

Helix DNA Server (影音多媒體串流伺服器) 基礎篇

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Helix DNA Server (由realplayer 公司所發展) 是一個 RM 的影音多媒體串流伺服器，之支援 RTSP 通訊協定，也支援 RM、MP3等格式。他目前有 Windows 及 Linux 兩個版本，他的官方網址是：<https://helixcommunity.org/> 各位在註冊（免費）後即可下載，下面我們將介紹在 RedHat 9 中的安裝過程，目前最新的版本是 Ver 11 Beta版，因為屬於測試性質，所以我們選擇安裝穩定的 Ver 10 版。請下載 servinst_plus_linux-2.2-libc6-i586-server.bin 這個檔案，並且將其存放在 /helix_dma_server 目錄下。

```
[root@rh9 helix_dma_server]# ./servinst_plus_linux-2.2-libc6-i586-server.bin <-- 安裝
Extracting files for Helix installation.....

Welcome to the Helix DNA Server 10.1 (10.1.1.67) Setup for UNIX
Setup will help you get Helix DNA Server running on your computer.
Press [Enter] to continue... <-- 直接下 Enter 繼續

Enter the complete path to the directory where you want
Helix DNA Server to be installed. You must specify the full
pathname of the directory and have write privileges to
the chosen directory.
Directory: [/helix_dma_server]: <-- 安裝的路徑，使用預設的就好

Please enter a username and password that you will use
to access the web-based Helix DNA Server Administrator and monitor.
Username []: petersun <-- 設定將來的系統管理員帳號及密碼
Password []:
Confirm Password []:

Please enter a port on which Helix DNA Server will listen for
PNA connections. These connections have URLs that begin
with "pnm://"
Port [7070]: <-- PNA Connection 使用的 Port Number,使用預設

Please enter a port on which Helix DNA Server will listen for
RTSP connections. These connections have URLs that begin
with "rtsp://"
Port [554]: <-- RTSP 協定使用的 Port Number,使用預設

Please enter a port on which Helix DNA Server will listen for
HTTP connections. These connections have URLs that begin
with "http://"
Port [80]: 8080 <-- http 使用的 Port Number,如果使用 80, 會和 Apache 衝突,所以我改成 8080
```

Helix DNA Server will listen for Administrator requests on the port shown. This port has been initialized to a random value for security. Please verify now that this pre-assigned port will not interfere with ports already in use on your system; you can change it if necessary.

Port [21034]: 9000 <-- Admin web 管理介面的 Port Number,你可以使用預設,我將其設定為 9000

You have selected the following Helix DNA Server configuration:

```
Admin User/Password:  petersun/****
Monitor Password:     ****
RTSP Port:            554
HTTP Port:            8080
PNA Port:             7070
Admin Port:           9000
Destination:          /helix_dma_server
```

Enter [F]inish to begin copying files, or [P]revious to go back to the previous prompts: [F]: <-- 再檢視一遍您的設定,如果確定則按下 Enter[F]

Copying Helix DNA Server files... <-- 開始安裝
Helix DNA Server installation is complete.
Cleaning up installation files...
Done.

安裝完成

Helix 的安裝就是這麼的簡單,那我們要如何執行他呢。

```
[root@rh9 helix_dma_server]# ls -l
總計 2228
drwxr-sr-x   6 root    root          4096  9月  2 13:41 adm_b_db
drwxr-sr-x   2 root    root          4096  9月  2 13:41 Bin
drwxr-sr-x   3 root    root          4096 11月 26  2003 Commerce
drwxr-sr-x   5 root    root          4096 11月 26  2003 Content
-rw-----   1 root    root        12289  9月  2 13:41 default.cfg
drwxr-sr-x   4 root    root          4096 11月 26  2003 HelixAdministrator
-rw-----   1 root    root        12289  9月  2 13:41 hlxserverplus.cfg
drwxr-sr-x   2 root    root          4096 11月 26  2003 License
drwxr-sr-x   3 root    root          4096 11月 26  2003 Logs
drwxr-sr-x   2 root    root          4096 11月 26  2003 Plugins
drwxr-sr-x   2 root    root          4096 11月 26  2003 Secure
```

```
-rwx----- 1 root    root      2206522  9月  2 13:38 servinst_plus_linux-2.2-libc6-i586-s
[root@rh9 helix_dma_server]# cd Bin
[root@rh9 Bin]# ./hlxserverplus ../hlxserverplus.cfg
```

