

Dail Configure Command

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Chapter 1 Dial Configuration Command

1.1 Dial Configuration Command

1.1.1 chat-script

Configuring the script that can be used for multiple modules.

Syntas

chat-script

Parameter

Currently Script language only supports the script language provided by Unix system. The content of script is marked with quotation mark.

Default

Default defines two scripts of reset-script ` dialer-script, which are used for modem initialization and default dial.

Command mode

global configuration mode

Explanation

Currently Script language only supports the script language provided by Unix system. In order to facilitate user configuration, the match mode of script applies the random match based on the line.

Example

```
Router_config#chat-script myscript ABORT ERROR ABORT BUSY ABORT "NO CARRIER"  
TIMEOUT 45 "" ATZ OK "ATDT \T" CONNECT \c
```

Relevant command

exec-script

script activation

script connection

script reset

script dialer

script startup

1.1.2 dialer caller

Setting telephone number of caller

Syntas

[no] dialer caller *number*

Parameter

Parameter	Description
<i>number</i>	Telephone number of the caller. If there are quite a few numbers, they are spaced by semicolon.

Default

none

Command mode

Interface configuration mode

Example

Router_config_s1/0#dialer caller 12345678

1.1.3 dialer called

Designating telephone number of the called.

Syntas

[no] dialer called *number*

Parameter

Parameter	Description
<i>number</i>	Telephone number of the party called. If there are quite a few numbers, they are spaced by semicolon.

Default

none

Command mode

Interface configuration mode

Example

Router_config_s1/0#dialer called 12345678

1.1.4 dialer dtr

Setting port dial mode as dtr dial

Syntas

[no] dialer dtr

Parameter

none

Default

DTR dial is forbidden.

Command mode

Interface configuration mode

Explanation

The general dial mode sets the number to be dialed for modem through active use of script. Dtr dial is DTR signal that Modem directly detects DTE. If the signal is effective, the relevant dial processing will be executed automatically. The dialed number is set directly on Modem. The number of dialer string and dialer map set under DTR dial mode is ineffective. DTR dial cannot be set for Dialer interface and ISDN.

Example

```
Router_config_s1/0#dialer dtr
```

1.1.5 dialer enable-timeout

Setting the minimum time interval between two dials.

Syntas

[no] dialer enable-timeout [*timeout*]

Parameter

Parameter	Description
<i>timeout</i>	The time interval calculated on second.

Default

5 seconds

Command mode

Interface configuration mode

Example

```
Router_config_s1/0#dialer enable-timeout 10
```

1.1.6 dialer fast-idle

Setting fast idle time. When physical port or logic port is linked in some destination IP address, and the packet of new IP destination address is to be sent, triggering dial and causing dial competition, the set circuit shall be disconnected at the fast idle-stipulated time of no data transmit so that the dial up connection can be established between the port and new IP destination address.

Syntas

[no] dialer fast-idle [*timeout*]

Parameter

Parameter	Description
<i>timeout</i>	The timeout time calculated on second

Default

20 seconds

Command mode

Interface configuration mode

Example

Router_config_s1/0#dialer fast-idle 30

1.1.7 dialer hold-queue

Setting the number of data packet saved from starting dial to circuit protocol startup.

Syntas

dialer hold-queue [*length*]

no dialer hold-queue

Parameter

Parameter	Description
length	Holding queue length (number of data packet), the scope of value is 0 to 100.

Default

10

Command mode

Interface configuration mode

Example

Restoring the held queue length to the default value.
router_s1/0#no dialer hold-queue

1.1.8 dialer idle-timeout

After s port call is set up, the command “dialer idle-timeout” is used for setting idle time of port. The command “no dialer idle-timeout” is used for restoring default time interval.

Syntas

dialer idle-timeout *seconds*
no dialer idle-timeout

Parameter

Seconds is idle time, the unit is second, the scope of value is 0~2147483.

Default

Default idle time is 120 seconds

Command mode

Interface configuration mode

Explanation

When a linkage is created, idle-time timing works. If no effective data packet is sent from the linkage within the set time, DDR will disconnect the linkage. If idle-timeout is set as 0, the linkage will never be disconnected after the corresponding linkage is established (even if no effective data is sent from the linkage).

