

HOM**MEETING**

TECHNICAL PAPER

MMC Installation Guide

May, 2005

A HomeMeeting Inc. Official Document

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Prerequisites:

- Windows XP Pro or Windows 2000
- Web server: Apache 2 or IIS, <http://download.homemeeting.com/tools/apache/>
- PHP: 4.3.9 (some modules required),
<http://download.homemeeting.com/tools/php/>
- MySQL: 4.0 or 4.1, <http://dev.mysql.com/downloads/mysql/>

Please note that this beta release of the HomeMeeting PHP/MMC server installation package is targeted for new installation and for testing purpose only. You are strongly recommended to backup your Apache configuration (httpd.conf) if you have other existing web applications. We are still finalizing “updating” process. Please do not use this beta version to perform customer site installation. Some installation steps may erase previous settings (and your created database may not be preserved). Please feel free to contact HomeMeeting if you have any questions or concerns.

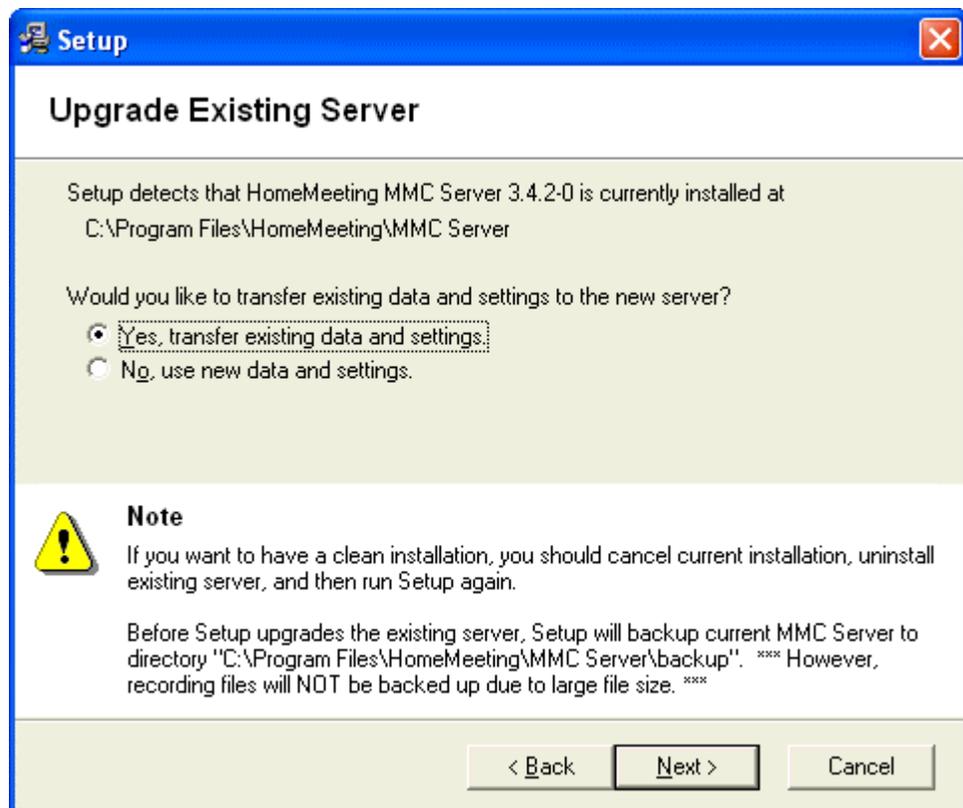
Please note that the current installation procedure cannot handle Chinese (or any other non-English) characters in the full path name. Please make sure that:

1. Use an English name account (but still has administrative privilege) to perform installation, and
 2. Put the installation package under a full English-name path (especially avoiding the “Desktop”).
-

Installation Steps

This technical guide is for Windows-based MMC installation. Please refer to *MMC Installation Guide: Linux Supplementation* for Linux-based MMC installation.

1. Unzip the installation package
2. Run *Setup_MMC.EXE*
3. Click **Next** to continue
4. Click **Yes** to License Agreement
5. If there is an existing MMC system on the computer. The installer will ask you whether to keep the existing data and settings. If you choose **Yes**, the current settings in the configuration files will be kept, such as bandwidth and port numbers etc.



6. The next step is to set up the MySQL server information, including the location (IP address) and the port number of the server, the name of the MMC database, and the “root” account and its password. (Please note that, with the GPL license, MySQL is available free of charge. Users may download the software for free and modify, integrate and distribute it. However, GPL users must abide by the rules of the GPL, which stipulate that if a MySQL-based application is redistributed, the complete source code for this application must also be open and available for redistribution.) Click **Next** to create a database account (and password) to access the MMC database.

MySQL Server

MMC web application uses MySQL to store users and meetings information. Fill out the following fields so that Setup can configure database for you.

MySQL Server Address
Enter the MySQL server that MMC should use.

IP Address: Port:

Database Name
Enter the name of database that will store MMC data. Setup will create a new database if it does not exist.

Database Name:

Root Account
Enter MySQL server's root account or a super-user account with administrative privilege. Setup will logon MySQL server use this account and configure MMC database, e.g. create/backup user account, tables, database, etc.

User: Password:

< Back Next > Cancel

7. The **Host** entry specifies that the access can only be from that specific location.

MySQL Account

Specify a regular MySQL account for MMC Web Application to use for day-to-day operations, e.g. create, modify, and delete records. Setup will create the account if it does not exist.

The host entry is used by MySQL server to restrict access based on client's address. It is used to increase security measure. You should enter the address of MMC web application as the host.

Host:

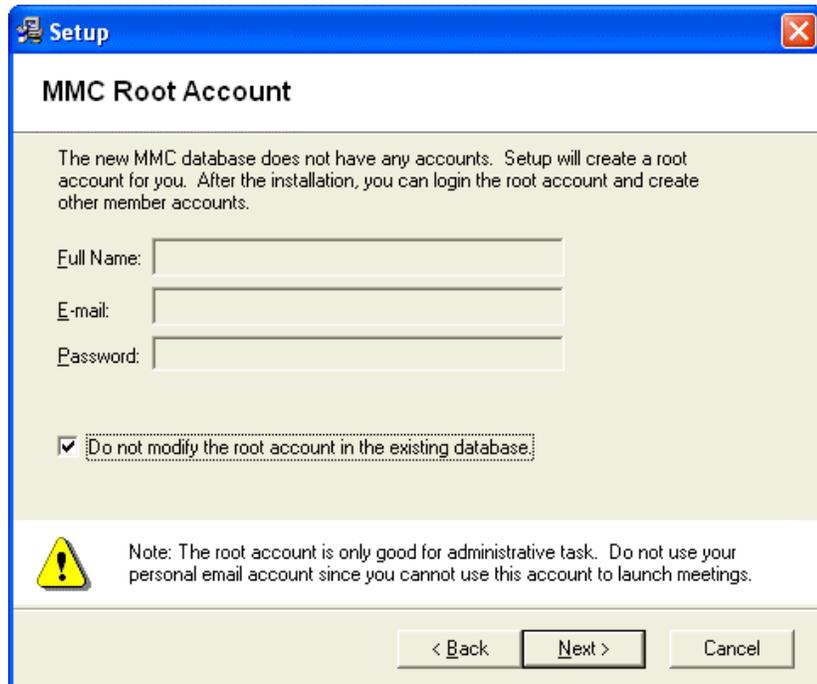
User:

Password:

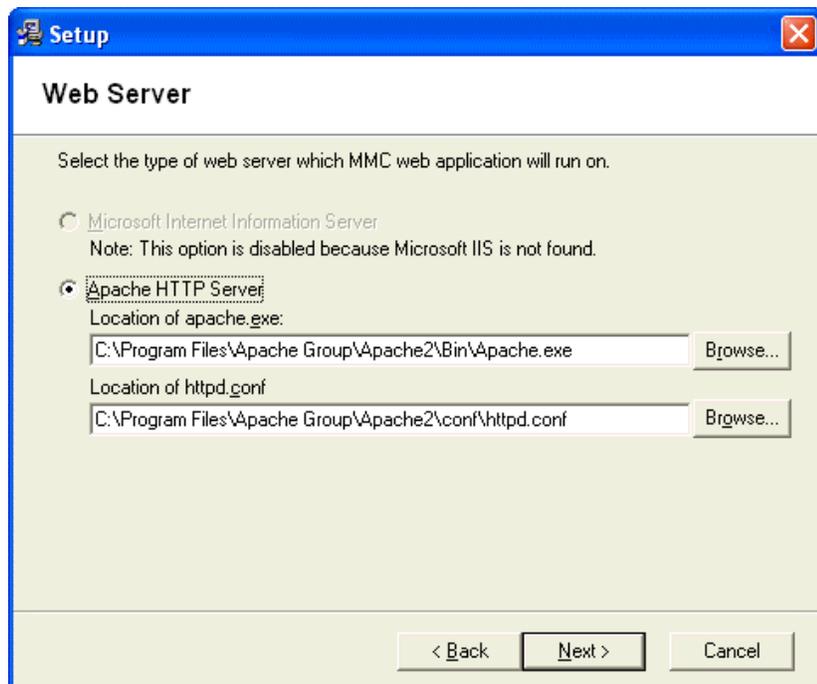
 Improper settings may cause MMC not working or worse, make the database server vulnerable for hacker to attack. Consult with your database administrator or MySQL technical guide if you are not sure.

< Back Next > Cancel

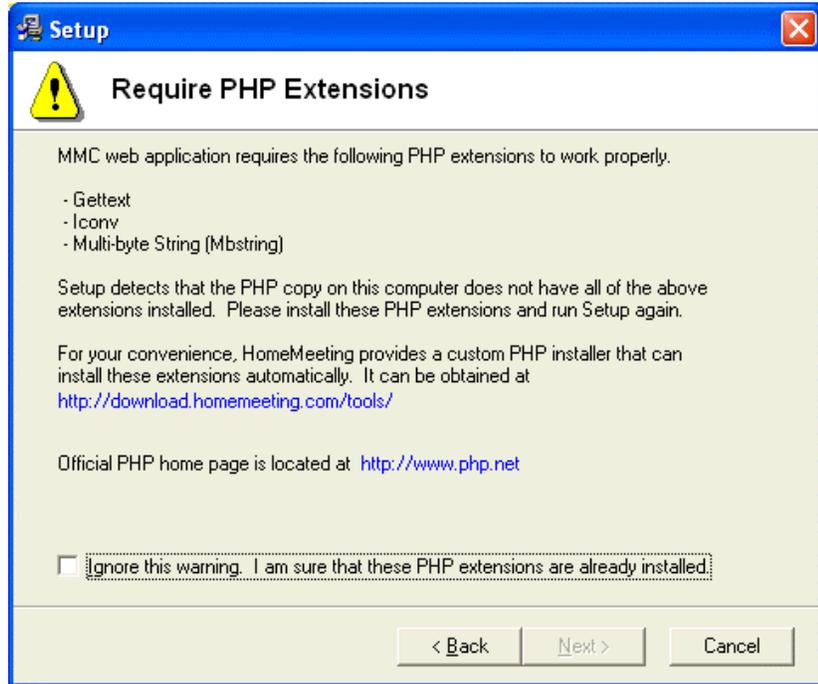
- Next, create the “root” (administrator) account for the MMC web application. If there is a previously installed MMC system, you may choose to use that existing root account. Please note that this account is set up for MMC administration. This account, by default, **cannot** be used to host (coordinate) a meeting. (If you use this account to start a meeting, you will get “All lines busy” message.)



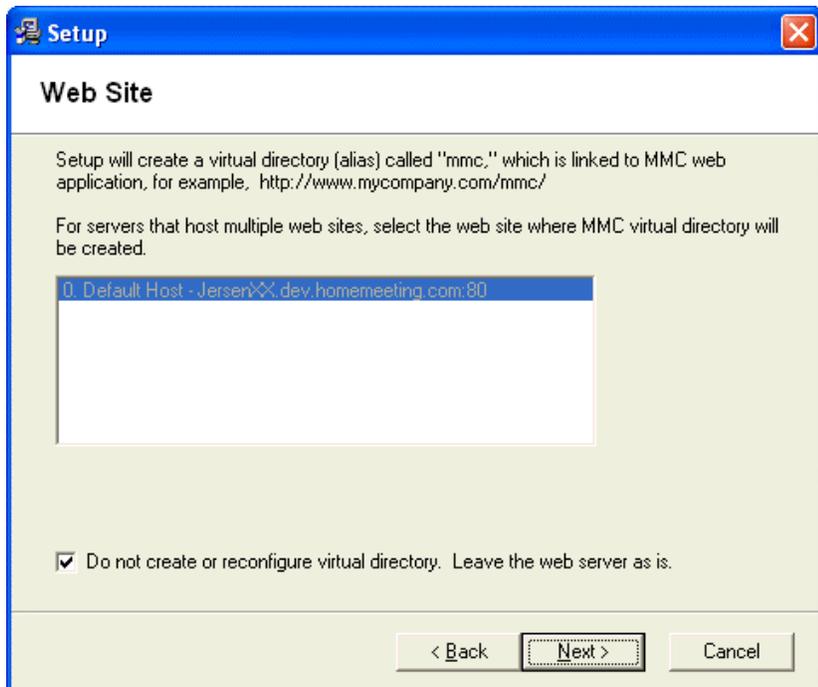
- Choose the web server, IIS or Apache, for the MMC web application.



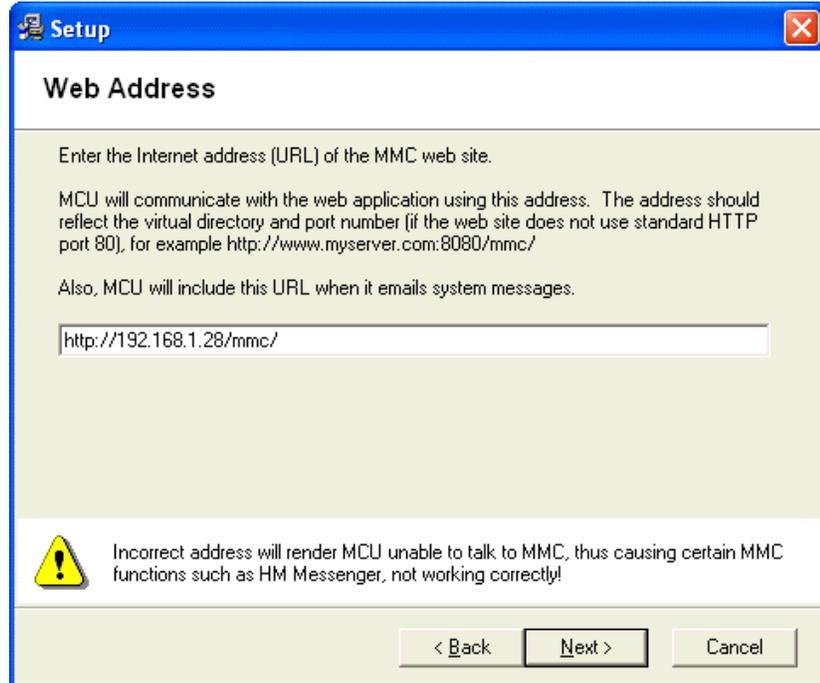
10. If your required PHP extensions are not set up properly, you will see this screen:



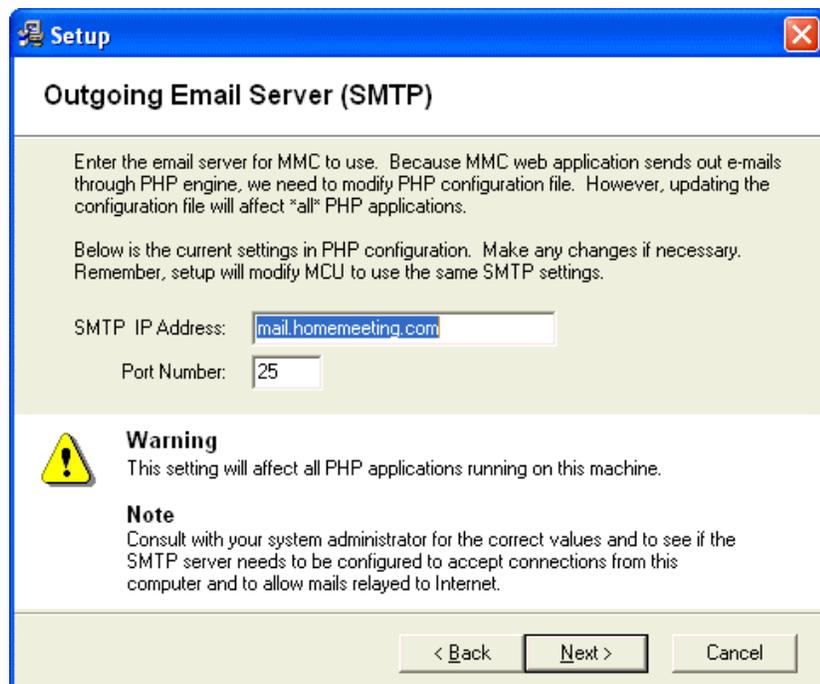
11. Set up virtual directory for MMC web application.



12. Set up web site URL for MMC web application.



13. Set the outgoing SMTP server. Some outgoing mail server requires password authentication. PHP (web application) and MCU send out emails by connecting to SMTP server. To resolve the limitation, you can set up a virtual SMTP server that can authenticate and relay emails to the corporate or ISP's SMTP server. Refer to the installation of a virtual SMTP sever in this technical guide.



14. Set up MCU IP and port numbers. If you are using Windows XP, please be sure to enter the JNJ IP (for JoinNet client) in order for messenger to work properly.

Setup

Network Settings

IP Binding
Select the address which MCU should bind to. This must be an address on this machine.

Enter the address which will be given to Joinnet clients. This can be an address on this machine or an address of a NAT router.

Port Binding
Enter the ports which MCU will bind to. MCU can listen to two ports simultaneously. Defaults are 2333 and 443. It is recommended to use port 443 (HTTPS) to reduce firewall/router related issues.

MCU's Primary Port: Alternative Port:

Reassign HTTPS Port
If MCU uses 443, web server must be configured to use a different port; otherwise, a conflict will occur. Either MCU or web server will stop working!

Change all existing web sites that are using port 443 to port 8443.

< Back Next > Cancel

15. Set up the password for the administrator of the MCU meeting server (independent of the MMC web application administrator).

Setup

MCU System Password

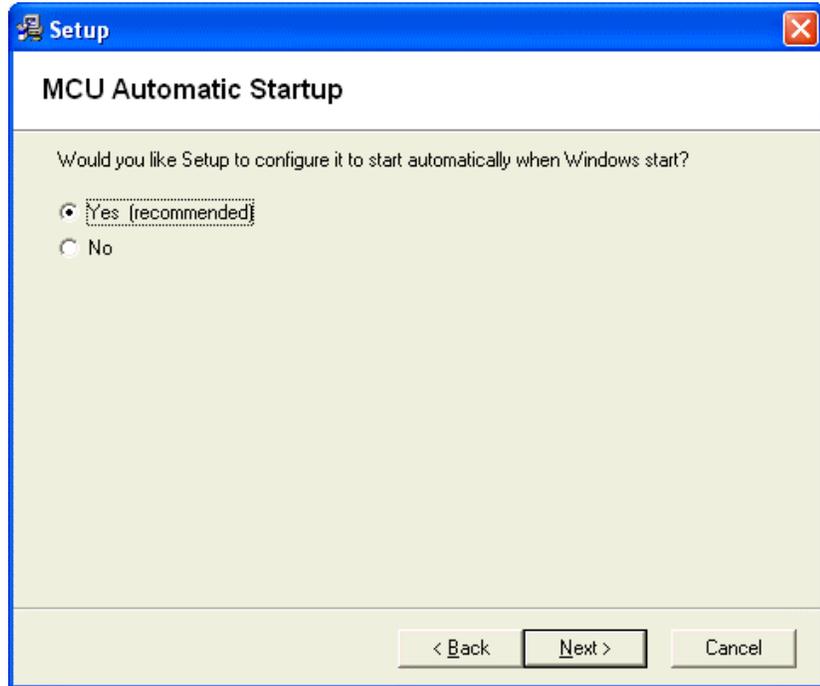
Specify a system password for MCU. You will use this password for accessing MCU remotely.

Use the following password

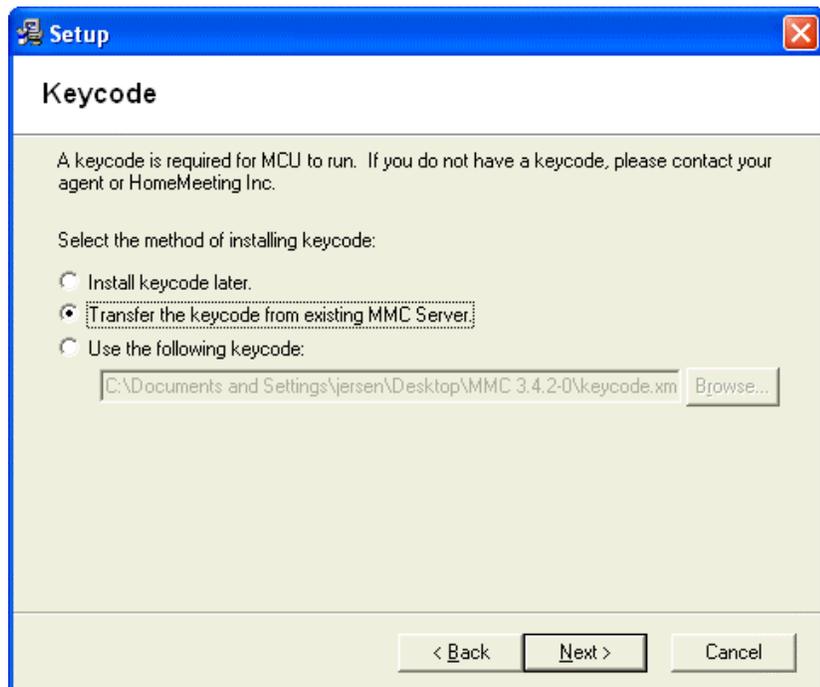
Transfer the password from existing server

< Back Next > Cancel

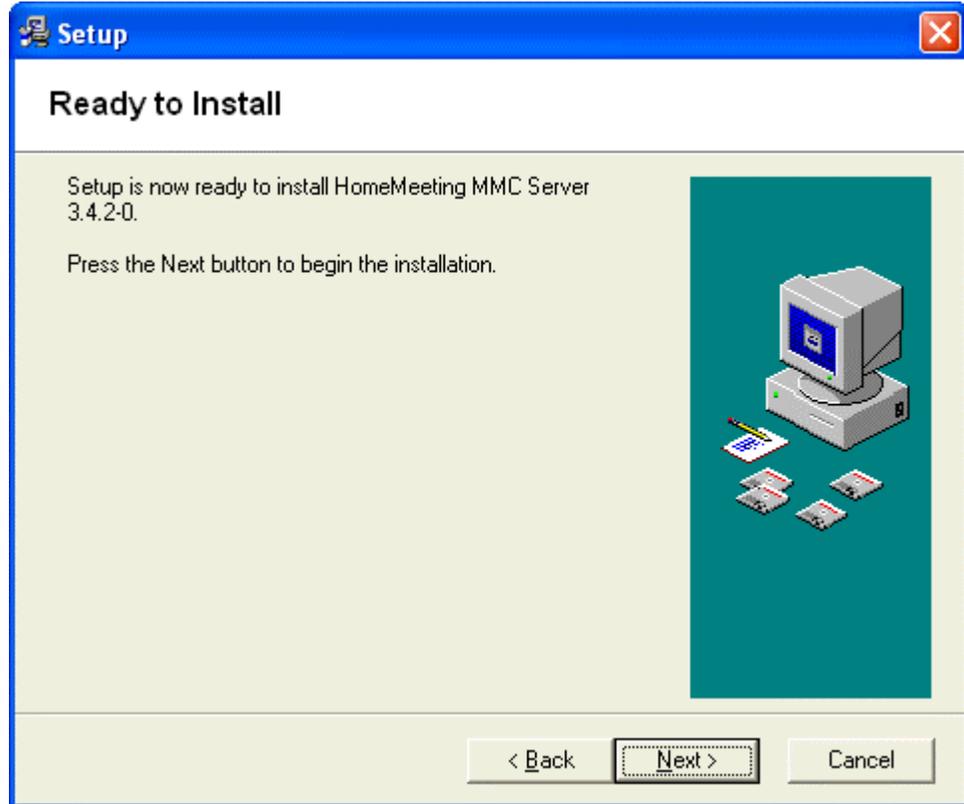
16. The MCU meeting server is installed as a service. This option sets up MCU service to start automatically (when the computer restarts) or manually.



