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DiGi WR21/31 Modem Basics

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Outline

In this document you will find screenshots outlining how to find common settings and other information in a DiGi WR21/31 modem.

Lan Settings

The screenshot shows the 'TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT' interface. On the left, the navigation menu is visible with 'Network' selected (marked with a red circle 1). The main panel shows the 'Configuration - Network > Interfaces > Ethernet > ETH 0' path. The 'Description:' field is empty (marked with a red circle 2). Below it, there are two radio buttons: 'Get an IP address automatically using DHCP' (unselected) and 'Use the following settings' (selected). The 'Use the following settings' section is highlighted with a red box and contains fields for IP Address (192.168.2.1), Mask (255.255.255.0), Gateway, DNS Server, and Secondary DNS Server. A note below says 'Changes to these parameters may affect your browser connection' (marked with a red circle 5). At the bottom, there are links for 'Advanced', 'QoS', and 'VRRP'. A red circle 6 points to the 'Apply' button, and a red circle 7 points to the message 'Configuration successfully applied. Click [here](#) to save configuration.'

The screenshot shows the 'TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT' interface. On the left, the navigation menu is visible with 'Network' selected (marked with a red circle 1). The main panel shows the 'Configuration - Network > IP Routing/Forwarding > IP Port Forwarding/Static NAT Mappings' path. It includes a dropdown for 'Save current configuration to Config 0 (power up)' and a 'Save' button. Below is a list of items to save: 'Save the current configuration to config 0', 'Save the current firewall', 'Save all registers on all ports to profile 0', and 'Save all PAD parameters on all PADs to profile 0'. A red circle 2 points to the 'Save All' button.

How to arp -a (AKA LAN IP/MAC Table)



TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Administration - Execute a command

Command: **arp -a** ②

Execute ③

Command: arp -a
Command result

```
ARP Cache Size:100 entries, old entries reused:0 no arp matches:324
ETH 0:
  IP Address      Physical Address    Expiry     Retries   State
  192.168.2.51   00-1e-c6-05-0b-8e    251       3         found
nb of entries:1
nb of entries:0
OK
```

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① Execute a command
② Save configuration
③ Reboot

How to Ping



TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Administration - Execute a command

Command: **ping 192.168.2.51** ②

Execute ③

Command: ping 192.168.2.51
Command result

```
Pinging Addr [192.168.2.51]
sent PING # 1
PING receipt # 1 : response time 0.00 seconds
Iface: ETH 0
Ping Statistics
  Sent : 1
  Received : 1
  Success : 100 %
  Average RTT : 0.00 seconds
OK
```

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① Execute a command
② Save configuration
③ Reboot

How to Create Port Forwards



TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Configuration

- Home
- Wizards
- Configuration
- Network** ①
- Alarms
- System
- Remote Management
- Security
- Telemetry
- Applications
- Basic
- Python
- Management
- Network Status
- Connections
- Telemetry
- Event Log
- Analyser
- Top Talkers
- Administration
- System Information
- File Management
- X.509 Certificate Management
- Backup/Restore
- Update Firmware
- Factory Default Settings
- Execute a command
- Save configuration
- Reboot

Configuration - Network > IP Routing/Forwarding > IP Port Forwarding/Static NAT Mappings

Forward connections from external networks to the following internal devices. In order to forward to an internal port, an interface must have its NAT configuration set to "IP address and Port".

(you may configure up to 30 forwarding rules):

External Min Port	External Max Port	Forward to Internal IP Address	Forward to Internal Port	Delete
1021	1021	192.168.2.51	80	<input type="button" value="Delete"/>
4361	4361	192.168.2.161	443	<input type="button" value="Delete"/>
<input type="button" value="Add"/>				<input type="button" value="5"/>

6 **7** Configuration successfully applied. Click [here](#) to save configuration.



TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Configuration

- Home
- Wizards
- Configuration
- Network**
- Alarms
- System
- Remote Management
- Security
- Telemetry

Configuration - Network > IP Routing/Forwarding > IP Port Forwarding/Static NAT Mappings

Save current configuration to Config 0 (power up) **1**

Save

Save all configuration. This includes the following

- Save the current configuration to config 0
- Save the current firewall
- Save all registers on all ports to profile 0
- Save all PAD parameters on all PADs to profile 0

Save All **1**

Signal Strength/Quality



TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Home

System

Model: TransPort WR31
Part Number: WR31-L52A-DE1-TB
Serial Number: 745647
FW Version: 7.0.3.5 (Mar 7 2019 08:58:57)
Image Number: 0
Boot Version: 0.0.58
Uptime: 2 hours 38 minutes 26 seconds
System Time: 3 Jun 2023 15:37:59
CPU Utilization: 12% (Min 1%, Max 94%, Avg 2%)
Temperature: 43°C (CPU), 36°C (internal)
Description:
Contact:
Location:

Interfaces

Ethernet 0:
Ethernet 1:
Cellular:

LEDs

Power:
Service:
WWAN:
Signal 1:
Signal 2:
Signal 3:

Device Cloud

Server: my.devicecloud.com
Status: Disabled
Device ID: 00000000-00000000-00042DFF-FF0B90AF
Uptime: 0 seconds
Data Received: 0 Bytes
Data Sent: 0 Bytes

Cellular

Module: MC7354
SIM: Detected (using SIM 1)
Signal Strength: Fair (-109 dBm)
Signal Quality: Excellent (+8 dB)

