Polycom ™ RSS 2000 V3.0.0.000 Getting Started Guide

General Safety Precautions

Follow these rules to ensure general safety:

• Keep the area around the Polycom RSS 2000 unit clean, free of clutter and well ventilated.

• Decide on a suitable location for the equipment rack that will hold the RSS 2000 unit and is near a grounded power outlet.

• • Use a regulating uninterruptible power supply (UPS) to protect the RSS 2000 unit from power surges and voltage spikes, and to keep it operating in case of a power failure.

Hardware Specification
Pentium 4, 2.8Mhz,2G RAM,250G Hardisk.
• Form Factor: 1U 19" rack mount
• Height: 1.73" (44 mm)
• Width: 16.83" (430 mm)
• Depth: 15.35" (390 mm)
• Gross Weight: 22.4 lbs (10.2 kg)
• Power Supply: Thermal controlled 220W ATX AC power supply w/PFC
• AC Voltage: 100 - 240 VAC, 60-50 Hz, 5-3 Amps
XP OS

Preparations

Obtain the following information from your network administrator:
• RSS 2000 unit, Subnet Mask and Default Gateway IP addresses
• Gatekeeper IP address, Prefix, and E.164 of the RSS 2000.

Unpacking and Installing the RSS 2000

1 Place the RSS 2000 unit on a stable flat surface in the selected location.

2 To connect to the power source, insert the power cable into the
Power connector on the rear panel of the MGC+ unit and insert the
Power cable into the power source socket.

3 Connect the lan cable to LAN1 in the back of the system.

4 Turn on the power switch.

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Initial RSS 2000 IP Configuration

The system is shipped with a default IP address:

IP Address:**192.168.1.254**
Subnet Mask: **255.255.255.0**
Gateway: **192.168.1.1**

There are two ways to change the initial IP address of the sytem:

1. Via a cross over lan cable
2. Via a RS232 or Telnet Console.

1. Changing the initial IP address via a cross over lan cable

1. Connect a cross over lan cable to LAN1 in the RSS 2000.
2. Set your laptop to the same segment of the RSS
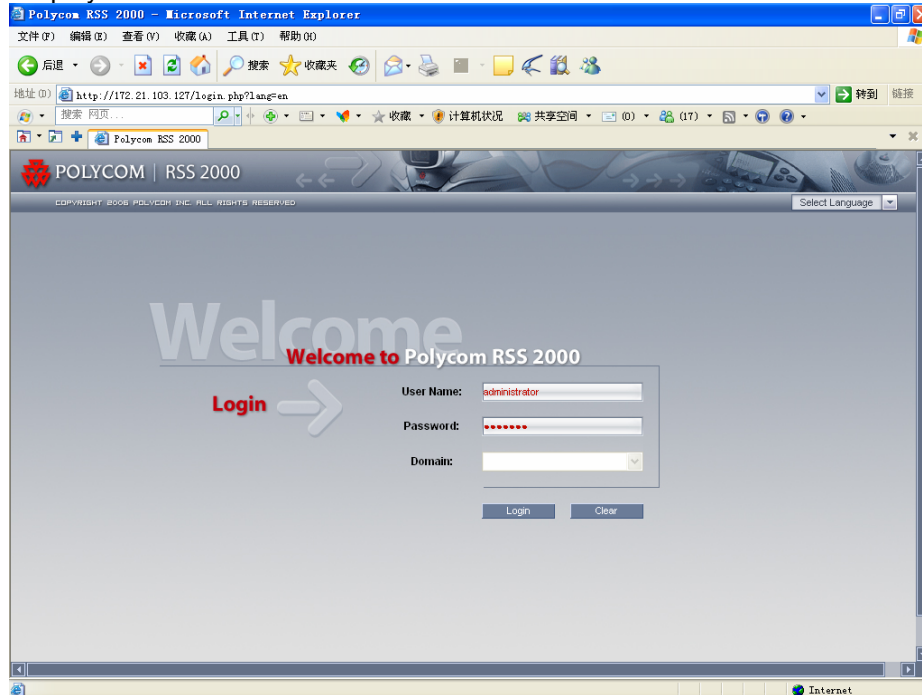   a. For example (in your laptop IP config setting):
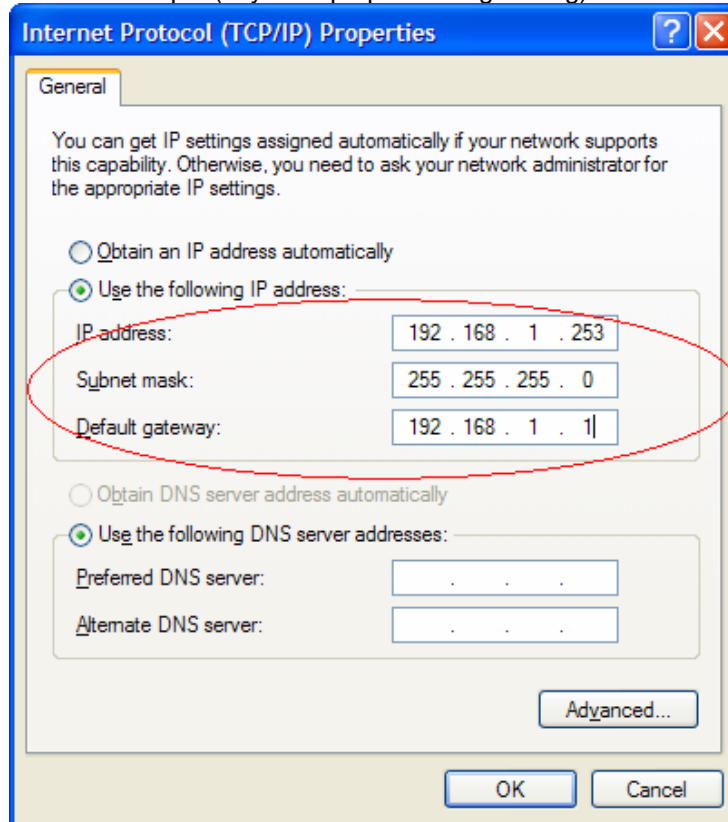
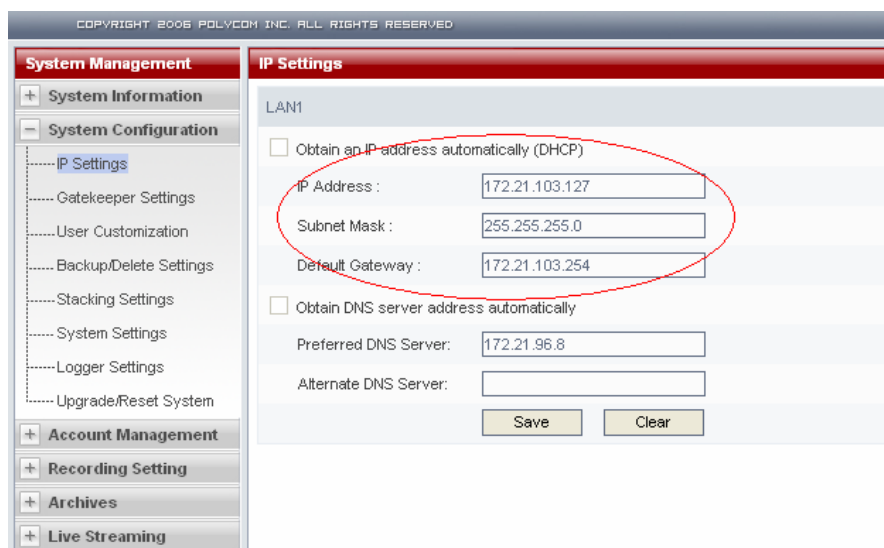3. Open internet explorer and browse to:

