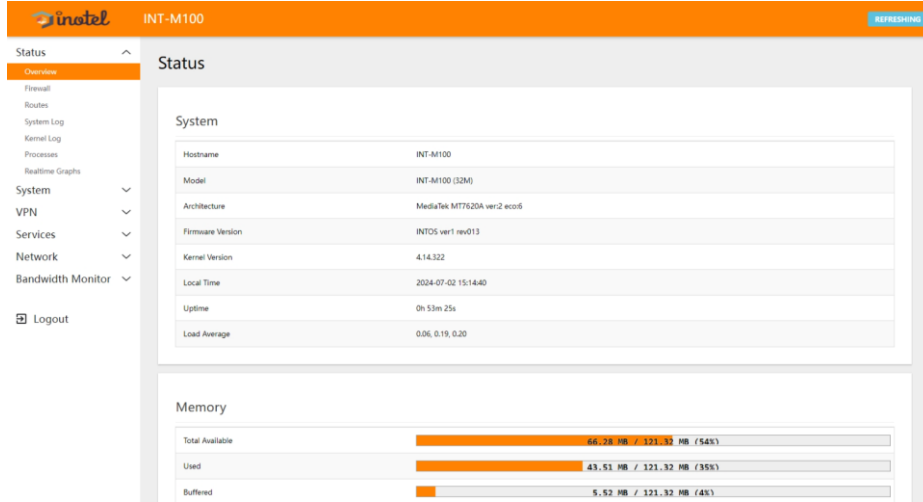


Figure 5 – Overview Page View (1/2)

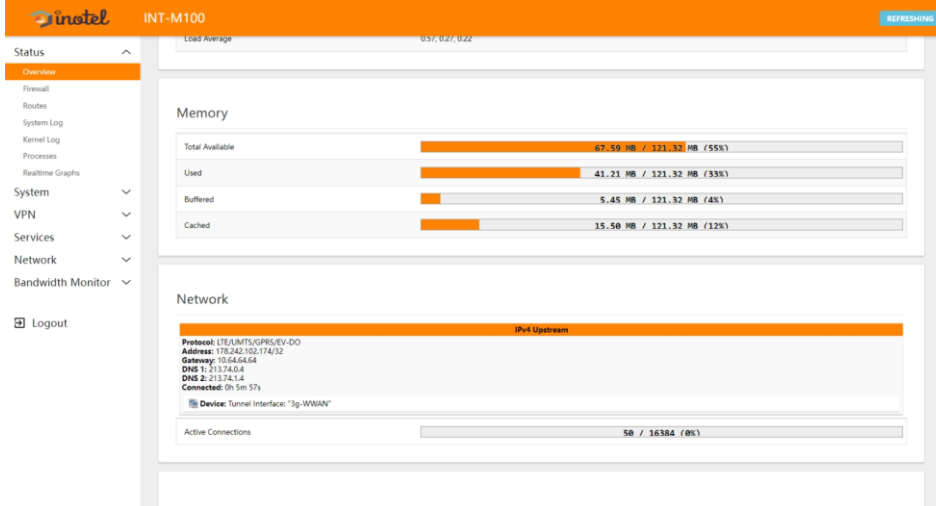
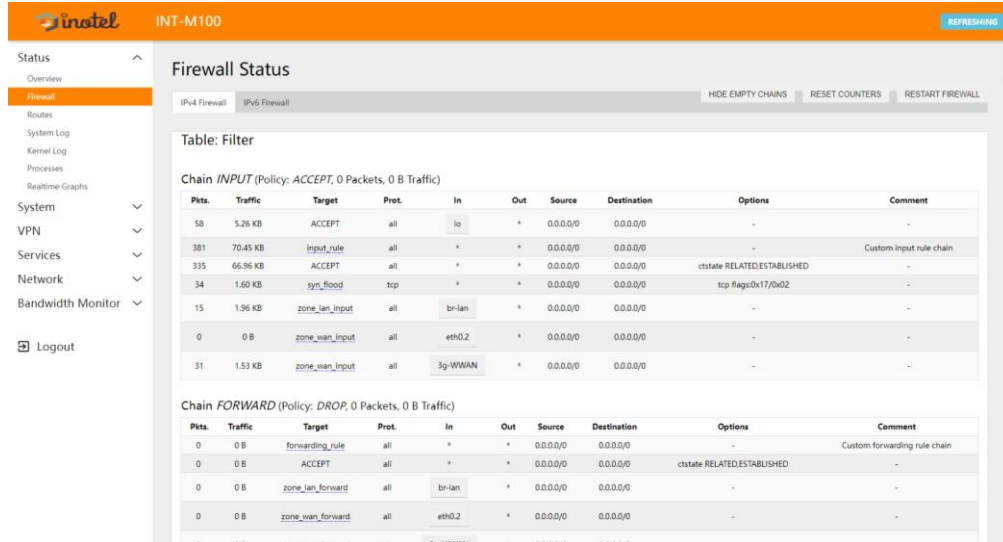


Figure 6 - Overview Page View (2/2)

2.1.2 Firewall

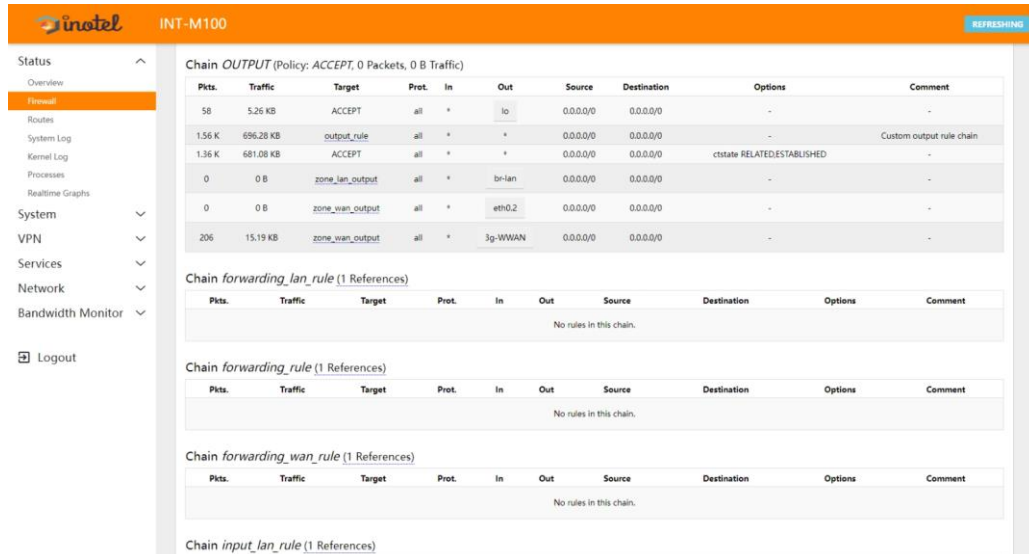
This section contains the firewall settings set in the modem, current usage statistics and active connection units.



Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
58	5.26 KB	ACCEPT	all	lo	*	0.0.0.0/0	0.0.0.0/0	-	-
381	70.45 KB	input_rule	all	*	*	0.0.0.0/0	0.0.0.0/0	-	Custom input rule chain
335	66.96 KB	ACCEPT	all	*	*	0.0.0.0/0	0.0.0.0/0	ctstate RELATED,ESTABLISHED	-
34	1.60 KB	sys_flood	tcp	*	*	0.0.0.0/0	0.0.0.0/0	tcp flags 0x17/0x02	-
15	1.56 KB	zone_lan_input	all	br-lan	*	0.0.0.0/0	0.0.0.0/0	-	-
0	0 B	zone_wan_input	all	eth0.2	*	0.0.0.0/0	0.0.0.0/0	-	-
31	1.53 KB	zone_wan_input	all	3g-WWAN	*	0.0.0.0/0	0.0.0.0/0	-	-

Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
0	0 B	forwarding_rule	all	*	*	0.0.0.0/0	0.0.0.0/0	-	Custom forwarding rule chain
0	0 B	ACCEPT	all	*	*	0.0.0.0/0	0.0.0.0/0	ctstate RELATED,ESTABLISHED	-
0	0 B	zone_lan_forward	all	br-lan	*	0.0.0.0/0	0.0.0.0/0	-	-
0	0 B	zone_wan_forward	all	eth0.2	*	0.0.0.0/0	0.0.0.0/0	-	-

Figure 7 – Firewall Summary Page View (1/2)



Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
58	5.26 KB	ACCEPT	all	*	lo	0.0.0.0/0	0.0.0.0/0	-	-
1.56 K	696.28 KB	output_rule	all	*	*	0.0.0.0/0	0.0.0.0/0	-	Custom output rule chain
1.36 K	681.08 KB	ACCEPT	all	*	*	0.0.0.0/0	0.0.0.0/0	ctstate RELATED,ESTABLISHED	-
0	0 B	zone_lan_output	all	*	br-lan	0.0.0.0/0	0.0.0.0/0	-	-
0	0 B	zone_wan_output	all	*	eth0.2	0.0.0.0/0	0.0.0.0/0	-	-
206	15.19 KB	zone_wan_output	all	*	3g-WWAN	0.0.0.0/0	0.0.0.0/0	-	-

Chain forwarding_lan_rule (1 References)

Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
No rules in this chain.									

Chain forwarding_rule (1 References)

Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
No rules in this chain.									

Chain forwarding_wan_rule (1 References)

Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
No rules in this chain.									

Chain input_lan_rule (1 References)

Pkts.	Traffic	Target	Prot.	In	Out	Source	Destination	Options	Comment
No rules in this chain.									

Figure 8 - Firewall Summary Page View (2/2)

2.1.3 Routing

This section contains the network routes active in the system and the network connection addresses of neighboring devices discovered by the modem.

INT-M100

Status

Overview

Firewall

Routes

System Log

Kernel Log

Processes

Realtime Graphs

System

VPN

Services

Network

Bandwidth Monitor

Logout

Routes

The following rules are currently active on this system.

