

Pentesting Attack Router  
Reconstructed  
Cracking cisco-ios password

BY

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Thanks to Neo ,Silent poison ,Silicon, Inxroot

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# Setup and tools Requirement for breaking cisco password

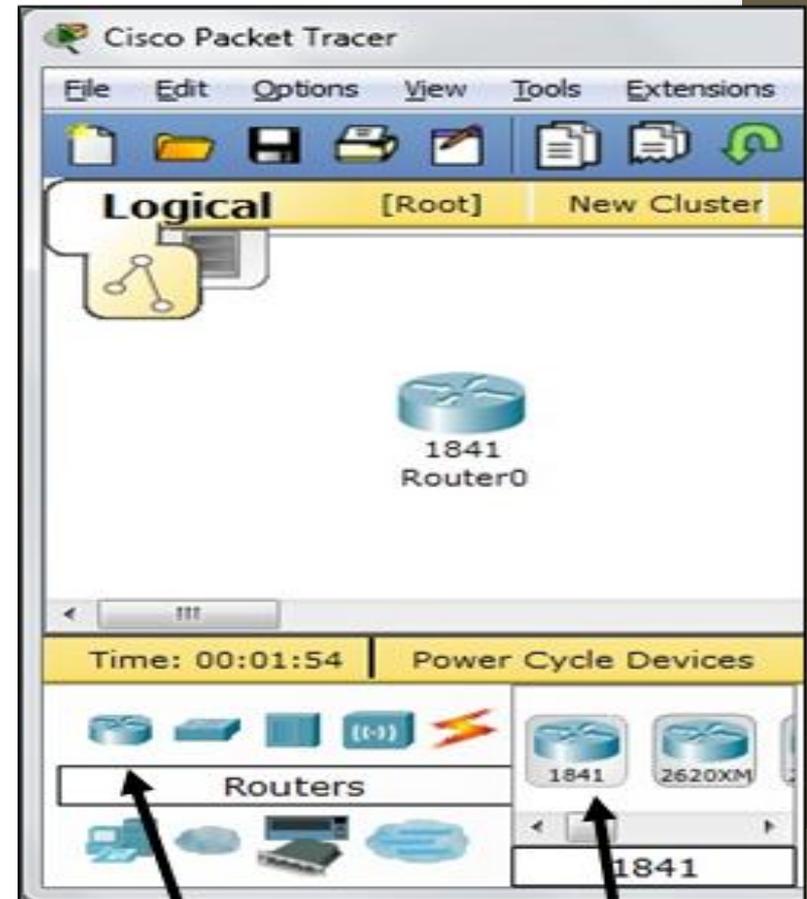
❑ Download and install Cain & Abel from <http://www.oxid.it/cain.htm>

❑ Packet Tracer, the Cisco router simulator installed in windows <http://www.packettracer.info/>



## Working Steps:

- ❑ Install Packet Tracer with the default options.
- ❑ Launch Packet Tracer.
- ❑ In the lower left corner of the “Cisco Packet Tracer” window, click the Router icon, as shown to the right on this page.
- ❑ In the lower center of the “Cisco Packet Tracer” window, drag the 1841 icon into the white center pane, as shown to the right on this page.