Example

Router_config_s1/0 #dialer idle-timeout 50

Relevant command

dialer fast-idle , dialer-group

1.1.9 dialer load-threshold

Set the threshold value of traffic in dialer rotary group.

Syntas

dialer load-threshold *enable-threshold disable-threshold*
no dialer load-threshold

Parameter

Parameter	Description
<i>enable-threshold</i>	used for starting the threshold value of a dial port.
<i>disable-threshold</i>	disconnecting the threshold value of multiple ports separately.

The unit is the ratio between the total of real speed of all the physical ports under connection and the total of bandwidth occupying physical port under connection the scope of value is 0~100. When the value is 0, the threshold value is identified as unworkable.

Default

Default value is 0.

Command mode

Interface configuration status of Dialer interface and ISDN interface

Explanation

DDR exercise real-time monitoring of the flow on the port. When the flow far exceeds the stipulated threshold value and the dial group has the usable port, a port will started to increase the bandwidth of dial group. When the flow is very small and lower than the stipulated threshold value, the unwanted ports will be disconnected automatically. If physical port is configured with priority level, the dial will be made on priority level or the unwanted ports will be disconnected. The port with top priority level will be chosen at the time of activating and the port with the least priority level will be chosen at the time of deactivating.

Example

```
Router_config_d1 #dialer load-threshold 50 10
```

Relevant command

dialer priority

dialer rotary-group

1.1.10 dialer map

The configuration command “dialer map” is used for configuring a DDR port to call one or multiple destination address or receiving the call of multiple opposite terminals. The “no” format of the command can be used for deleting a dialer map.

Syntas

dialer map *next-hop-address* [**name** *hostname*] *dial-string* [**modem-script** *modem-script-name*] [**system-script** *system-script-name*]

no dialer map *next-hop-address* [**broadcast**] *dial-string* [**modem-script** *script-name*] [**system-script** *script-name*]

Parameter

Parameter	Description
<i>next-hop-address</i>	Address of opposite network
Name	(optional) Username of opposite terminal, it is used for receiving the verification at the time of call.
broadcast	(optional) Broadcast packet can be transmitted through the linkage

Default

System default does not define dialer map

Command mode

Interface configuration mode

Explanation

The command “dialer map” and “dialer-string” are used for calling.

Example

```
Router_config_s1/0#dialer map 130.130.1.1 name xyz 12345678
```

Relevant command

dialer string

1.1.11 dialer priority

Setting priority level of physical port in dialer rotary group

Syntas

dialer priority *number*

no dialer priority

Parameter

Parameter	Description
<i>number</i>	Value of priority level

Default

0

Command mode

Interface configuration mode

Explanation

The sequence pf using interface is based on the priority level of each interface.

Example

```
Router_config_s1/0#dialer priority 200
```

Relevant command

```
dialer rotary-group
```

1.1.12 dialer rotary-group

Designating which dialer interface the local port belong to. If dialer interface is not configured, the system will generate a dialer interface automatically.

Syntas

```
dialer rotary-group
```

Parameter

Serial number of dialer interface

Default

none

Command mode

Interface configuration mode

Explanation

On a physical port, the port can belong to Dialer Interface at the most.

Example

```
Router_config_s1/0#dialer rotary-group 1
```

Relevant command

```
interface dialer
```

1.1.13 dialer string

The command sets the dial-string of opposite terminal. The “no” format of the command can be used for deleting the dial string.

Syntas

```
dialer string dial-string [ modem-script modem-script-name] [ system-script system-script-name]
```

```
no dialer string
```

Parameter

Parameter	Description
dial-string	Dial-string of opposite terminal
modem-script	(Optional) Script of modem dialing
system-script	(Optional) The script used for logging in the system of opposite terminal after accessing the opposite terminal by dialing

Default

No default dial string

Command mode

Interface configuration mode

Explanation

The command is used when the port only calls a destination address or default address.

The command is effective when it meets one of the conditions below:

- (1) Dialer map is not configured to the port.
- (2) The destination address to be sent is not in the configuration of "dialer map".