ARP

IPv4-Address	MAC-Address	Interface
192.168.1.10	54E1AD:A2B07B	lan

Active IPv4-Routes

Network	Target	IPv4-Gateway	Metric	Table
WWAN	0.0.0.0	10.64.64.64	0	main
WWAN	10.64.64.64	-	0	main
lan	192.168.1.0/24	-	0	main

IPv6 Neighbours

IPv6-Address	MAC-Address	Interface
fdcf9afeb7202d4895ca44ad7a6811	54E1AD:A2B07B	lan

Active IPv6-Routes

Network	Target	Source	Metric	Table
lan	fdcf9afeb7202d48	-	1024	main

inotel Elektrik

info@inotelelk.com

+90 312 750 09 18

Figure 9 – Routing Summary Page View

2.1.4 System and Core Log

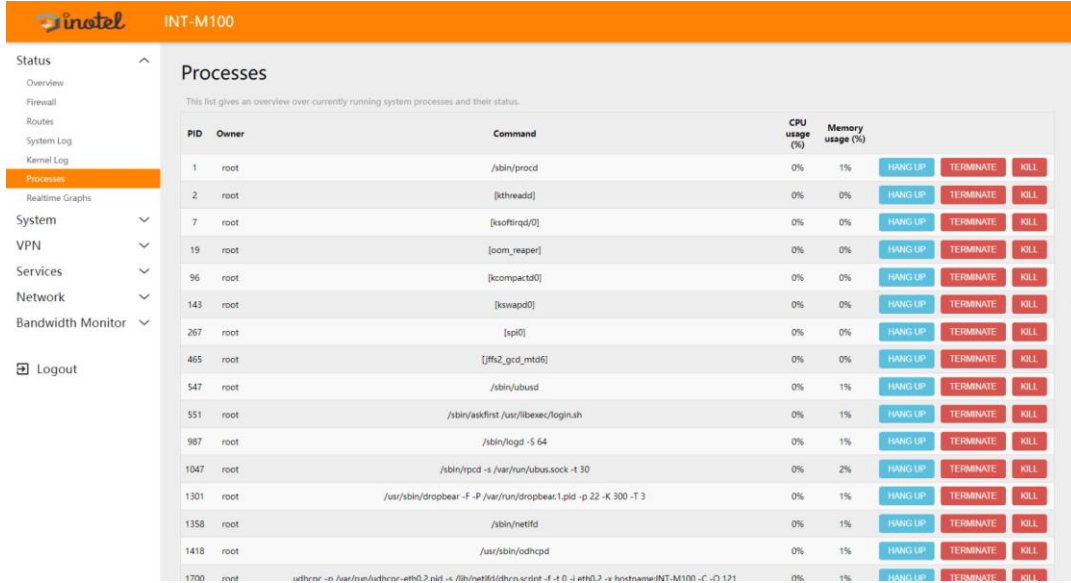
These sections contain log records regarding the system and applications.

inotel INT-M100	
- Status - Overview - Firewall - Routes System Log - Kernel Log - Processes - Realtime Graphs - System - VPN - Services - Network - Bandwidth Monitor - Logout	System Log <pre> Tue Jul 2 15:16:11 2024 kern.notice kernel: [0.000000] Linux version 4.14.322 (npghonlan) (gcc version 7.5.0 (OpenMTC GCC 7.5.0 #13427-Sectaweb00)) #0 Sat Apr 16 13:13:12 2012 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Board has 508K Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Loading PMU set to be control Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Loading PMU set to be control Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Soc Type: MediaTek MT6762A ver2 eco-6 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] InfraredIrda (sw) enabled Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] CPU revision is: 00019050 (NIPS 24K2c) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] PMU: machine is MT6762 (270) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Determined physical RAM map: Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] memory: 00000000 @ 00000000 (usable) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] initrd not found or empty - disabling initrd Tue Jul 2 15:16:11 2024 kern.warn kernel: [0.000000] Primary instruction cache 64KB, VFP, 4-way, linesize 32 bytes. Tue Jul 2 15:16:11 2024 kern.warn kernel: [0.000000] Primary data cache 32KB, 4-way, VFP, no aliases, linesize 32 bytes Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Zone ranges: Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Normal [mem 0000000000000000-0000000000000000] Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Early memory node ranges Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] node 0 [mem 0000000000000000-0000000000000000] Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Initmem setup node 0 [mem 0000000000000000-0000000000000000] Tue Jul 2 15:16:11 2024 kern.debug kernel: [0.000000] Free area left: node 0, pgdat 00f3a420, node_mem_map 0100000040 Tue Jul 2 15:16:11 2024 kern.debug kernel: [0.000000] Normal zone: 256 pages used for memmap Tue Jul 2 15:16:11 2024 kern.debug kernel: [0.000000] Normal zone: 8 pages reserved Tue Jul 2 15:16:11 2024 kern.debug kernel: [0.000000] Normal zone: 32768 pages, LIFO batch:7 Tue Jul 2 15:16:11 2024 kern.debug kernel: [0.000000] cpu-alloc: 0x f0 4d3704 0x2704 alloc=132708 Tue Jul 2 15:16:11 2024 kern.debug kernel: [0.000000] cpu-alloc: [0] 0 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Built 1 zonelists, mobility grouping on. Total pages: 32512 Tue Jul 2 15:16:11 2024 kern.notice kernel: [0.000000] Kernel command line: console=ttyS0,115200 root=ttyS0,115200 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] PID hash table entries: 512 (order: 1, 1048 bytes) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Dentry cache hash table entries: 16384 (order: 4, 65536 bytes) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Inode-cache hash table entries: 8192 (order: 3, 32768 bytes) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Mounting ECCE register-memory Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] Memory: 122904/131872K available (4188K kernel code, 194K rwdata, 964K rodata, 1230K init, 228K bss, 3676K reserved, 0K cma-reserved) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] SLUB: HallInp2, Order=3, MinCycles=6, CPU=1, Node=1 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] MM: 34851 256 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] CPU Cache: 1024K Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] clocksource: systick: mask: 0xffff max_cycles: 0xffff, max_idle_ns: 583261500 ns Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] systick: enable auto-loop mode Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] systick: running: wait 115768, shift: 32 Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] clocksource: RPS: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 6905353264 ns Tue Jul 2 15:16:11 2024 kern.info kernel: [0.000000] sched_clock: 32 bits at 200MHz, resolution 50ns, wrap every 7401133920ns Tue Jul 2 15:16:11 2024 kern.info kernel: [0.007732] Calibrating delay loop... 385.84 BogoMIPS (lpj=1829216) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.071662] 284.4mc default: 32768 ns/mem. 0% Tue Jul 2 15:16:11 2024 kern.info kernel: [0.071662] Mount-cache hash table entries: 16384 (order: 0, 65536 bytes) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.084780] Mountpoint-cache hash table entries: 16384 (order: 0, 65536 bytes) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.087792] clocksource: jiffies: mask: 0xffffffff max_cycles: 0xffffffff, max_idle_ns: 1911302646270000 ns Tue Jul 2 15:16:11 2024 kern.info kernel: [0.387272] futex hash table entries: 256 (order: 1, 3072 bytes) Tue Jul 2 15:16:11 2024 kern.info kernel: [0.121264] pinctrl core: initialized pinconf subsystem Tue Jul 2 15:16:11 2024 kern.info kernel: [0.120372] IGT: Built-in Intel Graphics Driver </pre>

Figure 10 – System and Core Log Page View

2.1.5 Processes

This section contains the currently running processes and resource usage on the modem.



PID	Owner	Command	CPU usage (%)	Memory usage (%)	HANG UP	TERMINATE	KILL
1	root	/sbin/procd	0%	1%	HANG UP	TERMINATE	KILL
2	root	[kthreadd]	0%	0%	HANG UP	TERMINATE	KILL
7	root	[ksm]	0%	0%	HANG UP	TERMINATE	KILL
19	root	[oom_reaper]	0%	0%	HANG UP	TERMINATE	KILL
96	root	[kcompactd0]	0%	0%	HANG UP	TERMINATE	KILL
143	root	[kswapd0]	0%	0%	HANG UP	TERMINATE	KILL
267	root	[spl0]	0%	0%	HANG UP	TERMINATE	KILL
465	root	[jffs2_gc_d_mtd6]	0%	0%	HANG UP	TERMINATE	KILL
547	root	/sbin/ubusd	0%	1%	HANG UP	TERMINATE	KILL
551	root	/sbin/askfirst /usr/libexec/login.sh	0%	1%	HANG UP	TERMINATE	KILL
987	root	/sbin/logd -S 64	0%	1%	HANG UP	TERMINATE	KILL
1047	root	/sbin/rpcd -s /var/run/ubus.sock -t 30	0%	2%	HANG UP	TERMINATE	KILL
1301	root	/usr/sbin/dropbear -F -P /var/run/dropbear1.pid -p 22 -K 300 -T 3	0%	1%	HANG UP	TERMINATE	KILL
1358	root	/sbin/netd	0%	1%	HANG UP	TERMINATE	KILL
1418	root	/usr/sbin/odhcpd	0%	1%	HANG UP	TERMINATE	KILL
1700	root	u9thncr -n /var/run/u9thncr-ath0.2.pid -s /lib/udev/udevadm -f 4 0 -i ath0.2 -s hostname(INT-M100) -C -D 121	0%	1%	HANG UP	TERMINATE	KILL

Figure 11 – Processes Page View

2.1.6 Real Time Graphics

This section includes current load information on the modem, port traffic, wireless network density and IP connection statistics.

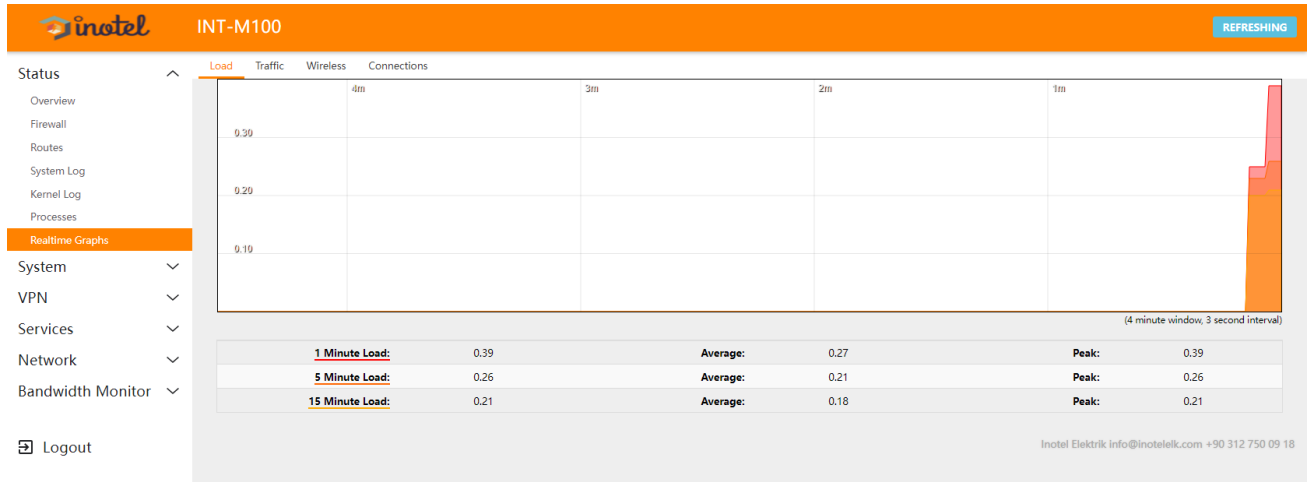


Figure 12 – Real Time Graphics Page View (1/4)

