# ctys-wakeup(1)
## WoL and IPMI

September 29, 2020

# Contents

.

# 1   NAME

**ctys-wakeup - WoL and IPMI**

# 2   SYNTAX

**ctys-wakeup**

```
[-d <level>]
[-h]
[-H <help-options>]
[-i <interface>]
[-n]
[-p <port>]
[-t <TCP/IP address>]
[-V]
[-X]
<mac-address>
```

# 3   DESCRIPTION

**ctys-wakeup**  ctys-wakeup  sends a so called MagicPacket(TM) to a given destination.  In case a remote segment is addressed by setting the "-t" option, a UDP message is sent to port "9".  The script consists of a few lines of bash code with a call to Netcat. So it could be adapted easily.

```
mac=$1;shift
ip=$1;shift

function buildWOLMagicPacket () {
 local _mac=$1;shift
 declare -a _pdu;

 function macAsc2Hex () {
   for i in ${@};do
     printf "\x$i"
   done
 }


 #frame
 _pdu=(ff ff ff ff ff ff);

 #MAC addr in "little endian"
 addr=(${mac: })
 addrLitteEndian=(${addr[0]} ${addr[1]} \
                  ${addr[2]} ${addr[3]} \
                  ${addr[4]} ${addr[5]});


 #add 16 duplications
 for((i=0;i<16;i++));do
   for m in ${addrLitteEndian[@]};do
     size=${#_pdu[@]}
```

```
    _pdu[${size}]=$m
  done
 done

 macAsc2Hex ${_pdu[@]}
}


if [ -n "$ip" ];then
  printf "`buildWOLMagicPacket $mac`\n"|nc -u -w 1 $ip 9
  else
    buildWOLMagicPacket $mac
fi
```

.

## 4   OPTIONS

**-d** **<level>** Sets debug.

**-h** Print help, refer to "-H" for additional information.

**-H** **<help-option>** The extended help option is based on system interfaces for display of manpages, PDF and
HTML documents. This comprises the man pages and installed manuals.

For additional help refer to the documents or type **ctys -H help**.

**-i** **<broadcast-interface>** The ethernet-broadcast interface for local segment. When used "-t" option is not
applicable.

**-n** No execution, evaluation only.

**-p** **<port>** The port for destination, which is by default "9" for a hard-coded UDP message. It is not really
relevant, might be used only for adaptation to firewall rule.

**-t** **<TCP/IP address>** When provided the packet is send to destination. The destination address could be
a "directed-broadcast" address, which has to be supported by the router.

E.g. OpenBSD requires "net.init.ip.directed-broadcast=1", and the appropriate pf-rules.

For 1.2.3.4:

```
<wol>      {1.2.3.255}

pass  in  on \$ifX  from <wolExec> to <wol>
pass  out on \$ifY  from <wolExec> to <wol>
```

Alternatively a "rdr" - Redirection could be set. When this option is not provided, a UDP packet will be
sent to "255:255:255:255:9".

When used "-i" option is not applicable.

**-V** Version.

**-X** See ctys, terse for machine output.

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## 5   ARGUMENTS

The MAC address of the targeted NIC, this could be evaluated by call of "ctys-macmap" and/or "ctys-vhost"
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# 6    EXIT-VALUES

**0: OK:** Result is valid.

**1: NOK:** Erroneous parameters.

**2: NOK:** Missing an environment element like files or databases.

# 7 SEE ALSO

**ctys use-cases** *ctys-IPMI(7)*, *ctys-WoL(7)*

**ctys plugins** **PMs** *ctys-PM(7)*

  **VMs** *ctys-KVM(7)*, *ctys-QEMU(7)*, *ctys-VMV(7)*, *ctys-XEN(7)*, *ctys-VBOX(7)*

  **HOSTS** *ctys-CLI(7)*, *ctys-PM(7)*, *ctys-VNC(7)*, *ctys-X11(7)*

**ctys executables** *ctys-extractARPlst(1)*, *ctys-extractMAClst(1)*, *ctys-genmconf(1)*, *ctys-plugins(1)*, *ctys(1)*, *ctys-vhost(1)*

**system executables** *dmidecode(8)*, *ether-tool(8)*, *ether-wake(8)*, *nc(1)<a.k.a. netcat>*

# 8 AUTHOR

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