Router icon

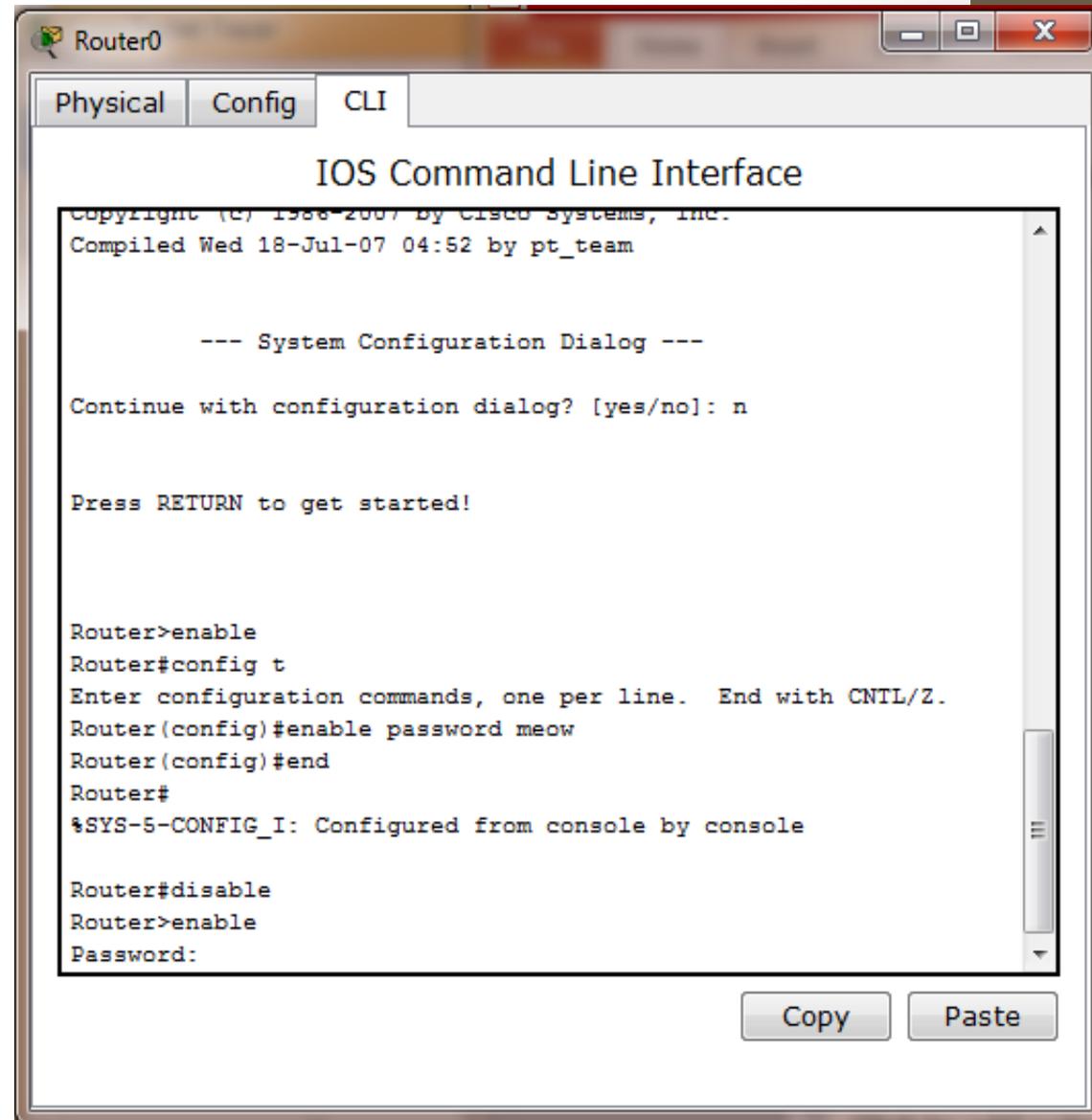
1841 icon

# Adding Password To The Router

- Double click on center of the "Cisco Packet Tracer" window, double-click the "**1841 Router 0**" icon.
- In the "Router0" window, click the **CLI** tab, as shown in the figure on the next page. At the "**Continue with configuration dialog? [yes/no]**" prompt, press **n** and then press **Enter** key twice.
- You should see a **Router>** prompt. This is the Cisco IOS, which is a lot like Linux. The **>** indicates that you are in **Unprivileged Mode**, like a non-administrative account. To enter Privileged mode, type this command, and then press the Enter key:  
**enable**
- The prompt changes to **Router#**. You are now in **Privileged Mode**, like root on a Linux computer. You didn't need a password to elevate your privileges, which is very insecure. To fix that, you must first enter **Global Configuration Mode**. Type this command, and then press the Enter key:  
**config t**
- The prompt changes to **Router(config)#**. To require a password of **cisco**, type this command, and then press the Enter key:  
**enable password meow**