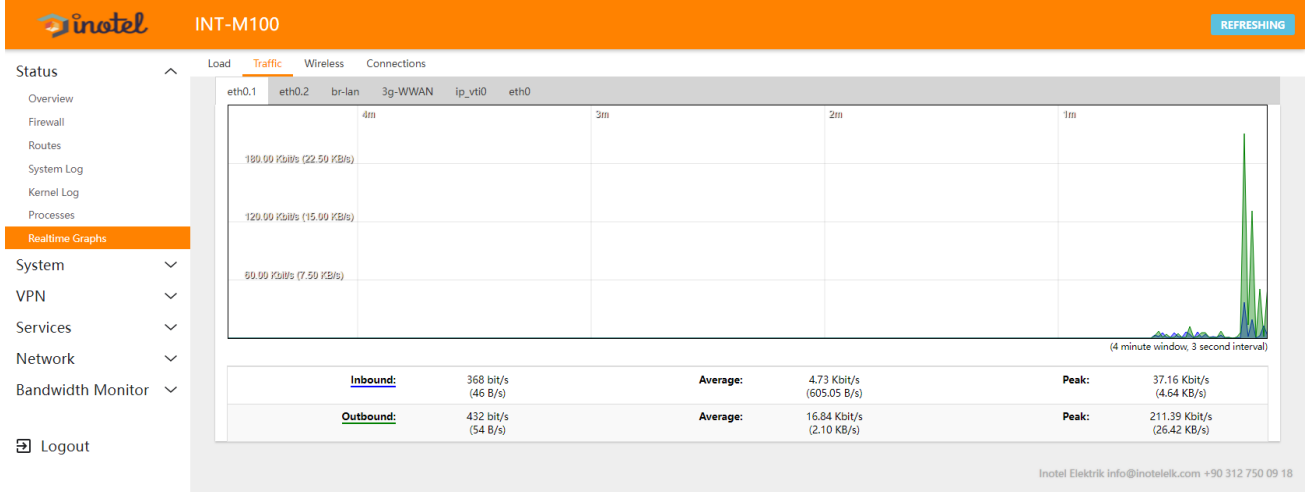


Figure 13 - Real Time Graphics Page View (2/4)

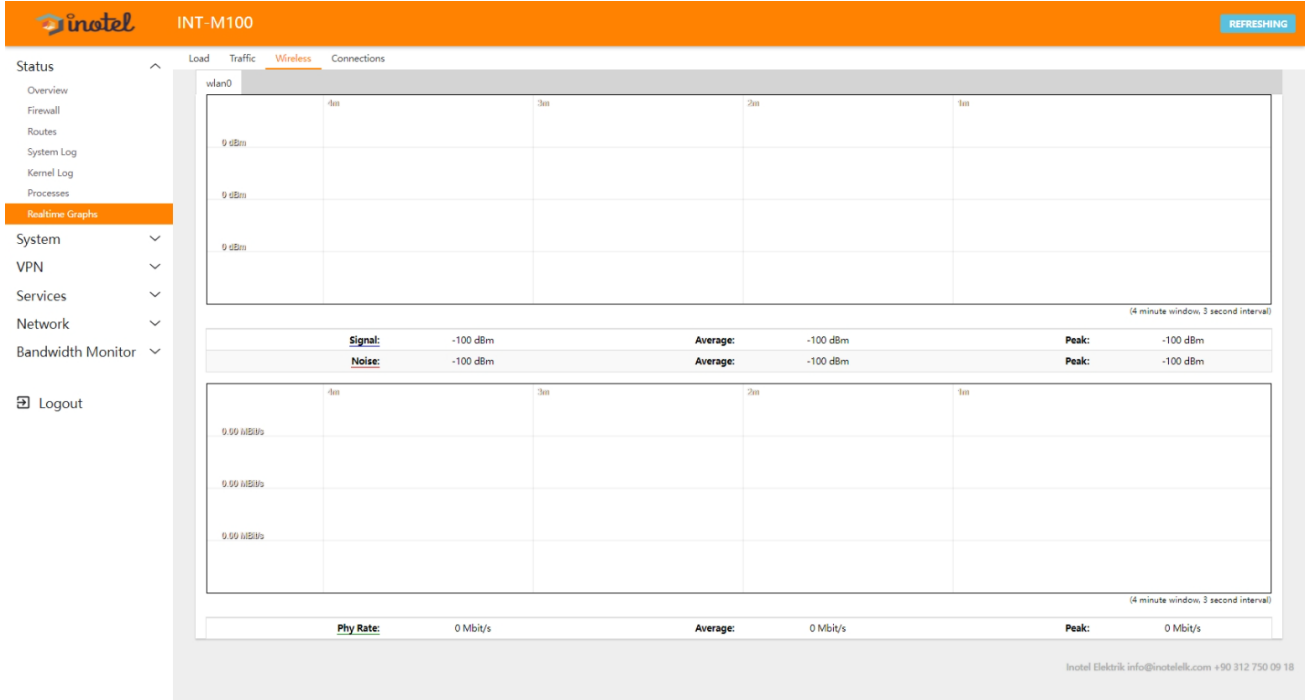


Figure 14 - Real Time Graphics Page View (3/4)

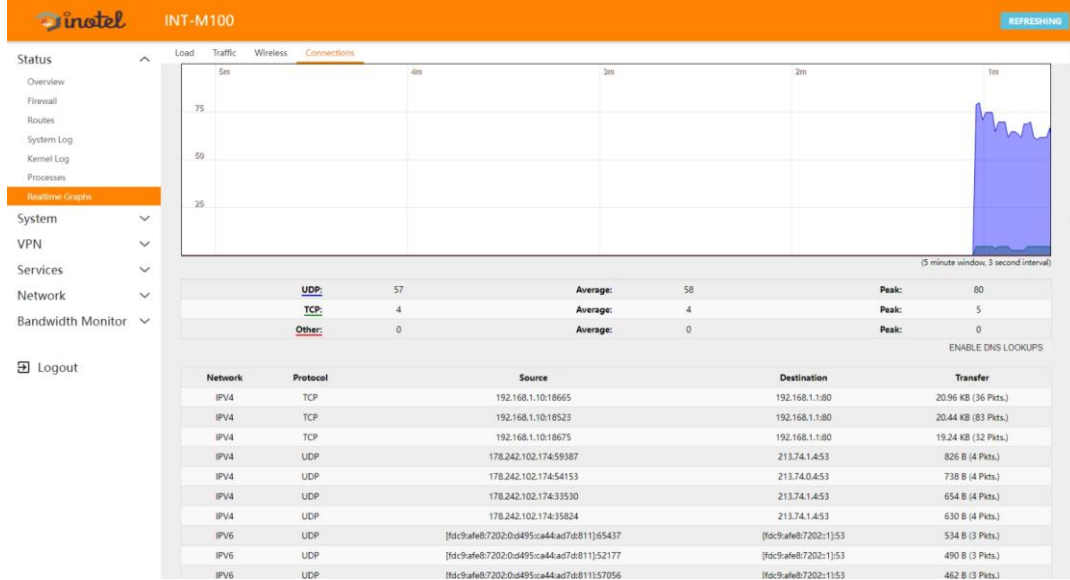


Figure 15 - Real Time Graphics Page View (4/4)

2.2 System

2.2.1 System

In this section, the modem's system time settings, device name and description, log settings, language and theme settings can be made.

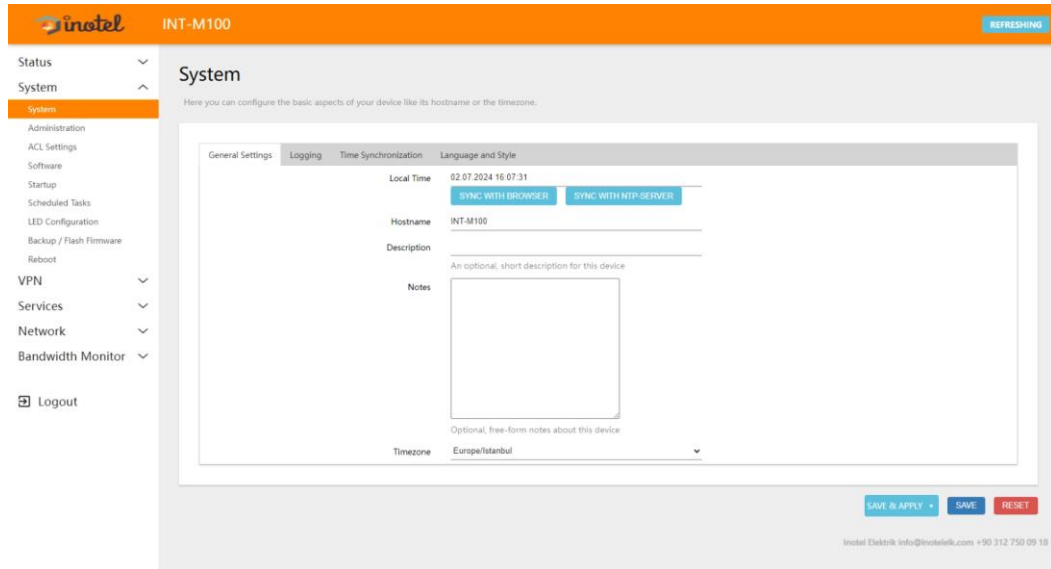


Figure 16 – System General Settings Page View



inotel INT-M100 REFRESHING

Status ▼
System ▲
System ▼
Administration
ACL Settings
Software
Startup
Scheduled Tasks
LED Configuration
Backup / Flash Firmware
Reboot
VPN ▼
Services ▼
Network ▼
Bandwidth Monitor ▼
Logout

System

Here you can configure the basic aspects of your device like its hostname or the timezone.

General Settings	Logging	Time Synchronization	Language and Style
System log buffer size		64	
kIB			
External system log server		0.0.0.0	
External system log server port		514	
External system log server protocol		UDP	
Write system log to file		/tmp/system.log	
Log output level		Debug	
Cron Log Level		Debug	

SAVE & APPLY SAVE RESET

Inotel Elektrik info@inotelek.com +90 312 750 09 18

Figure 17 - System Logging Settings Page View

inotel INT-M100 REFRESHING

Status ▼
System ▲
System ▼
Administration
ACL Settings
Software
Startup
Scheduled Tasks
LED Configuration
Backup / Flash Firmware
Reboot
VPN ▼
Services ▼
Network ▼
Bandwidth Monitor ▼
Logout

System

Here you can configure the basic aspects of your device like its hostname or the timezone.

General Settings	Logging	Time Synchronization	Language and Style
Enable NTP client		☒	
Provide NTP server		☐	
Use DHCP advertised servers		☒	
NTP server candidates		trpool.ntp.org	

SAVE & APPLY SAVE RESET

Inotel Elektrik info@inotelek.com +90 312 750 09 18

Figure 18 - System Time Synchronization Page View

inotel INT-M100 REFRESHING

Status ▼
System ▲
System ▼
Administration
ACL Settings
Software
Startup
Scheduled Tasks
LED Configuration
Backup / Flash Firmware
Reboot
VPN ▼
Services ▼
Network ▼
Bandwidth Monitor ▼
Logout

System

Here you can configure the basic aspects of your device like its hostname or the timezone.

