



# **HD Video Conference Server**

## **TV-60MCU-16**

### **User Manual**

Manual Version	V1.0
Product Version	V1.0

## CONTENTS

<b>NOTICE.....</b>	<b>2</b>
<b>1. LOGIN SERVER.....</b>	<b>4</b>
<b>2. MEETING.....</b>	<b>6</b>
2.1. BOOK.....	6
2.2. CONTROL.....	8
<b>3. USERS.....</b>	<b>9</b>
3.1. ADD.....	9
3.2. LIST.....	10
<b>4. SYSTEM.....</b>	<b>11</b>
4.1. VERSION UPGRADE.....	11
4.2. LOG.....	12
4.3. SERVERS.....	12
4.4. PARAMETERS.....	14
4.5. LICENSES.....	15

## Notice

In order to using the equipment right and safely, please read the notice first and follows them in strictly.

### Basic requirements

- In the procedure of equipment storage, transportation, using, must keep it dry, and avoid fierce collision.
- Please don't disassemble equipment. Go to the specified maintenance station if breakdown.
- Without any authorization, no facilities and personal can make some changes in equipment's structure, safety and design.
- Please follow the rules and laws when using the equipment, and respect others' rights.

### Environment requirements

- Please keep equipment in ventilated, none-direct lighted location.
- Please avoid equipment from water or humid area.
- Please put equipment in stable work platform and strictly follow the installation rule from manufacture.
- Please don't put any objects above equipment and keep 10 cm radiation space around equipment and the top.
- Please don't put any flammable objects around equipment, such as foamed material and etc.
- Please keep equipment away from heat source and fire spots, such as electric heater, candles and etc.
- Please keep equipment away from strong magnetic fielded or strong electric fielded machines, such as microwaves, refrigerators, cell phones and etc.

### Usage notice

- Please don't let children to play any equipment and small parts, so to avoid danger from swallow.

- Please use recommended assembly by manufacture, such as charger adaptors, batteries and etc.
- Please avoid any liquid into equipment. If accident happens, please power off, plug off all the cables, such as electric source, video cable and ect, and contact specified maintenance station.
- Please avoid foreign objects like metal to go into equipment by ventilation hole.
- Please keep hands dry when to plug in or off the cables.
- Please don't step into, stretch, or bend the equipment cables, in case to cause breakdowns.
- Please don't use outworn and old cables.
- Please power off then in lightning weather, and plug off all the cables to avoid lightning damage.
- Please power off if not use for a long time.
- Please power off and plug off all the cables immediately and contract specified maintenance station if some usual situation happen, such as smoke, unusual sound, smell from equipment.
- Please don't scrape and wear out equipment enclosure. Falling paint material may cause allergic or abnormal equipment functioning, like short circuit by falling paint.

### **Clean notice**

- Before cleaning, please stop using equipment by power off and plug off all the cables, such as power line and etc.
- In the procedure of cleaning, please avoid cleaning equipment enclosure by cleaning solution or any sprayed cleanser.

### **Environment Protection**

Please don't dump any broken equipment or batteries in garbage can. Please follow the local laws of how to handle equipment packing material, ran-out batteries, broken equipment, and support recycling.

## 1. Login server

- 1) Enter the IP address of your server in the browser, and then you can see the server web login page



Figure 1-1 IP address

- 2) Enter your account and password, and then click “Login” to login server.