# Screenshot - Setting Up Password In Cisco router

- To exit Global Configuration Mode, type this command, and then press the Enter key:  
End
- To exit Privileged Mode, type this command, and then press the Enter key:  
enable password meow
- To exit Global Configuration Mode, type this command, and then press the Enter key:  
end
- To exit Privileged Mode, type this command, and then press the Enter key:  
disable



The screenshot shows a window titled "Router0" with tabs for "Physical", "Config", and "CLI". The main content is the "IOS Command Line Interface". It displays the following text:

```
Copyright (c) 1986-2007 by Cisco Systems, Inc.  
Compiled Wed 18-Jul-07 04:52 by pt_team  
  
--- System Configuration Dialog ---  
  
Continue with configuration dialog? [yes/no]: n  
  
Press RETURN to get started!  
  
Router>enable  
Router#config t  
Enter configuration commands, one per line. End with CNTL/Z.  
Router(config)#enable password meow  
Router(config)#end  
Router#  
%SYS-5-CONFIG_I: Configured from console by console  
  
Router#disable  
Router>enable  
Password:
```

At the bottom right of the window, there are "Copy" and "Paste" buttons.

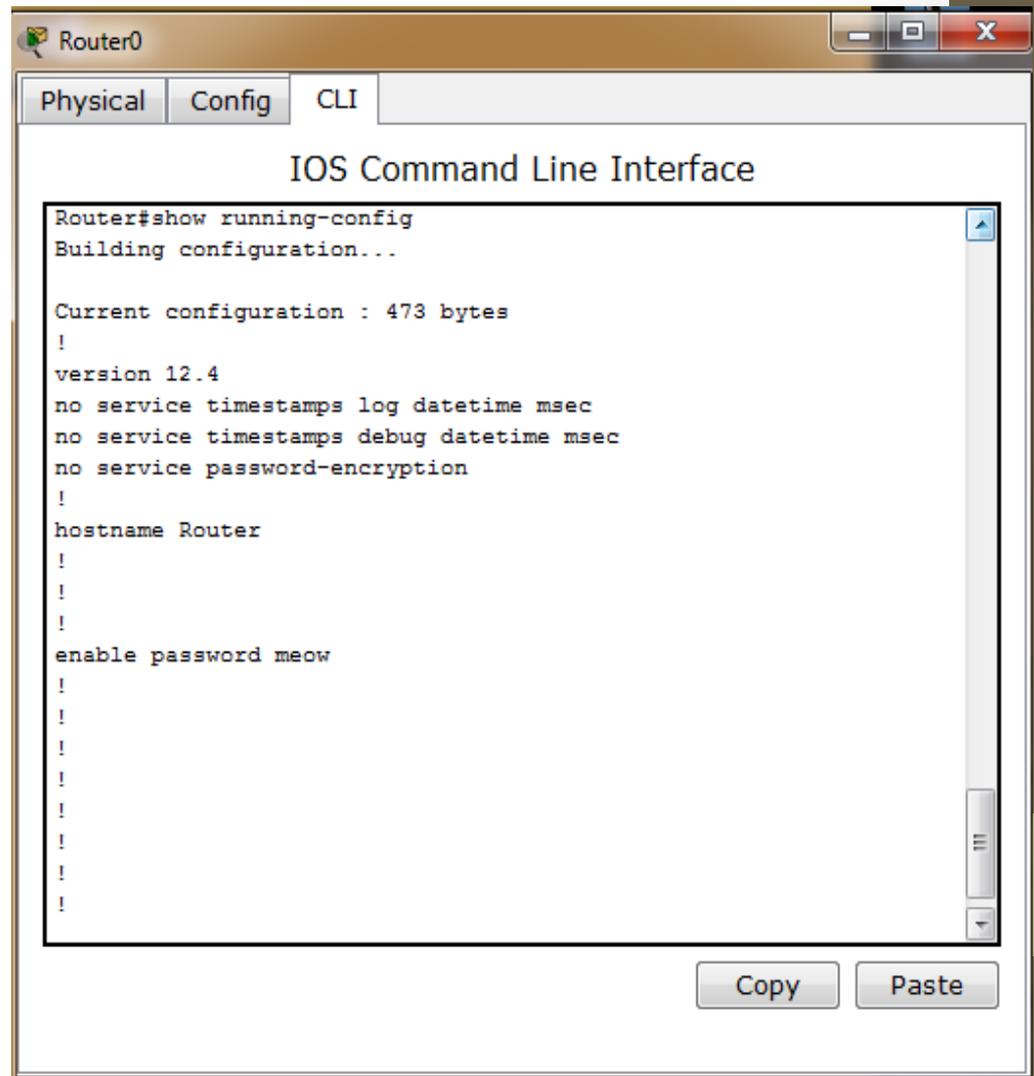
# Looking The Configuration File and Removing Plain Text Password

