Release Notes for EHWIC-3G-EVDO-*x*

Contents

Introduction

This document describes the release features of the EVDO versions of the 3G wireless Enhanced High-Speed WAN Interface Cards (EHWICs):

- EHWIC-3G-EVDO-B (BSNL)
- EHWIC-3G-EVDO-S (Sprint)
- EHWIC-3G-EVDO-V (Verizon)

These are multiband, multiservice WAN cards for use over WCDMA Radio Access Networks (RAN). These cards are supported on modular Cisco Integrated Services Router Generation 2 (ISR G2) routers.

Note EHWIC cards support Cisco IOS Software Release 15.1(3)T or higher.

For more information about this release, see www.cisco.com/go/3g.

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New Features

This section describes the new features in this release.

SMS

This feature enables the router to send and receive Short Message Service (SMS) messages. This feature also enables the router to save and store the SMS messages in an FTP server.

Note SMS is enabled by default. However, you need to define the FTP server to store incoming and outgoing SMS messages.

The following example shows you how to configure this feature for CDMA:

```
chat-script cdma "" "atdt#777" TIMEOUT 60 "CONNECT"
controller Cellular 0/0
    cdma sms archive path ftp://avatar:avatar@10.10.10.100/c2921
    !
interface GigabitEthernet 0/1
    ip address 10.10.10.11 255.255.255.0
    duplex auto
    speed auto
    !
interface Cellular 0/0/0
    ip address negotiated
    encapsulation ppp
    load-interval 30
    dialer in-band
    dialer idle-timeout 0
    dialer string cdma
    dialer-group 1
    no peer default ip address
    async mode interactive
    fair-queue 64 16 0
    routing dynamic
    !
    dialer-list 1 protocol ip permit
    control-plane
    !
    line con 0
    exec-timeout 0 0
    line aux 0
    line 0/0/0
    script dialer cdma
    login
    modem InOut
    no exec
    transport input all
    transport output all
    rxspeed 3100000
    txspeed 1800000
```

```
   line vty 0 4
   login
   transport input all
  !
exception data-corruption buffer truncate
scheduler allocate 20000 1000
ntp server 10.10.10.100 prefer
end
```

The following examples shows you how to send SMS messages:

router#**cellular** *<slot#>* **cdma sms send** *<phone number> <message content>*

Note There is a limit of 160 characters per SMS send message.

The following examples shows you how to delete SMS messages:

router#**cellular** *<slot#>* **cdma sms delete** {**all** | *<message ID>}*

The following examples shows you how to display SMS messages:

router#**cellular** *<slot#>* **cdma sms view** {**summary** | **all** | *<message ID>*}

The following examples shows you how to archive SMS messages:

router(config-controller)#**cdma sms archive path** *<FTP-path>*

Note You can use the call screening command **dialer caller** *number* **callback** to authenticate SMS messages that you can use to establish data connections.

GPS

This feature enables Global Positioning System (GPS) standalone and NMEA data.

The following example shows you how to configure this feature:

```
router(config)#controller cellular 0/0
router(config-controller)#cdma gps mode standalone
...
controller Cellular 0/0
 cdma gps mode standalone
router(config-controller)#cdma gps nmea
...
controller Cellular 0/0
 cdma gps mode standalone
 cdma gps nmea
!
```

The following example shows you how to display GPS data:

```
router#show cellular <slot#> gps
GPS Info
-------------
GPS State: GPS enabled
GPS Mode Configured: standalone
Latitude: 37 Deg 24 Min 59 Sec North
Longitude: 121 Deg 55 Min 8 Sec West
Timestamp (GMT): Thu Jul 29 11:08:39 2010
Fix type: 3D, Height: -6 m
Heading: 408, Velocity Horiz: 3, Velocity Vert: 0
Satellite Info
----------------
Satellite #13, elevation 75, azimuth 46, SNR 21
...

router#show cellular <slot#> gps detail
GPS Info
-------------
GPS State: GPS enabled
GPS Mode Configured: standalone
Latitude: 37 Deg 24 Min 59 Sec North
Longitude: 121 Deg 55 Min 7 Sec West
Timestamp (GMT): Thu Jul 29 22:17:57 2010
Fix type: 3D, Height: 12 m
Heading: 0, Velocity Horiz: 0, Velocity Vert: 0
HEPE: 2680 cm
Uncertainty Info:
  Angle: 0 deg, A: 24 m, Position: 12 m, Vertical: 12 m
Satellite Info
----------------
Satellite #7, elevation 16, azimuth 123, SNR 14 *
...
```

Note Obtaining a GPS-fixed location requires a supported GPS antenna to be connected to the DIV/GPS port.