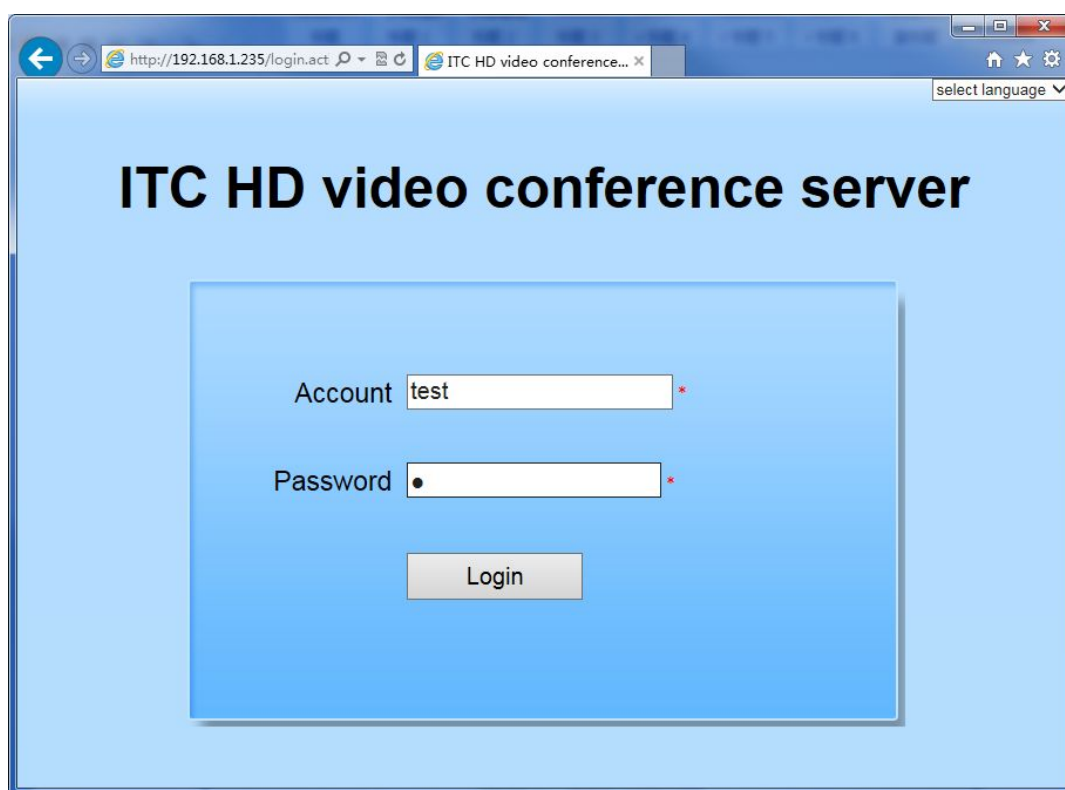


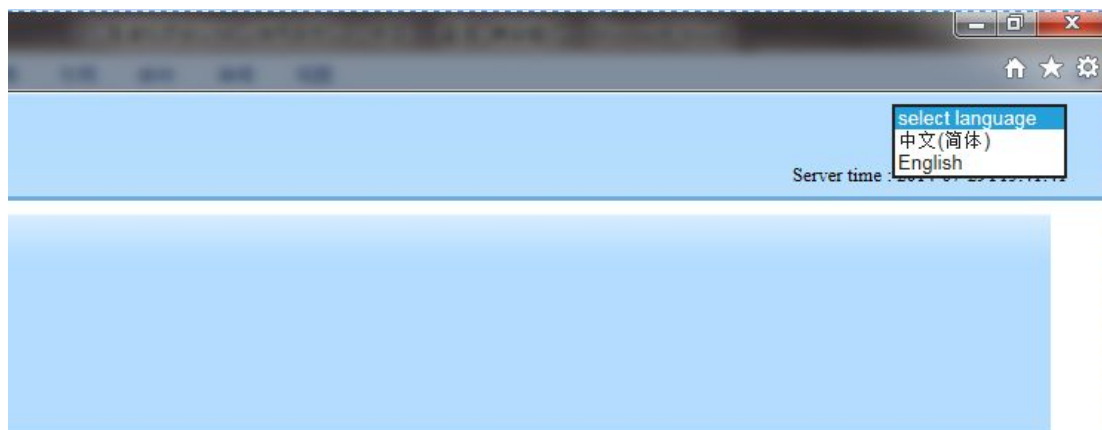
Figure 1-2 Login page

- 3) After you successfully log on to the server, interface as shown in Figure 1-3.



