

File : mef.conf

MEF Configuration command

```
mefcfg={
    #Criteria: bit0-broadcast, bit1-unicast, bit3-multicast
    Criteria=2          # Unicast frames are received during
hostsleepmode
    NumEntries=1        # Number of activated MEF entries
    #mef_entry_0: example filters to match TCP destination port 80 send by
192.168.0.88 pkt or magic pkt.
    mef_entry_0={
        #mode: bit0--hostsleep mode, bit1--non hostsleep mode
        mode=1          # HostSleep mode
        #action: 0--discard and not wake host, 1--discard and wake host
3--allow and wake host
        action=3        # Allow and Wake host
        filter_num=3    # Number of filter
        #RPN only support "&&" and "||" operator, space can not be
removed between operator.
        RPN=Filter_0 && Filter_1 || Filter_2
        #Byte comparion filter's type is 0x41,Decimal comparion filter's
type is 0x42,
        #Bit comparion filter's type is 0x43
        #Filter_0 is decimal comparion filter, it always with type=0x42
        #Decimal filter always has type, pattern, offset, numbyte 4
field
        #Filter_0 will match rx pkt with TCP destination port 80
        Filter_0={
            type=0x42    # decimal comparion filter
            pattern=80   # 80 is the decimal constant to be
compared
            offset=44    # 44 is the byte offset of the field in
RX pkt to be compare
            numbyte=2    # 2 is the number of bytes of the field
        }
        #Filter_1 is Byte comparion filter, it always with type=0x41
        #Byte filter always has type, byte, repeat, offset 4 filed
        #Filter_1 will match rx pkt send by IP address 192.168.0.88
        Filter_1={
            type=0x41    # Byte comparion filter
            repeat=1     # 1 copies of 'c0:a8:00:58'
            byte=c0:a8:00:58 # 'c0:a8:00:58' is the byte
sequence constant with each byte
                                # in hex format, with ':' as
delimiter between two byte.
            offset=34    # 34 is the byte offset of the
equal length field of rx'd pkt.
        }
        #Filter_2 is Magic packet, it will looking for 16 contiguous
copies of '00:50:43:20:01:02' from
        # the rx pkt's offset 14
        Filter_2={
            type=0x41    # Byte comparion filter
            repeat=16    # 16 copies of
'00:50:43:20:01:02'
            byte=00:50:43:20:01:02 # '00:50:43:20:01:02' is the
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```

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byte sequence constant
                                offset=14          # 14 is the byte offset of the
equal length field of rx'd pkt.
                                }
                                }
}

```

```

#-----examples for MEF
filters-----

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# example: filters to match ARP packet with protocol addr 192.168.0.104
# mef_entry_0={
#     mode=1                # HostSleep mode
#     action=3              # Allow and Wake host
#     filter_num=3          # Number of filter
#     RPN=Filter_0 && Filter_1 && Filter_2
#     #Filter_0 looking for rx pkt with DA is broadcast address
#     Filter_0={
#         type=0x41
#         repeat=6
#         byte=ff
#         offset=0
#     }
#     #Filter_1 looking for rx pkt with EtherType is 0x0806(ARP)
#     Filter_1={
#         type=0x41
#         repeat=1
#         byte=08:06
#         offset=20
#     }
#     #Filter_2 looking for rx pkt with ARP target protocol addr
192.168.0.104
#     Filter_2={
#         type=0x41
#         repeat=1
#         byte=c0:a8:00:68
#         offset=46
#     }
# }
#-----

```

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# example: filter to check if the destination MAC address is unicast pkt
# mef_entry_0={
#     mode=1                # HostSleep mode
#     action=3              # Allow and Wake host
#     filter_num=3          # Number of filter
#     RPN=Filter_0
#     #Filter_0 is Bit comparion filter, it always with type=0x43
#     #Byte filter always has type, byte, mask, offset 4 filed
#     #"byte" is the byte sequence constant with each byte in hex
format, with ':' as delimiter between two byte
#     #"mask" is also with each byte in hex format, with ':' as
delimiter between two byte
#     #"byte" should has the same length as "mask"
#     #Filter_0 will check if the destination MAC address is unicast
pkt

```

mef.conf.txt

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#
#       Filter_0={
#           type=0x43          #Bit comparion filter
#           byte=00           #00 is the 1-byte sequence constant
#           offset=0          #0 is the byte offset of the rx pkt
#           mask=01           #1 is the 1-byte mask
#       }
#
#-----
```

```
#
#       example: Disable MEF filters
#       mefcfg={
#           #Criteria: bit0-broadcast, bit1-unicast, bit3-multicast
#           Criteria=2          # Unicast frames are received during
#           NumEntries=0        # Number of activated MEF entries
#       }
#-----
```

```
#
#       example: Test MEF filters
#       mefcfg={
#           Criteria=1
#           NumEntries=1
#           mef_entry_0={
#               mode=4          # Test Mode
#               action=16       # Invoke Test
#               filter_num=0
#           }
#       }
#-----
```

```
#
#       example: Test MEF filters
#       mefcfg={
#           Criteria=1
#           NumEntries=1
#           mef_entry_0={
#               mode=4
#               action=0
#               filter_num=1
#               RPN=Filter_0
#               Filter_0={
#                   type=0x44          # test filter
#                   repeat=2          # 2 copies of 'BE:EF'
#                   byte=BE:EF        # 'BE:EF' is the byte
sequence constant
#                   offset=18         # 18 is the byte offset
of the equal length field of rx'd pkt.
#                   dest=00:50:43:20:5a:82 # '00:50:43:20:5a:82' is
the byte sequence constant
#               }
#           }
#       }
#-----
```