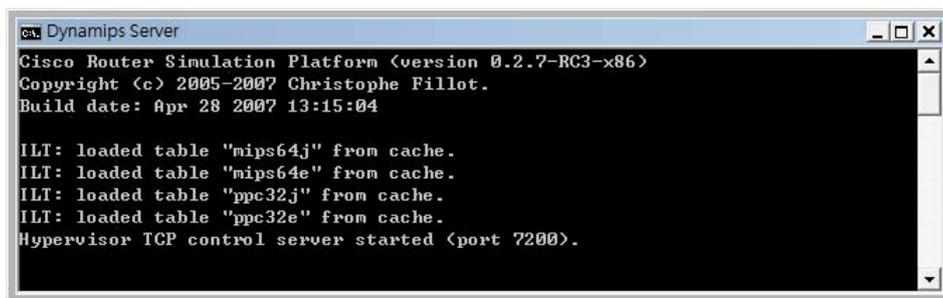


## Dynamips Server – Cisco Router 仿真模擬器

要認識 Cisco 技術的同學，如果沒有足夠金錢去購買 Cisco 的 Router 網絡設備，多數會使用 Router Simulator 這類型軟件。可是 Router Simulator 只能針對 Simple Lab 內的實習，然後一條一條指令的輸進去，彈性非常有限，很多 IOS Command 也無法支援。如果你想學習更多的指令，你可以跟隨以下的方法去使用 Dynamips Server 配合真實的 IOS 安裝入電腦中的實驗環境，所有 IOS Command 均可使用，是 Router Simulator 以外的另一個好選擇。

### == 步驟 ==

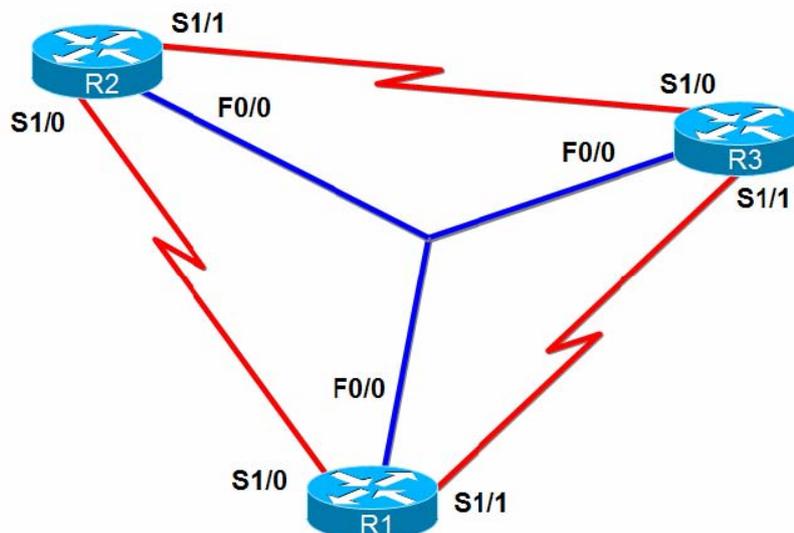
1. Double Click 桌面上 “Dynamips Server” 的捷徑 (注意：該視窗開啓後不可關閉 !!!)