❑ The router is now password-protected, but how secure is the password storage? To find out, type this command, and then press the Enter key:  
show running-config

❑ The password is clearly visible, as shown to the right on this page.

Removing the Plaintext Password  
Plaintext storage of passwords is very insecure. To remove that stored password, type these commands, pressing the Enter key after each command:

```
config t
no enable password
end
```



```
Router0
Physical Config CLI
IOS Command Line Interface
Router#show running-config
Building configuration...

Current configuration : 473 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
enable password meow
!
!
!
!
!
```

Copy Paste

# Setting an Encrypted Password

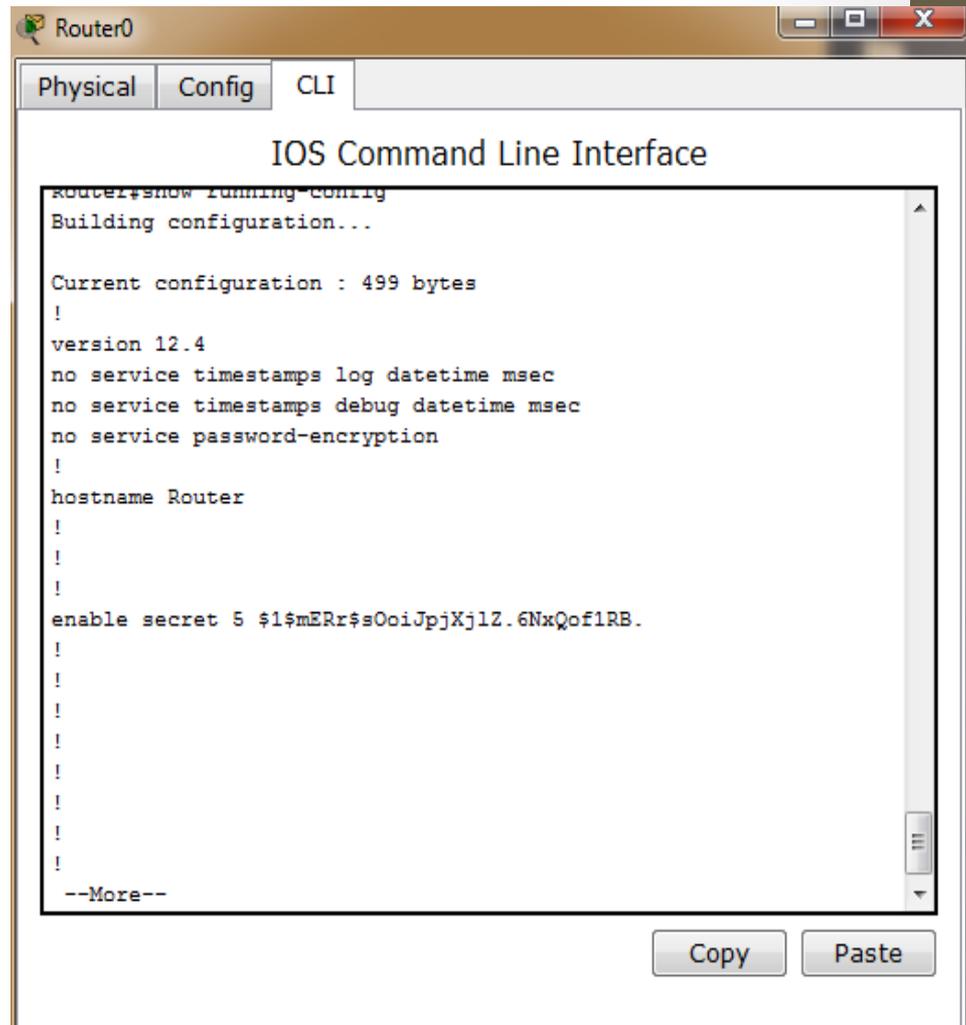
- ❑ To configure an encrypted password, type these commands, pressing the Enter key after each command:  
config t  
enable secret meow  
end

- ❑ To see the encrypted password, type this command, and then press the Enter key:

show running-config

The password is now hashed, as shown to the right on this page.