hlxserverplus.cfg 是要載入的設定，裡面有安裝時設定的將關 **Port** 等參數

出現下面的訊息，那就表示您的伺服器已將開始運作了。

```
Helix DNA Server (c) 1995-2003 RealNetworks, Inc. All rights reserved.
Version:   Helix DNA Server 10.1 (10.1.1.67) (Build 25942/746)
Platform:  linux-2.2-libc6-i586-server

Using Config File: ../hlxserverplus.cfg
Creating Server Space...
Server has allocated 256 megabytes of memory
Starting PID 2293, procnum 1 (timer)
Calibrating timers...
Interval timer enabled (10ms resolution).
Starting PID 2295, procnum 2 (core)
Starting Helix DNA Server 10.1 Core...
1 CPU Detected...
Linux kernel version 2.4.20-31.9 detected
Testing File Descriptors...
Setting per-process descriptor capacity to 677(1011), 11...
Testing Mutex...(504.89 ops/usec)
Testing AtomicOps...(62.94 ops/usec)
I: Loading Plugins from /helix_dma_server/Plugins...
I: slicensepln.so    0x40052c60  RealNetworks Licensing Plugin
I: mp3ffformat.so   0x40076df0  RealNetworks MP3 File Format Plugin
I: smlffformat.so   0x40095b20  RealNetworks SMIL File Format Plugin
I: smpflfsys.so     0x400ac310  RealNetworks Local File System
I: httpfsys.so      0x400da5f0  RealNetworks HTTP File System with CHTTP Support
I: httpfsys.so      0x400da5f0  RealNetworks RFC 2397 Data Scheme File System
I: adminfs.so       0x401322a0  RealNetworks Admin File System
I: shelfsys.so      0x40176314  RealNetworks Shell File System
I: ramplin.so       0x40183310  RealNetworks Ramgen File System
I: hxsdps.so        0x401947bc  RealNetworks SDP Stream Description Plugin
I: authmgr.so       0x401c3c60  Helix Authentication Manager
I: pplyplin.so      0x401f4b00  RealNetworks Scalable Multicast Plugin
I: qtbcplin.so      0x4022aac0  RealNetworks QuickTime Live Broadcast Plugin
I: tmplogpln.so     0x4024d280  RealNetworks Custom Logging Plugin
I: ppvallow.so      0x4027b764  RealNetworks Pay Per View Allowance Plugin
I: ppvbasic.so      0x4029f7a4  RealNetworks FlatFile Database Plugin
I: bascauth.so      0x402b9b20  RealNetworks Basic Authenticator
```

```

I: dbmgr.so          0x402d4a30   RealNetworks Database Manager
I: smonplin.so       0x402efab0   RealNetworks System Monitor
I: rmffformat.so     0x4030f750   RealNetworks RealMedia File Format Plugin
I: brcvplin.so       0x4036a330   RealNetworks Broadcast Reception Plugin
I: meiffpln.so       0x403c2630   RealNetworks Media Export File Format Plugin
I: meiplin.so        0x403e2030   RealNetworks Media Export Interface Plugin
I: allow.so          0x40406ec8   RealNetworks Basic Allowance Plugin
Starting PID 2296, procnum 3 (rmplug)
Loading Helix Server License Files...
Starting PID 2297, procnum 4 (rmplug)
Starting PID 2298, procnum 5 (rmplug)
Starting PID 2299, procnum 6 (rmplug)
Starting PID 2300, procnum 7 (rmplug)
Starting PID 2301, procnum 8 (rmplug)
Starting PID 2302, procnum 9 (rmplug)
Starting PID 2303, procnum 10 (memreap)
Starting PID 2304, procnum 11 (streamer)

```

現在我們進入系統的管理介面來設定影音伺服器，請在瀏覽器中輸入：<http://xxx.xxx.xxx.xxx:9000/admin/index.html>，此時瀏覽器會要您輸入帳號密碼，請輸入剛剛在安裝的時候您所設定的帳號及密碼。下圖就是設定的主畫面：