2. 在 “lab” 資料夾內打開配置檔案

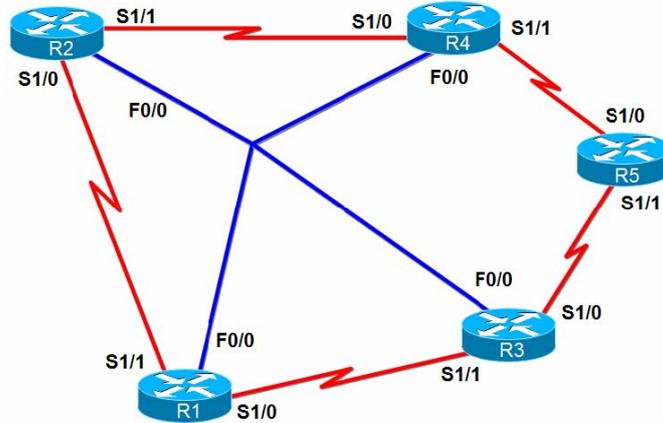


3-Router.net (模擬3個Cisco 7200 Router的實驗環境) 或





**5-Router.net** (模擬5個Cisco 7200 Router的實驗環境)



3. 等待約三十秒，讓另一邊的Dynamips Server啟動每個Router的模擬程序

```

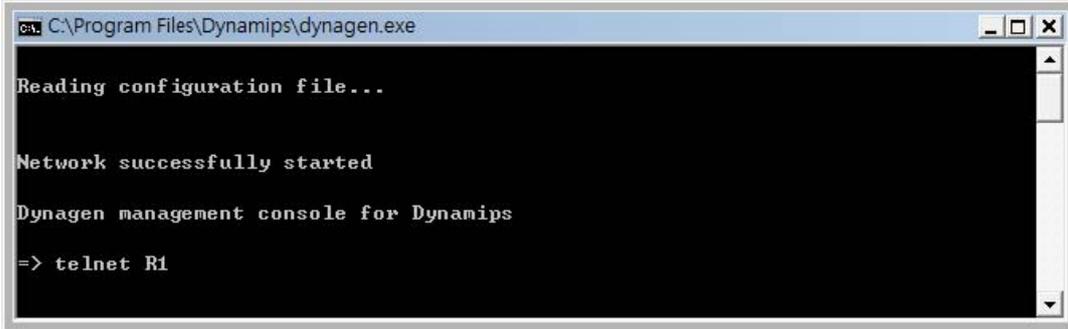
cas DynamipsServer
Cisco Router Simulation Platform (version 0.2.7-RC3-x86)
Copyright (c) 2005-2007 Christophe Filloot.
Build date: Apr 28 2007 13:15:04

ILT: loaded table "mips64j" from cache.
ILT: loaded table "mips64e" from cache.
ILT: loaded table "ppc32j" from cache.
ILT: loaded table "ppc32e" from cache.
Hypervisor ICP control server started (port 7200).
CPU0: carved JIT exec zone of 16 Mb into 512 pages of 32 Kb.
C7200 instance 'R1' (id 0):
  UM Status : 0
  RAM size : 96 Mb
  IOMEM size : 0 Mb
  NURAM size : 512 Kb
  NPE model : npe-400
  Midplane : vxx
  IOS image : \PROGRAM~1\Dynamips\images\c7200.bin
Loading ELF file '\PROGRAM~1\Dynamips\images\c7200.bin'...
ELF entry point: 0x80008000
C7200 'R1': starting simulation (CPU0 PC=0xffffffffbfc00000), JIT enabled.

CPU0: carved JIT exec zone of 16 Mb into 512 pages of 32 Kb.
C7200 instance 'R2' (id 1):
  UM Status : 0
  RAM size : 96 Mb
  IOMEM size : 0 Mb
  NURAM size : 512 Kb
  NPE model : npe-400
  Midplane : vxx
  IOS image : \PROGRAM~1\Dynamips\images\c7200.bin
Loading ELF file '\PROGRAM~1\Dynamips\images\c7200.bin'...
ELF entry point: 0x80008000
C7200 'R2': starting simulation (CPU0 PC=0xffffffffbfc00000), JIT enabled.

CPU0: carved JIT exec zone of 16 Mb into 512 pages of 32 Kb.
C7200 instance 'R3' (id 2):
  UM Status : 0
  RAM size : 96 Mb
  IOMEM size : 0 Mb
  NURAM size : 512 Kb
  NPE model : npe-400
  Midplane : vxx
  IOS image : \PROGRAM~1\Dynamips\images\c7200.bin
Loading ELF file '\PROGRAM~1\Dynamips\images\c7200.bin'...
ELF entry point: 0x80008000
C7200 'R3': starting simulation (CPU0 PC=0xffffffffbfc00000), JIT enabled.
  
```

4. 完成後可在 Dynagen Management Console 輸入 => telnet R1連接Router 1



```
C:\Program Files\Dynamips\dynagen.exe

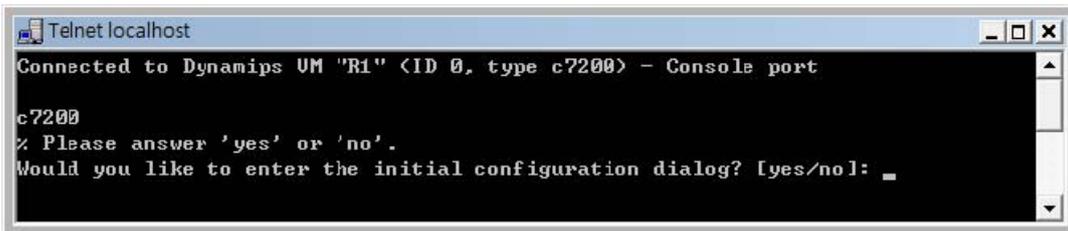
Reading configuration file...

Network successfully started

Dynagen management console for Dynamips

=> telnet R1
```

5. 此時 Telnet 視窗會彈出，然後輸入“c7200”，便可連接 Router 1 進入設定模式

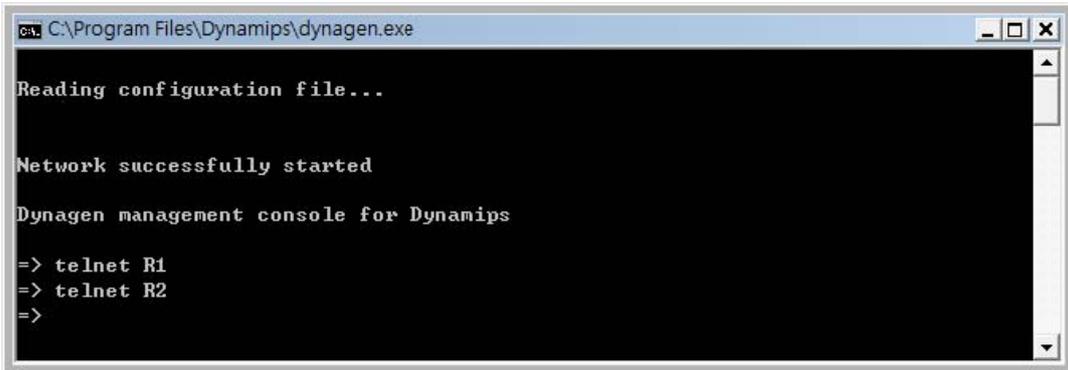


```
Telnet localhost

Connected to Dynamips UM "R1" <ID 0, type c7200> - Console port

c7200
% Please answer 'yes' or 'no'.
Would you like to enter the initial configuration dialog? [yes/no]:
```