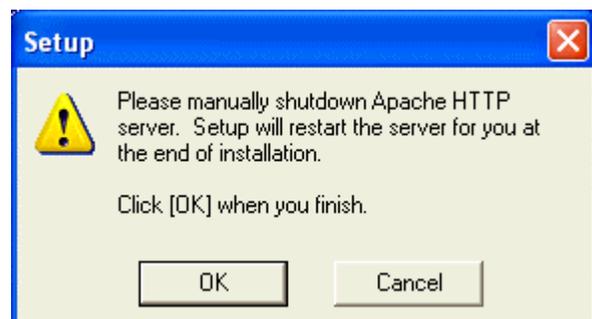
17. Set up the license file installation option. Agent's may want to issue a new license and include it in the installation package before visiting to your customer's site.



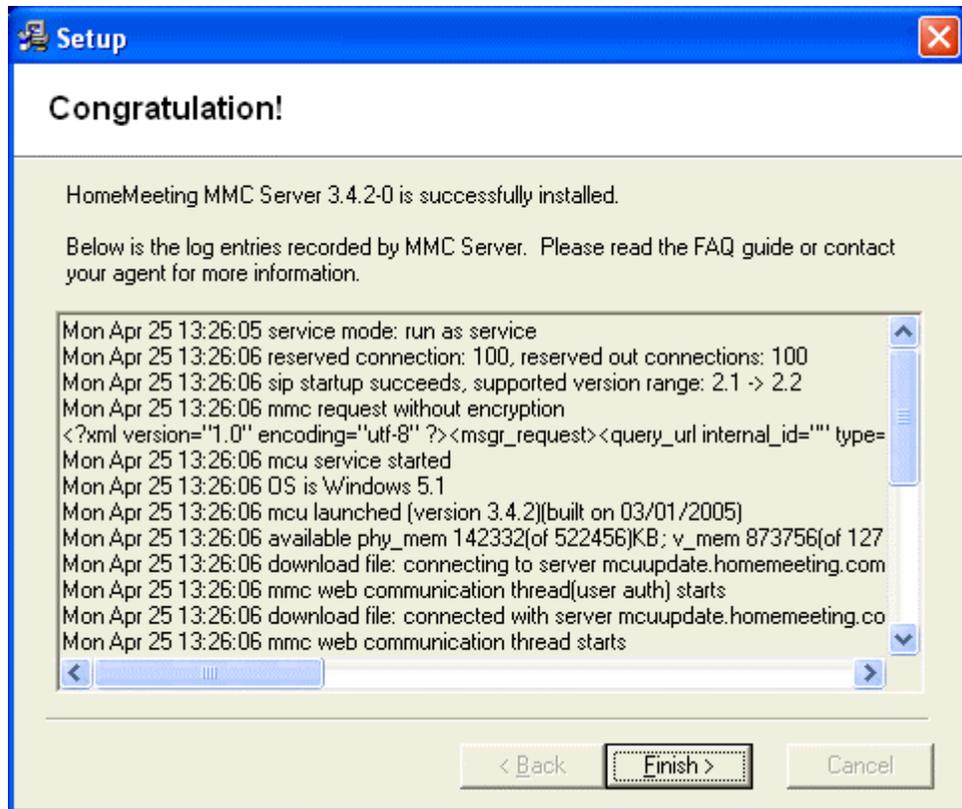
18. Click **Next** to start installation.



During installation, if you do not stop the Apache HTTP server prior to the installation process, the installer will ask you to stop the Apache server. It will be restarted after the installation.



A "Congratulation" message shows up if everything goes well. If not, examine the error message. Most commonly error message is that the keycode has already expired.



Installing a Virtual SMTP Server

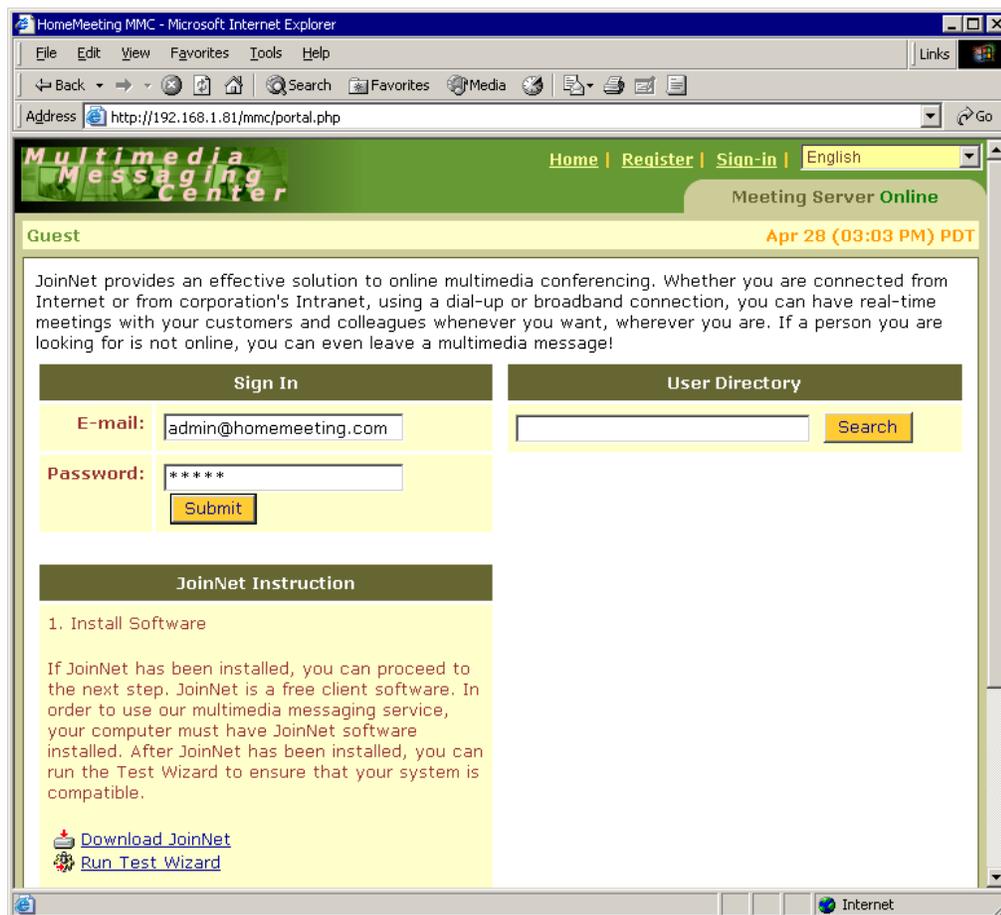
Some outgoing mail server requires password authentication. PHP (web application) and MCU send out emails by connecting to SMTP server. These applications can execute simple SMTP commands, but are not capable to perform authentication. To resolve the limitation, we can set up a virtual SMTP server that can authenticate and relay emails to the corporate or ISP's SMTP server.

