



# KX-UT670

## Features:

- Android 2.2 Based
- 6 SIP accounts
- 7 inch, color touch screen
- HD Voice (G.722)
- 100 entry phonebook
- 3-way conference call support
- Compatible with Asterisk and Broadsoft
- 2 x GbE ports, PoE
- Linux based open source operating system
- Full duplex speaker phone
- Electronic hook switch (Plantronics)
- Plug and Play configuration
- Cable concealing back
- Long handset cords
- Non-slip rubber feet
- Changeable angle stand
- Wall mountable

The first thing you notice with UT670 is it has a nice home screen providing easy access to your call history, contacts, voicemail, calendar, and of course the phone itself. It's easy to handle calls using the built in Phone application and feels fairly natural. The buttons on the right are flexible shortcuts. If you press the arrow further down it expands to show a screen full of programmable shortcut buttons, where you can program things like speed dials or application shortcuts.

The settings page contains the normal android settings as well as a new Administrative Settings Menu:

The ethernet port settings allow you to configure VLAN tagging, and set port speeds. IP configuration is done outside of the admin menu.

Applications can be installed via SD Card (side loading), or via the web. Simply copy the APK to an sd card or install an application from the web browser (you must open this via admin mode, the normal browser will not allow APK's to be installed). \*Note that you need an SD card in the phone in order to install an application, but once the application is installed I've found that I can remove the SD card without any problems.

Additionally, you can add your Google account via the normal Accounts & Sync menu to sync your contacts and calendar for you, but unfortunately it seems to download a contact for every person you've ever corresponded with rather than the contacts in your actual contact list, making it difficult to use..

Configuration of the phone can be done automatically using provisioning files, or manually via the web interface of the phone (username admin, password adminpass). The web interface doesn't expose all of the potential options, to get access to everything you need to check out the admin guide and use a provisioning file. Firmware updates aren't terribly difficult to do, I found I had to specify the version of the firmware, and a link to the new firmware version in a provisioning file in order to get the phone to update because the web interface options did not seem to work.

The KX-UT670 has a good speakerphone, I use it almost exclusively, rarely ever picking up the handset. I haven't had any issues hearing the other person, or with the other person being able to hear. I've only used it in a private office but it has worked great so far.

One thing the phone is missing is built in bluetooth support, which the Aastra 6739i and the CloudTC Glass phones both have. If you really want to use a bluetooth headset supposedly the UT670 can support bluetooth via the USB port, but I have not tested this.

In October I spoke to the Panasonic Engineers and told them what I was trying to do and they said they said they would be adding much of the functionality I was looking for in the second release of their API. I received that API and was easily able to modify my application to control call flow inside the Panasonic emulator.

Here is a screenshot of the application I've built, an intuitive attendant / reception console. It is a

great replacement for the old sidecars like the Aastra 560M or the Polycom IP 650 Sidecar Expansion Module that take up lots of desk space, provide less functionality, and cost a lot more. Selecting a person's name provides a list with their extension and cellphone, providing the ability to easily route calls to them.

#### The Good:

- The phone is gorgeous and the handset has a great feel to it. I like the hard buttons at the bottom of the screen, I wasn't convinced at first but they definitely make usability easier than the CloudTC phone.
- The API is fairly easy to use and work with, although the documentation isn't very good so you may have to do a bit of trial/error to figure out how to do some things.
- It works quite well.
- At \$400 it's relatively cheap for what you get.

#### The Bad:

- The API has a couple shortfalls, and Panasonic has responded that they designed it that way.
  - When you place a call on hold a new line is opened up so you can make another call. This is great unless you are putting them on hold to research something, talk to somebody that walked up to you, or any other reason you would put a caller on hold but not want to open another line.
  - If you hang up the new call the phone starts beeping in a very, very obnoxious manner. Panasonic has said this is so the user doesn't forget a call is on hold. I would prefer the API let me, the developer, control the user interaction with the phone.
- The base lets you tip the phone at either a very steep angle or a very flat angle with no in between option. Neither one of the settings is very convenient for my desk space so I've put a postit pad under the back of it to tip it up a little more and create an in between option.
- According to Panasonic you may not use these characters in your passwords: " & ' < >. If one of these characters included in the config file the phone will ignore the entire config file, and if you try and enter them in the web interface the page reloads with the old password. It took quite a while to figure out this was the problem, but fortunately I've seen this happen with the Panasonic TGP500 so I wasn't flying completely blind. It would be nice if they included this in the documentation somewhere.
- There are a few things like firmware updating, passwords, and a couple API tweaks that I would like to see made, but the phone was just recently released so I expect that will happen over the next few months.