Highlight the password hash as shown, right-click the highlighted area, and click Copy.



The screenshot shows a window titled "Router0" with tabs for "Physical", "Config", and "CLI". The main area is titled "IOS Command Line Interface". The command prompt shows the user has entered "show running-config", and the output displays the current configuration. The password "meow" has been encrypted into a hash: "enable secret 5 \$1\$mERr\$sOoiJpjXj1Z.6NxQof1RB.". The hash is highlighted in yellow. Below the terminal window are "Copy" and "Paste" buttons.

```
Router0#show running-config
Building configuration...

Current configuration : 499 bytes
!
version 12.4
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname Router
!
!
!
enable secret 5 $1$mERr$sOoiJpjXj1Z.6NxQof1RB.
!
!
!
!
!
!
!
!
!
!
--More--
```

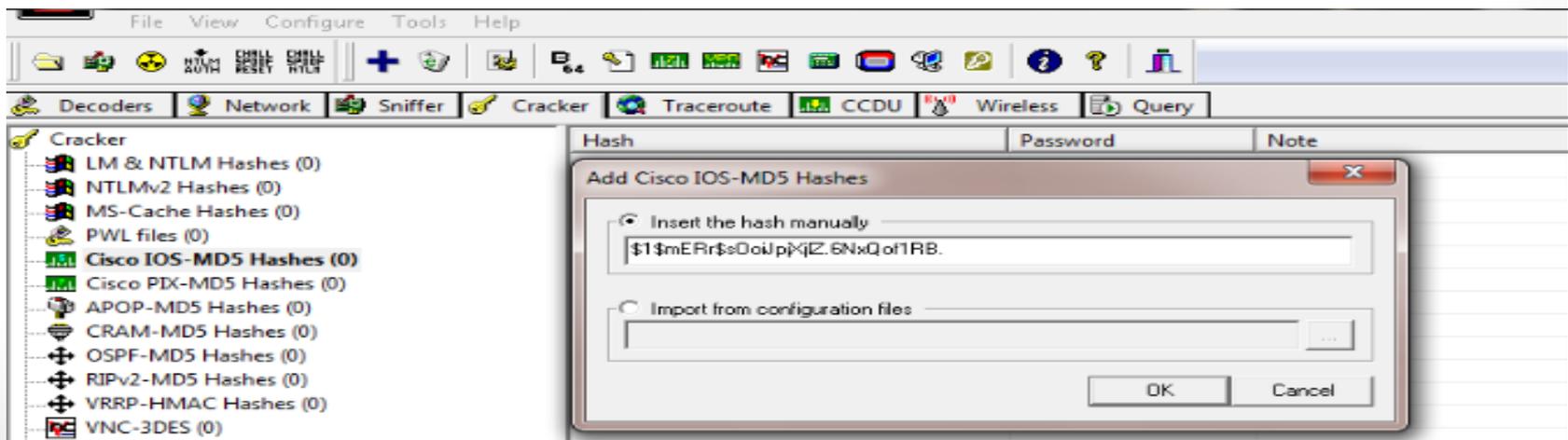
- ❑ Installing Cain If you don't already have Cain installed, download it from [oxid.it/cain.html](http://oxid.it/cain.html) and install it: Right-click the Cain shortcut on your desktop and click "Run as Administrator"
- ❑ In the Cain window, click the Cracker tab. In the left pane, click the "Cisco IOS MD5 Hashes" item to highlight it.

From the Cain toolbar at the top of the window, click the + icon. An "Add Cisco IOS MD5 Hashes" box opens. Paste the hash into the upper box and click OK. The hash should appear in the central pane, as shown to the right on this page.

