



## **Dynamic Configuration Control**

**bintec-Dm 797-I**

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# Chapter 1 Introduction

## 1.1 Introduction

Dynamic configuration control is a method used to control configuration changes in a given situation.

Currently this control is carried out depending on the device's GPS positioning; consequently, this feature is only available in devices that incorporate GPS.

In order to control when the change takes place, GPS polls or *advisors* are used.

The system is simple; you configure one or more rules for each poll. Each rule must have an associated configuration file and priority. The priority allows you to avoid rule conflicts between rules with the same poll number, since the rule with the highest priority is applied.

A rule is applied when the associated poll has activated. When this occurs, the content of the configuration file changes and then the device reboots to apply the changes.

## Chapter 2 Configuration

### 2.1 Introduction

Each rule has the following parameters: its identifier, the poll identifier, the name of the configuration file and a priority.

### 2.2 Accessing the Configuration

In the router configuration structure, the Dynamic Configuration Control is organized as a FEATURE. To view the functions for configuring the router, enter the **feature** command followed by a question mark (?).

*Example:*

```
Config>feature ?
  access-lists      Access generic access lists configuration
                    environment
  afs               Advanced stateful firewall and routing
  autosec-cfg       Autosec-Config configuration environment
  bandwidth-reservation Bandwidth-Reservation configuration environment
  class-map         Class Map configuration environment
  dns               DNS configuration environment
  dns-updater       DNS Updater configuration environment
  err-disable       Error disable configuration
  istud             IPSEC Tunnel Server Discovery configuration
                    environment
  key-chain         Key chain management
  ldap              LDAP configuration environment
  netflow           Netflow client configuration
  nsla              Network Service Level Advisor configuration
  nsm               Network Service Monitor configuration environment
  policy-map        Policy Map configuration environment
  prefix-lists      Access generic prefix lists configuration
                    environment
  radius            RADIUS protocol configuration environment
  rmon              Remote Network Monitoring configuration environment
  route-map         Route-map configuration environment
  scada-forwarder   SCADA Forwarder configuration environment
  sniffer           Sniffer configuration environment
  spi               SPI, mobile IP Presence Service, configuration
                    environment
  ssh               Secure Shell configuration environment
  stun              Stun facility configuration environment
  tftp              TFTP configuration environment
  tips              Intrusion prevention system
  vlan              IEEE 802.1Q switch configuration environment
  wrr-backup-wan    WRR configuration environment
Config>
```

To access the dynamic configuration control menu, enter the *feature autosec-cfg* command.

*Example:*

```
Config> feature autosec-cfg
-- AutosecCfg Configuration --
Autosec-cfg Config>
```

This allows you to access the feature's main configuration menu. This menu allows you to create, delete and view the configuration control rules.

### 2.3 Main Configuration Menu

The following commands are available in the main Configuration Control menu:

| Command  | Function                                       |
|----------|--|
| ? (HELP) | Lists the commands or their available options. |
| NO       | Negates a command or sets its default value.   |
| RULE     | Configures a rule.                             |
| EXIT     | Returns to the general configuration prompt.   |

### 2.3.1 ? (HELP)

This command is used to list the valid commands at the router-configuration level. You can also use this command after a specific command to list the available options.

*Syntax:*

```
Autoset-cfg Config>?
```

*Example:*

```
Autoset-cfg Config>?
  no      Negate a command or set its defaults
  rule    Configure a rule
  exit    Return to previous menu
Autoset-cfg Config>
```

### 2.3.2 NO

This command is used to disable functions or to set some parameters to their default values.

*Syntax:*

```
Autoset-cfg Config>no ?
  rule    Configure a rule
```

#### 2.3.2.1 NO RULE

Deletes a rule and all its contents.

*Syntax:*

```
Autoset-cfg Config>no rule <id-rule>
```

*Example:*

```
Autoset-cfg Config>no rule 1
Autoset-cfg Config>
```

### 2.3.3 RULE

This command allows you to configure a rule for the configuration control. The following table shows the meaning of each parameter that must be mandatorily entered in the command:

| Command      | Function   |
|--------------|--|
| RULE         | Rule identifier. You can create up to 5 rules, numbered from 1 to 5.   |
| GPS-ADVISOR  | GPS ADVISOR identifier associated with the rule. For the auto configuration process to function properly, the ADVISOR needs to have been previously created with the same identifier indicated in this command. The ADVISOR must be created in interfaces that control GPSs; normally in cellular interfaces. This parameter can take values between 1 and 10. |
| TRIGGER      | Indicates the state the ADVISOR should take (TRUE/FALSE) for the rule to trigger a change in the configuration. A 0 value indicates that the rule must trigger when the result for the associated ADVISOR is FALSE; a value of 1 indicates the result is TRUE.   |
| SET          | Configures the options for the trigger.  |
| FILE         | Indicates the name of the configuration file that is activated when the ADVISOR changes to the state configured in the rule. This must contain between 1 and 8 ASCII characters and must go inside quotation marks.  |
| SHUTDOWN-IFC | Indicates the name of the interface that deactivates when the ADVISOR passes to  |

|                 |  |
|-----------------|--|
|                 | the state configured in the rule.  |
| <b>PRIORITY</b> | This allows you to configure the rule priority. You can enter values between 1 and 5. The highest priority is 5. |

To configure a rule you need to enter the following parameters:

**Syntax:**

```
rule <id-rule> gps-advisor <id-advisor> trigger <0/1> set < file <filename> |
shutdown-ifc <interface> > priority <val-prio>
```

**Example:**

```
Autoset-cfg Config>rule ?
<1..5> Enter number of rule
Autoset-cfg Config>rule 1 ?
gps-advisor Configure a gps-advisor
Autoset-cfg Config>rule 1 gps-advisor ?
<1..10> Enter number of gps-advisor
Autoset-cfg Config>rule 1 gps-advisor 1 ?
trigger trigger state FALSE(0), TRUE(1)
Autoset-cfg Config$rule 1 gps-advisor 1 trigger ?
<0..1> trigger state FALSE(0), TRUE(1)
Autoset-cfg Config$rule 1 gps-advisor 1 trigger 1 ?
set Set other options
Autoset-cfg Config>rule 1 gps-advisor 1 set ?
file Configure file config name
Autoset-cfg Config>rule 1 gps-advisor 1 set file ?
<1..9 chars> Text
Autoset-cfg Config>rule 1 gps-advisor 1 trigger 1 set shutdown-ifc ?
<interface> Interface name
Autoset-cfg Config>rule 1 gps-advisor 1 trigger 1 set file filename ?
priority Configure a priority for the rule
Autoset-cfg Config>rule 1 gps-advisor 1 trigger 1 set file filename priority ?
<1..5> Enter level of priority
Autoset-cfg Config>rule 1 gps-advisor 1 trigger 1 set file filename priority 3
Autoset-cfg Config>show config
rule 1 gps-advisor 1 trigger 1 set file "filename" priority 3
```

If you associate multiple rules with a poll, the rule with the highest priority is applied. The highest priority value is 5.

## 2.3.4 EXIT

Exits the configuration environment for the Dynamic Configuration Control feature and returns to the general configuration prompt.

**Syntax:**

```
Autoset-cfg Config>exit
```

**Example:**

```
Autoset-cfg Config>exit
Config>
```



## Chapter 3 Examples

### 3.1 SET FILE: Cellular interface GPS Advisor associated with Automatic Configuration Control

Below you can see a configuration example for a GPS ADVISOR associated with the Automatic Configuration Control (autoset-cfg) feature.

In order to start it, you need to take the necessary coordinates to define 2 ZONES. This can be done through a known mapping program accessible on the Internet.



These zones are defined by points A and B, and A' and B', respectively.

|                     |                     |
|---------------------|---------------------|
| A 40° 35' 28,54" N  | B 40° 35' 20,87" N  |
| 3° 43' 30,72" O     | 3° 43' 25,01" O     |
| A' 40° 35' 25,20" N | B' 40° 35' 20,55" N |
| 3° 43' 31,85" O     | 3° 43' 28,84" O     |

These points are defined by their geographic coordinates.

When configuring the ZONES, you need to enter the coordinates in the following format:

a) Latitude

DD° MM.mmmm'

b) Longitude

DD° MM.mmmm'

Many applications provide coordinates in this format:

a) Latitude

DD° MM' SS,sss"

b) Longitude

DD° MMM' SS.sss"

Where:

DD° refers to DEGREES.

MM refers to the whole portion of the minutes.

mmmm refers to the decimal portion of the minutes.

SS refers to the whole portion of the seconds.

sss refers to the decimal portion of the seconds.

