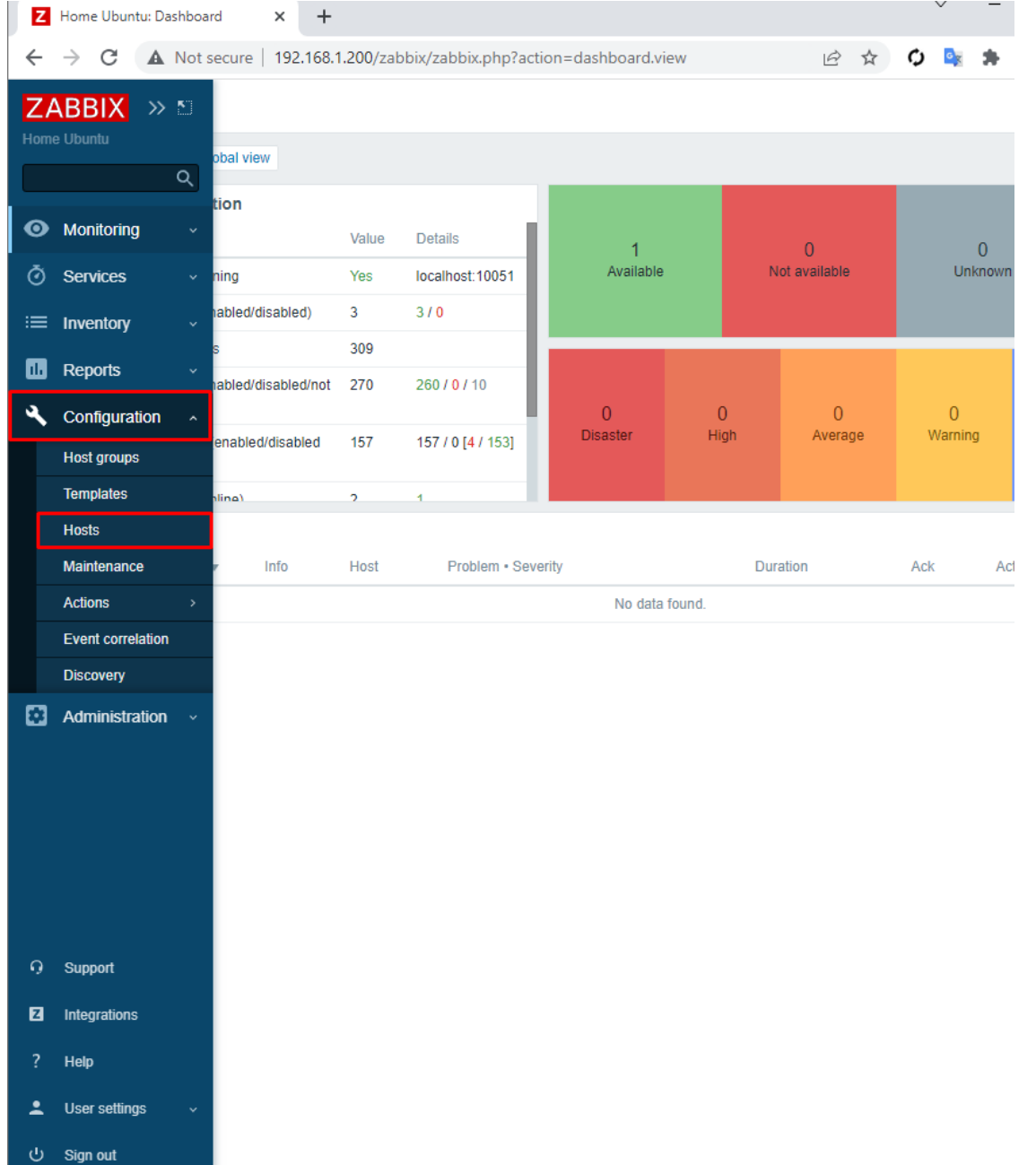
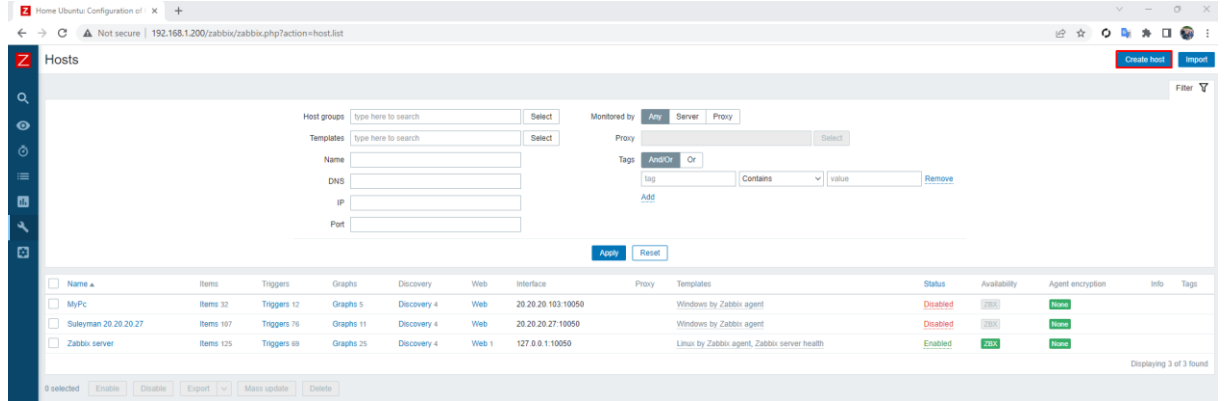