Figure 1-3

- 4) In the upper right corner of the WEB interface select WEB language to display, select Chinese Simplified or English



1-4

## 2. Meeting

### 2.1. Book

1) Click “Meeting”-“Book” to enter the appointment meeting interface.

2-1

2) Base

**Meeting Name:** Enter the name of the Conference you would like to book, the name can be in English, numbers, Chinese

**Begin time:** Conference start time cannot be less than current server time, choose "immediately", the start time is the server's current time and the time will updated in real time

**End time:** Conference end time cannot be less than start time

**Network type:** Select network type based on actual network bandwidth, the system based on the network type featured an optimum set of default audio and video parameters

**Max members:** Sets the maximum number of participants of the Conference, 1 Conference sets a maximum 120 participants

**Meeting Pwd:** Set the conference password, terminals join the Conference should through password authentication

**Expianation:** In the input box enter a description related conferences

**Layout:** After you select a screen layout, each membership will be displayed according to

the layout

**Member:** To specify participants or setting everyone can join the meeting

### 3) Audio & Video

The screenshot shows the ITC HD video conference server web interface. The top navigation bar includes 'Home >> Meeting >> Book'. The left sidebar has a 'Book' button highlighted with a red box. The main content area has two tabs: 'Base' and 'Audio & Video', with the latter highlighted by a red box. The 'Audio & Video' section contains three sub-sections: 'Audio', 'Major video', and 'Minor video'. The 'Audio' section has radio buttons for encoders (G.711a, G.711u, G.711a(stereo), G.711u(stereo), ISAC, ILBC, G722, G722(stereo)) and checkboxes for 'Echo canceller' (checked), 'Noise suppressor' (checked), 'Automatic gain' (unchecked), and 'Mute detection' (unchecked). The 'Major video' section has dropdowns for 'Encoding' (H.264), 'Resolution' (720x576), 'Frame rate' (30), 'Bit rate' (768kbps), 'Video quality' (Fluency priority), and 'Transport protocol' (AUTO). The 'Minor video' section has similar dropdowns for 'Encoding' (H.264), 'Resolution' (1920x1080), 'Frame rate' (15), 'Bit rate' (1024kbps), 'Video quality' (Fluency priority), and 'Transport protocol' (AUTO). At the bottom of the settings area are 'Submit' and 'Cancel' buttons. The footer contains the copyright notice: '©Copyright 2013 ITC Electronic Technology Co., Ltd. All delivery'.

## 2-2

**Audio:** Select the desired audio encoder, we recommend you use G711a encoder

**Echo canceller:** can eliminate echo after it is used, the default is to use

**Noise suppressor:** Can suppress noise after it is used, the default is to use

**Automatic gain:** Automatically adjusting the size of the volume, the default is not used

**Mute detection:** After application Depending on whether the participant statements to determine if an audio encoding is needed

**Major video:** Set meeting Major video default parameters. After the terminal entering the Conference, the Major video video-encoding started out as a default parameters, until the conference president control or the user change his parameter by himself.

**Minor video:** Set meeting Minor video default parameters. After the terminal entering the Conference, the Minor video video-encoding started out as a default parameters, until the conference president control or the user change his parameter by himself.

**Encoding:** Fixed H.264 encoding

**Resolution:** After you set the resolution, a Terminal will encode the video at the set resolution when it initiation.



**Frame rate:** After you set the frame rate, a Terminal will encode the video at the set frame rate when it initiation.

**Bit rate:** After you set the Bit rate, a Terminal will encode the video at the set bit rate when it initiation, until the conference president control or the user change his parameter by himself.