Example

```
Router_config_s1/0#dialer string 11111
```

Relevant command

dialer map

dialer-group

1.1.14 dialer wait-for-carrier-time

Set the maximum waiting time from starting dial to enabling CD signal.

Syntas

dialer wait-for-carrier-time [*time*]

no dialer wait-for-carrier-time

Parameter

Parameter	Description
<i>time</i>	The waiting time calculated on second.

Default

30

Command mode:

Interface configuration mode

Example

```
router_s1/0#dialer wait-for-carrier-time 60
```

1.1.15 dialer-group**Syntas****dialer-group** *number*

This command configures the associated dialer group. It is required to be used with the “dialer-list” command.

Use the “no” format of this command can cancel the configuration.

dialer-group group-number**no dialer-group****Command mode**

Interface configuration mode

Parameter

Parameter	Description
group-number	the dialer group of the interface belongs to, and the dialer group can be defined by the command “dialer-list”.

Explanation

This command set port belongs to specified dialer group. According to dialer group's access policy, it can determine if the data from the port can trigger the dialer or update the line Idle counter. If the packet not matching dialer group policy, it will not trigger the dialer actively when the port has no connection established. If those ports with connection established, it will send this packet without updating Idle counter, which means the line doesn't transfer valid data, and the port will be disconnected if Idle timer timeout.

Example

The following configuration means that s1/0 will trigger the dialer or update the idle timer only if the target IP is 2.0.0.2.

```
ip access-list standard 2
permit 2.0.0.2 255.255.255.255
dialer-list 1 protocol ip list 2
interface s1/0
ip addr 2.0.0.1 255.0.0.0
```

```
line dial
dialer string 12345
dialer-group 1
```

1.1.16 dialer-list

Syntas

dialer-list *dialer-group* **protocol**

This command configures dialer group. It is similar to “Ip access list”, it can configure the access control list with one dialer group.

Use the “no” format of this command can cancel the configuration.

dialer-list *dialer-group* **protocol** *protocol-name* {**permit** | **deny** | **list** access-list-number | **access-group**}

no dialer-list *dialer-group* [**protocol** *protocol-name* [**list** access-list-number | **access-group**]]

Command mode

global configuration mode

Example

The following configuration means that dialer group 1 is merely the packet matching policy whose target IP is 2.0.0.2.

```
ip access-list standard 2
permit 2.0.0.2 255.255.255.255
dialer-list 1 protocol ip list 2
```

1.1.17 dsr-ignore

Setting router whether to care about DSR signal of Modem.

Syntas

```
dsr-ignore
no dsr-ignore
```

Parameter

none

Default

Router needs to care about DSR signal of Modem

Command mode

Interface configuration mode

Explanation

Some modems do not provide DSR signal. If the command is not configured, router will think that exterior modem does not work normally and the normal dial will not be made.

Therefore the command can be configured for instructing the router not to care about DSR signal of Modem.

Example

Router_config_a0/0#**dsr-ignore**

Relevant command

none

1.1.18 exec-script

Executing the designated Modem script on the interface.

Syntas

exec-script *word serial/async*

Parameter

Parameter	Description
<i>word</i>	Name of <i>WORD</i> script
Serial/Async	The name of the port where the script is executed.

Command mode

Interface configuration mode

Explanation

The command offers the method for the immediate execution of Modem script. When a script is executed on the corresponding interface, the command will not be executed and will report a wrong packet.

Example

router(config-if-Serial0)#**exec-script myscript s1/0**

Relevant command

chat-script

1.1.19 line dial

Setting port as dial port. The port is connected by private line under default state.

Syntas

line dial

Parameter

None

Default

None

Command mode

Interface configuration mode

Explanation

When the port is connect with Modem, it shall be configured as dial mode

Example

```
Router_config_s1/0#line dial
```

1.1.20 pusle-time

Setting time interval of DTR signal disable . The “no” command is used for restoring default value.

Syntas

pulse-time *intervals*

no pulse-time

Parameter

Parameter	Description
<i>intervals</i>	time interval (second)

Default

2 seconds

Command mode

Interface configuration mode

Explanation

When serial port circuit is down for some reason, the interface hardware will set the ineffective lasting time of resetDTR signal and DTR signal as the value stipulated by the command.

