

Procedure

1. Log in to PBX web interface, go to **Settings > System > Security > Service**.
2. In the drop-down list of **System Security Level**, select a type to change the SSL and TLS version.
 - **High Level:** The system only supports TLS 1.2 protocol.



Note:

We recommend that you select **High Level** to ensure secure communication over network.

- **Low Level:** The system only supports TLS 1.0, TLS 1.1, TLS 1.2, and SSL 3.0 protocols.



Note:

If users wants to access the PBX via a web browser or a 3-rd party software, which doesn't support TLS 1.2 protocol, select **Low Level**.

3. Click **Save**.

Result

The web browser or the 3rd-party software needs to enable the same version of TLS/SSL before they can access the PBX.

Database Grant

Yeastar S-Series VoIP PBX is based on MySQL database. A third-party software can access the database of PBX. Grant permissions to database before accessing the database of PBX.

Applications

Database Grant is usually applied in the following cases:

- **Billing**

By accessing the database of PBX, you can get CDR and save it to the local database of billing software. Then you can charge calls by CDR.

- **Call Center**

By accessing the database of PBX, you can achieve the followings:

- Get CDR and save it to the local database of call center software.

- Get storage path of recordings, and download recordings by FTP or File Sharing.

Capture data in database

1. Add database grant on PBX for the targeted device.
 - a. Log in to the PBX web interface, go to **Settings > System > Security > Database Grant**, and click **Add**.
 - b. On the pop-up window, configure the following settings:

- **Username:** Enter the username that can be used by third party to access the database of PBX.
- **Password:** Enter the password that can be used by third party to access the database of PBX.
- **Permitted IP:** Enter the IP address or IP section that is allowed to access the database of PBX. The input format should be XXX.XXX.XXX.XXX or XXX.XXX.XXX.%.

For example:

- 216.207.245.47 means that only the device with IP address 216.207.245.47 is allowed to access the database of PBX.
- 192.168.6.% means that only the devices whose IP section is 192.168.6.X are allowed to access the database of PBX.

- c. Click **Save** and **Apply**.
2. Access the database of PBX.

The following takes **Navicat for MySQL** for example to introduce how to access the database of PBX.

- a. Open **Navicat for MySQL**, and click **Connection**.
- b. On the pop-up window, configure the following settings:

MySQL - New Connection

General | Advanced | Databases | SSL | SSH | HTTP

Navicat — Database

Connection Name: Yeastar

Host: 192.168.6.70

Port: 3306

User Name: cdr

Password: ●●●●●●●●

Save password

Test Connection OK Cancel

- **Connection Name:** Enter a connection name to help you identify it.
- **Host:** Enter the IP address of PBX.
- **Port:** Enter 3306.
- **User Name:** Enter the user name configured in Database Grant of PBX.
- **Password:** Enter the password configured in Database Grant of PBX.

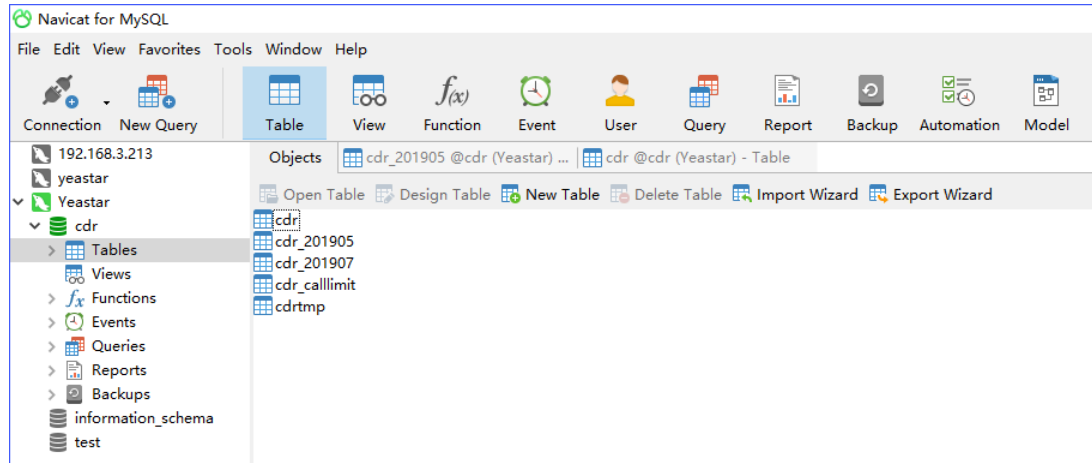
c. Click **OK**.

d. Click cdr table, you can see existing cdr tables on PBX.