Zabbix 6.0 SNMP Protokolu ile Ağ Cihazı Ekleme & İzleme | How to add Network Devices To Zabbix with SNMP Protocol & Monitoring

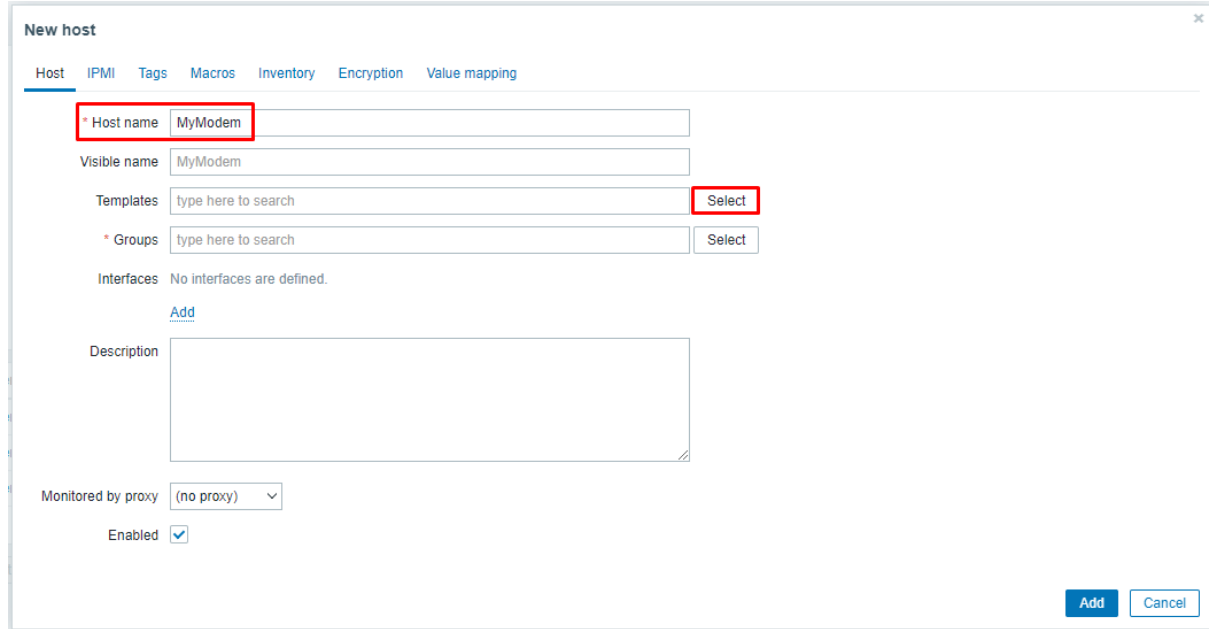
1- Zabbix Dashboard'umuzdan configuration menüsünden host sekmesine tıklanır.