General Settings	Logging	Time Synchronization	Language and Style
Language		English	
Design		Material	

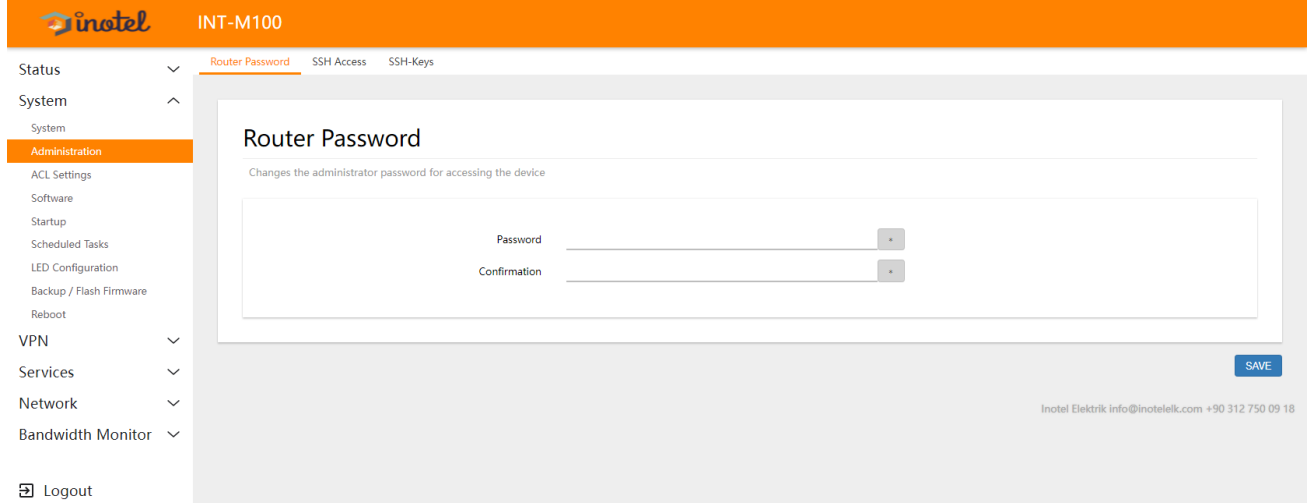
SAVE & APPLY SAVE RESET

Inotel Elektrik info@inotelek.com +90 312 750 09 18

Figure 19 – System Language and Theme Page View

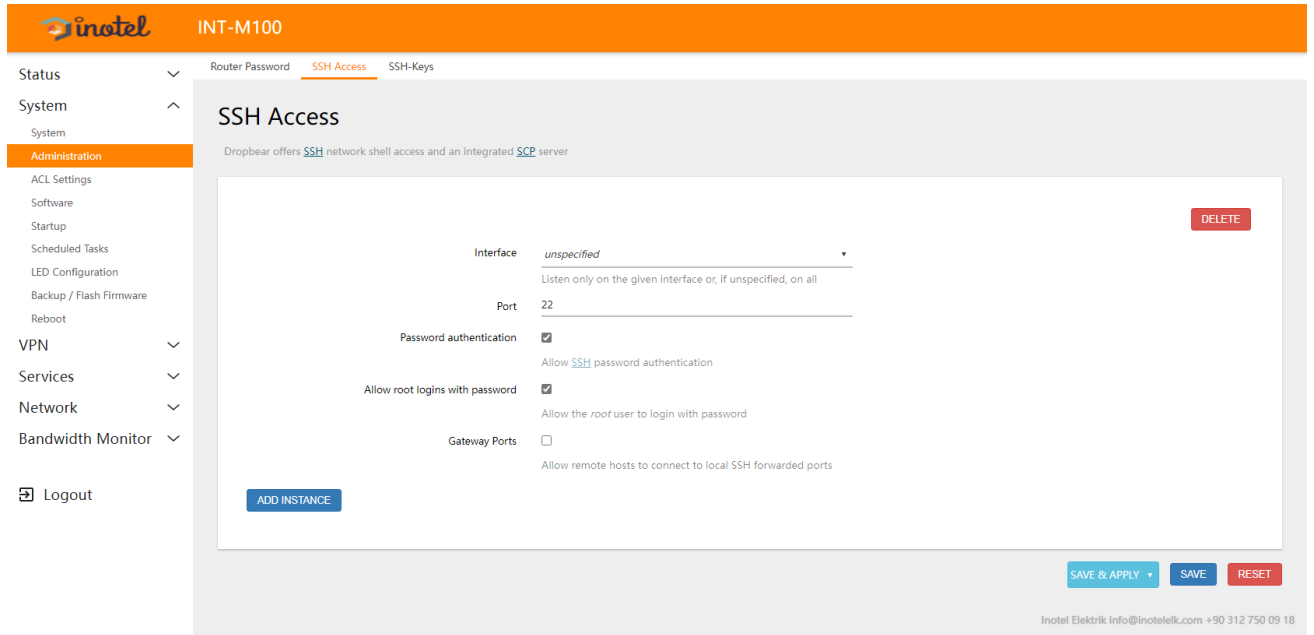
2.2.2 Administration

In this section, SSH (Secure Shell) settings can be made to change the modem password and access the modem command interface over the internet.



The screenshot shows the 'Router Password' configuration page. The left sidebar contains a menu with 'Status', 'System', 'Administration' (highlighted), 'VPN', 'Services', 'Network', 'Bandwidth Monitor', and 'Logout'. The 'Administration' menu includes 'ACL Settings', 'Software', 'Startup', 'Scheduled Tasks', 'LED Configuration', 'Backup / Flash Firmware', and 'Reboot'. The main content area is titled 'Router Password' and includes a subtitle 'Changes the administrator password for accessing the device'. It features two input fields: 'Password' and 'Confirmation', each with a toggle icon. A 'SAVE' button is located at the bottom right. The footer displays 'Inotel Elektrik info@inotelek.com +90 312 750 09 18'.

Figure 20 – User Password Setting Page View

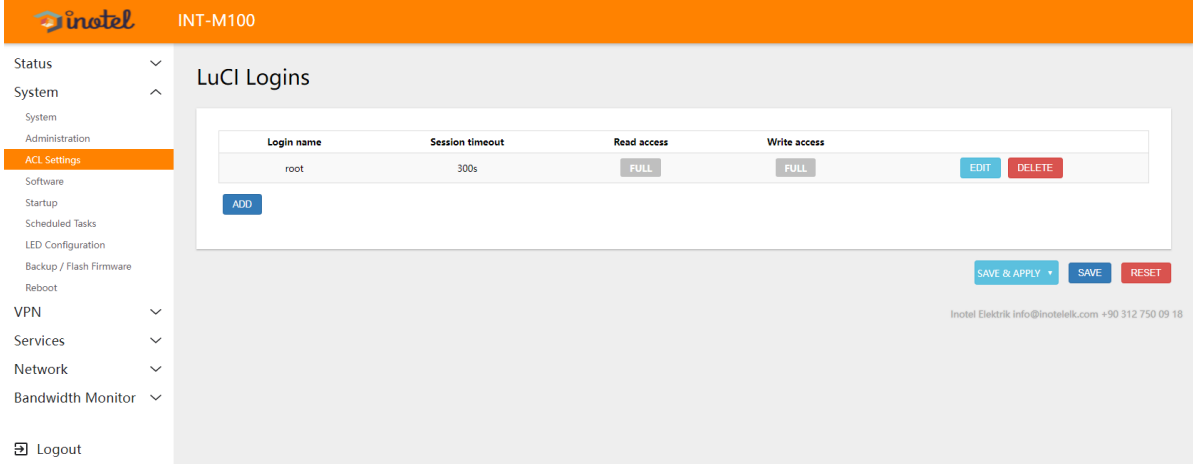


The screenshot shows the 'SSH Access' configuration page. The left sidebar is identical to the previous screenshot. The main content area is titled 'SSH Access' and includes a subtitle 'Dropbear offers SSH network shell access and an integrated SCP server'. It features a 'DELETE' button at the top right. Below this, there are several configuration options: 'Interface' (set to 'unspecified'), 'Port' (set to '22'), 'Password authentication' (checked), 'Allow root logins with password' (checked), and 'Gateway Ports' (unchecked). Each option has a brief description. An 'ADD INSTANCE' button is located at the bottom left. At the bottom right, there are three buttons: 'SAVE & APPLY', 'SAVE', and 'RESET'. The footer displays 'Inotel Elektrik info@inotelek.com +90 312 750 09 18'.

Figure 21 – SSH Configuration Page View

2.2.3 ACL Settings

In this section, access permissions and passwords of users authorized to the modem interface can be changed and new users can be given access authorization.



Login name	Session timeout	Read access	Write access
root	300s	FULL	FULL

Figure 22 – ACL Configuration Page View

2.2.4 Scheduled Tasks

In this section, commands that are desired to be executed on the modem at certain time intervals can be arranged. The written commands must be entered as Minute, Hour, Day, Month, Weekday, Command to be Executed, respectively (For example, "25 10 * * 1-5 reboot" to reboot every weekday at 10:25).

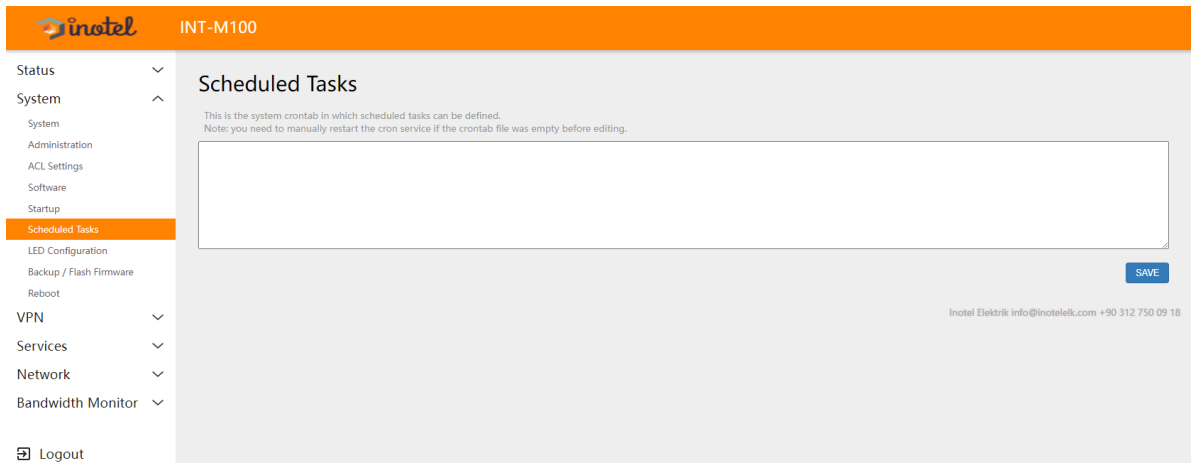


Figure 23 – Scheduled Tasks Configuration Page View

2.2.5 LED Configuration

In this section, the LED lights on the modem are configured with various trigger functions.