- Install Microsoft SMTP Service (Not available in WinXP Home Edition).
 - Go to **Control Panel** → **Add Programs** → **Add Windows Components**
 - Double-click **Internet Information Services** component, select **SMTP Service** subcomponent
- Set authentication and relay settings of the SMTP Service. Properties of the service is located in **Administrative Tools** → **Internet Services Manager** → right click **Default SMTP Virtual Server** → choose **Properties**
 - Select **Delivery** tab → click **Outbound Security** button → select **Basic authentication**, enter user name and password of a valid email account for authentication. Check **TLS encryption** option if your corporate/ISP's SMTP server requires secure communication.
 - Select **Delivery** tab → click **Advanced** button, for **Smart host** entry, enter IP address of your corporate/ISP's SMTP server
 - Make sure the SMTP virtual service is running, not stopped.

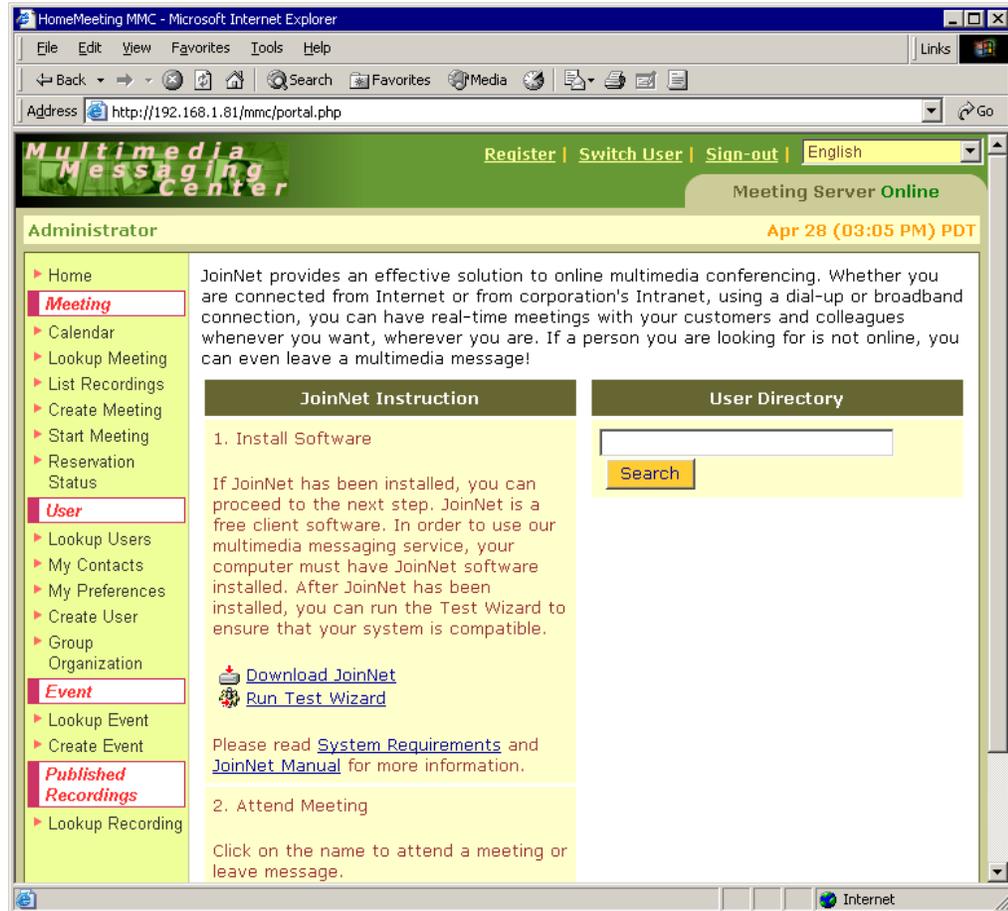
- Configure MCU to send emails through the virtual SMTP server. MCU configuration is stored in {MMC-folder}\mcu\config.ini file
 - For the **email_server** entry, enter localhost,25
 - Make sure the **email_notify_sender** and **admin_email** entries have valid email address.
 - Restart MCU service to reflect the changes.
- Configure PHP to send emails through the virtual SMTP server. PHP configuration is stored in {win-dir}\php.ini file
- In **mail function** section, **SMTP** entry, enter localhost

Testing the MMC System

Launch web browser and go to http://server_ip/mmc/. Here, “server_ip” denotes the IP address of the server on which MMC is installed. For example, in the previous example where MMC and MCU are installed in the same hardware, this URL becomes <http://192.168.1.81/mmc/>. *The first time web server runs, it takes a while for initialization.* After a few seconds, you shall see the home page of MMC:



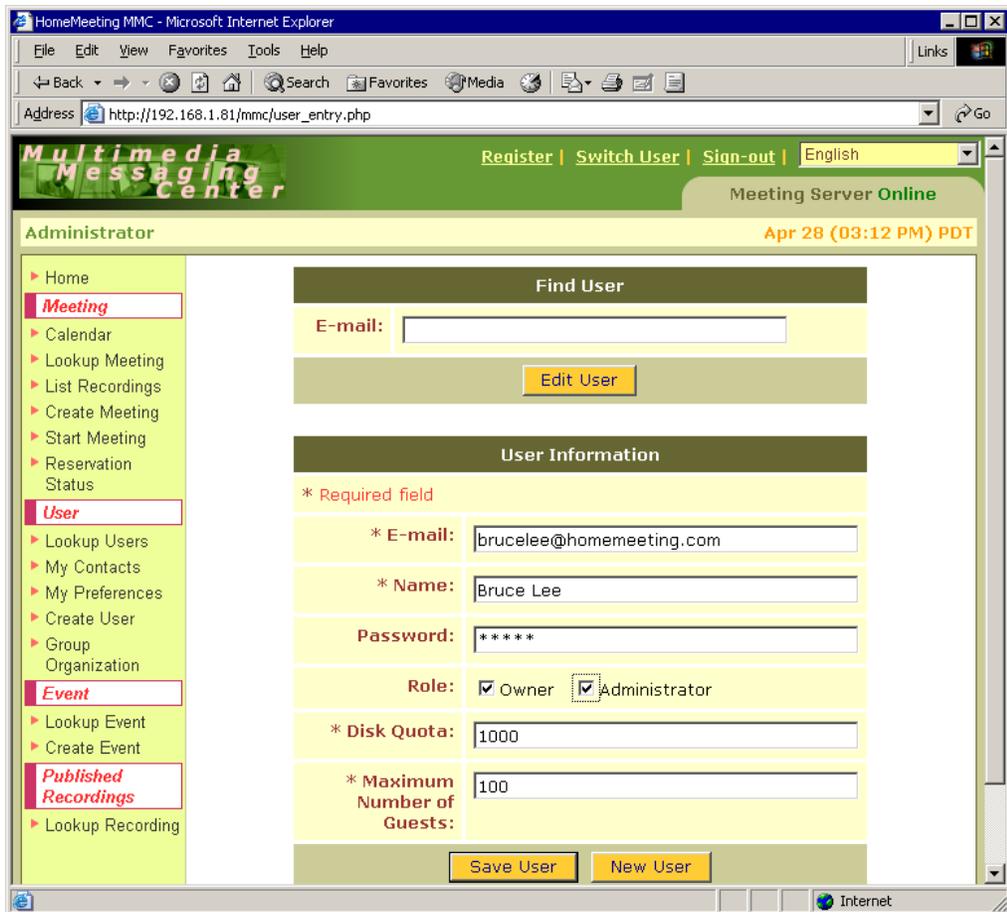
After logging in as the administrator, you should see: (refer to *Getting Started with MMC System* for details)