2- Create Host seçilerek yeni bir host oluşturulur.



3- Host name: kısmına bir isim girilir, template olarak Network Generic Device by SNMP seçilir.



New host

Host

IPMI

Tags

Macro

* Host name

MyMode

Visible name

MyMode

Templates

type here

* Groups

type here

Interfaces

No interface

Add

Description

Monitored by proxy

(no proxy)

Enabled

☒

Templates

Host group

Templates

Select

☐ Morningstar ProStar PWM by SNMP

☐ Morningstar SunSaver MPPT by SNMP

☐ Morningstar SureSine by SNMP

☐ Morningstar TriStar MPPT 600V by SNMP

☐ Morningstar TriStar MPPT by SNMP

☐ Morningstar TriStar PWM by SNMP

☐ MSSQL by ODBC

☐ MySQL by ODBC

☐ MySQL by Zabbix agent

☐ MySQL by Zabbix agent 2

☐ NetApp AFF A700 by HTTP

☐ NetApp FAS3220 by SNMP

☐ Netgear Fastpath by SNMP

☒ Network Generic Device by SNMP

☐ Nginx by HTTP

☐ Nginx by Zabbix agent

☐ Nginx Plus by HTTP

☐ NNTP Service

☐ NTP Service

☐ OpenBSD by Zabbix agent

☐ OpenWeatherMap by HTTP

☐ OPNsense by SNMP

☐ Oracle by ODBC

☐ Oracle by Zabbix agent 2

Select

Cancel

- 4- Groups kısmında Modems adında yeni bir grup ismi yazıyorum ve tıklayarak oluşturuyorum.

New host

Host IPMI Tags Macros Inventory Encryption Value mapping

* Host name MyModem

Visible name MyModem

Templates Network Generic Device by SNMP x Select

* Groups Modems Modems (new) Select

Interfaces Add

Description

Monitored by proxy (no proxy) v

Enabled ☒

Add Cancel

- 5- Interfaces kısmından Add diyerek Snmp seçeneğini seçiyorum.

New host

Host IPMI Tags Macros Inventory Encryption Value mapping

* Host name MyModem

Visible name MyModem

Templates Network Generic Device by SNMP x Select

* Groups Modems (new) x Select

Interfaces No interfaces are defined.

Add

Description

Monitored by proxy (no proxy) v

Enabled ☒

Add Cancel

New host

Host IPMI Tags Macros Inventory Encryption Value mapping

* Host name MyModem

Visible name MyModem

Templates Network Generic Device by SNMP x type here to search Select

* Groups Modems (new) x type here to search Select

Interfaces No interfaces are defined.

Add

Description Agent
SNMP
JMX
IPMI

Monitored by proxy (no proxy) v

Enabled ☒

Add Cancel

- 6- Karşımıza 3 tane field (alan) çıkıyor. SNMP kısmına modemizin ip adresini yazmamız gerekmektedir. SNMP version kısmında SNMPv2 protokolü ile haberleşmeyi sağlayacağını belirtir. SNMP community kısmında ise modemimde SNMP community isim değeri ne ise onu buraya yazacağız.