- ❑ In the central pane of the Cain window, right-click the hash and click "Brute-Force Attack".

In the "Brute-Force Attack" box, click the Start button.

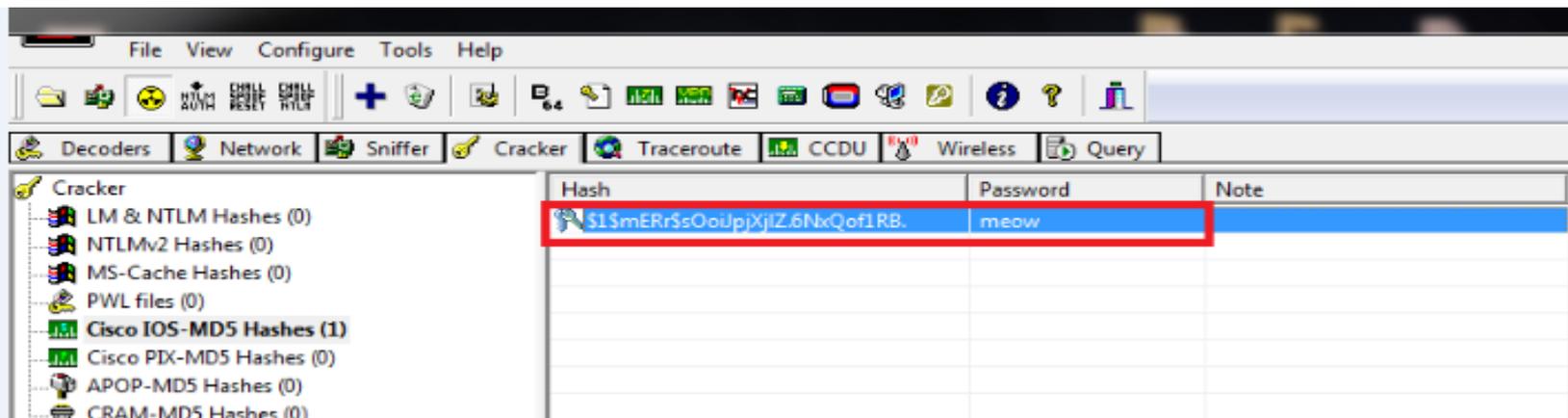
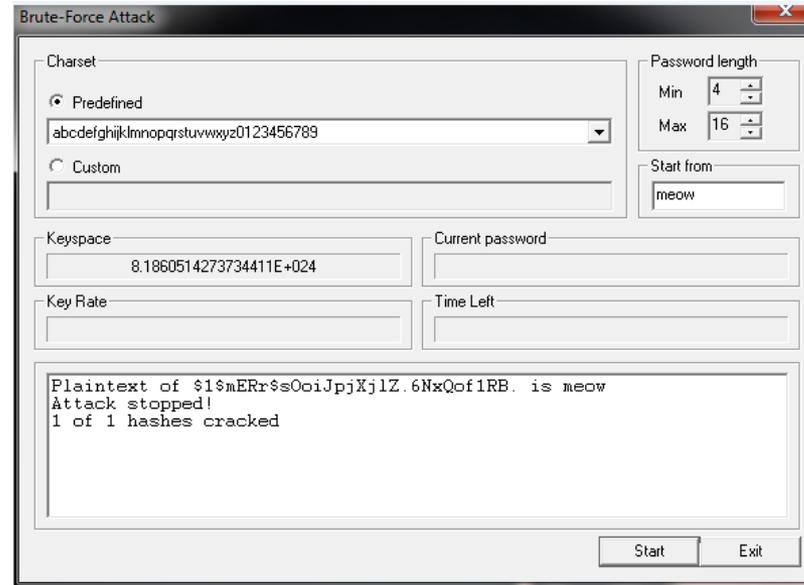
The password should be found in a few seconds, as shown on the next page of these instructions



# BRUTE-FORCE THE HASH AND GETTING PASSWORD MEOW

❑ In the central pane of the Cain window, right-click the hash and click "Brute-Force Attack". In the "Brute-Force Attack" box, click the Start button.

❑ Password successfully cracked shown below





THANK  
YOU