In our case, this is transformed to the notation used in the router configuration:

|   |   |
|---|---|
| A 40° 35' 28,54" N # 40° 35,1712' N<br>3° 43' 30,72" O # 3° 43,5120' O  | B 40° 35' 20,87" N # 40° 35,3478' N<br>3° 43' 25,01" O # 3° 43,4168' O  |
| A' 40° 35' 25,20" N # 40° 35,4200' N<br>3° 43' 31,85" O # 3° 43,5308' O | B' 40° 35' 20,55" N # 40° 35,3425' N<br>3° 43' 28,84" O # 3° 43,4806' O |

The following shows you how to convert from one type of notation to another:

*Converting from DD° MM' SS.sss" to DD° MM.mmmm'*

40° 35' 28,608" N

Seconds are converted into minutes:

$28,608":60 = 0,4768'$

The quotient of the above step is added to the whole number of minutes:

$35 + 0,4768' = 35,4768'$

The coordinates in NMEA format become:

40° 35'28,608"N # 40° 35,4768' N

*Converting from DD° MM.mmmm' to DD° MM' SS.sss"*

40° 35,4768' N

The whole portion of the minutes is separated from the decimal portion:

$35,4768 - 35 = 0,4768$

The decimal portion is converted into seconds:

$0,4768' \times 60 = 28,608"$

The coordinates in GoogleMaps format become:

40° 35,4768' N # 40° 35'28,608"N

A configuration is generated where when the device is within the area that extends over ZONES 1 and 2, the following configuration activates: `cfg_in.cfg`; contrariwise, when the device is outside of this area the following configuration activates: `cfg_out.cfg`.

Thus, the device can have different configurations, depending on the area it's in. To obtain a homogeneous behavior, and based on this premise, both configurations (`cfg_in.cfg` and `cfg_out.cfg`) must have a certain coherency with respect to the ZONES and the GPS ADVISOR configuration.

As a practical example, let's assume that a bus needs a configuration when it enters the parking lot, i.e., when it's out of service, and another when it's circulating.

On the map coordinates at the beginning of this section, we are going to assume that the bus parking lot is located in the area within ZONES A and B. The configuration corresponding to this area will be called "`cfg_in`". This configuration should be set up so that it detects when the bus leaves the parking lot and consequently switches, restarting the "`cfg_out`" configuration. Contrariwise, the latter configuration should be able to detect when the bus returns to the parking lot and reactivate the "`cfg_in`" configuration.

This is achieved through the GPS ADVISOR and the "`autoset-cfg`" feature.

In the "`cfg_in`" configuration, an ADVISOR is created that detects when the bus isn't in the parking lot. Subsequently the "`autoset-cfg`" feature changes the configuration and restarts the router.

In this configuration the ADVISOR returns TRUE when the bus exits the parking lot. To do this, in this case, the ADVISOR is configured with the two ZONES negated (NOT) so that when the bus exits the zone the ADVISOR takes this as TRUE. As the two ZONES are negated, the bus must be out of the two zones in order to return a TRUE.

In the "`autoset-cfg`" rule, the trigger is set to 1 (TRUE) so when the ADVISOR passes to TRUE, the device restarts, activating the "`cfg_out`" configuration.

```
log-command-errors
no configuration
```

```
add device ppp 1
set data-link at cellular1/0
set data-link at cellular1/1
global-profiles dial
; -- Dial Profiles Configuration --
  profile OPERATOR default
  profile OPERATOR dialout
  profile OPERATOR 3gpp-apn operatorH.es
  profile OPERATOR idle-time 120
;
  exit
;
;
;
  network ethernet0/0
; -- Ethernet Interface User Configuration --
  ip address 192.168.213.155 255.255.254.0
;
;
  exit
;
;
;
  network cellular1/0
; -- Interface AT. Configuration --
  coverage-timer 10
  gps enable
;
  pin ciphered 0xAF47DC59C598C655
;
  sim-select internal-socket-2
;
  network mode automatic
  network domain cs+ps
  exit
;
;
;
;
;
;
;
;
  network ppp1
; -- Generic PPP User Configuration --
  ip address unnumbered
;
;
  ppp
; -- PPP Configuration --
  authentication sent-user OPER_USR password OPER_PASS
  ipcp local address assigned
  no ipcp peer-route
  lcp echo-req off
  exit
;
  base-interface
; -- Base Interface Configuration --
  base-interface cellular1/1 link
  base-interface cellular1/1 profile OPERATOR
;
  exit
;
```

```

exit
;
event
;
protocol ip
; -- Internet protocol user configuration --
    route 0.0.0.0 0.0.0.0 ppp1
;
    rule 1 local-ip ppp1 remote-ip any
    rule 1 napt translation
    rule 1 napt firewall
;
    Classless
;
exit
;
;
    feature autoset-cfg
; -- Autosetcfg Configuration --
    rule 1 gps-advisor 1 trigger 1 set file "cfg_out" priority 5
;
exit
;
;
    feature gps-applications
; -- GPS Applications Configuration --
    gps-ifc-source cellular1/0
;
    gps-advisor
; -- GPS Advisor Configuration --
    zone 1 longitude 3 43 5120 W to 3 43 4168 W
    zone 1 latitude 40 35 1712 N to 40 35 3472 N
    zone 1 initial-state true
    zone 1 hdop 4
;
    zone 2 longitude 3 43 5308 W to 3 43 4806 W
    zone 2 latitude 40 35 4200 N to 40 35 3425 N
    zone 2 initial-state true
    zone 2 hdop 4
;
    advisor 1 not zone 1
;
    advisor 1 not zone 2
;
;
exit
;
exit
;
dump-command-errors
end