Helix DNA Administrator: 192.168.60.209 - Mozilla Firefox

檔案(F) 編輯(E) 檢視(V) 瀏覽(G) 書籤(B) 工具(T) 說明(H)

http://192.168.60.209:9000/admin/index.html

歡迎使用 Firefox 中文討論區

Google 搜尋 PageRank ABC 檢查 選項

Helix DNA

Server Administrator [About](#)

Active Server: **192.168.60.209** [Reload Pages](#) [Restart Server](#)

Server Setup

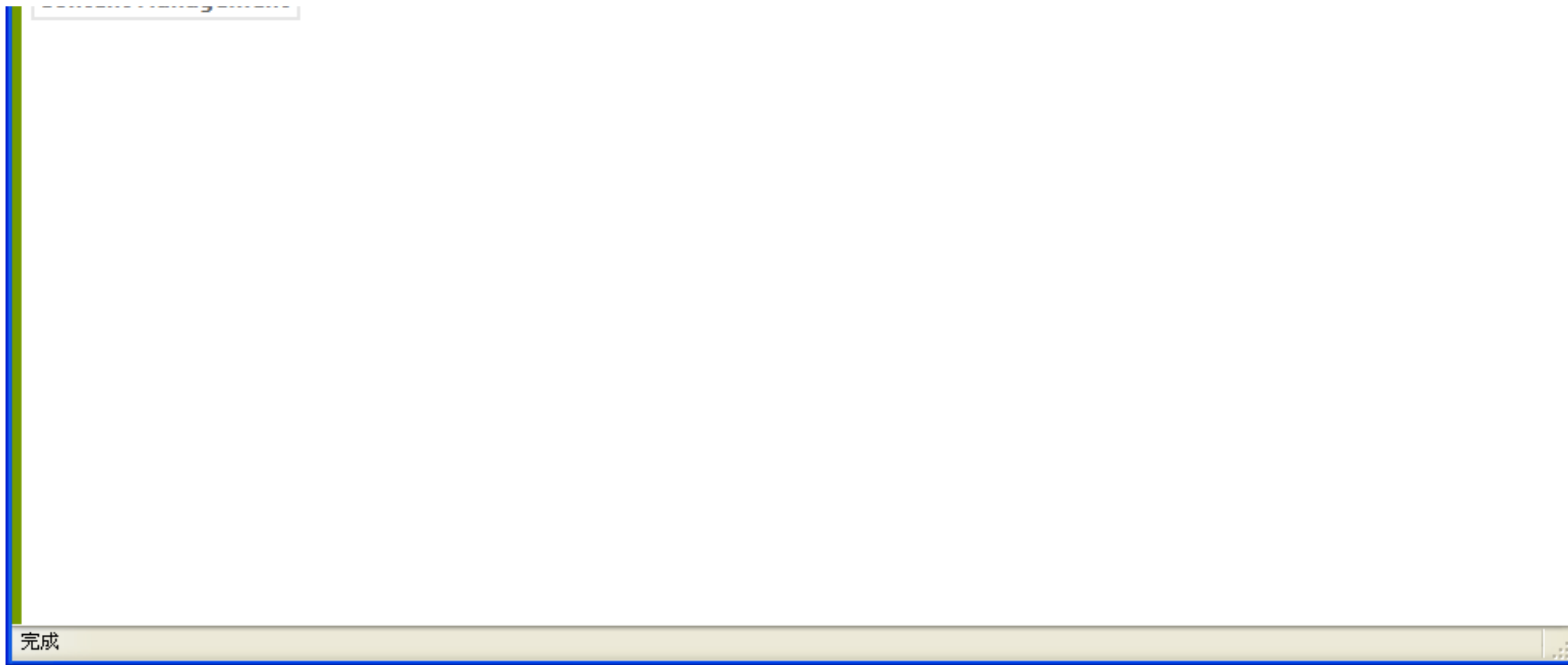
Security

Logging & Monitoring

Broadcast Distribution

Content Management

Welcome to Helix DNA Server

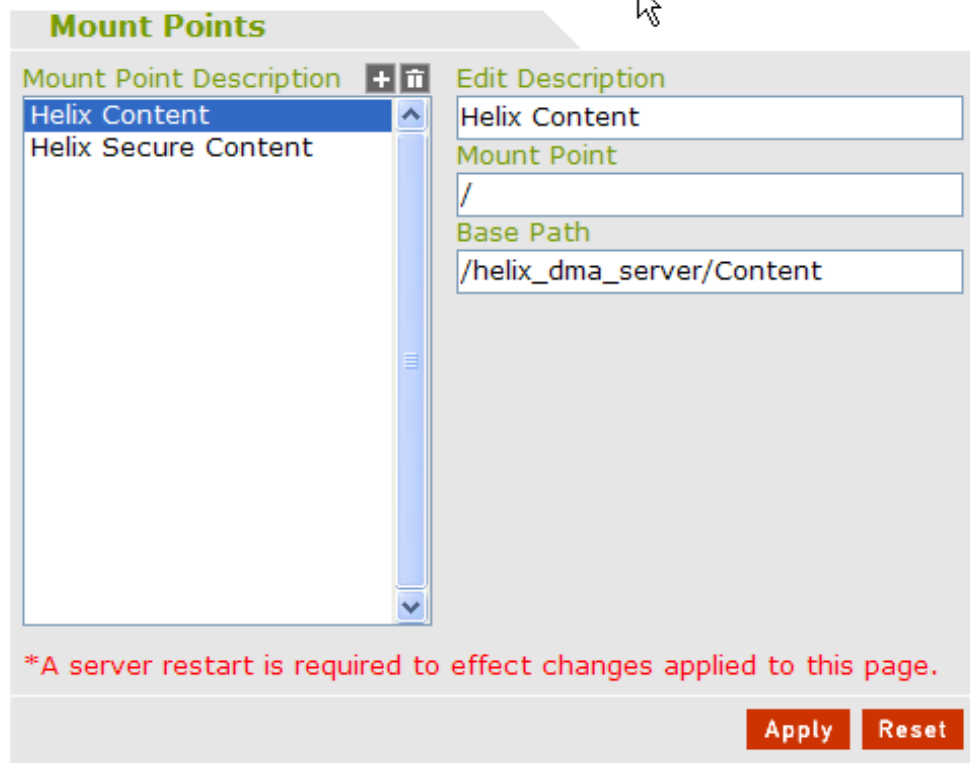


請點選 Server Setup -> Mount Points , 此時您會看的下圖中的設定：

SERVER SETUP

A mount point appears in every link to a Helix DNA Server file. It is a short way of referring to the actual directory where the files are stored. This page shows each mount point's actual directory in the Base Path.

Every mount point begins and ends with a forward slash, with the exception of the main mount point, which consists simply of a single "/" slash. Links