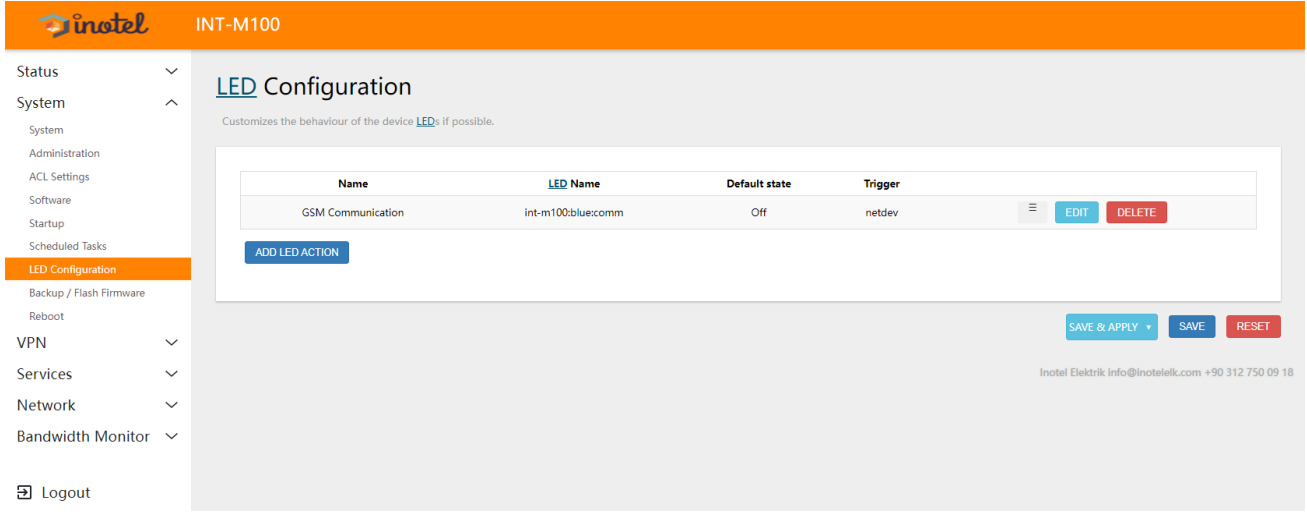


Figure 24 – LED Configuration Page View

2.2.6 Backup/System Software Update

In this section, existing configuration backups in the device can be created and previously created backups can be restored. Additionally, device factory reset and modem software update options are available.

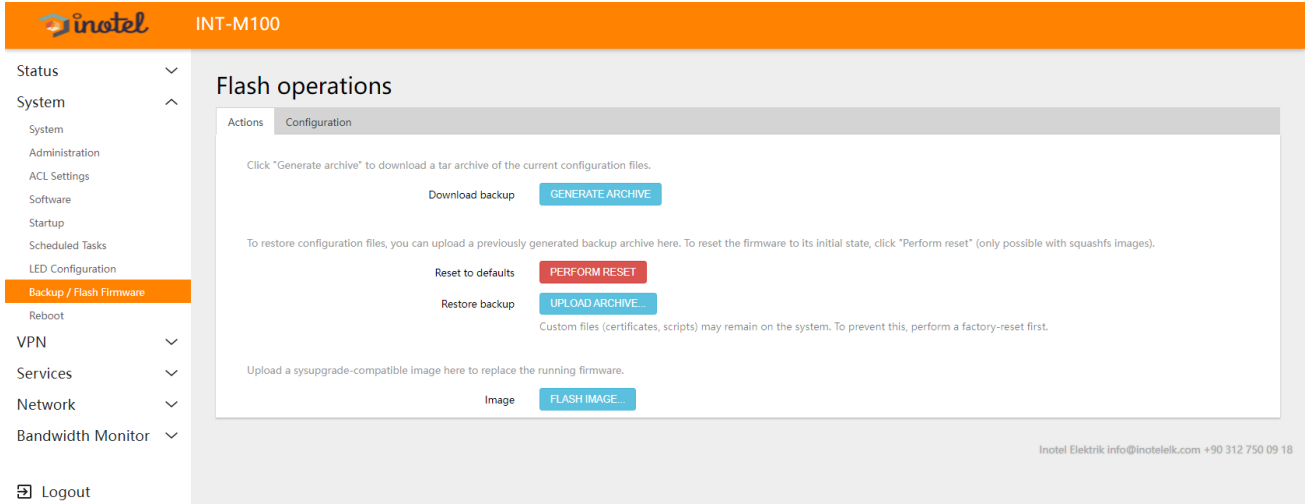
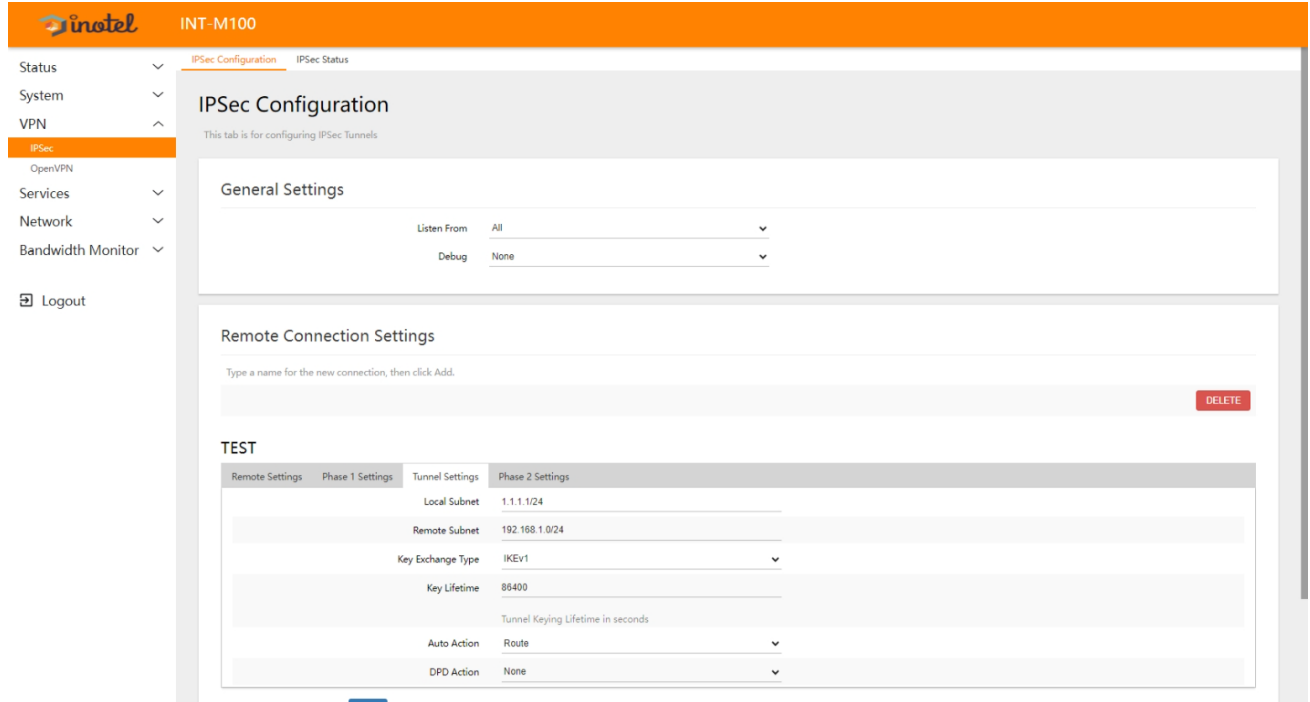


Figure 25 – System Backup/Factory Reset/Software Update Page View

2.3 VPN

2.3.1 IPsec

In this section, the interface to be listened to, debugging, and VPN connection settings related to IPsec can be set and the set VPN connection status information can be observed.



inotel INT-M100

Status System VPN **IPSec** OpenVPN Services Network Bandwidth Monitor Logout

IPSec Configuration IPSec Status

IPSec Configuration

This tab is for configuring IPSec Tunnels

General Settings

Listen From: All
Debug: None

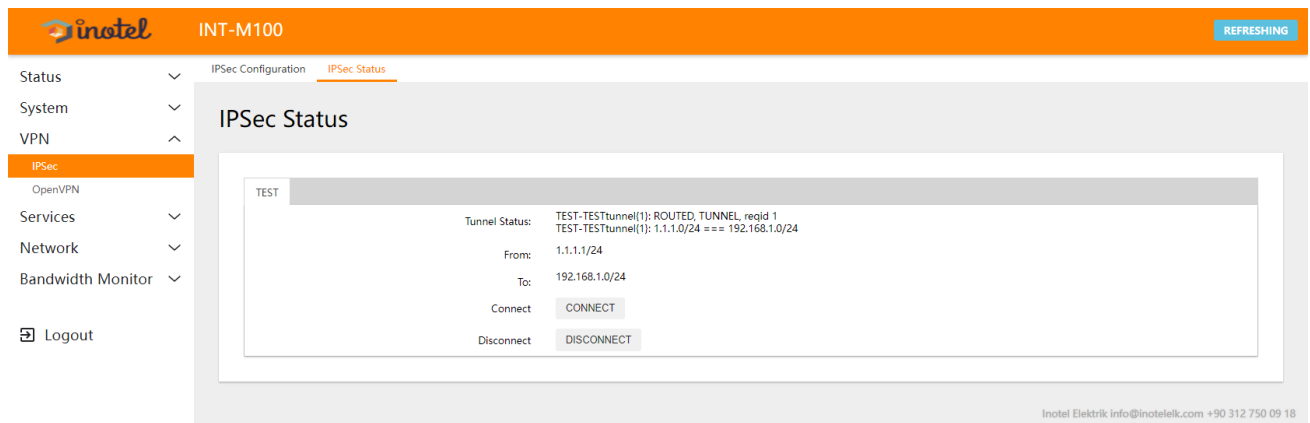
Remote Connection Settings

Type a name for the new connection, then click Add. DELETE

TEST

Remote Settings	Phase 1 Settings	Tunnel Settings	Phase 2 Settings
Local Subnet		1.1.1.1/24	
Remote Subnet		192.168.1.0/24	
Key Exchange Type		IKEv1	
Key Lifetime		86400	
		Tunnel Keying Lifetime in seconds	
Auto Action		Route	
DPD Action		None	

Figure 26 – IPsec Configuration Page View



inotel INT-M100 REFRESHING

Status System VPN **IPSec** OpenVPN Services Network Bandwidth Monitor Logout

IPSec Configuration **IPSec Status**

IPSec Status

TEST

Tunnel Status: TEST-TESTtunnel(1): ROUTED, TUNNEL, reqid 1
TEST-TESTtunnel(1): 1.1.1.0/24 == 192.168.1.0/24