http://192.168.1.254

4. Login to the system.

User name: administrator
Password: polycom

5. Go to system configuration->IP setting and modify the IP address , you can set a static IP or chose DHCP . Click the save button and than reset the system.

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2.Changing the initial IP address via an RS232 Console or Telnet

Another option to modify the IP address of the RSS 2000 is using the RS232 console.

1.Connect to the RS232 port – and activate the console (9600, 8bits)

Login: polycom (or any administrator password)
When login to the console, you will see the current IP address of the system.

Help
? – show all available commands
Changing the IP Address:
set lan1 static 172.21.100.20 mask 255.255.224.0 [gw 172.21.96.254]

Reset Password (back to polycom)
User may reset the password of the administrator to default to 'polycom'

reset password

```
Type ? or help to get the help information

#

# ?


    ?
    exit
    help
    password
    shutdown
    restart
    set lan1 static <ip> netmask <mask> [gw <gateway>]
    show
```

Note !

The same steps apply also for Telnet connection.

Only one console can be connected at any given time (either Telnet or RS232 not both).

The system is now ready for use, for additional configuration refer to the user guide.

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RSS 2000 Maximum Capacity

Scenario	Description	Maximum Capacity
Conference Recording	How many conferences can be recorded simultaneously	2 conference or 2 EPs dialing in the same time1 H239 recorded link at a time
Point to Point recording	How many point to point calls can be record (if both are dialing into the POLYCOM ™ RSS 2000)	1
H323 Playback	How many conferences can be playback in H323	10
Archive view	How many streaming can be reviewed (unicast) – based on the Web Server capacity	50
Multicast for archives	How many streaming can be reviewed (multicast) for existing archives	2
Clustering	How many RSS can be stacked to support ?	There is no limitation for the amount of RSSs that can be in a single clustering group. 1.In clustering mode , each RSS2000 still can support 10 H.323 playback .For example :one H.323 endpoint connect to RSS-A , it playback an archive from RSS-B clustering with RSS-A , the H.323 playback resource it occupied is taken from RSS-A . (There is a pending issue here , please refer the part of pending issues , RSS-365) 2. Archive view from the web in clustering mode will web resources from the RSS that the archive is base, not from the RSS that the user is connect to.