Note:

The database generates a cdr table every month.



Download Recordings

The third party software can get storage path of recordings, and download recordings.

To download recordings by third party software, you need to [Set up File Sharing](#) or save recordings on [Network Drive](#).

1. Access the database to query the value of `recordpatch`.
2. Set access path for recordings by different file sharing methods.

- **External Storage File Sharing**

For example, the value of `recordpatch` is `/tmp/media/harddisk1/au-torecords/20170503/20170503162206-161-6222-Inbound.wav`.

The shared folder is `CarolShare`, the IP address of PBX is `192.168.7.112`, then access path for recordings is:

```
//192.168.7.112/CarolShare/harddisk1/au-torecords/20170503/20170503162206-161-6222-Inbound.wav.
```

- **Network Drive**

For example, the value of `recordpatch` is `/tmp/media/networkdisk1/au-torecords/20170503/20170503162206-161-6222-Inbound.wav`.

The shared folder of computer is `recordings`, the IP address of computer is `192.168.6.100`, then access path for recordings is:

```
//192.168.6.100/recordings/au-torecords/20170503/20170503162206-161-6222-Inbound.wav.
```


CDR Parameters in Database

Descriptions for CDR parameters in the database of PBX.

Description of CDR Parameters

Parameters	Descriptions
id	No special meaning, all ids are 0.
datetime	Date and time
clid	Caller Name<Extension>
src	Caller Number
dst	Called Number
dcontext	Dial plan
srctrunk	Source trunk
dstrunk	Destination trunk
lastapp	The last operation of the extension
lastdata	System internal flag
duration	Talk duration (calculates from the beginning of the call)
billable	Billing duration
disposition	Answered status of the call
amaflags	System internal flag
calltype	Call type: <ul style="list-style-type: none"> • Internal • Inbound • Outbound • Transfer
accountcode	Billing password
uniqueid	CDR unique identifier
recordfile	Recordings name
recordpath	Recordings path (with file name)
monitorfile	Name of One Touch Recordings
monitorpath	Path of One Touch Recordings (with file name)
dstmonitorfile	Name of One Touch Recordings for callee
dstmonitorpath	Path of One Touch Recordings for callee

Parameters	Descriptions
extfield1	Caller name
extfield2	Callee name
extfield3	The displayed DOD number when the caller makes an outbound call.
extfield4	IP address of the phone
extfield5	The phone number displayed (without patterns of outbound routes) when the caller makes an outbound call.
payaccount	The account which will be charged.
usercost	Call cost that the extension should afford.
didnumber	DID number that the caller dials.
transbilling	System internal flag
payexten	The extension which will be charged.
srcchanurl	System internal flag
dstchanurl	System internal flag

Asterisk Manager Interface (AMI)

The Asterisk Manager Interface (AMI) is a system monitoring and management interface provided by Asterisk. Yeastar S-Series VoIP PBX supports AMI that allows you to connect an AMI client to Yeastar S-Series VoIP PBX.

What is Asterisk Manager Interface (AMI)

Asterisk Manager Interface(AMI) is a standard management interface into Asterisk server. It is a client/server model over TCP that allows a client program to connect to an Asterisk server and issue commands or read events over a TCP/IP stream. With the manager interface, you can control the PBX, originate calls, check mailbox status, monitor extensions and so on.

Connect an AMI client to Yeastar S-Series VoIP PBX

1. Enable AMI on PBX.
 - a. Log in to the PBX web interface, go to **Settings > System > Security > AMI**.
 - b. Select the checkbox of **Enable AMI**.
 - c. Configure the connection authentication.