From: 1.1.1.1/24
To: 192.168.1.0/24

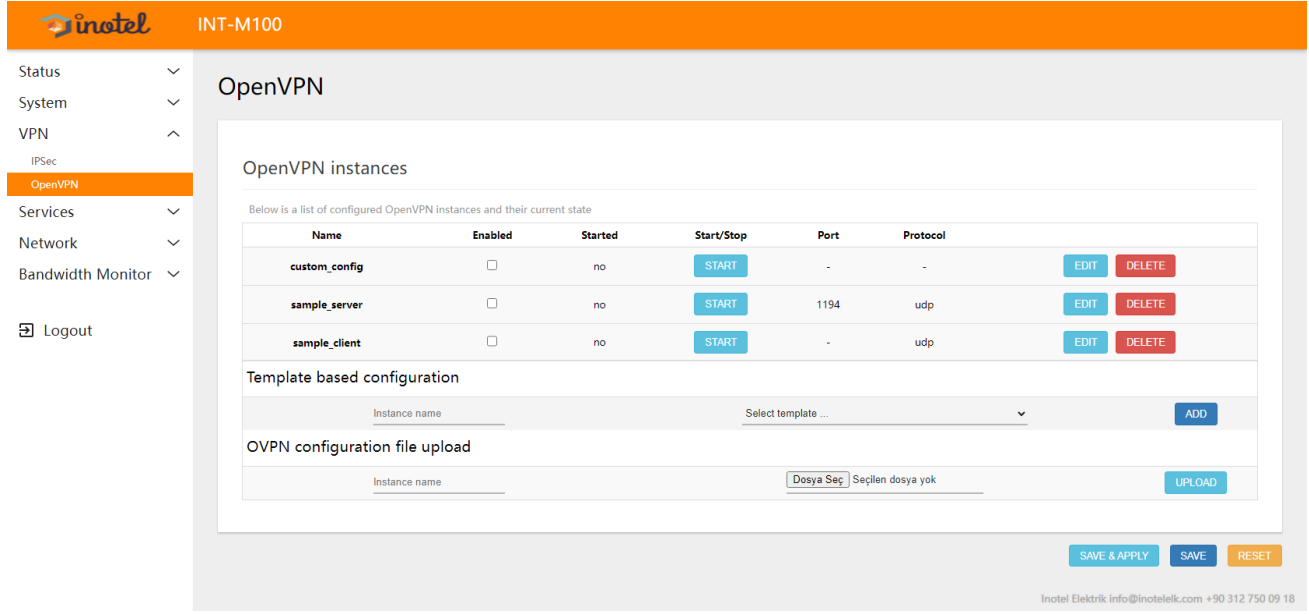
Connect: CONNECT
Disconnect: DISCONNECT

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Figure 27 – IPsec Connection Status Page View

2.3.2 OpenVPN

In this section, OpenVPN-related settings can be added and edited manually or via a template, and the defined profiles can be started and stopped optionally with status information.



The screenshot shows the 'OpenVPN' configuration page in the inotel web interface. The page has an orange header with the inotel logo and 'INT-M100'. A left sidebar contains a menu with 'Status', 'System', 'VPN', 'IPSec', 'OpenVPN' (highlighted), 'Services', 'Network', 'Bandwidth Monitor', and 'Logout'. The main content area is titled 'OpenVPN' and contains a section 'OpenVPN instances' with a table of configured instances. Below the table is a 'Template based configuration' section with a dropdown for 'Instance name' and a 'Select template ...' dropdown. At the bottom is an 'OVPN configuration file upload' section with a file selection button and an 'UPLOAD' button. At the very bottom of the page are 'SAVE & APPLY', 'SAVE', and 'RESET' buttons, and a footer with contact information.

Name	Enabled	Started	Start/Stop	Port	Protocol	
custom_config	☐	no	<button>START</button>	-	-	<button>EDIT</button> <button>DELETE</button>
sample_server	☐	no	<button>START</button>	1194	udp	<button>EDIT</button> <button>DELETE</button>
sample_client	☐	no	<button>START</button>	-	udp	<button>EDIT</button> <button>DELETE</button>

Template based configuration

Instance name: Select template: ADD

OVPN configuration file upload

Instance name: Dosya Seç | Seçilen dosya yok UPLOAD

SAVE & APPLY SAVE RESET

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Figure 28 – OpenVPN Configuration/Connection Status Page View

2.4 Services

2.4.1 Watchcat

In this section, reboot settings can be made to prevent the device from losing communication that may occur due to various reasons. Reboot profiles can optionally be set to the desired settings and intervals, either on a ping basis or at periodic intervals.

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INT-M100

- Status
- System
- VPN
- Services
- Watchcat
- ttyd
- GSM Information
- uHTTpd
- Network
- Bandwidth Monitor
- Logout

Watchcat

Here you can set up several checks and actions to take in the event that a host becomes unreachable. Click the **Add** button at the bottom to set up more than one action.

These rules will govern how this device reacts to network events.

DELETE

General Settings

Mode

Period

Host To Check

Address family for pinging the host

Check Interval

Ping Reboot

Ping Reboot: Reboot this device if a ping to a specified host fails for a specified duration of time.
Periodic Reboot: Reboot this device after a specified interval of time.
Restart Interface: Restart a network interface if a ping to a specified host fails for a specified duration of time.
Run Script: Run a script if a ping to a specified host fails for a specified duration of time.

6h

8.8.8.8

any

30s

Figure 29 – Watchcat Configuration Page View

2.4.2 TTYd

In this section, you can access the shell script within the device via the web interface.

inotel
INT-M100

- Status
- System
- VPN
- Services
- Watchcat
- ttyd
- GSM Information
- uHTTpd
- Network
- Bandwidth Monitor
- Logout

Terminal
Config

```

INT-M100 login: root
Password:

BusyBox v1.30.1 () built-in shell (ash)

INOTEL

root@INT-M100:~#
          
```

Inotel Elektrik info@inotelek.com +90 312 750 09 18

Figure 30 – TTYd Page View

INOTEL ELEKTRİK İNŞAAT SANAYİ VE TİCARET LİMİTED ŞİRKETİ
 OSTİM OSB MAHALLESİ TURAN ÇİĞDEM CADDESİ NO: 7/1
 YENİMAHALLE/ANKARA TÜRKİYE
 Phone: +90 (312) 750 09 18 Technical Support: +90 (542) 135 26 06 www.inotelek.com

2.4.3 GSM Information

This section shows information about the GSM module used with the device, information about the SIM card inserted into the device, and information about the network the device accesses, the reception quality and the network type.

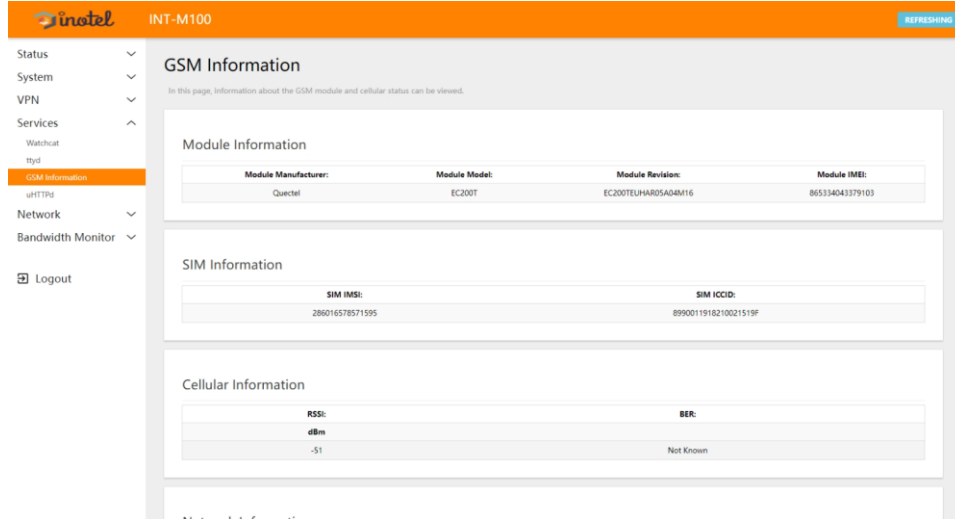


Figure 31 – GSM Information Page View

2.4.4 uHTTPd

In this section, HTTP, HTTPS settings and HTTPS-related certificate settings related to the device web interface can be made.

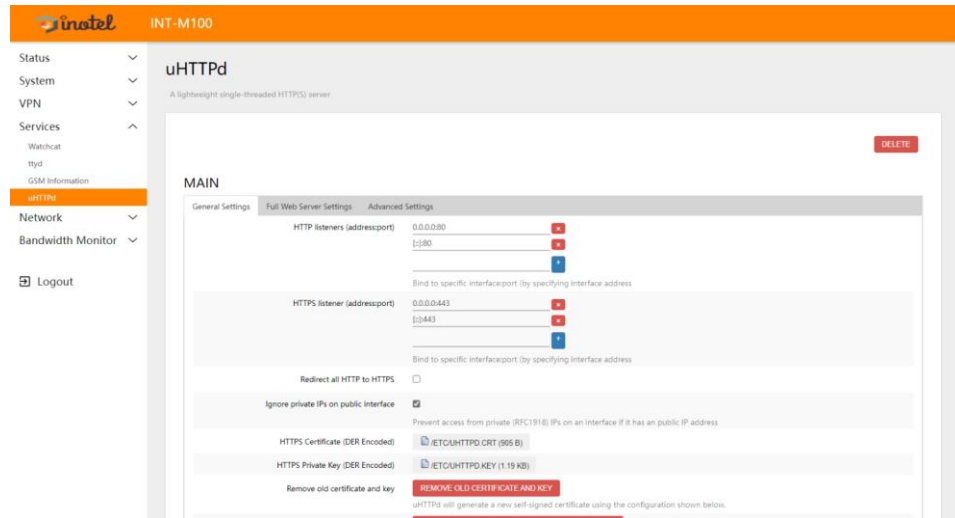


Figure 32 – uHTTPd Web Server Configuration Page View

2.5 Network

2.5.1 Interfaces

In this section, Ethernet and GSM connection status information on the device can be viewed and can be configured. In the factory settings of the device, the LAN interface is set to the IP address 192.168.1.1 and the GSM APN setting is set to the network name "mgbs". Interfaces can be restarted, stopped, edited, or created and deleted at will.

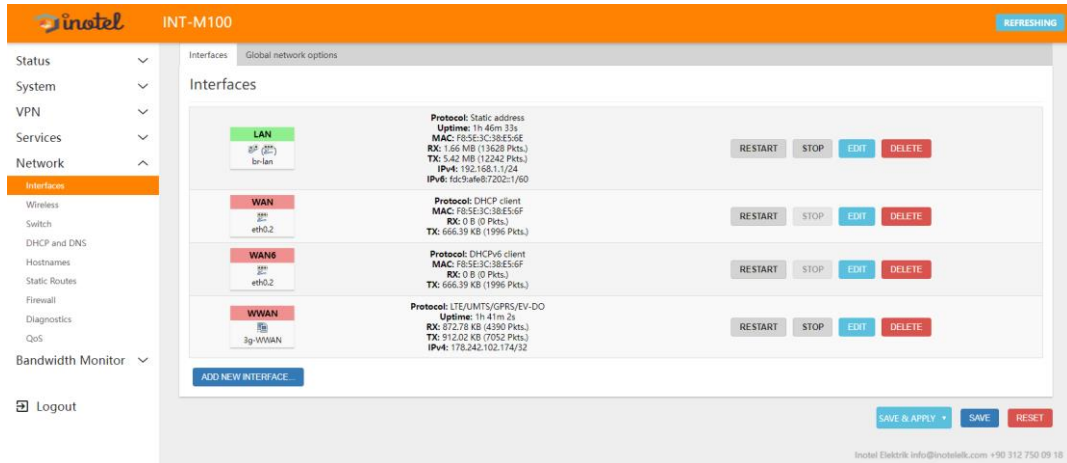


Figure 33 – Connection Interface Configuration Page View

2.5.2 Wireless

In this section, wireless connection profiles within the device can be added or removed. In addition, the settings of these profiles can be adjusted and the status information of the profiles can be displayed.