Network TCP/UDP ports used by RSS2000

Usage		Type	Port Range
Manager		TCP	81
Web		TCP	80
https		TCP	443
Trace		UDP	30011
Endpoint/ H.323	Gatekeeper	UDP	1719
	RAS	UDP	1720
	Q.931 Socket	TCP	1720
	H.245 Socket	TCP	1730-1739
	Live Broadcast	TCP	1800-1801
	Audio / Video Data	UDP	2000-2099
Media	On demand Protocol	TCP	554
	On Demand Archive	TCP (optional)	554
	On Demand Archive	UDP(optional)	Random (for source port)

Notes Regarding On Demand Archive
The UDP ports used for on demand archives are randomly chosen. There are two ways to configure firewalls and Windows Media Player for usage with RSS2000 on demand archives.

1) Open an outbound UDP port range matching what is used by Windows Media Player, or open all UDP ports outbound from RSS2000 to effectively bypass the firewall for outbound traffic. Also open the port range used by Windows Media Player for inbound traffic to the viewing PC. This range is configurable in Windows Media Player, as seen in Figure 1 (Windows Media Player defaults shown). The user can check RTSP/UDP, check 'Use ports' and define the port range.

2) Disable UDP connections in Windows Media Player to force a TCP-only connection. This configuration utilizes only TCP port 554. As seen in Figure 2, unchecking RTSP/UDP removes the user's ability to specify a port range and forces all connections to use TCP 554 only.
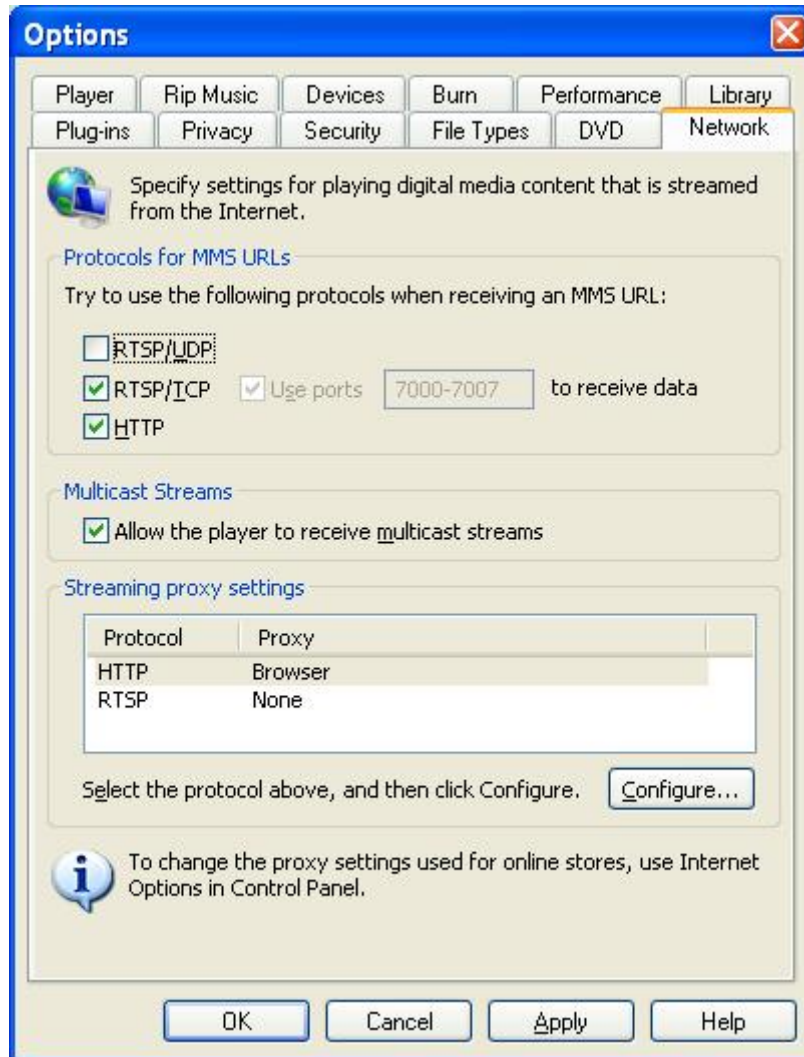
Figure-1

Figure-2

Polycom ™ RSS 2000 V3.0 Release Notes

RSS2000 V3.0 Upgrade User Guide

1, New Systems – New Installations

For new installations , customer need to activate the RSS before starting to use .
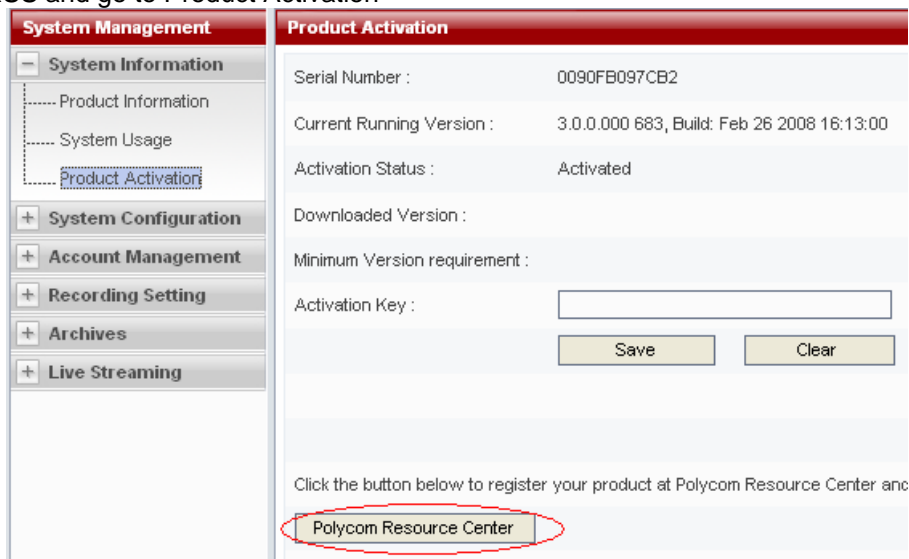
Process:
As you aware, RSS 2000 V3.0 includes two type of activation keys:

Keycode definition

Package Name	Description
K-keycode	Option Activation (Basic, Multicast, Clustering)
U-keycode	New Version activation (Will not affect the current installed options)

Log into RSS and go to Product Activation

Click **Polycom Resource Center** , go to the PRC and under product activation:

For new installation, the system will be shipped with a K License, that will require the user to go to the PRC and receive a K Keycode:

The user will receive a K Keycode with his options (Either none, Clustering or Multicast)

After entering the K Keycode – the user will need to go back to the PRC and receive now a U Keycode:

Enter 3.0 in the Version field and enter the System Serial# in the Serial Number field , then customer will receive a U-Key code (As taken from the product activation section on the RSS 2000 Web UI):
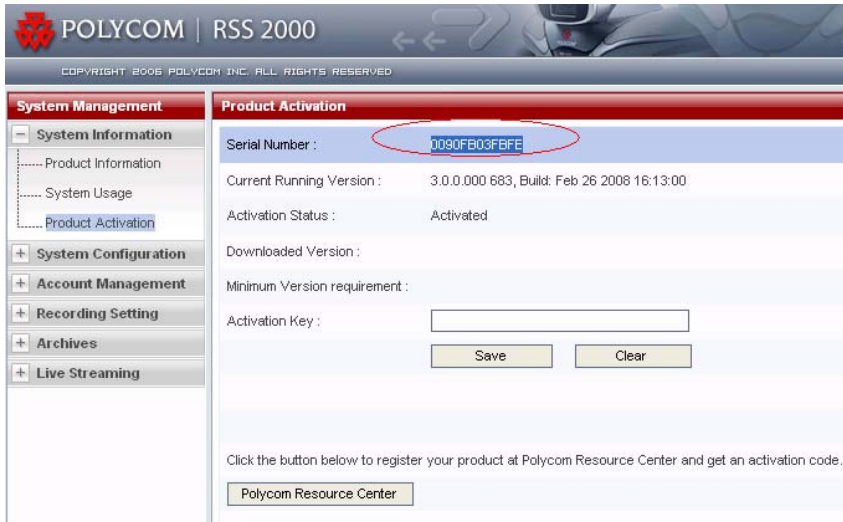
After entering both the K Keycode and the U keycode the product will be ready to be used:

2, Current Install base (Existing systems that require upgrade)

Preparation before Upgrade

1: Obtain the 3.0 upgrade package and activation keys from Polycom website or your local service center. Save it in a folder on your desktop.(more details , please read RSS2000 user manual v3.0)

pgrade package definition

Package Name	Description
Part1: RSS2000.3.0.0.0_part1_full function_with English&Japanes&Chinese . pkg	With full function –support English and Japanese
Part2: RSS2000.3.0.0.0_part2_additional language. Pkg	Support all additional language (except English/Chinese and Japanese)

Keycode definition

Package Name	Description
K-keycode	Option Activation (Basic, Multicast, Clustering)
U-keycode	New Version activation (Will not affect the current installed options)

NOTE:
- For RSS2000 running System software 1.0, K-keycode and U-Keycode are both needed.
- For RSS2000 running 2.0, Only U-keycode is needed (It doesn't include multicast or clustering option , if you want to get these option , you need to buy another K-keycode).

How to receive Key code
Please refer same introduction in the part of "**new installation**"

NOTE:
- Before upgrade , Please check your current version , we have different process for v1.0 and v2.0 upgrade.
- Keep your RSS2000 powered on and connected to the network during the upgrade.