**Video quality:** To select Fluency priority or Quality priority mode, the Fluency priority mode recommended

**Transport protocol:** To select TCP, RTP or AUTO mode, the AUTO mode recommended

## 2.2. Control

ITC HD video conference server

select language ▼

Server time : 2014-07-30T08:56:10

Home >> Meeting >> Meeting list

Meeting Name:  State: ☒ Ready ☒ Working ☒ Stopped

Meeting time: from  to

**Book**

Meeting Name	State	Begin time	End time	Book user	Book time	Operate
测试会议	Stopped	2014-07-29T09:00:00	2014-07-29T09:10:00	test11	2014-07-29T08:46:32	View Delete
测试会议	Working	2014-07-10T16:53:38	2014-08-29T16:53:20	超级管理员	2014-07-10T16:53:38	View Lengthen Stop
展示会议	Working	2014-07-10T10:09:43	2014-07-31T10:09:31	超级管理员	2014-07-10T10:09:44	View Lengthen Stop

total 1 page 3 records | current 1/1 page [ first page | previous | next | last page ] jump to  GO

Copyright 2013 ITC Electronic Technology Co., Ltd. All delivery

### 2-3

**Meeting Name:** Meeting can be filtered and queried by conference name and conference name keyword

**Begin time:** Meeting can be filtered and queried by Begin time and End time

**State:** Meeting can be filtered and queried by State

**Book:** Click the Book button in the upper right corner of the form to enter the appointment meeting interface

## 3. Users

### 3.1. Add

The screenshot displays the 'ITC HD video conference server' web interface. The top navigation bar includes a 'select language' dropdown and the server time '2014-07-30T09:21:34'. The left sidebar contains a menu with categories: Meeting (Book, Control), Users (Add, List), and System (Version upgrade, Log, Servers, Parameters, Licenses). The 'Add' option under the 'Users' category is highlighted with a red rectangle. The main content area shows the 'Add' user form with the following fields and options:

- Account:  \*
- Password:  \*
- Repeat password:
- User name:  \*
- User type: ☒ normal User ☐ manager
- User state: ☒ Enabled ☐ Disabled
- Submit  Cancel

At the bottom of the page, the copyright notice reads: '©copyright 2013 ITC Electronic Technology Co., Ltd. All delivery'.

3-1

**Account:** Terminal login conference required by user ID and password authentication

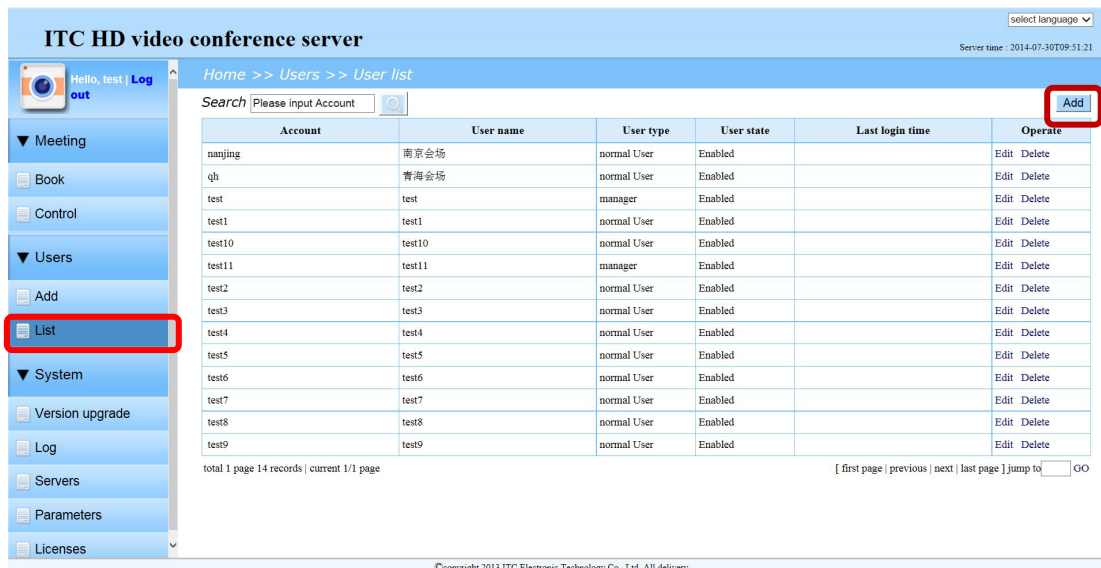
**Password:** Terminal login conference required by user ID and password authentication