New host

Host IPMI Tags Macros Inventory Encryption Value mapping

* Host name MyModem

Visible name MyModem

Templates Network Generic Device by SNMP x type here to search Select

* Groups Modems (new) x type here to search Select

Interfaces

Type	IP address	DNS name	Connect to	Port	Default
SNMP	127.0.0.1		IP DNS	161	<input checked="" type="radio"/> Remove

* SNMP version SNMPv2 v

* SNMP community {SNMP_COMMUNITY}

☒ Use bulk requests

Add

Description

Monitored by proxy (no proxy) v

Enabled ☒

Add Cancel

7- Modemizin arayüzüne giriş yapılır ve System Tools menüsünden SNMP Settings alanına tıklanılır.

Home Ubuntu: Configuration of | x TD-W9970 x +

← → ↻ Not secure | 192.168.1.1

User: 6

TP-LINK® 300Mbps Wireless N

Status

Easy Menu

WAN

DHCP Server

Wireless

USB Settings

Routing Settings

Firewall

Quality of Service

Dynamic DNS

Diagnostic

System Tools

Logout

Basic Status

Device Information

Firmware Version: 21.12.01.01006

Hardware Version: TD-W9970 v3 00000001

Serial Number: D46E0E9E0635

System Up Time: 0 day(s) 04:25:00

System

CPU Usage: 4%

Memory Total: 58196 KB

Memory Free: 30304 KB

DSL

Line Status: Connected

DSL Modulation Type: ADSL_2plus

Annex Type: Annex A/L

Traffic Type: ATM Mode

Link Uptime: 0 day(s) 02:37:23

	Upstream	Downstream
Current Rate (Kbps)	800	16383
Max Rate (Kbps)	1294	25578
INP (symbols)	0	0
Trellis	ON	ON
Line Attenuation (dB)	3.7	4
Errors (Pkts)	0	0
Delay (ms)	0	0
Transmit Power (dBm)	12.1	9
SNR Margin (dB)	22.3	21.3

WAN

- 8- Genelde Network cihazlarında SNMP Agent default (varsayılan) Disable olarak gelir. Enable Seçilerek aktif ediyoruz.

The screenshot shows the TP-Link TD-W9970 web interface. The left sidebar contains a menu with 'System Tools' highlighted. The main content area is titled 'SNMP Settings'. It includes a description of SNMP and a section for 'SNMP Agent' with radio buttons for 'Disable' and 'Enable'. The 'Enable' option is selected. A 'Save' button is at the bottom right.

- 9- Karşımıza yeni alanlar çıktı. Read Community ve Set Community değerlerinin public olduğu görülmektedir. Zabbix Sunucumuzun SNMP Community alanına public değerini gireceğiz. Trap Manager Alanına ise Zabbix Sunucumuzun IP adresini girilmesi gerekmektedir. Böylece Modem ve Zabbix Sunucusunun iletişimini başlatmış olacağız.

The screenshot shows the TP-Link TD-W9970 web interface with the 'SNMP Settings' page. The 'SNMP Agent' is set to 'Enable'. Below this, there are fields for 'Read Community' and 'Set Community', both containing the value 'public'. Other fields include 'System Name' (TD-W9970), 'System Description' (20.08.05.01006), 'System Location', 'System Contact', and 'Trap Manager IP' (192.168.1.200). A 'Save' button is at the bottom right.

10- Modemimizin SNMP Community ayarlarını save (kaydet) tıklayarak kaydediyoruz.

TP-LINK® 300Mbps Wireless N

SNMP Settings

Simple Network Management Protocol(SNMP) allows management applications to retrieve status updates and statistics from the SNMP agent.

SNMP Agent: ☐ Disable ☒ Enable

Read Community: public

Set Community: public

System Name: TD-W9970

System Description: 20.08.05.01006

System Location:

System Contact:

Trap Manager IP: 192.168.1.200

Save

11- Zabbix SNMP ayarlarımıza modemimizin IP adres bilgisini giriyoruz. SNMP Community kısmına ise Modemimizdeki Read ve Set Community kısmındaki public değerini giriyoruz ve Add (Ekle) seçeneğine tıklanarak network cihazımızı eklemiş oluyoruz.