Upgrade from 1.0 to 3.0

1: Download upgrade package to RSS
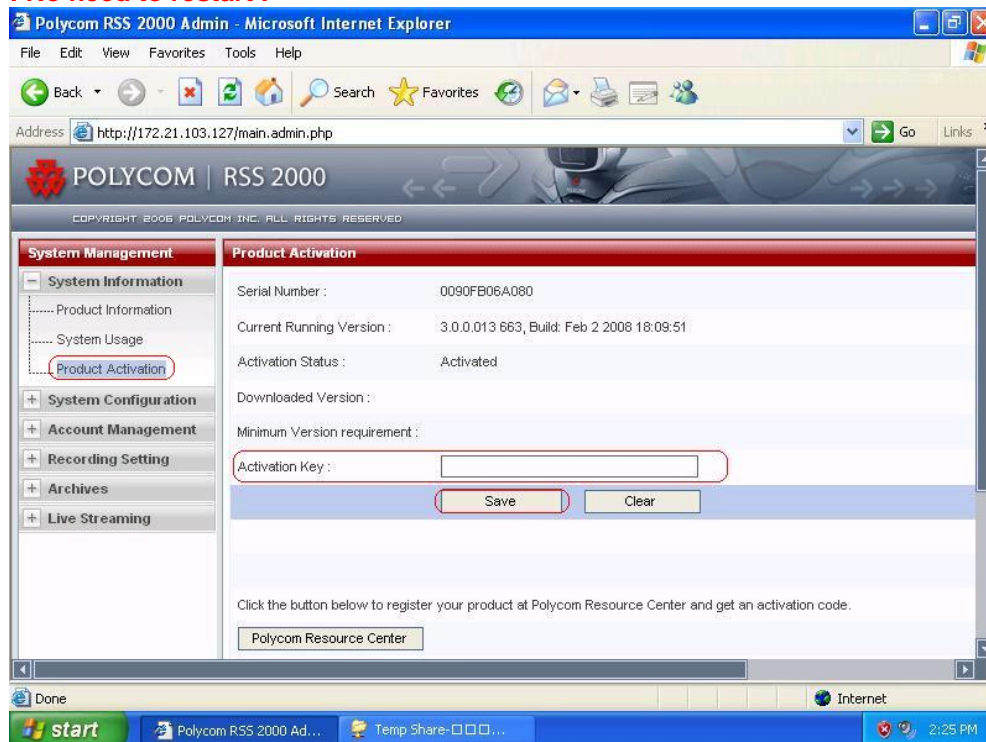   a)   Log in to RSS , go to " . - System Configuration > Upgrade/Reset System" page .
   b)   Download the **"RSS2000.3.0.0.0_part1_full function_with English &Japanes & Chinese . pkg"** to RSS , then Restart
   Note : For More details on the download file process , please read "RSS2000 user manual V3.0"
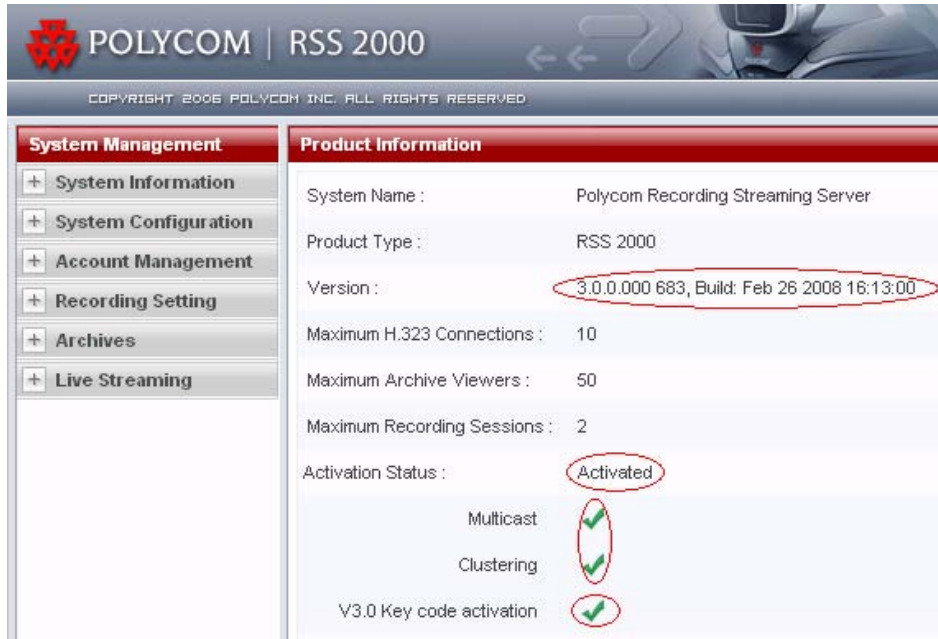
2: Activate your RSS by Keycode
   a)   After rebooting , log into RSS , " . - System information > Product Activation" page.
   b)   Paste your U-Keycode , click save .
   c)   Paste your K-Keycode , click save .
Notes : No need to restart .

3: Check the status
Go to " . - System information > Product Information" page

If everything is ok , the version # /Activation Status /V3.0 Key code activation should have same status . (For multicast and clustering option , if you buy these 2 option , your RSS will show same status , if not , it will not be showed)

Note :
Now you RSS can support **English, Chinese and Japanese**. If you want additional language options, you need to download and install the part with additional language options. For additional language options installation, please refer to the part in this documentation **"Additional Language support ".**

Upgrade from 2.0 to 3.0

1: Download upgrade package to RSS
   a) Log in to RSS , go to " . - System Configuration > Upgrade/Reset System" page .
   b) Download the **"RSS2000.3.0.0.0_part1_full function_with English &Japanes & Chinese . pkg"** to RSS , then Restart

   Note : More details about the download file process , please read "RSS2000 user manual V3.0"

2: Activate your RSS by Keycode
   a) After rebooting , log into RSS , " . - System information > Product Activation" page.
   b) Paste your U-Keycode , click save .

Notes : No need to restart .