**User name:** After terminal into the conference, video window will displays your user name

**User type:** Ordinary user accounts can log on session, the administrator account can log on to the server and login sessions

**User state:** When enabled is selected, user account is valid. When disabled is selected the user account is not valid

## 3.2. List



ITC HD video conference server

select language ▼

Server time: 2014-07-30T09:51:21

Home >> Users >> User list

Search Please input Account

Add

Account	User name	User type	User state	Last login time	Operate
nanjing	南京会场	normal User	Enabled		Edit Delete
qh	青海会场	normal User	Enabled		Edit Delete
test	test	manager	Enabled		Edit Delete
test1	test1	normal User	Enabled		Edit Delete
test10	test10	normal User	Enabled		Edit Delete
test11	test11	manager	Enabled		Edit Delete
test2	test2	normal User	Enabled		Edit Delete
test3	test3	normal User	Enabled		Edit Delete
test4	test4	normal User	Enabled		Edit Delete
test5	test5	normal User	Enabled		Edit Delete
test6	test6	normal User	Enabled		Edit Delete
test7	test7	normal User	Enabled		Edit Delete
test8	test8	normal User	Enabled		Edit Delete
test9	test9	normal User	Enabled		Edit Delete

total 1 page 14 records | current 1/1 page

[ first page | previous | next | last page ] jump to GO

©copyright 2013 ITC Electronic Technology Co., Ltd. All delivery

### 3-2

**Search:** You can enter the account name, account part characters in filter query

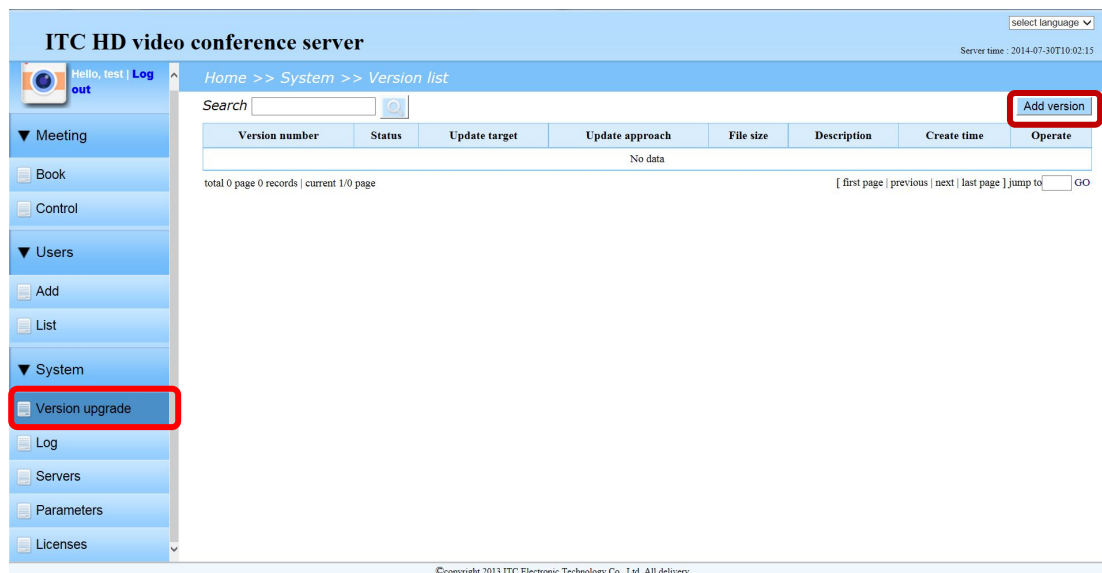
**Add:** Click the Add button in the upper right corner of the form to enter the add user interface

**Delete:** Delete the corresponding user

**Edit:** Modify the specified account, including user name, password, user type and user status

## 4. System

### 4.1. Version upgrade



4-1

**Search:** You can enter the version name in filter query

**Add version:** Add requires updated version. Click the Add version button in the upper right corner of the form to enter the updated interface. As shown in Figure4-2