Note Obtaining a GPS-fixed location using the Standalone mode can take up to 12 minutes. This depends on the location and type of antenna used.

3G WWAN MIB Persistence

This feature allows you to retain 3G WWAN MIB object values and trap settings across router reloads.

Before configuring 3G WWAN MIB, you should perform some SNMP pre-configuration to avoid getting warning messages. The following is an example of SNMP pre-configuration:

```
snmp-server community public RO
snmp-server community private RW
snmp-server enable traps c3g
```

The following example shows you how the settings that you need to configure this feature:

```
controller Cellular 0/1
    cdma event rssi onset mib-trap 1xrtt
    cdma event rssi onset mib-trap evdoRel0
    cdma event rssi onset mib-trap evdoRelA
    cdma event rssi onset threshold -84
    cdma event rssi abate mib-trap 1xrtt
    cdma event rssi abate mib-trap evdoRel0
    cdma event rssi abate mib-trap evdoRelA
    cdma event rssi abate threshold -82
    cdma event ecio onset mib-trap 1xrtt
    cdma event ecio onset mib-trap evdoRel0
    cdma event ecio onset mib-trap evdoRelA
    cdma event ecio onset threshold -7
    cdma event ecio abate mib-trap 1xrtt
    cdma event ecio abate mib-trap evdoRel0
    cdma event ecio abate mib-trap evdoRelA
    cdma event ecio abate threshold -5
    cdma event temperature onset mib-trap
    cdma event temperature onset threshold 34
    cdma event temperature abate mib-trap
    cdma event temperature abate threshold 33
    cdma event modem-state mib-trap down
    cdma event modem-state mib-trap up
    cdma event service mib-trap
    cdma event network mib-trap
    cdma event connection-status mib-trap All-cdma
    !
```

Remotely Initiated Data Call Back Using SMS

This feature remotely brings up the cellular interface by sending SMS messages via CDMA networks.

The following example shows you how to configure this feature:

Note In this example, the phone number of the administrator who wants to remotely bring up the link using SMS is 408-123-4567 on a GSM network. Replace this number with your own number.

```
chat-script cdma "" "atdt#777" TIMEOUT 60 "CONNECT"

interface Loopback1
 ip address 1.1.1.1 255.255.255.0
interface Cellular0/1/0
     ip address negotiated
 ip virtual-reassembly in
 encapsulation ppp
 load-interval 30
 dialer in-band
 dialer pool-member 1
 dialer idle-timeout 0
 no peer default ip address
 async mode interactive
 ppp chap hostname abc.cell.org
 ppp chap password 0 nopassword
 ppp ipcp dns request
 routing dynamic

interface Dialer1
ip address negotiated
encapsulation ppp
dialer pool 1
dialer idle-timeout 0
dialer string cdma
dialer caller 4081234567 callback
dialer-group 1
ppp chap hostname abc.cell.org
ppp chap password 0 nopassword
ppp ipcp dns request
!
ip route 0.0.0.0 0.0.0.0 Dialer1
!
access-list 1 permit any
dialer-list 1 protocol ip list 1
!
line 0/1/0
script dialer cdma
login
modem InOut
no exec
transport input all
transport output all
```

To test this example, send an SMS message from phone number 408-123-4567. This brings the cellular link up.

List of New Commands

The following is a list of the new commands supported by the EHWIC-3G-EVDO-*x* cards:

- cdma event connection-status mib-trap
- cdma event ecio abate
- cdma event ecio onset
- cdma event modem-state mib-trap
- cdma event network mib-trap
- cdma event rssi abate
- cdma event rssi onset
- cdma event service mib-trap
- cdma event temperature abate
- cdma event temperature onset
- cdma gps mode
- cdma gps nmea
- cdma sms archive path
- cellular cdma sms delete
- cellular cdma sms send
- cellular cdma sms view
- debug cellular messages gps
- debug cellular messages nmea
- debug cellular messages sms
- show cellular gps
- show cellular sms

These commands are described in the *Configuring Cisco EHWIC-3G-EVDO-x* guide.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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