Example

```
Router_config_s2/0#pulse-time 3
```

Relevant command

none

1.1.21 script activation

The command “script activation” is used for designating the Modem script executed at the time of successful setup of callout in the circuit. The command “no script activation” is used for canceling this feature.

Syntas

script activation *word*

no script activation

Parameter

Parameter	Description
<i>word</i>	name of script

Default

System default does not have the designation.

Command mode

circuit configuration mode

Explanation

If the configuration is made, the script will be executed when the callout connection is successfully established. The script can be the registration of a remote terminal, for example, When the router is connected with a remote UNIX server, the script can be used for logging in remote server and sending login character string and password to UNIX server.

Example

37DE_config_line#script activation example

Relevant command

chat-script

exec-chat

script connection

script reset

script dialer

script startup

1.1.22 script connection

The command is used for setting the script executed after Asynchronous port sets up connection with the remote terminal (CD signal occurs).

Syntas

[no] script connection *script_name*

Parameter

Parameter	Description
<i>script_name</i>	Script name

Default

none

Command mode

circuit configuration mode

Example

```
router_conf#line tty 1
router_conf_line#script connection Login_script
```

The connection script of s1/0 is set as Login_script and it is assumed that s1/0 corresponds to line tty 1 of Asynchronous circuit at this time.

1.1.23 script callback

The command is used for setting the modem dial script used at the time of callback of Asynchronous port.

Syntas

[no] script callback *script_name*

Parameter

Parameter	Description
<i>script_name</i>	Script name

Default

Dial script defaulted by the system is used.

Command mode

circuit configuration mode

Example

```
router_conf#line tty 1
router_conf_line#script callback callback_script
```

The callback script of s1/0 is set as callback_script and it is assumed that s1/0

corresponds to line tty 1 of Asynchronous circuit at this time.

1.1.24 script dialer

Syntas

script dialer *word*

The command “script dialer” is used for configuring default Modem script used at the time of DDR dial. The command “no script dialer” is used for canceling the feature.

Parameter

Parameter	Description
<i>word</i>	Script name

Default

The system default does not have the designation.

Command mode

circuit configuration mode

Explanation

If dialer script is configured, the designated dialer script will be executed at the time of dial.

Relevant command

exec-script

chat-script

script activation

script connection

script reset

1.1.25 script reset

The command is used for setting the initialization script of Asynchronous port.

Syntas

[no] **script reset** *script_name*

Parameter

Parameter	Description
<i>script_name</i>	Script name

Default

The initialization script defaulted by the system is used.

Command mode

circuit configuration mode

Example

```
router_conf#line tty 1
router_conf_line#script reset RESET_SCRIPT
```

The connection script of s1/0 is set as RESET_SCRIPT and it is assumed that s1/0 corresponds to line tty 1 of Asynchronous circuit at this time.

1.1.26 script startup

The command is used for setting the script executed to the dial port when the system is restarted through power turn-on.

Syntas

[no] script reset *script_name*

Parameter

Parameter	Description
<i>script_name</i>	Name of script

Default

The initialization script defaulted by the system is used.

Command mode

circuit configuration mode

Example

```
router_conf#line tty 1
router_conf_line#script reset reset_script
```

The initialization script of s1/0 is set as RESET_SCRIPT and it is assumed that s1/0 corresponds to line tty 1 of Asynchronous circuit at this time.

1.1.27 clear dialer interface

The command is used for clearing the statistic information of designated dial port (such as the number of successful dial-up and failure, etc)

Syntas

clear dialer interface [port]

Parameter

Parameter	Description
Port	the name of dial port.

Command mode

supervisor mode

1.1.28 clear dialer sessions

The command is used for disconnecting designated dial port.

Syntas

clear dialer sessions [port]

Parameter

Parameter	Description
Port	the name of dial port.

Command mode

supervisor mode

1.1.29 show dialer sessions

The command is used for showing all the active dial port.

Syntas

show dialer sessions

Parameter

None

Command mode

None user mode

1.1.30 show dialer interface

The command is used for showing the status of the designated dial port.