The screenshot shows the 'Add version' form. It contains the following fields and options: 'Version number' (text input with a red asterisk), 'Update target' (radio button selected for 'Client'), 'Update approach' (radio buttons for 'Force' and 'Selectable', with 'Force' selected), 'Status' (radio buttons for 'Not enabled', 'Enabled', and 'Disabled', with 'Not enabled' selected), 'Description' (text area with up/down arrows), and 'Upload file' (file input with a '浏览...' button and a red asterisk). At the bottom are 'Submit' and 'Cancel' buttons.

1-2

**Version number:** Fill in the Add upgrade package version number

**Update target:** Force selected clients

**Update approach(Force):** After you upload a new version to the server, a terminal logs on to the server will force the upgrade process

**Update approach(Selectable):** After you upload a new version to the server, When a

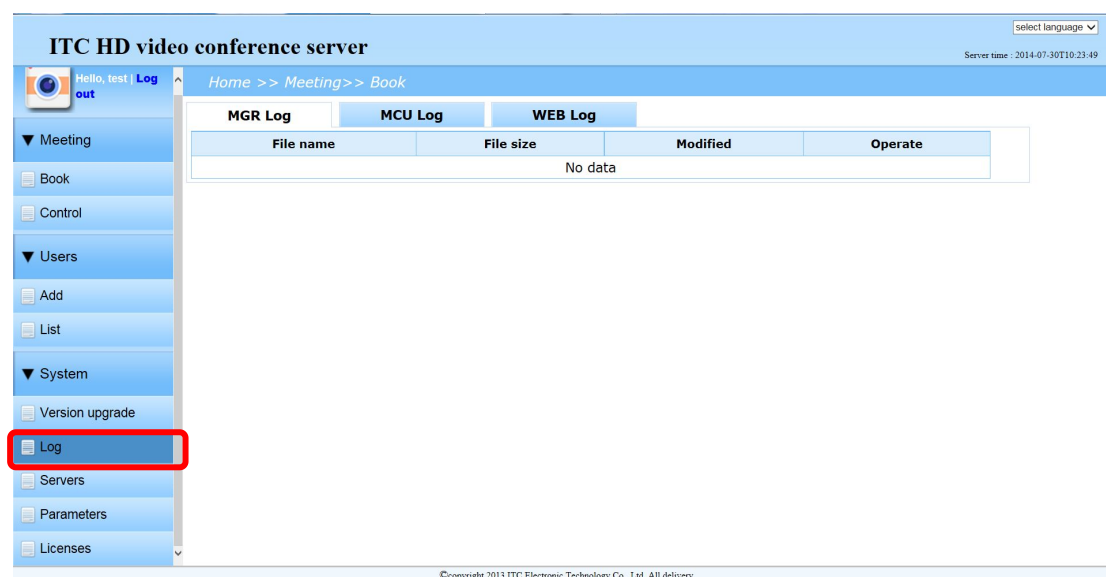
terminal logs on to the server you can choose whether to upgrade the program

**Status(Not enabled):** After you upload a new version to the server, Terminal logon server will not prompt the upgrade program

**Status(Enable):** After you upload a new version to the server, a Terminal logon server prompts you to upgrade the program

**Status(Disable):** After you upload a new version to the server, Terminal logon server will not prompt the upgrade program

