Настройка MikroTik для работы с 3G/4G/LTE модемом

В данной статье рассмотрим настройку роутера RB951Ui-2Hnd с модемом Huawei E3372 с прошивкой hilink.

1. Заходим в web интерфейс роутера через браузер и скачивает утилиту winbox. Для этого меняем настройки вашей локальной сети на ip 192.168.88.100 и набираем в адресной строке ip роутера по умолчанию 192.168.88.1 и видим следующее окно:



| administrator. |
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| administrator. |
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В левом нижнем углу нажимаем на winbox и начинается автоматическая загрузка.

2. Заходим в наш роутер через winbox, вводим ір роутера и логин: admin, нажимаем на connect.

| Connect To: 1 | 92.168.88.1 | | . Connect |
|---------------|---|---------|-----------|
| Login: a | admin | | |
| Password: | | | Save |
| א ה | Keep Passwor Secure Mode | d | Remove |
| F | Load Previous | Session | Tools |
| Note: 🕅 | lash | | |
| Address | User 🗡 | Note | |
| 192.168.88.1 | admin | Nash | |

3. После входа в <u>MikroTik</u> RB951Ui-2Hnd подсоединяем к нему Huawei E3372 и должны увидеть во вкладке Interface наш модем определенный как LTE, если прошивка не hilink, а модем от провайдера (Мегафон, Билайн или MTC) то скорей всего он определится как (ppp-out1).

| | Name / | Туре | L2 MTU | Tx | Rx | Tx Pac |
|----|-----------------------|-----------------------|--------|------------|------------|--------|
| R | 11bridge-local | Bridge | 1598 | 138.6 kbps | 231.6 kbps | |
| | ether1-gateway | Ethemet | 1598 | 0 bps | 0 bps | |
| S | ether2-master-I | Ethemet | 1598 | 0 bps | 0 bps | |
| S | *>ether3-slave-lo | Ethemet | 1598 | 0 bps | 0 bps | |
| RS | ether4-slave-lo | Ethemet | 1598 | 0 bps | 0 bps | |
| S | ether5-slave-lo | Ethemet | 1598 | 0 bps | 0 bps | |
| R | ≪Plte1 | LTE | | 231.1 kbps | 41.6 kbps | |
| X | Solution 3.5 ppp-out1 | PPP Client | 1500 | 0 bps | 0 bps | |
| RS | ♦ wlan2 | Wireless (Atheros AR9 | 1600 | 141.8 kbps | 233.7 kbps | |

Для того чтобы включить наш модем, нужно нажать на LTE правой кнопкой мыши и выбрать Enable.

4. Следующий этап, идем в ip - DHCP Client и добавляем наш LTE модем.

| TCP Client DHCP (| lient Optio | ons | | | | |
|------------------------|-------------|------------|----------|----------|---------------|-----------|
| | 2 | R e | lease | Renew | | Find |
| Interface / | Use P | Add D | IP Addre | ss | Expires After | Status |
| ether1-gateway | yes | yes | | | | searching |
| ;; default configurati | on | Gamer | 100.100 | 0.100/04 | 15.07.0 | |
| ite i | yes | yes | 192.168. | 8.100/24 | 15:37:24 | 1 bound |
| | | | | | | |
| | | | | | | |

Жмем на (+) и видим такую табличку:

| DHCP CI | ient ⊲te1> | | | 0 | |
|---------|------------------|--------------|------------|---|---------|
| DHCP | Status | 2 | | 1 | ОК |
| | Interface: | Ite1 | | Ŧ | Cancel |
| | | Use Peer I | ONS NTP | | Apply |
| | DUCE O II | 1 | - | | Disable |
| | DHCP Options: | hostname | • | ₹ | Comment |
| | | clientid | + | • | Сору |
| Ad | d Default Route: | yes | | ₹ | Remove |
| Default | Route Distance: | \mathbb{D} | | | Release |
| | | | | | Renew |

В окне interface выбираем LTE, а если у Вас модем определился как ppp-out1, тогда выбираете его. В окне Default Route Distance ставите значение (1). Нажимаем Apply и OK.

5. Направляемся во вкладку Firewall (ip-Firewall) и выключаем все Красным крестиком, кроме Default configuration.