3: Check the status
Go to " . - System information > Product Information" page

If everything is ok , the version # /Activation Status /V3.0 Key code activation should have same status . (For multicast and clustering option , if you bought these 2 options , your RSS will show same status , if not , it will not be showed , In case the user already have installed K Keycode (Even on top of V2.0) with Clustering option – clustering will remain checked
)

Note :
Now you RSS can support **English, Chinese and Japanese**. If you want additional language options, you need to download and install the part with additional language options. For additional language options installation, please refer to the part in this documentation **"Additional Language support ".**

Additional Language Support

If you need 3.0 to support additional language (Not English/Chinese/Japanese) ,you need to follow this process .

Image version check
Please check RSS2000 image version following the commands below firstly. Only RSS2000 with image version 5 or above can be upgraded with additional language support.

1: Click on Start>Run>Enter "telnet 172.21.103.127 23" (without quotation marks), and Click OK.
NOTE: The IP address above is for EXAMPLE ONLY. Please replace it with your RSS2000 IP address.
2: You will see a command prompt window after the command is executed. The window should look like below.
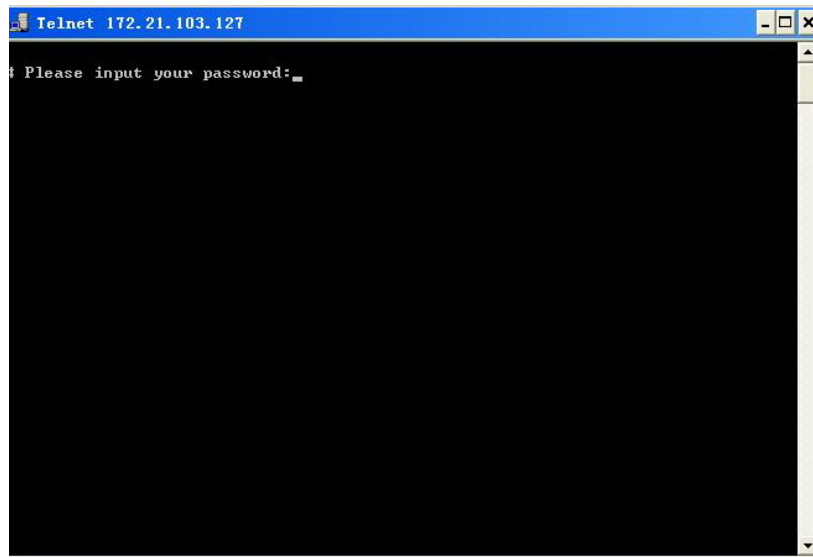
3: Enter the password for your RSS2000. Default password is polycom , then a system welcome screen appears.
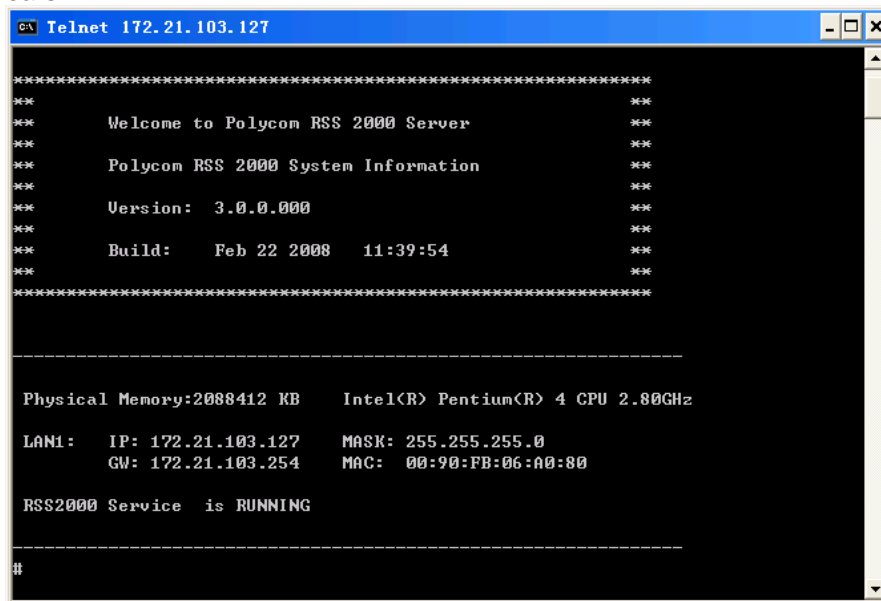
4: At command prompt, enter "imageversion" (without quotation marks)
5: If the version # is **" 5"** (see the screenshot below), indicates the RSS2000 can be upgraded with additional language options.

6: If the image version is not 5 , it will show **unknown version ,** means if you want to support additional languages , need to refresh the image , the old image don't have full support for additional languages, so please contact your service provider .