Syntas

show dialer interface [Port]

Parameter

Parameter	Description
Port	the name of dial port

Command mode

supervisor mode

Example

```
router#show dialer interface s1/0
Serial1/0 - dialer type = ASYNC
Idle timer (120 secs), Fast idle timer (20 secs)
Wait for carrier (30 secs), Re-enable (5 secs)
Dial String   Successes  Failures  Last called  Last status
*             0         0         never
Dialer state is Line down
```

1.1.31 show dialer maps

The command is used for showing the static map configuration of all the dial ports.

Syntas

show dialer maps

Parameter

none

Command mode

supervisor mode

Example

```
router#sh dialer map
Static dialer map ip 1.0.0.2 (02156784321) on Serial1/0
Static dialer map ip 1.0.0.4 (01022345665) on Dialer0
The value in the bracket is the dial number.
```

1.1.32 show script

Showing the various scripts of current router configuration

Syntas

show script

Parameter

none

Command mode

None user mode

Example

```
router#sh script
37DE_config_line#show script
Chat scripts predefined:
DEFAULT_RESET_SCRIPT:
ABORT ERROR "" AT OK ATE0S0=1 OK AT&C1&D2&S0 OK
DEFAULT_DIALER_SCRIPT:
ABORT ERROR ABORT "NO DIAL TONE" ABORT BUSY ABORT "NO CARRIER" TIMEOUT
45 "" AT OK "ATDT \T" CONNECT \c
Chat scripts user defined:
init:
ABORT ERROR ABORT "NO TONE" "" ATZ OK ATL1M1&C1&D2&S0S0=1 OK
```

These in "Chat scripts predefined" are the reset and dial script of default configuration of router, those described after "Chat scripts user defined:" are user-defined scripts.

1.1.33 debug chat

Tracing script activities, such as starting a script and stopping the execution of script; Tracing the execution process of script. The command "no debug" is used to stop showing information.

Syntas

debug chat

no debug chat

Parameter

none

Command mode

supervisor mode

Example

```
Router#debug chat
Router#SCRIPT: start script default_dialer_script...
SCRIPT:Sending string: ATZ
SCRIPT:Expecting string: OK
SCRIPT: Receive string:
41 54 0D 0D 0A 4F 4B 0D 0A AT...OK..
SCRIPT:Completed match for expect:OK
SCRIPT:Sending string: ATDT 2
SCRIPT:Expecting string: CONNECT
SCRIPT: Receive string:
43 4F 4E 4E 45 43 54 CONNECT
SCRIPT: Completed match for expect:CONNECT
SCRIPT:Chat script finished
```

The first piece of information indicates the starting of the script named

"default_dialer_script"

The second information indicates the sending of ATZ character

The third piece of information indicates the expecting of character string OK.

The fourth piece of information indicates the expecting of character string OK.

The fifth piece of information indicates the demanding modem dial for sending ATDT 2 character string.

The sixth piece of information indicates the expecting of character string CONNECT

The seventh piece of information indicates the expecting of character string CONNECT

The eighth piece of information indicates the success of script execution.

Relevant command

chat-script

1.1.34 debug dialer

Tracing the dial process and dial activities, such as initializing modem, DDR startup dial. The command "no debug" is used to stop showing information.

Syntas

debug dialer

no debug dialer

Parameter

none

Command mode

supervisor mode

Example

```
Router#debug dialer
DIALER Serial 1/0: Dialing cause ip(PERMIT).
DIALER Serial 1/0: Dialing using Modem script: default_dialer_script & System script: none
DIALER Serial 1/0: Attempting to dial 2
DIALER Serial 1/0: process started
DIALER Serial 1/0: Chat script default_dialer_script (dialer) started.....
DIALER Serial 1/0: Connection established
DIALER Serial 1/0: Modem script finished successfully
```

The first piece of information indicates that dialer checks whether the packet is allowed to trigger dial and the check result is IP packet can trigger dial.

The second piece of information indicates that modem script used by dial is pre-defined default dial script and system script is not used.

The third piece of information indicates that the dial number used is 2.

The fourth piece of information indicates the startup of dial process.

The fifth piece of information indicates that the dial script is started and modem should be on and dial number at this time.

The sixth and seventh information indicates the successful execution of dial script and the success of this call.