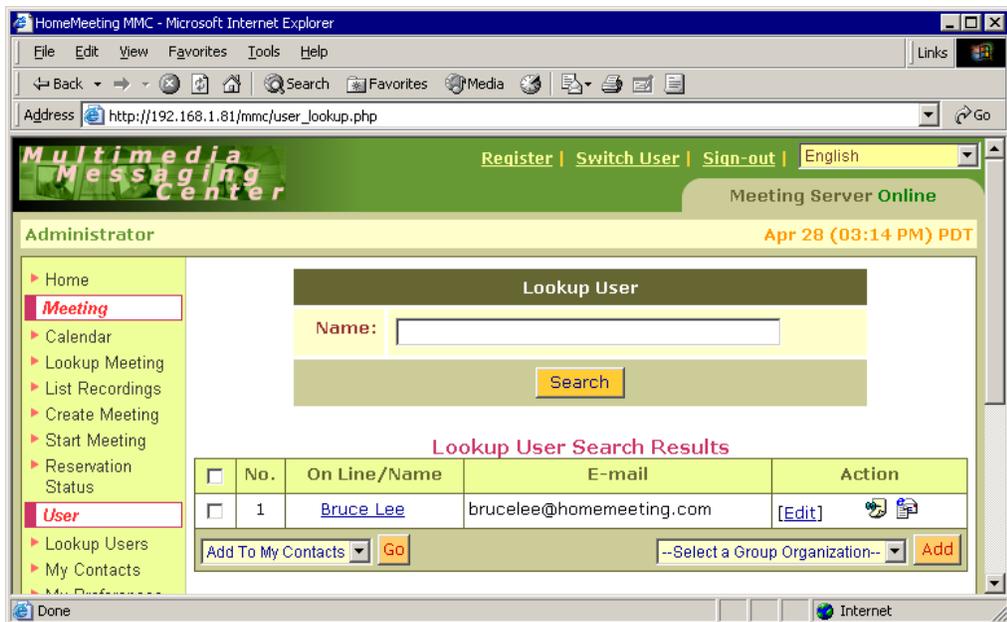
If you don't see "Event" and "Published Recordings" at the menu list, you can open the property file MMC_Directory/webapp/config/mmc.ini and enable these two features by changing the value of both "enableGlobalGroup" and "enablePublishRecording" from "false" to "true":

```
enableGlobalGroup=true
enablePublishRecording=true
```

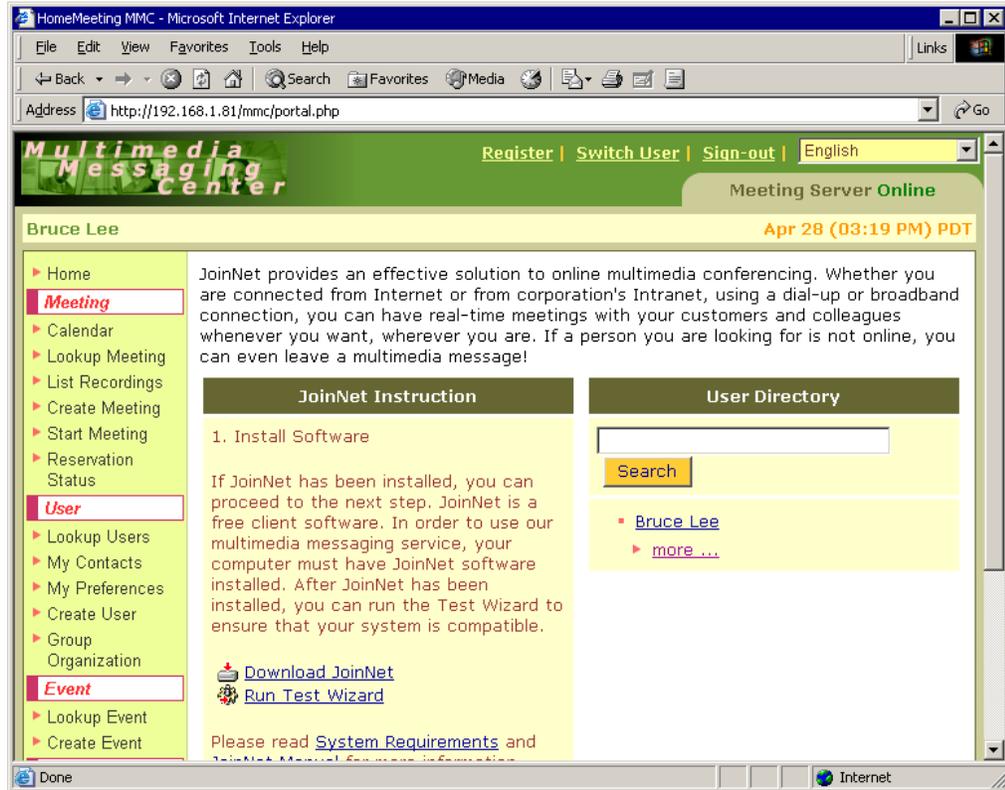
Click "Create User" and type in user information for the administrator. Save user as Owner and Administrator. Here is an example.



After click Lookup Users link



Sign out and login with the new administrator account. Click “Lookup Users”:



Appendix 1. MMC Configuration

The web portion of the HomeMeeting MMC system is written in PHP that can be used in conjunction with Apache or IIS web server. It currently supports both MySQL and PostgreSQL database. The configuration file of MMC not only sets the parameters of the web application, but also specifies some interfacing components to the MCU meeting server and the Messenger presence server.

Please note that the fundamental difference between the MMC system and Web Office system is that the creation of JNJ file. In the Web Office system, the JNJ file is generated by the MCU meeting server. In the MMC system, however, the JNJ file is generated by the MMC web application.

JNJ file contains information about the meeting including the server location, that is, IP address and port numbers. For the Web Office system, the IP address and the port numbers are specified in the MCU server configuration file "config.ini". For the MMC meeting system, the IP address and the port number are specified in the web application configuration file "mmc.ini".

When deploying the MMC system, it is very important to set up the both configurations, MCU and web application, correctly and consistently. The installation package provided by HomeMeeting has been designed and tested to provide ease of use and deployment. Our design of flexibility of integration with other databases, directory services, and web applications, may create some confusions and inconsistency. Please feel free to contact HomeMeeting if you have any questions.

The following table lists and explains all the parameters in the MMC configuration file "mmc.ini" located in the "config" sub-folder.

productionMode= false	Indicator on whether the web application is in production mode. Some features, such as detailed error reporting, will be turned on if NOT in production mode
appPath=	Path of the web application, deployment specific. If empty string is specified, relative path will be used
logDir= ../log	Path of logging directory
logLevel= 3	Log Level: 1 - Error, 2 - Warning, 3 - Info, 4 - Debug
localeDir= ../locale	Path of "locale" directory that contains message files of language translations. This allows original message files to be copied and modified in different "locale" directory. NOTES: If the value ("locale" directory) is changed, the PHP web server needs to be re-started. If any message file is modified and formatted, the PHP web server needs to be re-started.

defaultTimeZone= Asia/Taipei	Default time zone, if not set by the user, used for displaying time. If not specified, the machine's time zone is used.
enforceSingleTimeZone= true	Specify if Single Time Zone should be enforced. If TRUE is specified, all users will use the same time zone specified in "defaultTimeZone". If TRUE is specified, users are not allowed to choose time zone through "My Preference"
enableRegistration= true	Specify if user registration should be enabled
enableGlobalGroup= true	Specify if event-based scheduling should be enabled
enablePublishRecording= true	Specify if publish recording should be enabled
enableTicket= false	Specify if ticket-based event should be enabled. Note that enableGlobalGroup must also be true for ticket-based event to be enabled
enforceSignInForInvitedGuest= true	Specify if invited guests should be forced to sign in when they click the attend link inside the invitation email
langSelectList= ja, en_US, zh_TW, zh_CN	Specify the list of languages (separated by ',') selectable by the user. The selection list will be presented to the user in the order specified. If empty string is specified, currently supported languages in "i18n_list.php" (ex. "en_US, zh_TW, zh_CN, ja") are used. If only one language is specified, the user will not see "Select Language" list on web pages. NOTES: Language names are case sensitive
langDefault= zh_CN	Specify the default language of the application. This default language will be overridden based on "Language Preference" set in user's browser. If empty string is specified, and there is no "Language Preference", the first language in "langSelectList" will be used. NOTES: If specified language is not valid, or is not in "langSelectList", it will be treated as <empty>
langEmail= en_US	Specify the language used to send emails. If empty string is specified, the e-mail will be sent based on the language currently selected by the user. NOTES: If specified language is not valid, or is not in "langSelectList", the language in "langDefault" will be used
databaseType= mysql	Specify the database type. Valid value: mysql, psq, mysqli (improved extension for 4.1 and above)
mcuRecordingDir= ../../data/recording	Specify the root directory of MCU where the meeting recording files are stored