## 4.2. Log

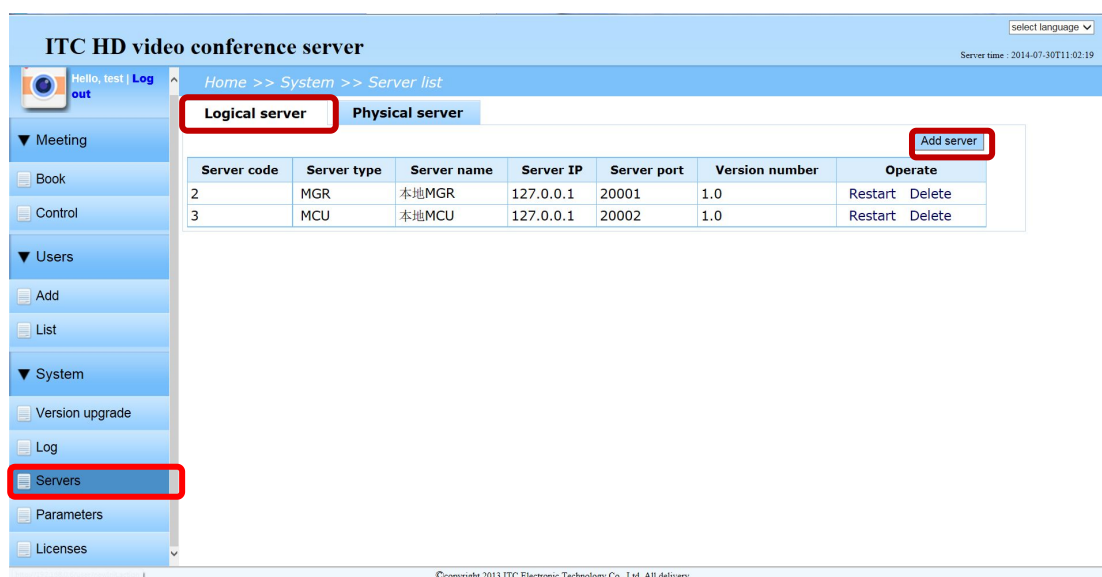


4-2

Access log management click to see MGR, MCU, WEB log

## 4.3. Servers

1) **Logical server:** MGR service and MCU service installed on a physical server



4-3

**Restart:** Restart MGR or MCU service

**Delete:** Delete MGR or MCU service

**Add service:** To add a logical server. Click the Add service button in the upper right corner of the form to enter the Add service interface. As shown in Figure4-4

Home >> System >> Add server

Add server

Server type: ☐ MGR ☒ MCU

Server name:  \*

Server IP:  \*

Server port:  \*

Version number:

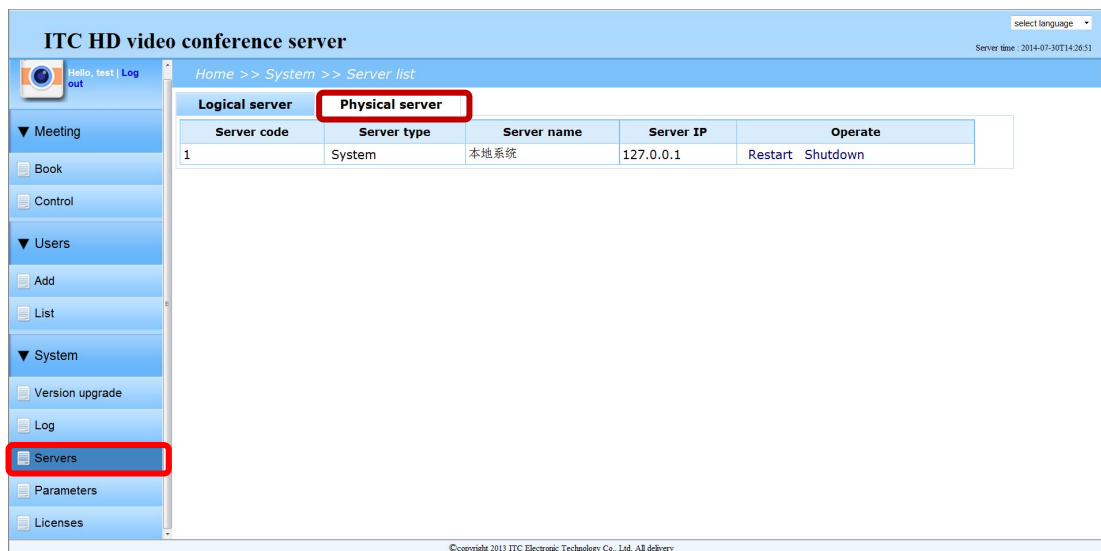
Submit Cancel

4-4



**Notice:** Do not modify the MRG and the MCU configuration

## 2) Physical server: Server hardware



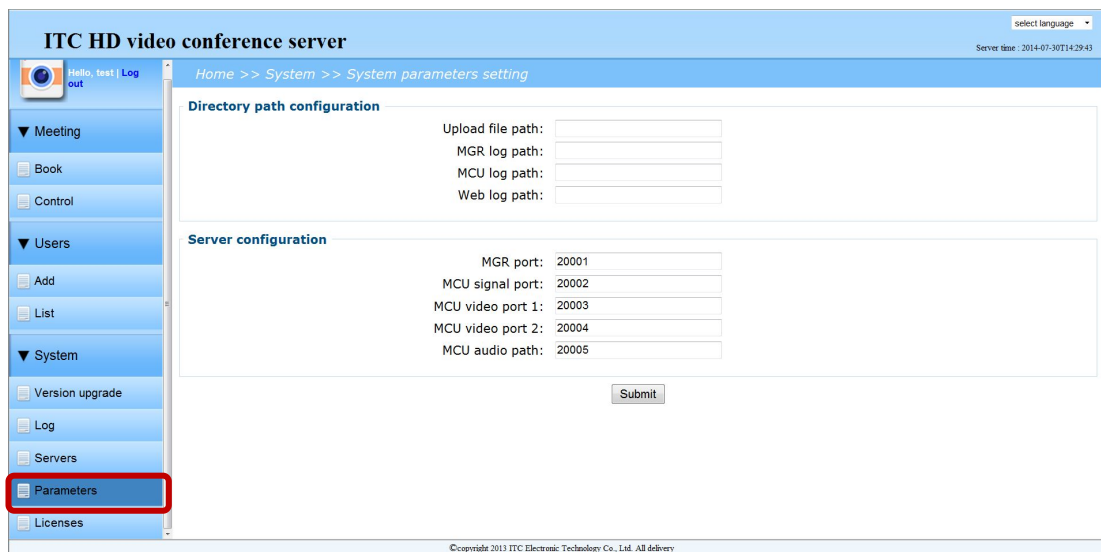
The screenshot shows the 'ITC HD video conference server' web interface. The left sidebar has a 'Servers' menu item highlighted with a red box. The main content area shows the 'Server list' page with two tabs: 'Logical server' and 'Physical server'. The 'Physical server' tab is selected and highlighted with a red box. Below the tabs is a table with the following data:

Server code	Server type	Server name	Server IP	Operate
1	System	本地系统	127.0.0.1	Restart Shutdown

**Restart:** Restart the physical server

**Shutdown:** Shut down the physical server

## 4.4. Parameters



The screenshot shows the 'ITC HD video conference server' web interface. The left sidebar has a 'Parameters' menu item highlighted with a red box. The main content area shows the 'System parameters setting' page with two sections: 'Directory path configuration' and 'Server configuration'.

**Directory path configuration**

- Upload file path:
- MGR log path:
- MCU log path:
- Web log path:

**Server configuration**

- MGR port:
- MCU signal port:
- MCU video port 1:
- MCU video port 2:
- MCU audio path:

A 'Submit' button is located at the bottom right of the 'Server configuration' section.

4-5



**Notice:** Configuration parameters do not modify

## 4.5. Licenses

ITC HD video conference server

select language ▾

Server time: 2014-07-30T14:40:48

Home >> System >> Licenses

The local machine code : 1087[REDACTED]902319

Input code

Serial number	Period	Effect time	Expire time	Trial days	Allow terminals	Status
No data						

total 0 page 0 records | current 1/0 page

[ first page | previous | next | last page ] jump to GO

Copyright 2013 ITC Electronic Technology Co., Ltd. All delivery

Please contact ITC for register code to activate the system.