__Upgrade additional language package__
   a)   Log in to RSS , go to " . - System Configuration > Upgrade/Reset System" page .
   b)   Download the **"RSS2000.3.0.0.0_part2_addtional languages . pkg"** to RSS , then Restart

New Features (Compare with V2.0.0.000)

#	JIRA#	Features	Description
1	RSS-248	Clustering Improvements	RSS2000 should support active a recording task in next server when the recording capacity in last one is full .
2	RSS-207 RSS-225	Gatekeeper Registration modes	New Gatekeeper registration modes to support different types of Gatekeepers
3	RSS-247	Turn on/off H.323 Playback	Configure Recording only system
4		Localization - languages support	WEB UI , TV-UI and documentation , IVR – VC 2.0 Common Languages suite
5		Siren22 Stereo Support	Support SIREN 22 Stereo in Single and Point to Point calls.
6	EXT-405	XML API Improvements	API provide the interface to support that administrator can select any archive send to any playback site.
7		Https/SSL mode	Meet Polycom Security policy
8	RSS-239	Windows security update policy	Disable update interface for end users , the update package will be provided with the new release package by Polycom. Meets Polycom Security policy
9	RSS-219	Disable Preview	Disable Preview (Security)
10	RSS-220	Restrict the max # of live streaming or web playback	Resource allocation Improvements
11	RSS-274	Media Tool Kit Enhancements	Media Tool Kit Enhancements, 4CIF/4SIF (SD) Transcoding, and Link to the install shield
12		Multicast improvement	Support Multicast for Live Streaming and Archive View using Polycom player
13	RSS-54	Streaming without recording	Streaming without recording – TV Menu option
14		Configure Lan Speed	Lan port configuration
15	RSS-265	HD Archive View availability – Progress Bar	Progress Bar indicate for HD Archive view
16	RSS-234	Email notification for NAT Topology	Email Link configuration for NAT Topologies

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RSS2000 Policies and Limitations

Subject	Description
H.323 Alias length	The maximum length of the system H.323 alias name is 16 characters
Console Service	RS232 configuration: Baud rate 9600, Data bits 8, Parity None, Stop bits 1, Flow control OFF. ONLY ONE connection to the Console service is allowed, either by RS232 or by Telnet, but not both.
Endpoint menu	1. When schedule a dial out & record from the Web UI, RSS will loopback the video and NEVER show the menu unless a menu operation (FECC arrow keys or DTMF 2/4/6/8) is given from the endpoint. 2. When a pre-defined endpoint dials into the RSS and the endpoint has the "immediate recording" option, RSS will do the same as above. 3. When inviting an endpoint to a P2P recording room (using E.164 number of the P2P room followed by #/* and E.164 number of the invited endpoint), the inviting endpoint will have the menu and the invited endpoint won't have the menu 4. When two endpoints meet at a P2P recording room, only one of them can have the menu at a time.
P2P recording maximum bandwidth	Maximum bandwidth for a P2P recording room is 1024K. If video protocol for P2P recording room is H.264, then the maximum bandwidth is 768K
Archive file size	If the media file size exceeds 4GB, downloading it from Web UI may be incomplete.
Media Player Support	Windows Media Player 9/10 is required. WMP 10 is recommended. RealPlayer can also be used if WMP is properly installed. QuickTime player is not supported. Some third party media player such as Media Player Classic (MPC) and VLC can also be used, but they were not certify
Archive playback	Archive playback with WMP does not support playback controls: Pause/Resume/FF/Backward, etc
H.323 playback	During H.323 playback, if there is packet loss and endpoint requests I-Frame, RSS cannot apply the request. Since all audio/video data are from the media file.
System Reset	**Hard reset (power off and on) is not recommended.** Reset should be done via the Web UI or Console service whenever possible.
LDAP integration	Microsoft Active Directory only
H.323 preview	1. Only two H323 devices can receive Preview –Meaning when there are 2 endpoints previewing on RSS2000 , the third one connect to RSS2000 will not receive preview , if these two endpoints receiving preview stop to preview or disconnect ,the third one still cannot receive , it need to re-connect . 2. HD or SD archives cannot be previewed. 3. No Transcoding for Preview – Meaning archive recorded in H263 will not be able to be preview by an endpoint connected in H264 and vice versa, however – endpoint support H264 and H263 – in case the archive is in H263 – the playback will work well. 4, In a clustered configuration, H.323 endpoint cannot receive a preview image of the archive that is not stored on the RSS unit that the endpoint is connected. This description should be added to the note her
Archive Converter	When using the RSS2000ArchiveConverter – the transcoded file loaded back to the RSS will be limited to 20 FPS

Subject	Description
Calling with IP address to an RSS that is register with a GK - the call is rejected	When working in routed mode with a gatekeeper, devices that are trying to call to the RSS – with IP address, will be rejected if they are not register to the same GK. This is the right policy when working with routed mode on the GK
MGC Integration	1, When working with the MGC in Video switching mode – the RSS will indicate HD 2, You can disable HD or define the minimum rate for HD in the single point recording setting in the RSS V2.0, or as alternative disable the HD in system.cfg of the MGC
HDX Interoperability	Playback of H263 recording to the HDX may result with some video artifacts
Clustering	1．Only the archives, the view right of which was "Allow All", can be shared. 2．During clustering, the archives, that wasn't saved on the local RSS2000, can not be deleted, and it's properties can not be modified.
Hunting	Each RSS 2000 is capable of 2 recording and 8 H323 playbacks (total of 10 H323 Connections). 1,When using the RSS Hunting function with Cisco GK – the GK will hunt to the next available RSS after the RSS is full with 10 H323 connection. 2, Hunting can only support by PN/SE2000; RDVISION GK ; Cisco GK .
Pause without recording (RSS-381)	RSS can not pause a streaming without recording task ,just to use stop function
V3.0 upgrade	V3.0 have 2 upgrade packages , can not be covered in one package , part is with all functions , part2 is with multi languages package, so some customer need to upload 2 packages . For details , please read the V3.0 upgrade guide
Multi language support	1, **image requirement**: Languages (except English/Japanese/Chinese) require image V5.0 . For details , please read the V3.0 upgrade guide (it is a part of this document) 2, **IVR support** – RSS2000 V3.0 only support English/Chinese/Japanese IVR , RSS will play English IVR for all other languages – however, the user can manually upload any IVR he prefer to accommodate his language requirements
Upload Utility	H.263 / H.263+ 4CIF archives can not be uploaded to RSS
HD archives transcode status	When moving mouse cursor on the play button of an archive , if it is an HD archive being transcoding , so play button will be a special status , then you will see a percentage number to show the transcoding process Limitation is that if uses don't refresh the page , the percentage will not have any update