```

In this “cfg\_out” configuration, neither the ZONES nor the ADVISOR need modifying. The ADVISOR returns FALSE when the bus enters the parking lot.

In the “autoset-cfg” rule, the trigger is set to 0 (FALSE), so when the ADVISOR passes to FALSE the device resets activating the “cfg\_in” configuration.

```

log-command-errors
no configuration
add device ppp 1
set data-link at cellular1/0
set data-link at cellular1/1
global-profiles dial
; -- Dial Profiles Configuration --
    profile OPERATOR default
    profile OPERATOR dialout

```

```

profile OPERATOR 3gpp-apn operatorH.es
profile OPERATOR idle-time 120
;
exit
;
;
;
network ethernet0/0
; -- Ethernet Interface User Configuration --
ip address 192.168.213.155 255.255.254.0
;
;
exit
;
;
network cellular1/0
; -- Interface AT. Configuration --
coverage-timer 10
gps enable
;
pin ciphered 0xAF47DC59C598C655
;
sim-select internal-socket-2
;
network mode automatic
network domain cs+ps
exit
;
network cellular1/1
; -- Interface AT. Configuration --
ppp lcp-options acfc
ppp lcp-options pfc
ppp lcp-options accm a0000
exit
;
;
network ppp1
; -- Generic PPP User Configuration --
ip address unnumbered
;
;
ppp
; -- PPP Configuration --
authentication sent-user OPER_USR password OPER_PASS
ipcp local address assigned
no ipcp peer-route
lcp echo-req off
exit
;
base-interface
; -- Base Interface Configuration --
base-interface cellular1/1 link
base-interface cellular1/1 profile OPERATOR
;
exit
;
exit
;
event
;
protocol ip
; -- Internet protocol user configuration --
route 0.0.0.0 0.0.0.0 ppp1
;
rule 1 local-ip ppp1 remote-ip any
rule 1 napt translation
rule 1 napt firewall

