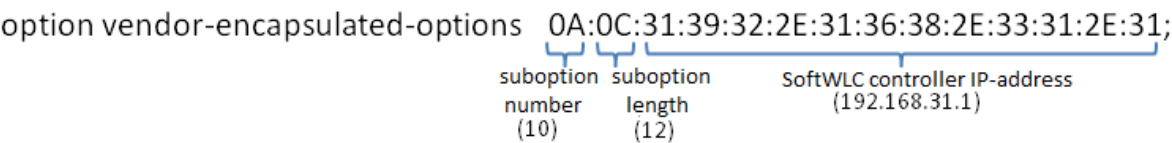


v1.14_How to configure option 43, and other DHCP configuration aspects

Configuring option 43 for automatic connection to SoftWLC (10 suboption)

It is necessary to configure suboption 10 (option 43) containing SoftWLC IP address on DHCP server for an access point to send an SNMP trap to SoftWLC when connected to the network. IP address is presented in hexadecimal format.

Example:



The option is formed in the following way:

0 – suboption number. This code represents the number 10 because suboption 10 is used for SoftWLC IP address transmitting;

0 – SoftWLC IP address length. It will change depending on the address.

For example, SoftWLC IP address is 192.168.31.1. It consists of 12 symbols.



Consequently, the address' length is represented by 0C in hexadecimal format; ;

31:39:32:2:31:36:38:2:33:31:2:31 – SoftWLC IP address encoded in ASCII (HEX), where:

31 - 1

39 - 9

32 - 2

2E - decimal point

31 - 1

36 - 6

38 - 8

2E - decimal point

33 - 3

31 - 1

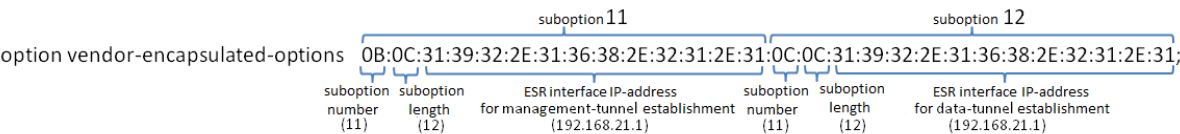
2E - decimal point

31 - 1

Configuring option 43 for creating GRE tunnels between access points and ESR-1000 (suboptions 11 and 12)

To create GRE tunnels, configure suboption 11 containing ESR IP address for management-tunnel and suboption 12 containing ESR IP address for data-tunnel in option 43. IP address is presented in hexadecimal format.

Example:



Configuring option 43 for AP autoconfiguration (suboption 6)

To provide AP autoconfiguration, configure suboption 6 containing configuration file path in hexadecimal format in option 43.
Example:

```
option vendor-encapsulated-options 06:25:74:66:74:70:3A:2F:31:39:32:2E:31:36: 38:2E:34:30:2E:32:2F:63:6F:6E:66:69:67:2E:78:6D:6C:2E:74:61:72:2E:67:7A;
```

suboption number (06) suboption length (37) configuration file path (tftp://192.168.40.2/config.xml.tar.gz)

Configuring option 43 for identifying carrier network area the access point belongs to (suboption13)

To indicate that an access point belongs to a specific carrier network area, configure suboption 13 (in hexadecimal format) containing the name of the area in option 43.
Example:

```
option vendor-encapsulated-options 0D:0A:65:6C:74:65:78:2E:72:6F:6F:74;
```

suboption number (13) suboption length (10) operator's network area (eltex.root)

Configuring the class for IP address allocation depending on Relay Agent IP address

To provide IP address allocation depending on Relay Agent IP address, configure the class containing DHCP relay IP address. For example, (binary-to-ascii(10,8, ".", packet(24,4)) = "120.10.10.10"). Since then, the class should be specified in DHCP address pool.

Configuring the class for IP address allocation depending on Vendor Class Identifier

To provide IP address allocation depending on Vendor Class Identifier, the class containing the code of option 60 (sent by an access point in request) should be configured. For example, (substring (optionvendor-class-identifier, 0, 14) = "ELTEX_WEP-12AC"). Since then, the class should be specified in DHCP address pool.

DHCP server configuration example:

```

class "wep_tunnel_ip" {
    match if (
        ((binary-to-ascii(10,8, ".", packet(24,4)) = "10.0.10.1") # DHCP relay IP address 10.0.10.1
        and
        ((substring (option vendor-class-identifier, 0, 14) = "ELTEX_WEP-12AC") or (substring (option vendor-class-
        identifier, 0, 14) = "ELTEX_WOP-12AC")))
    );
}

class "data" {
    match if ((binary-to-ascii(10,8, ".", packet(24,4)) = "10.0.12.1") # DHCP relay IP address 10.0.12.1);
}

class "mgmt" {
    match if (
        ((binary-to-ascii(10,8, ".", packet(24,4)) = "10.0.11.1") # DHCP relay IP address 10.0.11.1)
        and
        ((substring (option vendor-class-identifier, 0, 14) = "ELTEX_WEP-12AC") or (substring (option vendor-
        class-identifier, 0, 14) = "ELTEX_WOP-12AC")))
    );
}

shared-network WEP {
    subnet 10.0.1.0 netmask 255.255.255.0 {}
    subnet 10.0.10.0 netmask 255.255.255.0 {}
    subnet 10.0.11.0 netmask 255.255.255.0 {}
    subnet 10.0.12.0 netmask 255.255.255.0 {}
}

pool {
    option routers 10.0.10.1;
    option vendor-encapsulated-options 0B:09:31:30:2E:30:2E:31:31:2E:31:0C:09:31:30:2E:30:2E:31:32:2E:31;
    # ESR interface IP address, 10.0.11.1 for management-tunnel, 10.0.12.1 for data-tunnel
    range 10.0.10.20 10.0.10.25;
    allow members of "wep_tunnel_ip";
}

pool {
    option routers 10.0.11.1;
    option vendor-encapsulated-options 0A:08:31:30:2E:30:2E:31:2E:31; # SoftWLC IP address 10.0.1.1
    range 10.0.11.20 10.0.11.25;
    allow members of "mgmt";
}

pool {
    option routers 10.0.12.1;
    range 10.0.12.20 10.0.12.25;
    allow members of "data";
}

```