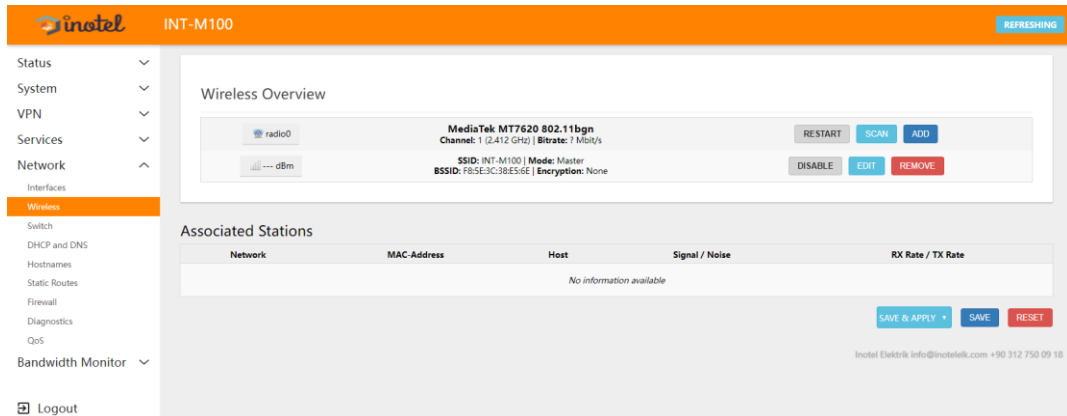


Figure 34 – Wireless Configuration Page View

2.5.3 Network Switch

In this section, VLAN settings can be made for the Ethernet ports on the modem. Each port can optionally be set to operate tagged or untagged using the desired VLAN identification number.

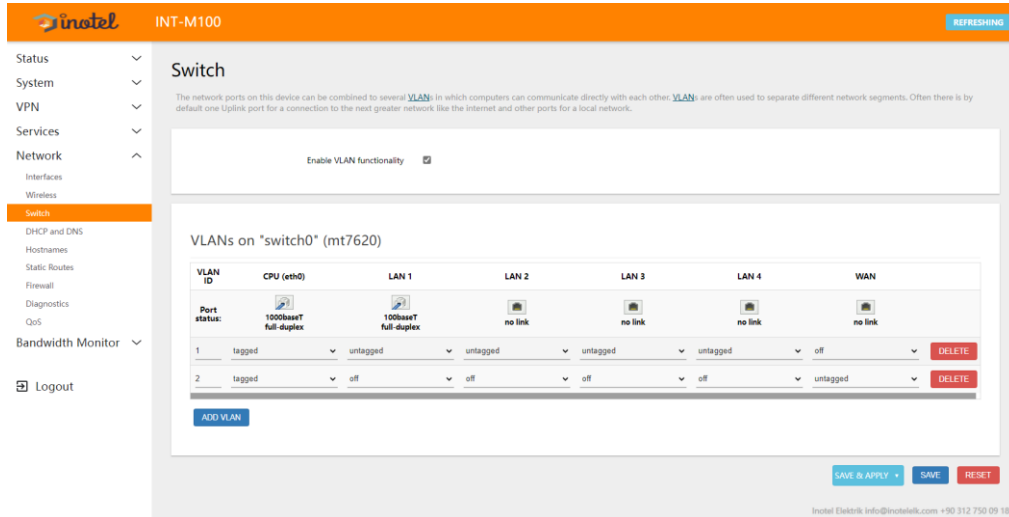


Figure 35 – Network Switch Status/Configuration Page View

2.5.4 DHCP and DNS

In this section, various settings can be made about the IP server and DNS routing provided by the device.

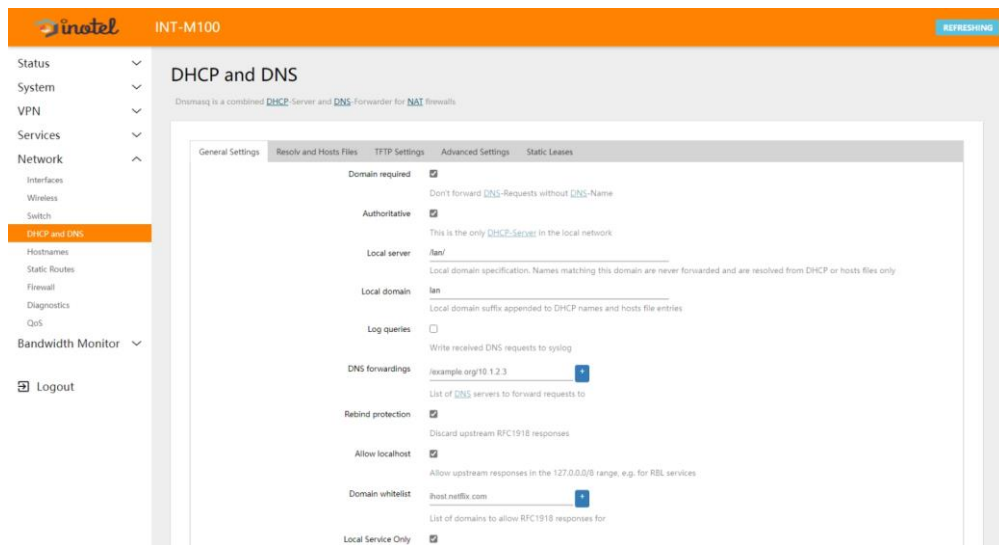


Figure 36 – DHCP and DNS Configuration Page View

2.5.5 Static Routing

In this section, static IPv4 and IPv6 routes can be defined within the modem.

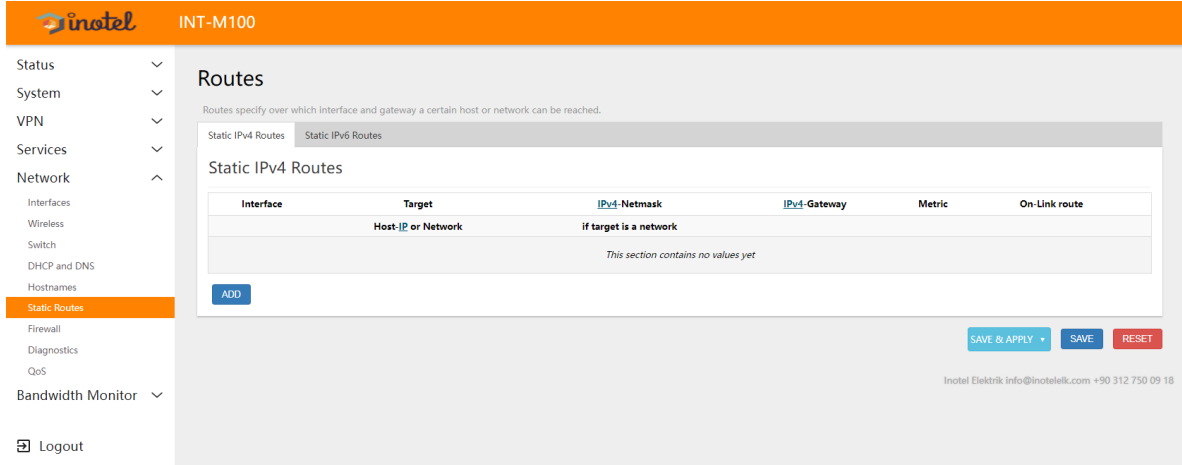


Figure 37 – Routing Configuration Page View

2.5.6 Firewall

In this section, firewall settings on the modem can be configured. The firewall basically works on the principle of zone routing, and the general entry-exit-routing settings of the zones or the isolated transfer of devices within a certain zone to other zones can be provided.

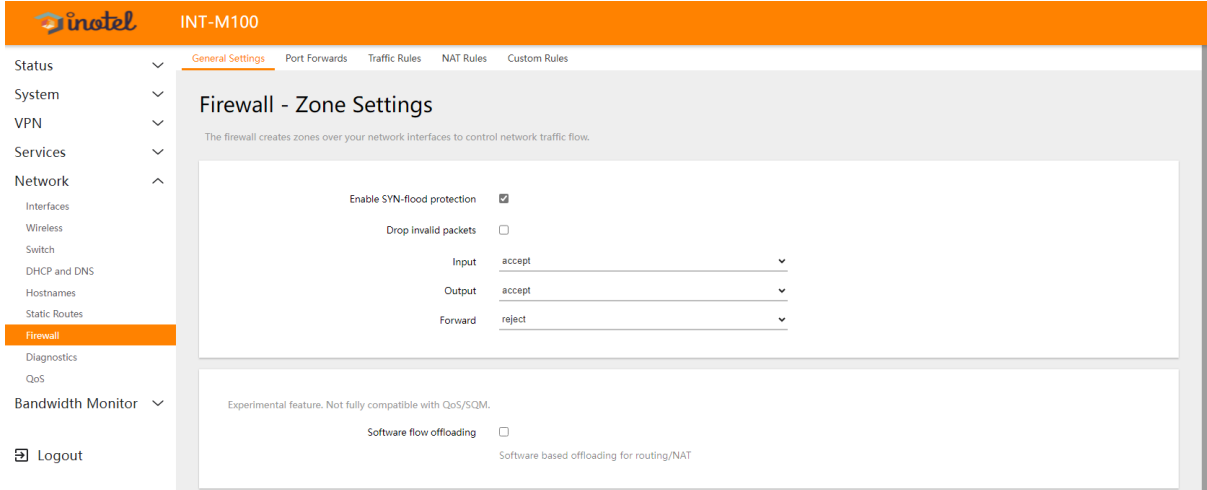


Figure 38 – Firewall Zone Configuration Page View (1/2)



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INT-M100

Status

System

VPN

Services

Network

Interfaces

Wireless

Switch

DHCP and DNS

Hostnames

Static Routes

Firewall

Diagnostics

QoS

Bandwidth Monitor

Logout

Input

accept

Output

accept

Forward

reject

Experimental feature. Not fully compatible with QoS/SQM.

Software flow offloading

Software based offloading for routing/NAT

Zones

Zone	Forwardings	Input	Output	Forward	Masquerading		
lan	= wan	accept	accept	accept	☐		EDIT DELETE
wan	= lan	reject	accept	reject	☒		EDIT DELETE
vpn	= REJECT	accept	accept	accept	☐		EDIT DELETE

ADD

SAVE & APPLY SAVE RESET

Figure 39 - Firewall Zone Configuration Page View (2/2)

Inter-zone routing to a specific device within the firewall can be done in the "Port Forwarding" section. In this section, the IP address of the device to be forwarded, the protocol type of forwarding, source and target ports, and which regions to pass through can be determined.

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INT-M100

Status

System

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Interfaces

Wireless

Switch

DHCP and DNS

Hostnames

Static Routes

Firewall

Diagnostics

QoS

Bandwidth Monitor

Logout

General Settings

Port Forwards

Traffic Rules

NAT Rules

Custom Rules

Firewall - Port Forwards

Port forwarding allows remote computers on the Internet to connect to a specific computer or service within the private LAN.