to your main content will use this main "/" mount point. Its default base path is the Content subdirectory under your server installation directory. Modify the base path of the main "/" mount point only if the base path does not reflect the location of your media files.



Mount Point Description	Edit Description
Helix Content	Helix Content
Helix Secure Content	Mount Point
	/
	Base Path
	/helix_dma_server/Content

*A server restart is required to effect changes applied to this page.

Apply Reset

其中 Base Path 就是你的多媒體資料存放的根目錄。將來如果 Client 端連接近來，例如 `rtsp://xxx.xxx.xxx.xxx/001.rm`，那麼這個 001.rm 檔案就是放在 base path 的目錄中。

現在我們來試試看如何播放，請您自行找一個 RM 檔案，放置到 base path 目錄下，筆者這裡放置一個 `cm14_famicom.rm` 檔案。然後我們在 Windows 的 Real Player 軟體中輸入伺服器網址：`rtsp://192.168.10.16/cm14_famicom.rm`，這時您的 RealPlayer 是不是開始播放電影了呢？恭喜您，您的影音串流伺服器已經可以正常工作了。

這裡我們簡單的介紹了一下 Helix DNA Server 的安裝與設定，其實 Helix 還支援很多強大的功能，例如：用戶端連接數目限制、IP 來源限制、流量限制等等，這些都可以透過 web 的管理介面來設定。有興趣的讀者不妨來試試看。