6. 如須連接 Router 2 可返回 Dynagen Management Console輸入 => telnet R2



```
C:\Program Files\Dynamips\dynagen.exe

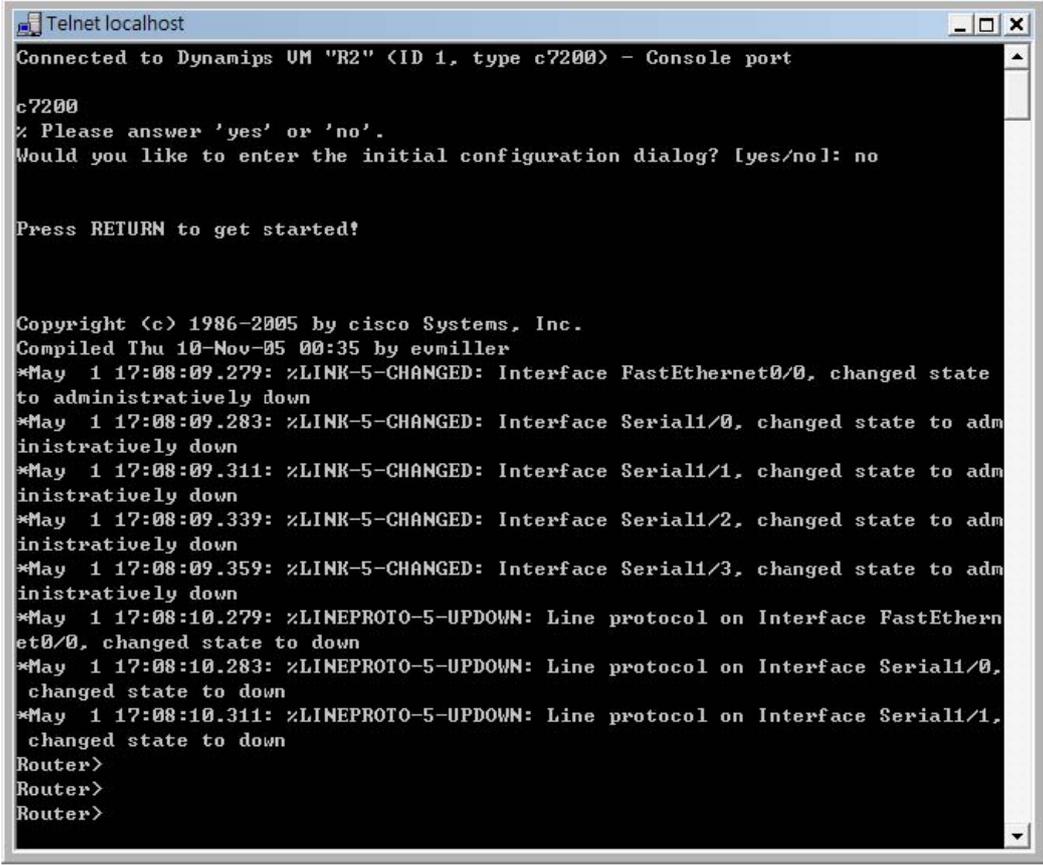
Reading configuration file...

Network successfully started

Dynagen management console for Dynamips

=> telnet R1
=> telnet R2
=>
```

7. 另一 Telnet 視窗彈出後輸入“c7200”，此時進入 Router 2 的設定模式



```
Telnet localhost
Connected to Dynamips VM "R2" (ID 1, type c7200) - Console port

c7200
% Please answer 'yes' or 'no'.
Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Thu 10-Nov-05 00:35 by evmiller
*May 1 17:08:09.279: %LINK-5-CHANGED: Interface FastEthernet0/0, changed state
to administratively down
*May 1 17:08:09.283: %LINK-5-CHANGED: Interface Serial1/0, changed state to adm
inistratively down
*May 1 17:08:09.311: %LINK-5-CHANGED: Interface Serial1/1, changed state to adm
inistratively down
*May 1 17:08:09.339: %LINK-5-CHANGED: Interface Serial1/2, changed state to adm
inistratively down
*May 1 17:08:09.359: %LINK-5-CHANGED: Interface Serial1/3, changed state to adm
inistratively down
*May 1 17:08:10.279: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthern
et0/0, changed state to down
*May 1 17:08:10.283: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/0,
changed state to down
*May 1 17:08:10.311: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1/1,
changed state to down
Router>
Router>
Router>
```