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|--|-------------------|---|--|----------|--------------------|-------|--|
| LATERNAL LATERNAL Interfaces Indige Provid Consection Type: Connection NAT State: OK Cancel Ok Cancel Optimizing Cancel Optimizing Provid PP Ref Rules NAT Mangle Service Ports Connections A Provid Provid Pro | | Fi | ewall Rule 🔿 | | | | |
| Interfaces Wreless Bridge PPP Pter Rules Nath IP If default configuration IC default configuration IS vietes In PLS If default configuration IS vietes In Public In Public In Public If default configuration IS vietes IS vietes IP In Public IP If default configuration IS vietes In Public In Public IS vietes In Public IS vietes In Public In Public IS vietes In Public IS vietes In Public In Public IS vietes In Public IS vietes In Public In Public IS vietes In Public In Public <td></td> <td>C</td> <td>seneral Advanced Extra Action Statistics</td> <td></td> <td>ОК</td> <td></td> <td></td> | | C | seneral Advanced Extra Action Statistics | | ОК | | |
| Virteess Bridge Bridge Brodge PPP Filter Rules Nach # Action Train Sc. Address Dat. Address Neah # Action Train Sc. Address Dat. Address D. esc. sput D. esc. sput D. esc. sput System F 1: Kersk configuration 1: Kersk configuration System F :: default configuration 1: Kersk configuration System F :: default configuration Radus 5 X default configuration State Address MarkaNUTER Pattion Marual 7 Items (1 selected) Karval Total Karval Total Narual 7 Items (1 selected) | Miniterraces | | Chain: nput | ₹ | Cancel | | |
| andge andge BPP Filer Rules NAT Mangle Service Pots Connections A Switch Image Image Mesh Image | | | Src. Address: | | Apply | | |
| Switch Switch Weich IP IA Action Chain Chain Configuration Routing IP IP Method IP IP IP IP IP IP IP IP IP IP IP IP IP IP IP IP <td></td> <td></td> <td>Dst. Address:</td> <td>•</td> <td>Direkte</td> <td></td> <td></td> | | | Dst. Address: | • | Direkte | | |
| Mesh IP IP IP Action Chain Soc. Anoth IP IP IP IP IP IP IP IP IP IP IP IP IP IP IP IP IP IP I | Switch | nice hules NAT Mangle Service Ports Connections A | | | Disable | hreat | |
| IP If Action Chain Src. Address Dat. Address IP If Action Chain Src. Address Src. Port: IN In In In In In Routing In In In In In System In In In In In System In In In In In System In In In In In Oucues In Interface: In In In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In In Interface: In Interface: In Interface: In Interface: In Interface: In Interface: In Interface: In Interface: In Interface: In Interface: Interface: In Interface: In </td <td>2º Mesh</td> <td></td> <td>Protocol:</td> <td>•</td> <td>Comment</td> <td>••••</td> <td></td> | 2º Mesh | | Protocol: | • | Comment | •••• | |
| MPLS Noting Noting Routing Noting Noting Noting Noting Noting Noting Noting Noting System Noting Noting System System System Noting System New Terminal MetaB | | # Action Chain Src. Address Dst. Address | Src. Port: | Ψ. | Сору | | |
| Routing III default configuration System III default configuration Queues III default configuration Gueues III default configuration Badus III default configuration Connection Mark: Index Configuration Index Co | Z MPLS | 0 X v acc. hput | Dst. Port: | Ψ | Remove | | |
| System IIII default configuration Queues Iiles Queues Iiles Log 4 x eac. input default configuration iidefault configuration iidefault configuration iidefault configuration iidefault configuration iidefault configuration S x eac forward iidefault configuration S x drop for | Routing | 1 X as input | Any. Port: | | Reset Counters | | |
| Queues Queues in default configuration Files Log A x acc input default configuration 4 x acc forward default configuration 5 x acc forward default configuration S x acc forward default configuration MataROUTER Partition Manual 7 tems (1 selected) Connection State: Connection NAT State: Connection NAT State: | System | default configuration | P2P: | • | Reset All Countern | | |
| Files 3 accinput U Log 4 accinput U Addault configuration Connection Mark: Image: Connection Mark: Image: Connection Mark: Radius Sideful configuration Connection Mark: Image: Connection Mark: Image: Connection Mark: New Terminal MetaROUTER MetaROUTER Routing Mark: Image: Connection State: Image: Connection NAT State: Manual 7 items (1 selected) Connection NAT State: Image: Connection NAT State: Image: Connection NAT State: | Queues | | | I. | Neset Air Counters | | |
| Log A default configuration 4 x or acc. Inward 5 x or acc. Inward 7 tems (1 selected) 7 t | Files | 3 vacc input | | | | | |
| Radius ::: default configuration Tools New Teminal New Teminal MetaROUTER Partition Make Supout rf Manual 7 items (1 selected) Exit Connection NAT State: Connection NAT State: | Log | 4 X v acc. forward | Out. Interface: | | | | |
| Tools 5.X Generation New Teminal X drop forwed MetaROUTER Partition Make Supout.rff Manual 7 items (1 selected) | 🔒 Radius | ::: default copyguration | Packet Mark: | • | | | |
| New Teminal Image: Connection Nation Routing Mark: Image: Connection Nation MetaROUTER Partition Routing Mark: Image: Connection Type: Image: Connection Type: Manual 7 items (1 selected) Connection Type: Image: Connection State: Image: Connection Nation Exit Connection NAT State: Image: Connection Nation Image: Connection Nation Image: Connection Nation | 🗧 Tools 💦 🖒 | 5 X vertice forward | Connection Mark: | | | | |
| MetaROUTER Politing Mark: Partition Routing Table: Make Supout.rif 7 items (1 selected) Connection Type: Exit Connection State: Connection NAT State: | New Terminal | 6 K drop forward | | | | | |
| Partition Routing Table: Image: Connection Type: Manual 7 items (1 selected) Image: Connection Type: Exit Connection Type: Connection State: Image: Connection State: Connection NAT State: Image: Connection Type: | MetaROUTER | | | | | | |
| Make Supout.rf 7 items (1 selected) Connection Type: Manual 7 items (1 selected) Connection State: Exit Connection NAT State: | 🖢 Partition | | Routing Table: | • | | | |
| Manual 7 items (1 selected) Connection State: Exit Connection NAT State: | 🛓 Make Supout.rif | | Connection Type: | • | | | |
| Exit Connection NAT State: | 😫 Manual | 7 items (1 selected) | Connection State: | | | | |
| Connection NAT State: | 📕 Exit | | | | | | |
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Далее нажимаем на Default configuration два раза и в окне Firewall Rule в разделе Chain ставим input, а в окне In.interface выбираем наш LTE, нажимfeм Apply и переходи во вкладку Action:

ら CM Safe Mode



| Internet Internet and internet | | | |
|---|---|--|--------------------|
| 🔏 Quick Set | | Firewall Rule 🔿 | |
| 🔔 CAPsMAN | | General Advanced Extra Action Statistics | ок |
| Interfaces | | Action: accent | Cancel |
| 📜 Wireless | | | Cancel |
| 💦 Bridge | Firewall | | Apply |
| PPP | Filter Rules NAT Mangle Service Ports Connections A | Log Prefix: | Disable |
| 🛫 Switch | | | Comment |
| • 🖁 Mesh | | | |
| 255 IP | # Action Chain Src. Address Dst. Address | | Сору |
| MPLS N | 0 X v acc input | | Remove |
| 🜌 Routing 🗈 | 1 X wr acc input | | Reset Counters |
| Svstem | default configuration | | |
| Gueues | 2 X ar acc input | | Reset All Counters |
| Files | 3 Vacc., input | | |
| | default configuration | | |
| A Padius | 4 X wr acc forward | | |
| | 5 X v acc forward | | |
| | ::: default configuration | | |
| New Terminal | | | |
| MetaROUTER | | | |
| 🥭 Partition | | | |
| 🔓 Make Supout.rif | | | |
| 😧 Manual | / items (1 selected) | | |
| 📕 Exit | | | |
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Выбираем Accept, нажимаем Apply и OK.

6. Следующий этап, это настройка NAT, без него интернета не будет. Переходим опять в ip-firewall и нажимаем на вкладку NAT:

| Reneral Advanced Extra | Action Statistics | | ОК |
|------------------------|-------------------|----------|-------------------|
| Chain: srcnat | | ₹ | Cancel |
| Src. Address: | | • | Apply |
| Dst. Address: | | - | Disable |
| Protocol: | | • | Comment |
| Src. Port: | | | Сору |
| Dst. Port: | | • | Remove |
| Any. Port: | | v | Reset Counters |
| In. Interface: | | | Reset All Counter |
| Out. Interface: 🗌 Ite1 | > | | L |
| Packet Mark: | | ▼ | |
| onnection Mark: | | | |
| Routing Mark: | | | |
| Routing Table: | | ▼_ | |
| Connection Type: | | • | |

В окне Chain ставим srcnat и в Out.interface выбираем наш LTE. Все применяем и переходи в раздел Action:

| NAT Rule <> | |
|--|--------------------|
| General Advanced Extra Action Statistics | ОК |
| Action: masquerade | Cancel |
| | Apply |
| Log Prefix: | Disable |
| | Comment |
| | Сору |
| | Remove |
| | Reset Counters |
| | Reset All Counters |
| | |

Тут мы выбираем в окне Action действие masquerade жмем Apply и OK. Теперь у нас появился интернет на Микротике и можем его проверить перейдя в New Terminal - команда «ping».