New host

Host IPMI Tags Macros Inventory Encryption Value mapping

* Host name: MyModem

Visible name: MyModem

Templates: Network Generic Device by SNMP

* Groups: Modems (new)

Interfaces:

Type	IP address	DNS name	Connect to	Port	Default
SNMP	192.168.1.1		IP	DNS	161

* SNMP version: SNMPv2

* SNMP community: public

☒ Use bulk requests

Add

Description:

Monitored by proxy: (no proxy)

Enabled: ☒

Add Cancel

12- Network cihazımızı başarılı bir şekilde ekledik.

The screenshot shows the Zabbix 'Hosts' configuration page. The 'MyModem' host is highlighted with a red box. The host details are as follows:

Name	Items	Triggers	Graphs	Discovery	Web	Interface	Proxy	Templates	Status	Availability	Agent encryption
MyModem	12	6	6	2	Web	192.168.1.1:161		Network Generic Device by SNMP	Enabled	SNMP	None
MyPc	32	12	5	4	Web	20.20.20.103:10050		Windows by Zabbix agent	Disabled	ZBX	None
Suleyman 20.20.20.27	107	76	11	4	Web	20.20.20.27:10050		Windows by Zabbix agent	Disabled	ZBX	None
Zabbix server	125	69	25	4	Web 1	127.0.0.1:10050		Linux by Zabbix agent, Zabbix server health	Enabled	ZBX	None

13- Birkaç dakika bekliyor ve sayfayı yeniliyoruz, Availability kısmında SNMP interface'inin yeşile dönmesini yani aktif olmasını bekliyoruz. Haberleşmenin sağlandığını görmekteyiz

The screenshot shows the Zabbix 'Hosts' configuration page after a refresh. The 'MyModem' host is highlighted with a red box. The 'Status' and 'Availability' columns are highlighted with red boxes, showing the host is now 'Enabled' and 'SNMP'.

Name	Items	Triggers	Graphs	Discovery	Web	Interface	Proxy	Templates	Status	Availability	Agent encryption
MyModem	12	6	6	2	Web	192.168.1.1:161		Network Generic Device by SNMP	Enabled	SNMP	None
MyPc	32	12	5	4	Web	20.20.20.103:10050		Windows by Zabbix agent	Disabled	ZBX	None
Suleyman 20.20.20.27	107	76	11	4	Web	20.20.20.27:10050		Windows by Zabbix agent	Disabled	ZBX	None
Zabbix server	125	69	25	4	Web 1	127.0.0.1:10050		Linux by Zabbix agent, Zabbix server health	Enabled	ZBX	None

14- monitoring sekmesinden Latest Data gidiyor ve metriklerimizi gözlemliyoruz.

The screenshot shows the Zabbix Monitoring page. The left sidebar has a red box around the 'Monitoring' icon and another red box around the 'Latest data' link. The main content area shows a table of hosts with columns for Items, Triggers, Graphs, Discovery, Web, and Interface. The table has 4 rows of data. Below the table are buttons for 'Disable', 'Export', 'Mass update', and 'Delete'.

Items	Triggers	Graphs	Discovery	Web	Interface
Items 12	Triggers 6	Graphs 5	Discovery 2	Web	192.168.1.1:161
Items 32	Triggers 12	Graphs 5	Discovery 4	Web	20.20.20.103:10050
Items 107	Triggers 76	Graphs 11	Discovery 4	Web	20.20.20.27:10050
Items 125	Triggers 69	Graphs 25	Discovery 4	Web 1	127.0.0.1:10050

15- Latest data kısmında Hosts kısmından MyModem hostumuzu seçiyoruz.