```

```

;
    classless
;
    exit
;
;
    feature autoset-cfg
; -- Autosetcfg Configuration --
    rule 1 gps-advisor 1 trigger 0 set file "cfg_in" priority 5
;
    exit
;
    feature gps-applications
; -- GPS Applications Configuration --
    gps-ifc-source cellular1/0
;
    gps-advisor
; -- GPS Advisor Configuration -
    zone 1 longitude 3 43 5120 W to 3 43 4168 W
    zone 1 latitude 40 35 1712 N to 40 35 3472 N
    zone 1 initial-state false
    zone 1 hdop 4
;
    zone 2 longitude 3 43 5308 W to 3 43 4806 W
    zone 2 latitude 40 35 4200 N to 40 35 3425 N
    zone 2 initial-state false
    zone 2 hdop 4
;
    advisor 1 not zone 1
;
    advisor 1 not zone 2
;
    exit
;
    exit
;
    dump-command-errors
end

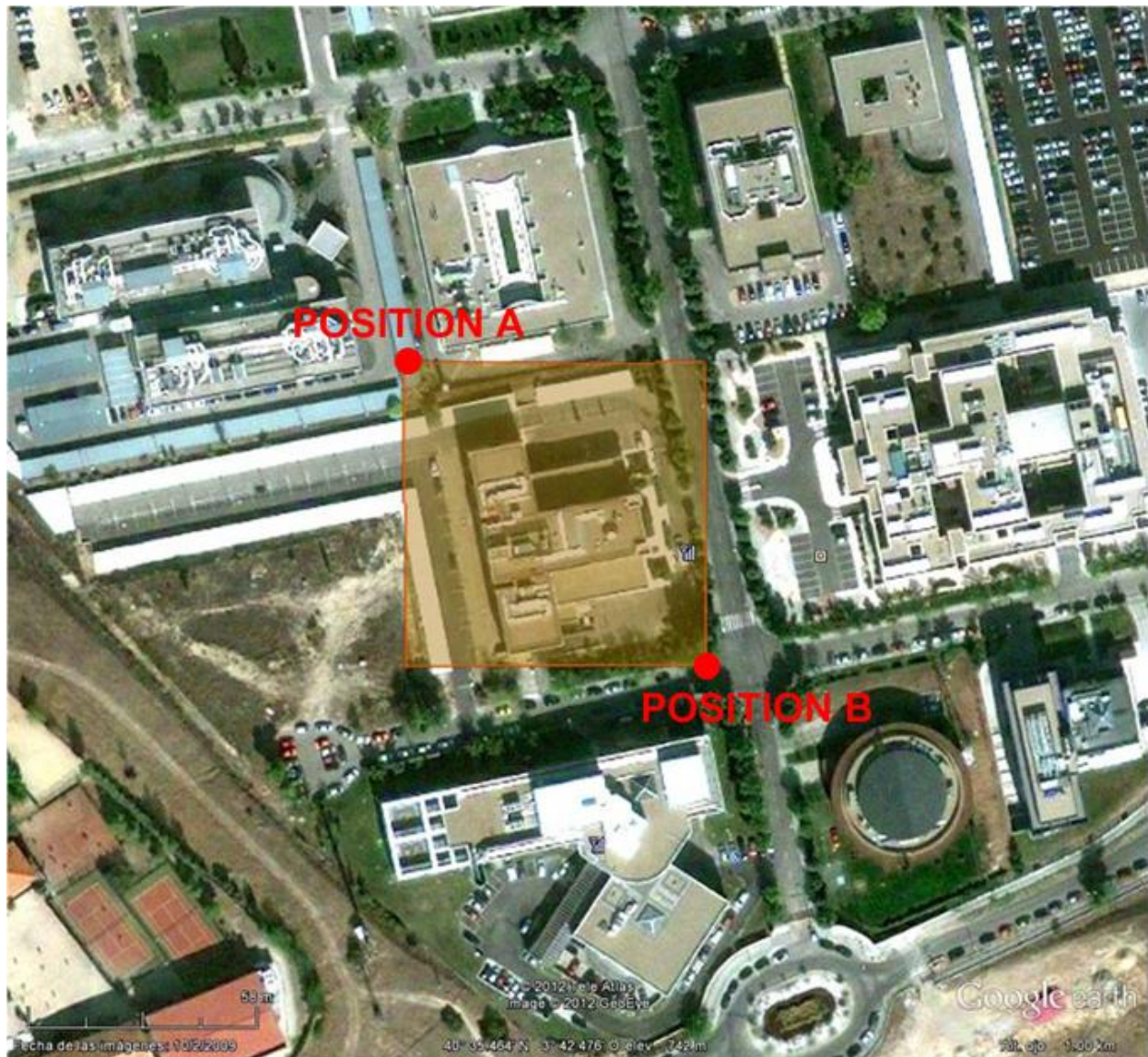
```

### 3.2 SET SHUTDOWN-IFC: GPS Advisor in GPS interface associated with mode change in WLAN interface

The following example is going to define a zone where the device's WLAN interface is going to behave in "station" mode to connect to a network in a building (BSS "H1APLUS\_TDLT"). Outside of the defined zone the WLAN interface behaves as an "access-point" to provide the users on board the vehicle where the device is installed (BSS "RUTA") with access to Internet. The change in operating mode is carried out through the corresponding interface passing to shutdown.

The defined zone is as follows:





The coordinates are obtained through the same service and are converted to the router's configuration format through the transformations indicated in the previous example.