mcuLicenseFile= ../mcu/keycode.xml	Specify the path of MCU license file
mcuLicenseGracePeriod= 24	Specify the grace period (in hours) after MCU license expires. If MCU is in different time zone, this grace period should be adjusted according to the offset of time zones. For example, if the machine's time zone is "America/New_York" and MCU's time zone is "America/Los_Angeles". the grace period should be set to 27 (24 + 3) where 3 hours is the offset of these two time zones
messengerServerIp= 209.101.242.123	Specify the Messenger Server IP address. If there are multiple Messenger Server IP addresses, use ',' to separate multiple IP addresses. If empty string is specified, the Messenger Server IP will be the same as MCU IP
mcuIp= 209.101.242.123	Specify the MCU IP address. If MCU listens on multiple IP addresses, use ',' to separate multiple IP addresses.
mcuPort= 2333	Specify the MCU port number
mcuPort2= 2333	Specify the secondary MCU port number
mcuCheckSocketTimeout= 1	Specify the timeout (in seconds) of checking socket connection, in addition to checking MCU status file, to check online status of MCU. If the value is negative (such as -1), checking of MCU socket connection will not be performed
mcuMaxReservedOutside Connection= false	Specify if Maximum Reserved Outside Connection should be used to enforce meeting reservation. If FALSE is specified, Maximum Reserved Connections will be used instead
jnjVideoWidth= 320	Specify the JoinNet video width. Valid values: 176 or 320
jnjVideoHeight= 240	Specify the JoinNet video height. Valid values: 144 or 240
mcuPublicKeyFile= ../key/key_mcu_localhost.x509	Specify the location of the MCU public key file
webPrivateKeyFile= ../key/key_web_localhost	Specify the location of the Web Server private key file
webPrivateKeyPass= cGFzc3BocmFzZQ	Specify the passphrase to access the Web Server private key file. NOTES: The passphrase is base64 encoded. Do not include trailing '=' in the value
webSiteId= key_web_localhost	Specify the Site ID of the Web Server (generally the Web Server public key ID)
webPublicKeyFile= ../key/key_web_localhost.x509	Specify the location of the Web Server public key file

ssoKeyDir= ../key_sso	Specify the directory where public key files reside (for SSO linking from third-party)
webSecretKeyString= 1234567890	Specify the secret key string of the web server for Triple DES encryption/decryption. If empty string is specified, instead of Triple DES, PHP built-in functions base64_encode() & base64_decode() are used. This encryption/decryption is primarily used for Identity Cookie, User Registration and Meeting Notification
webPasswordEncryption= 1234567890	Specify the PHP built-in function name used to encrypt user's password. Valid value: sha1, md5, crypt. If the value is not one of the above values, it is treated as secret key string for Triple DES encryption. "sha1", "md5" and "crypt" are one-way hashing/encryption, while password encrypted by Triple DES can be decrypted
emailSupportSender= support@homemeeting.com	Specify the sender of the support email
emailSupportSenderName= HomeMeeting Support	Specify the name of the sender of the support email
emailRegistrationSender= support@homemeeting.com	Specify the sender of the user registration confirmation email
emailRegistrationSenderName= HomeMeeting Support	Specify the name of the sender of the user registration confirmation email
userDefaultRole= 1	Default role when user registers (0 - None, 1 - Owner). After the user registered, only administrator can change this value
userDefaultMaxGuest= 100	Default maximum number of guests in a meeting when user registers. After the user registered, only administrator can change this value
userDefaultDiskQuota= 1000	Default maximum disk quota (in MB) when user registers. After the user registered, only administrator can change this value
attachmentDir= ../../data/attachment	Specify the root directory of meeting/event attachments
attachmentSize= 2	Specify the maximum attachment file size (in MB) that can be uploaded. NOTES: The specified value must be less than or equal to the value of upload_max_filesize in "php.ini". If the value of upload_max_filesize is increased, the values of post_max_size, max_input_time, and max_execution_time in "php.ini" might need to be increased accordingly. If any of the above values is changed in "php.ini", the PHP web server needs to be re-started
attachmentQuota=	Specify the maximum total attachment file size (in

50	MB) for each meeting/event per person
listPageSize= 50	Page size (in number of rows) of result list
lookupMaxResult= 500	Maximum size (in number of rows) of database lookup
firstDayOfWeek= 1	Integer indicator for the First Day of the Week (0 - Sunday, 1 - Monday ... 6 - Saturday)

Appendix 2. MCU Configuration

The configuration file of the MCU provides the flexibility of deployment. The format is <parameter>=<value>, for example, bandwidth=64000 sets the target bandwidth of audio and video to 64k bps (the default value = 24000).

Please note that the settings

jnj_ip
portm
portm2
skin
size_w
size_h
backip

are related to the JNJ file and therefore are set in the MMC web applications (instead of MCU). Also, the setting of the listen IP needs to be the same as the setting of mcuIP in the MMC web application (in the file “mmc.ini”) in order for the communication between MCU and MMC to work properly.

recording	Set the recording directory. Recording files and MCU status information is written to this directory. The default value is “./recording”, that is, the sub-folder “recording” under the current folder of the MCU executable.
webdir	Set the website directory. The JNJ files generated by MCU are written into this folder. The default value is “.jnj”.
log	Set the directory for MCU logging. The name of the log file is mcu_event_log_yyyy_mm.txt, where yyyy and mm represents year and month respectively. MCU also generates activity log files in XML format. The files MCU_yyyy_mm.xml and w_daily.xml contains monthly and daily activity report respectively.
loglevel	Set the MCU logging level. The default value is 0 and the valid range is 0 to 9. The higher the value, more logging information is produced.
portm	Set the primary listening port of MCU. The default value is 2333.
portm2	Set the secondary listening port of MCU. The setting is optional. That is, if the parameter is not set, MCU listen only to the primary port.
portm_multicast	Set the multicast port number. The default value is portm plus 1.
multicast	Set the initial multicast IP address. By default, every meeting reserves 40 multicast IP addresses for multiple layers and/or media types. Different meeting use different

	40 IP addresses. This setting gives the initial multicast address. The first meeting uses [multicast, multicast + 39] and the second meeting uses [multicast + 40, multicast + 79] and so on. This parameter can be overwritten by the parameter “max_multicast_ip_set”.
max_multicast_ip_set	Set the maximal multicast IP set number. By default it is the maximal simultaneous session the MCU can support. If you set this to a lower value than the maximal sessions, it is possible for different sessions to use same multicast IP set. This parameter can be written by the parameter “fixed_multicast_group”.
fixed_multicast_group	Set this to 1, if you want to use a fixed multicast IP address set for different meetings. By default this value is 0. So different meeting use 40 different multicast IP address set.
ttl_multicast	Set the TTL (time to live) parameter of the multicast packets. The default value is 64.
listenip	Set the IP address that the MCU is listening to. This setting is used for the MCU to select one of the interfaces into service. By default, the mcu pick one of the IP belonging to the computer randomly (public IP is preferred). If you decide to set the MCU to listen all interfaces, set it to 'all'
jnj_ip	The parameter is used in Web Office server to set the JNJ IP for the HomeMeeting JoinNet client to connect to the MCU server. Note that, in MMC system, the JNJ IP is generated at the web server. By default it is same with the listenip. It can be set to a different value as the listenip. An example is that the listenip is a private IP and the jnj_ip is a public IP, which is translated to the listenip through NAT so the mcu can be accessed by the public. This entry also support domain name.
bandwidth	Set the total bandwidth of the audio and video. The default value is 24000, that is, 24k bps.
banned_text	Set the filter text file name. This setting points to a text file. Any text chat that contains words in this text file will be filtered out by MCU.
skin	Set the skin (user interface) file of the client to join the meeting hosted by this MCU server. If set, the information is set in the JNJ file. The default value is blank.
size_w	Set the width of the main window video. This value is set in the JNJ file. The default value is 176.
size_h	Set the height of the main window video. This value is set in the JNJ file. The default value is 144.
http_proxy https_proxy socks	Set the http/https/socks proxy. This proxy is used for the MCU to connect to the authorization server and send usage report to report server when the MCU is behind a proxy. Default port 80 is for http proxy, 443 for https proxy, ad