The screenshot shows the Zabbix Latest data page. The left sidebar has a red box around the 'Hosts' link. The main content area shows a table of hosts with columns for component, description, disk, filesystem, interface, name, and service. The table has 4 rows of data. Below the table are buttons for 'Save as', 'Apply', and 'Reset'.

component	description	disk	filesystem	interface	name	service
MyModem 12	MyPc 32	Suleyman 20.20.20.27	107	Zabbix server	131	

16- Modemimizin metriklerini (datalarını) başarılı bir şekilde aldığını gözlemliyoruz.

The screenshot shows the Zabbix web interface. The left sidebar contains navigation icons. The main content area displays monitoring data for the host 'MyModem'. The 'TAGS' section shows 'component: health' and 'component: network'. The 'TAG VALUES' section shows 'component: health 4', 'network 5', and 'system 7'. The 'DATA' section has tabs for 'With data' and 'Without data'. The 'With data' tab is active, showing a table of metrics for 'MyModem'.

Host	Name	Last check	Last value	Change
MyModem	ICMP loss	1m	0 %	
MyModem	ICMP ping	1m	Up (1)	
MyModem	ICMP response time	1m	4.18ms	-2.05ms
MyModem	SNMP agent availability	27s	available (1)	
MyModem	SNMP traps (fallback)			
MyModem	System contact details	4m	unknown	
MyModem	System description	4m	20.08.05.01006	
MyModem	System location	4m	unknown	
MyModem	System name	4m	TD-W9970	
MyModem	System object ID	4m	iso.3.6.1.4.1.11863	
MyModem	Uptime (hardware)	30s	00:00:00	
MyModem	Uptime (network)	30s	04:49:48	+00:00:30

Tags: component: health, component: network, Graph

Info: component: health, component: network, Graph

component: health, component: network, Graph

component: health, component: network, Graph

component: network, History

component: system, History

component: system, History

component: system, History

component: system, History

component: system, History

component: system, Graph

component: system, Graph

Displaying 12 of 12 found

17- Test amaçlı olarak modemimizi kapatıyoruz veya restliyoruz ve herhanagi bir alert (trigger) durumunu gözlemliyoruz.