A 40° 35,4890' N  
3° 42,4520' O

B 40° 35,4450' N  
3° 42,5080' O

These values allow us to program the zone in the router's configuration.

```
zone 1 longitude 3 42 4520 W to 3 42 5080 W
zone 1 latitude 40 35 4890 N to 40 35 4450 N
```

The vehicle provides an IP address to the terminals that connect in the inside of the vehicle through DHCP.

Additionally, a remotely accessible IP camera is installed in port 80 with a fixed IP address.

Likewise, the TCP service is configured in port 9090 so the vehicle can be remotely located.

As the assigned IP address is dynamic, to permit remote access, the device has the dns-updater feature configured in order to access a mnemonic registered in a domain (h1a-bintec.no-ip.org). The resulting configuration is:

```
; Showing Menu and Submenus Configuration for access-level 15 ...

log-command-errors
no configuration
add device direct-ip 1
add device bvi 0
add device wlan-subinterface wlan2/0 1
set data-link at cellular10/0
set data-link nic cellular10/1
global-profiles dial
```

```
; -- Dial Profiles Configuration --
  profile OPER1 default
  profile OPER1 dialout
  profile OPER1 3gpp-apn apn_oper1
;
  exit
;
  network ethernet0/0
; -- Ethernet Interface User Configuration --
  input-buffers 256
  exit
;
  network gps0/0
; -- Interface GPS Configuration --
  enable
;
  exit
;
  network cellular10/0
; -- Interface AT. Configuration --
  coverage-timer 10
  no register-denied-reset
  pin plain 0000
;
  network mode automatic
  exit
;
;
  network wlan2/0
; -- Wireless LAN Interface. Configuration --
  ip address dhcp-negotiated
;
  country ES
  bss "H1APLUS_TDLT"
  opmode station
  privacy-invoked
  rsn wpa2
  cipher aes-ccmp
  akm-suite psk
  wpa-psk passphrase ciphered 0x375D4853D0DB236C2406FB6115B5D13D
  exit
;
  shutdown
  exit
;
;
  network direct-ip1
; -- Generic Direct IP Encapsulation User Configuration --
  ip address dhcp-negotiated
;
  base-interface
; -- Base Interface Configuration --
  base-interface cellular10/1 link
  base-interface cellular10/1 profile OPER1
;
  exit
;
  direct-ip
; -- Direct IP encapsulator user configuration --
  address dhcp
  authentication sent-user USER1 password PASSWORD1
  exit
;
  exit
;
;
  network bvi0
```



```
; -- Bridge Virtual Interface configuration --
    ip address 192.168.213.150 255.255.254.0
    ip address 192.168.0.1 255.255.255.0 secondary
;
    ip mtu 1200
    ip tcp adjust-mss 1100
    exit
;
network wlan2/0.1
; -- Wireless LAN Subinterface. Configuration --
    bss "RUTA"
        privacy-invoked
        rsn wpa
        rsn wpa2
        cipher tkip
        cipher aes-ccmp
        akm-suite psk
        wpa-psk passphrase ciphered 0x78825BD65269A47CAA295EBB774C44F6
    exit
;
    exit
;
event
; -- ELS Config --
    enable trace subsystem WLAN ALL
    disable trace event WLAN.010
    ev-buffer 1000 200
;
    enable filter
    filter 1 default
    filter 1 text "UMTS"
    filter 1 action green
    filter 2 default
    filter 2 text "HS"
    filter 2 action magent
    filter 3 default
    filter 3 text "GPRS"
    filter 3 action red
    filter 4 default
    filter 4 text "RX level (dBm):"
    filter 4 action yellow
    exit
;
protocol asrt
; -- ASRT Bridge user configuration --
    bridge
    irb
    port ethernet0/0 1
    port wlan2/0.1 2
    no stp
    route-protocol ip
    exit
;
;
protocol ip
; -- Internet protocol user configuration --
    route 0.0.0.0 0.0.0.0 direct-ip1
;
    rule 1 local-ip direct-ip1 remote-ip any
    rule 1 napt translation
;
    classless
    no icmp-redirects
    nat pat
; -- NATP configuration --
    visible-port 80 rule 1 ip 192.168.0.178 port 80
    visible-port 8080 rule 1 ip 192.168.0.178 port 8080
```

```

;
    exit
;
    exit
;
    protocol dhcp
; -- DHCP Configuration --
    server
; -- DHCP Server Configuration --
    enable
;
;
    shared 1
;
    subnet local 1 network 192.168.212.0 255.255.254.0
    subnet local 1 range 192.168.213.148 192.168.213.149
    subnet local 1 dns-server 192.168.213.150
    subnet local 1 router 192.168.213.150
;
    exit
;
    exit
;
    feature dns
; -- DNS resolver user configuration --
    server 8.8.8.8
    server 4.2.2.2
    exit
;
    feature nsm
; -- Network Service Monitor configuration --
    operation 1
; -- NSM Operation configuration --
    description "ping maintenance"
    type echo ipicmp 8.8.8.8
    frequency 20
    exit
;
    schedule 1 life forever
    schedule 1 start-time after 2m
    exit
;
    feature dns-updater
; -- DNS UPDATER configuration --
    enable
;
    entry 1 protocol DynDNS system dynamic
    entry 1 interface direct-ip1
    entry 1 hostname hla-bintec.no-ip.org
    entry 1 servername dynupdate.no-ip.com
    entry 1 user xxxxx@gmail.com password xxxxxxxxxxxxxxxxxxxx
;
    exit
;
    feature autoset-cfg
; -- Autosetcfg Configuration --
    rule 2 gps-advisor 2 trigger 0 set shutdown-ifc wlan2/0 priority 1
    rule 1 gps-advisor 1 trigger 1 set shutdown-ifc wlan2/0.1 priority 1
;
    exit
;
    feature gps-applications
; -- GPS Applications Configuration --
    gps-ifc-source gps0/0
;
    tcp-enable
    tcp-port 9090