	1080 for socks proxy.
email_notify	Set to 1, MCU will email notify the owner there is new WebOffice message or the owner's message exceed the disk quota. The default value is 1.
email_notify_sender	Set the sender attribute of the message notification email
email_server	Set the email server and the port number.
admin_email=	Set the system administrator's email address. System level warning will be sent to this email address. This email will also be used as the sender email address for troubleshooting email sent to the agent
agent_email	Set the email address of the agent. When the system can not start normally, some debug information including error event description, config.ini, and keycode.xml. MCU's log will sent to this email address. To send out such email, admin_email also need to be set.
mcu_homepage	Specify the weboffice's homepage. This homepage will appear in the content of the notification email.
default_joint_browsing_page	Set the optional default page of the Joint Web Browser.
default_max_outconnection	Set the maximum number of out connections per user.
default_disk_quota	Set the disk quota of each user.
default_max_group_outconnection	Set the maximum number of out connections per group.
default_group_diskquota	Set the disk quota of each group.
grace_disk_quota	Set the extra allowance of the disk space on top the quota. Note that this value is set in terms of percentage, that is, 20 means 20%.
download_page	Set the download page of the HomeMeeting JoinNet client.
gui_rec_ver gui_min_ver	Set the recommended and the minimally required version number of the JoinNet respectively.
cipher	Set the cipher to be used by the meeting system. upported ciphers are 3des, aes128, aes192, and aes256 (case sensitive). The default cipher is aes128.
mcu_cluster_dh_key passphrase	Set the server's cluster Diffie-Hellman key and passphrase. This parameter is used for auth relay in MMC MCU. If mcu_cluster_dh_key is not set, default value is "mcu_cluster_dh_key". "passphrase" is base64 encoded.
mcu_hostkey	Set the server's host key (used for server authentication). If mcu_hostkey is not set, default value is "mcu_hostkey".
max_reserved_outconnection	MMC only: set the reserved connection for guaranteed event-based meeting. The setting is taken as a percent value of the license if there is a '%' at the end, otherwise, it is taken as a absolute number. For example, 20% means 20% of the license "max_outconnection" are reserved while 20 means 20 lines

	are reserved.
max_participant_video	Set the maximum number of participant video streams. This setting can not exceed 16. Note that this number does not include the token holder and primary questioner, therefore the total number of streams is two more than the setting. That is, if the number is set at 16, the total number of simultaneous streams could reach 18.
max_participant_audio	Set the maximum number of participant audio streams. This setting can not exceed 16. Note that this number does not include the token holder and primary questioner, therefore the total number of streams is two more than the setting. That is, if the number is set at 16, the total number of simultaneous streams could reach 18.
loglevel	Set the log level [0-9], default is 0, the higher, the more detailed log. When reporting a bug, set the log level to at least 3 (higher number produces more logging information) and try to repeat the bug .
backupip	Set backupip for the auto-generated .jnj file. (Note that this parameter is set at the web application in MMC). The format is: ip1,ip2,ip3,... up to 10 IPs.
mcu_relay_allow	Set the allowed IP addresses of JoinNet that can use this mcu as relay. By default, no JoinNet can use this mcu as relay. The format is : ip1/mask1,ip2/mask2,ip3/mask3 (up 20 sets). Use "ALL" to accept all IPs. Example 1: mcu_relay_allow=ALL Example 2: mcu_relay_allow=10.0.0.1,10.0.0.2,10.0.0.3
codepage	Set the codepage for language conversion. The user name is coded using utf-8 in MCU. When these name information are sent to old versions of JoinNet, which doesn't support utf-8, it may be useful to convert them to native language. The codepage here specifies the target native language. Set to -1 for auto detection of language from Windows Operating System. Common codepages are listed below Traditional Chinese 950 Simplified Chinese 936 Japanese 932
proxy_username proxy_password proxy_domain	These parameters are used to provide the information for user authentication at the proxy server (currently support NTLM and Basic).
app_data_rate	Set the maximum data rate in bps for application data channels. The default value is 24000. If you like to deploy a higher rate, set this value in you installation package of this configuration file.

app_burst_rate	Set the maximum burst size in bytes for application data channels. The default value is 1000 bytes.
allow_app_recording	Set whether the data in application data channels can be recorded (0 or 1). The default value is 0 (recording is not allowed by default).
deny_app	To deny specific application data channel by using GUIDs seperated by comma, e.g., B51F6BDF-90A8-4E7A-B611-EF0344114E34, B51F6BDF-90A8-4E7A-B611-EF0344114E35
record_participant_video	Set 1 to record the video data of the participant who is not token holder or the primary (first) questioner. The default value is 1.
new_message_email_notify_subject	Set the customized email notification subject and content etc. All the 4 settings refer to filenames. That is, you need to put the actual content in the file specified by the filename. By default, the MCU will automatically write simple subject and content in English.
new_message_email_notify_content	
exceed_disk_quota_email_notify_subject	
exceed_disk_quota_email_notify_content	
max_guest_messenger_connection	Set the max supported guest weboffice messenger connection threshold. The default value is 100, and you can set this to 0 if you do not allow any anonymous guest messenger connection.
autoupdate	Set to 1 let the MCU check whether there is newer version released. New version release information will be notified to the admin if admin email and the email server is configured. The default value is 1 (check auto update).
enable_utf8	Set to 0 to disable JoinNet using utf8 for text chat, text mark, etc. The default value is 1, i.e., utf8 is allowed.
sip_from_field	Set the "from" field used in SIP message. The default value is "sipclient". Note: no space is allowed.
sip_local_ip	Set the local IP address used in SIP messages. It also defines the source IP address for the SIP messages. By default the sipclient module will auto-detect the local IP address.
sip_merge_pkt	Set whether to merge multiple units into one packet when sending audio data to the peer sipphone. The default value is 0, i.e., no the audio packet is not merged.
sip_port_range sip_rtp_port_range	Set the local port range of the SIP phone. Note the RTP port range must be even number. Default SIP port range is [5060-5160], while default SIP RTP port range is [20000-20200].
messenger_web_url	MMC messenger related settings. Set the MMC web server in charge of messenger response. Default is blank.

messenger_dh_key	Set the web server's Diffie-Hellman key (public key). Default is blank.
messenger_secure_channel	Set that whether to use secure channel between the MCU and the MMC web server. If set to 0, the data between the MCU and the web server is not encrypted. Default is 0. If you are deploying the MCU and the web server on the same computer or on the same secure network, the recommended setting is 0 to reduce the overhead of encryption.
max_other_user_to_show	Specify the maximal "other user" to be shown in the messenger client for the MMC system. For a large scale deployment, it is strongly recommended to avoid using a large number when there are many users in the system. The default value is 50.
rate_control_tolerate_loss	Specify how the rate control algorithm to tolerate packet loss. The valid settings are 0, 1, 2 and 3. Note that the higher the number, it is more aggressive to preserve the video quality. The default is 0 to address the quality of the audio (and therefore sacrifice the video quality). The setting of 0 is effectively to reduce the sending rate with any packet loss. When set to 1, 2 or 3, the sending rate will only be decreased when the loss rate is higher than 1%, 2% or 3% respectively.