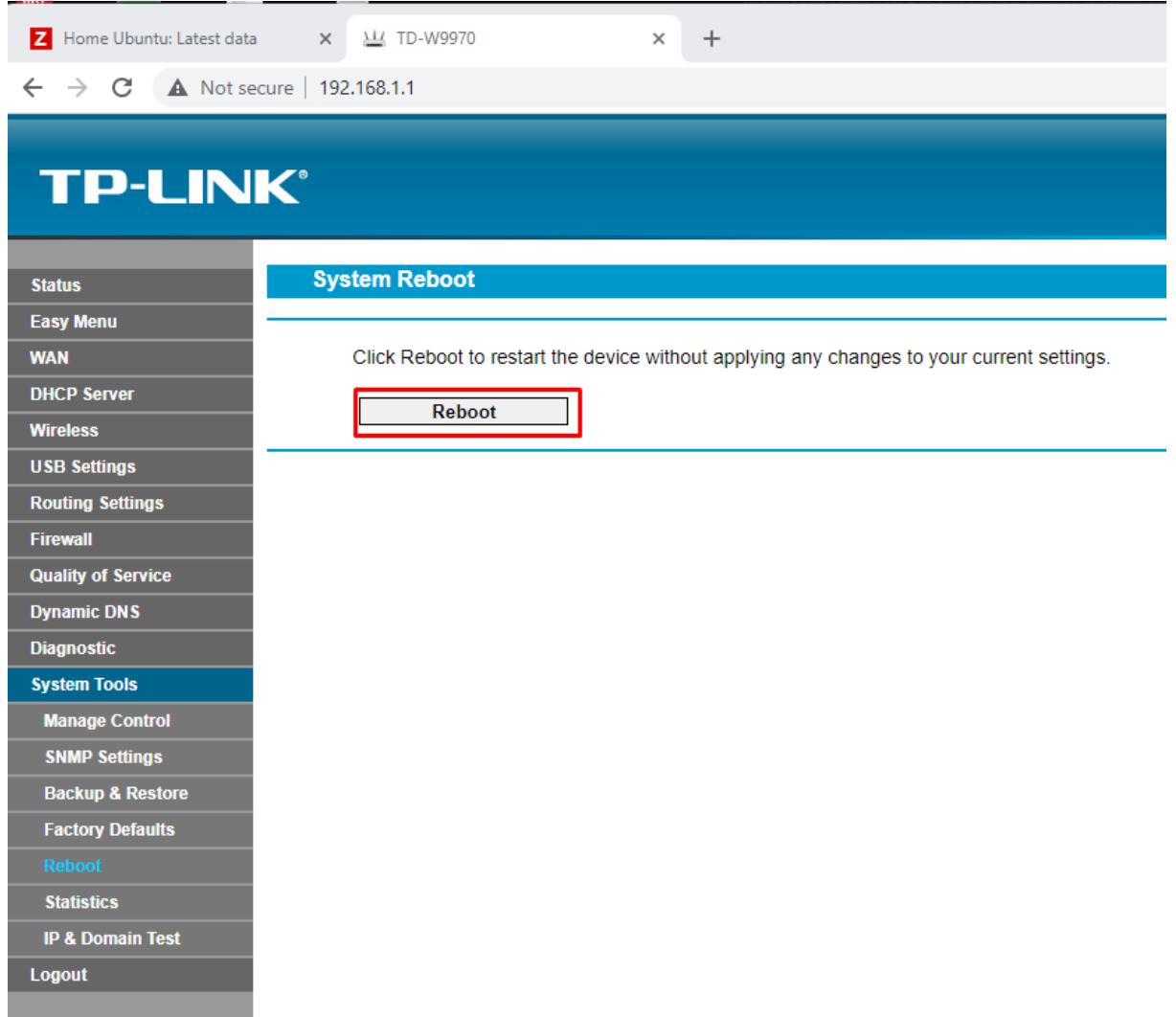
The screenshot shows the TP-Link modem web interface. The left sidebar contains navigation icons. The main content area displays the 'Manage Control' section. The 'Current User Status' section shows 'User Type: User', 'Username: admin', 'Host IP Address: 192.168.1.102', and 'Host MAC Address: 00:45:E2:C9:FA:19'. The 'Account Management' section shows 'User login password must not exceed 15 characters in length' and fields for 'Old Password', 'New Password', and 'Confirm password'. The 'Service Configuration' section shows a table for 'HTTP Service' and 'HTTPS Service'.

	HTTP Service	HTTPS Service
Local Management	Enable <input checked="" type="checkbox"/> Port 80	Enable <input type="checkbox"/> Port 443
Remote Management		Enable <input type="checkbox"/> Port 443