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Known Limitations;

JIRA#	Subject	Description
RSS-120	Overlapping names	The monitor screen displays an overlapping names of VSX8000 and RSS in a MGC meeting room
RSS-136	VSX 5000-8000 Interoperability	The RSS 2000 support the VSX 5000-8000 when the VSX is set to motion (Not Sharpness nor Promotion)
RSS-141 VNGR-4291	RMX 2000 Interoperability	The RMX 2000 connects secondary to the RSS 2000 in the rate of 64Kbps (No support for G.728 at the RMX 2000 (RMX 2000 connect to the HDX and VSX at G.729A in 64K which is not supported by the RSS 2000)) – recording at this low video rate is not recommended in any case.
RSS-142	RMX 2000 Interoperability	While RSS2000 is connected to RMX2000 in SIF when the RMX is set to Sharpness , an archive of it is tagged as H.264 SD.
RSS-137	ViewStation Interoperability	ViewStation show blue then green screen at the beginning of a connection to RSS2000
RSS-121	IVRs	When recording an IVR message – it's require to add additional 1 second of silence for each recording, to prevent message truncation with VSX and Viewstations
RSS-129	Maximum frame rate for recording and playback	Maximum frame rate for recording and playback in the recording room is 20 fps in H.264 and 25 fps in H.261/H.263
RSS-130	Point to Point recording	HD is not supported in Point to Point recording. When using an HD endpoint it's recommended to dial directly to the recording room [RSS2000 Prefix][Recording Room Prefix] and not to connect to the Recording room via the H323 Menu.
RSS-157	Embedded Multipoint on the VSX	When recording a multipoint on a VSX – first connect the endpoint to the VSX and only than connect to the RSS 2000
RSS-148	Sony HG90 version: 2.11 Beta Interoperability	Sony HG90 can connect in HD only. The RSS 2000 menu is in CIF (Not in HD) as so the HG 90 will connect as secondary.
RSS-153	H239 Content resolution	The RSS 2000 support H263 content (Not H264) – as most endpoint currently support H263 content – in order to prevent interoperability issue, when playing back the stream (In H323) the RSS will not support H264 content (Lower common nominator)
RSS-154	Econf integration	France Telecom eConf can not get video from RSS
RSS-147	Aethra X7 integration	Connect Aethra X7 to RSS2000 @1920K ,the X7 sends 720p, but receives CIF from the RSS2000. RSS2000 can only support CIF/SIF for menu .
RSS-301	RMX 2000 integration	HD Recording with the RMX 2000 is supported only on full screen layout
RSS-391	2CIF/2SIF support	RSS can not encode 2CIF/2SIF as a standard resolution when transforming to WMV file , the WMV file is not correct resolution , just keep same scale with 2CIF or 2SIF , so the anemographic video will be showed on PC . Disable promotion on the VSX when working with the VSX
RSS-276	LAN Setting	The same LAN Speed need to be forced on the RSS side and in the switch side.
RSS-373	Stereo support	SIREN 22 Stereo is supported for H323 Playback. When playing the archive using windows media player - the archive will be played in mono.
RSS-256		RSS takes a while to respond to a "stop recording" action at endpoint , can not end and play IVR immediately .

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Pending issues

JIRA#	Subject	Description
RSS-189	Integration with MGC	When working with the MGC in Video switching mode – the RSS will indicate HD You can disable HD or define the minimum rate for HD in the single point recording setting in the RSS V2.0
RSS-365	Clustering Limitation	Playback of an archive stored on an RSS2000 unit (Unit A) from the third EP connected to another RSS2000 unit (Unit B) may triggered termination of ongoing playback of the same archive on Unit A from two other EPs also connected to Unit B earlier than the third EP in a clustered two RSS configuration.
RSS-132 **RSS-133**	HDX Interoperability	Playback of H263 recording to the HDX may result with some video artifacts
RSS-282	FF or REW action within HD archive playback may cause some video artifacts	When performing Fast Forward or Backward on an HD archive (with the HDX) – some video artifacts
RSS-389	Distortion/freezing in converted video using media tool kit	Converting HD archive using the media tool kit to H.263 and uploading the converted file back to the RSS. When playing back the converted file with the VS or VSX some video artifacts may appear.