Uptime: 2 Hours 37 Minutes 41 Seconds
Temperature: 32°C
IP address: 10.0.3.187
DNS Server: 196.216.138.41
Data Received: 260.21 KB
Data Sent: 604.20 KB

GPIO

Analog Mode: Current
Analog Value: 0.023 mA
Analog Current Calibration Low: Uncalibrated
Analog Current Calibration High: Uncalibrated
Analog Voltage Calibration Low: Uncalibrated
Analog Voltage Calibration High: Uncalibrated
Digital 0 Input: HIGH (inactive)
Digital 0 Output: OFF
Digital 0 Pullup: ON
Digital 1 Input: HIGH (inactive)
Digital 1 Output: OFF
Digital 1 Pullup: ON

ICCID/IMEI



TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

[Home](#)

System

Model: TransPort WR31
Part Number: WR31-L52A-DE1-TB
Serial Number: 745647
FW Version: 7.0.3.5 (Mar 7 2019 06:58:57)
Image Number: 0
Boot Version: 7.66u
Uptime: 2 hours 34 minutes 17 seconds
System Time: 3 Jun 2022 15:33:50
CPU Utilization: 28% (Min 1%, Max: 94%, Avg: 8%)
Temperature: 43°C (CPU), 36°C (Internal)
Description:
Contact:
Location:

[more](#)

LEDs

Power:
Service:
WWAN:
Signal 1:
Signal 2:
Signal 3:

Device Cloud

Server: my.devicecloud.com
Status: Disabled
Device ID: 00000000-00000000-00042DFF-FF0B60AF
Uptime: 0 seconds
Data Received: 0 Bytes
Data Sent: 0 Bytes

Interfaces

Ethernet 0:
Ethernet 1:
Cellular:

Cellular

Module: MC7354
SIM: Detected (using SIM 1)
Signal Strength: Fair (-109 dBm)
Signal Quality: Excellent (>8 dB)
Uptime: 2 Hours 33 Minutes 32 Seconds
Temperature: 32°C
IP address: 10.0.3.187
DNS Server: 166.216.138.41
Data Received: 214.25 KB
Data Sent: 473.96 KB

[more 1](#)

GPIO

Analog Mode: Current
Analog Value: 0.0231 mA
Analog Current Calibration Low: Uncalibrated
Analog Current Calibration High: Uncalibrated
Analog Voltage Calibration Low: Uncalibrated
Analog Voltage Calibration High: Uncalibrated
Digital 0 Input: HIGH (inactive)
Digital 0 Output: OFF
Digital 0 Pullup: ON
Digital 1 Input: HIGH (inactive)
Digital 1 Output: OFF
Digital 1 Pullup: ON

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TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

[Management - Network Status > Interfaces > Mobile](#)

Ethernet

Mobile

The following information and statistics can be used to manage and monitor your mobile connection. This information may also be helpful in troubleshooting problems with the mobile network.

Mobile Connection

Registration Status: Registered tac:9611 cl:05E05F16
Signal Strength: Fair (-109 dBm)
Signal Quality: Excellent (>8 dB)
Connection type: NDIS

Mobile Statistics

IP Address: 10.0.3.187
Primary DNS Address: 166.216.138.41
Secondary DNS Address: 166.216.138.42
Data Received: 233.89 KB
Data Sent: 513.56 KB

Mobile Information

Results of Last Module Status Poll at 3 Jun 2022 15:34:22
Outcome: Got modem status OK

SIM status: Ready (PIN checking disabled)
Signal strength: -80 dBm
Radio technology: LTE
Signal quality (LTE): RSSI -80 dBm, RSRP -109 dBm, RSRQ -8 dB, SINR 5.6 dB
Radio band: E-UTRA Operating Band 4
Channel: 2225
Manufacturer: Sierra Wireless, Incorporated
Model: MC7354
IMEI: 353968092052530
ESN: 8075E3CB
MEID: 35396809205253
IMSI: 310410170651382
MDN: 15334536375
ICCID: 89014104271706513824

APN Settings

TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Configuration - Network > Interfaces > Mobile

Interfaces 2
Ethernet
Mobile 3

Select a 3 to configure from the list below

Settings on the page apply to the selected SIM

SIM: 1 (PPP 1) IMSI: 310410170651382

Mobile Settings

Select the service plan and connection settings used in connecting to the mobile network.

Mobile Service Provider Settings

Service Plan / APN: 14112.mcs 4
 Select APN automatically
 Use backup APN [] Retry the main APN after [] minutes
 SIM PIN: [] (Optional)
 Confirm SIM PIN: []
 Username: [] (Optional)
 Password: [] (Optional)
 Confirm Password: []

Mobile Connection Settings

Re-establish connection when no data is received for a period of time

Mobile Network Settings

Enable NAT on this interface
 IP address IP address and Port
 Enable IPsec on this interface
 Enable the firewall on this interface

Mobile Firmware (OTA) Update
 SIM Selection
 Advanced
 SMS Settings

5 Apply Configuration successfully applied. Click [here](#) to save configuration. 6

TRANSPORT WR31 (SN: 745647) CONFIGURATION AND MANAGEMENT

User : admin

Configuration - Network > IP Routing/Forwarding > IP Port Forwarding/Static NAT Mappings

Save current configuration to Config 0 (power up) ▾

Save all configuration. This includes the following

- Save the current configuration to config 0
- Save the current firewall
- Save all registers on all ports to profile 0
- Save all PAD parameters on all PADs to profile 0

Save All 1