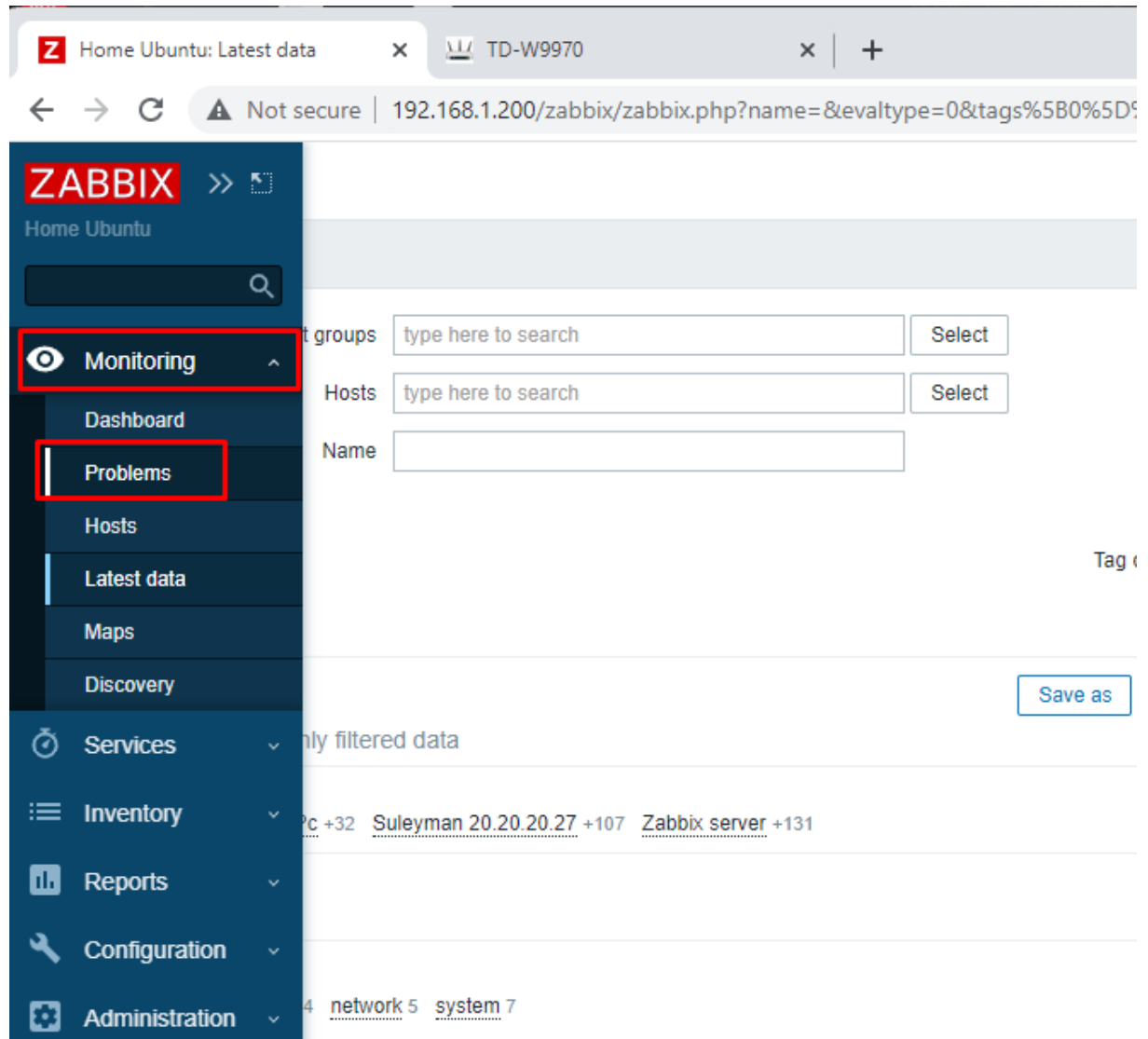
ICMP(ping): ☐ Remote ☒ Local

Save

18- Ağ cihazımı reboot ediyorum.



19- Zabbix Dahsboard'umdan monitoring problems kısmına geliyorum.



20- Zabbix bize modemın yeniden başlatıldığı uyarısını başarılı bir şekilde vermiş oldu.

The screenshot shows the Zabbix web interface in a browser window. The address bar indicates the URL is 192.168.1.1. The page title is "Problems". A sidebar on the left contains various navigation icons. The main content area displays a table of problems. A single problem is listed, highlighted with a red border. The problem details are as follows:

Time	Severity	Recovery time	Status	Info	Host	Problem	Duration	Ack	Actions	Tags
16:27:07	Warning		PROBLEM		MyModem	↓ MyModem has been restarted (uptime < 10m)	21s	No		class: network component: system scope: notice ...

Below the table, it shows "0 selected" and a "Mass update" button. The bottom right corner of the table area says "Displaying 1 of 1 found".