Port Forwards

Name	Match	Action	Enable
This section contains no values yet			

ADD

SAVE & APPLY SAVE RESET

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Figure 40 – Firewall Port Forwarding Configuration Page View

2.5.7 Diagnostics

This section includes ping, route monitoring and DNS name query programs to check successful internet connection on the modem or to check the accessibility of another device.

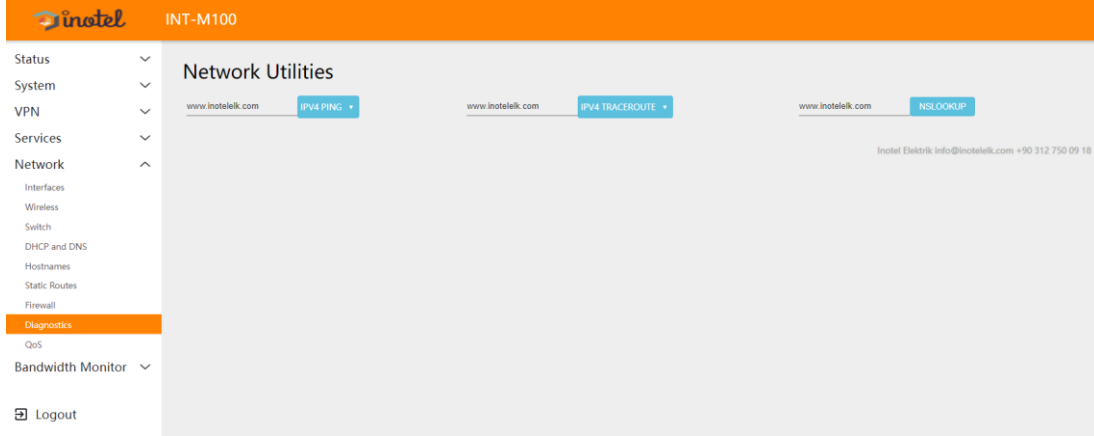


Figure 41 – Network Diagnostics Page View

2.5.8 QoS (Quality of Service)

In this section, communication rules can be determined through QoS according to the priority order of external environment connections. Connection priorities, connection speeds and protocols can be prioritized.

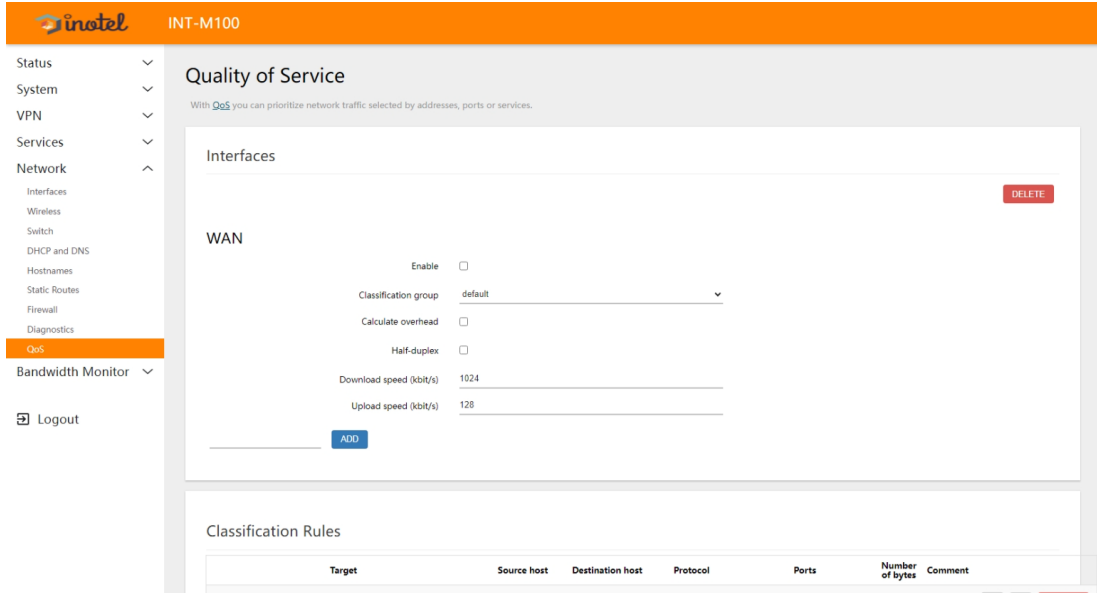


Figure 42 – QoS Configuration Page View

2.6 Bandwidth Monitoring

In this section, traffic monitoring, configuration and backing up of this data for internet connections can be configured.

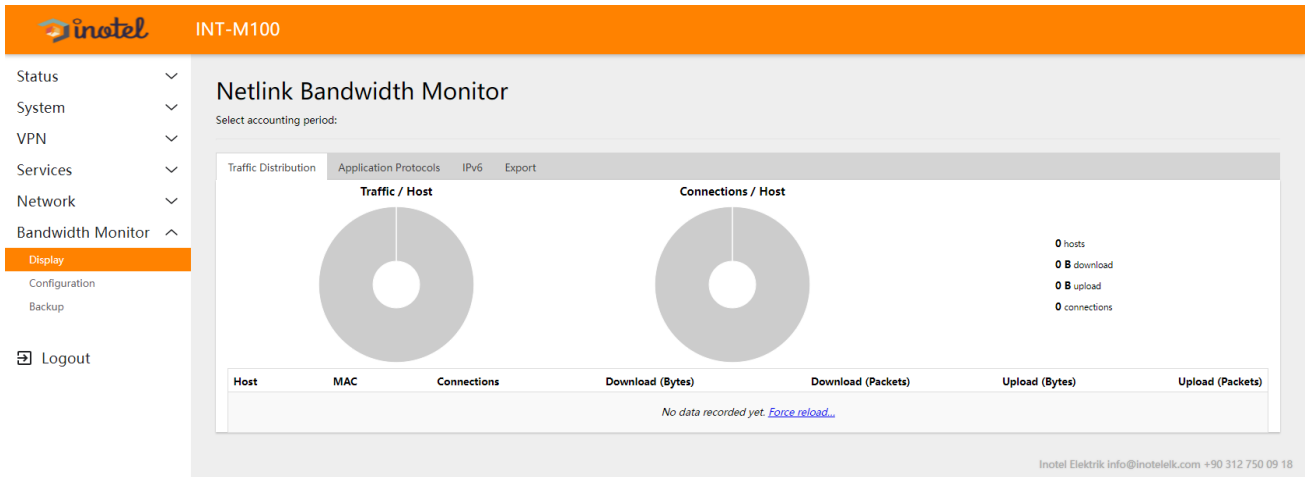


Figure 43 – Bandwidth Monitoring Status Page View

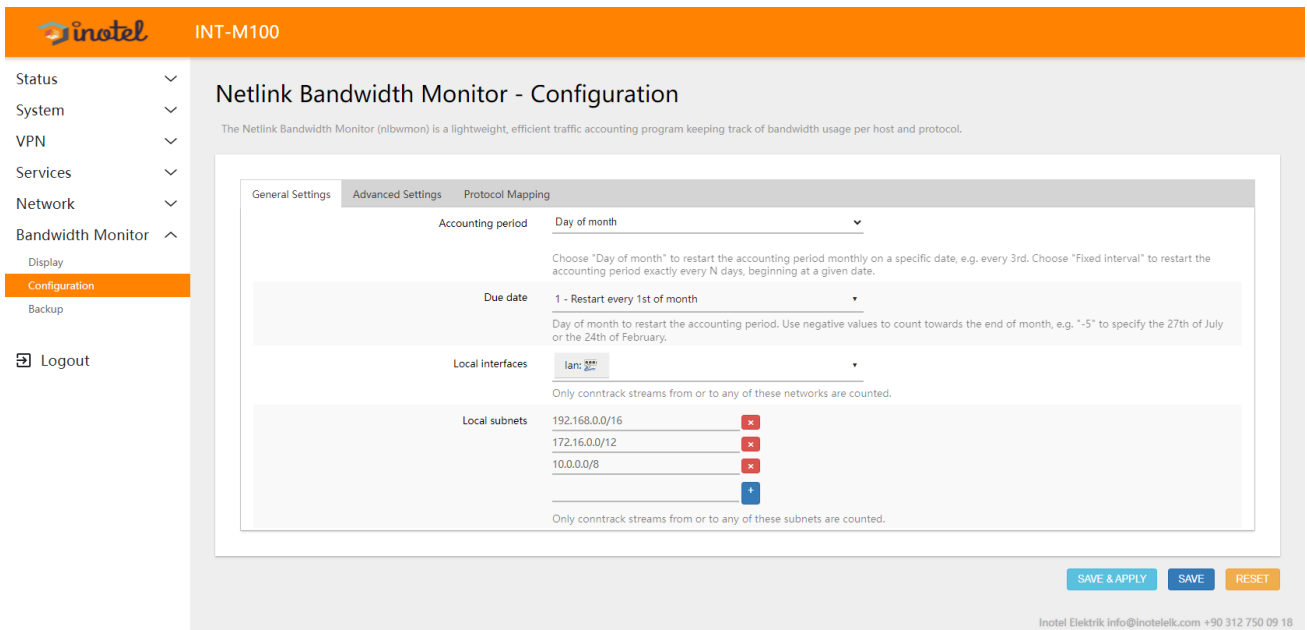


Figure 44 – Bandwidth Monitoring Configuration Page View

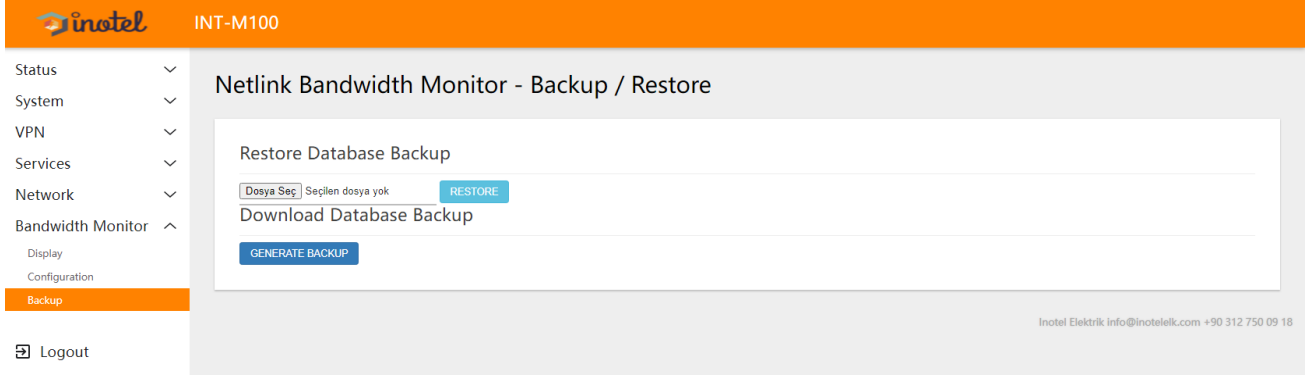


Figure 45 – Bandwidth Monitoring Backup Page View