```

```
;
    gps-advisor
; -- GPS Applications Configuration --
    zone 1 longitude 3 42 4520 W to 3 42 5080 W
    zone 1 latitude 40 35 4890 N to 40 35 4450 N
    zone 1 initial-state true
    zone 1 hdop 4
;
    advisor 1 zone 1
;
    advisor 2 zone 1
;
    exit
;
exit
;
dump-command-errors
end
log-command-errors
no configuration
add device ppp 1
set data-link at cellular1/0
set data-link at cellular1/1
global-profiles dial
; -- Dial Profiles Configuration --
    profile OPERATOR default
    profile OPERATOR dialout
    profile OPERATOR 3gpp-apn operatorH.es
    profile OPERATOR idle-time 120
;
    exit
;
;
;
network ethernet0/0
; -- Ethernet Interface User Configuration --
    ip address 192.168.213.155 255.255.254.0
;
;
    exit
;
;
network cellular1/0
; -- Interface AT. Configuration --
    coverage-timer 10
    gps enable
;
    pin ciphered 0xAF47DC59C598C655
;
    sim-select internal-socket-2
;
    network mode automatic
    network domain cs+ps
    exit
;
network cellular1/1
; -- Interface AT. Configuration --
    ppp lcp-options acfc
    ppp lcp-options pfc
    ppp lcp-options accm a0000
    exit
;
;
network ppp1
; -- Generic PPP User Configuration --
    ip address unnumbered
;
```

```
;
    ppp
; -- PPP Configuration --
    authentication sent-user OPER_USR password OPER_PASS
    ipcp local address assigned
    no ipcp peer-route
    lcp echo-req off
    exit
;

    base-interface
; -- Base Interface Configuration --
    base-interface cellular1/1 link
    base-interface cellular1/1 profile OPERATOR
;

    exit
;

    event
;

    protocol ip
; -- Internet protocol user configuration --
    route 0.0.0.0 0.0.0.0 ppp1
;

    rule 1 local-ip ppp1 remote-ip any
    rule 1 napt translation
    rule 1 napt firewall
;

    classless
;

    exit
;

    feature autoset-cfg
; -- Autosetcfg Configuration --
    rule 1 gps-advisor 1 trigger 0 set file "cfg_in" priority 5
;

    exit
;

    feature gps-applications
; -- GPS Applications Configuration --
    gps-ifc-source cellular1/0
;

    gps-advisor
; -- GPS Advisor Configuration -
    zone 1 longitude 3 43 5120 W to 3 43 4168 W
    zone 1 latitude 40 35 1712 N to 40 35 3472 N
    zone 1 initial-state false
    zone 1 hdop 4
;

    zone 2 longitude 3 43 5308 W to 3 43 4806 W
    zone 2 latitude 40 35 4200 N to 40 35 3425 N
    zone 2 initial-state false
    zone 2 hdop 4
;

    advisor 1 not zone 1
;

    advisor 1 not zone 2
;

    exit
;

    exit
;

    dump-command-errors
end
```