As used with Samsung's SmartThings Home Automation kit, there are multiple parts to LANnouncer:

LANnouncer Device

A standard Groovy SmartThings device driver, the LANnouncer device is required functionality on the SmartThings hub to get messaging working to the devices.

It can be configured with the LAN IP address of the desired device. (If it's an SMS device, leave this blank and add the Remote LANdroid SmartApp to connect to SMS.) Multiple LANnouncers can be configured, allowing a phone to receive different messages (e.g. only alarms) than a local tablet (e.g. door chimes.)

After starting, LANnouncer runs in the background; the tablet or phone can be used as normal.

The Device Screen

After you've created a device, this screen appears. *It is only for testing*; you won't normally need this screen.

From this device, these tiles control the _target_ device. (I.e. in this case, the SMT320 tablet.)

The Strobe tile turns on the flash briefly. The Siren turns on an Alarm sound. Speak will, if the settings (next screen) allow 'Say Nothing', tell you that LANdroid is working. Notify does the same thing with a Toast. And Tone plays a chime.
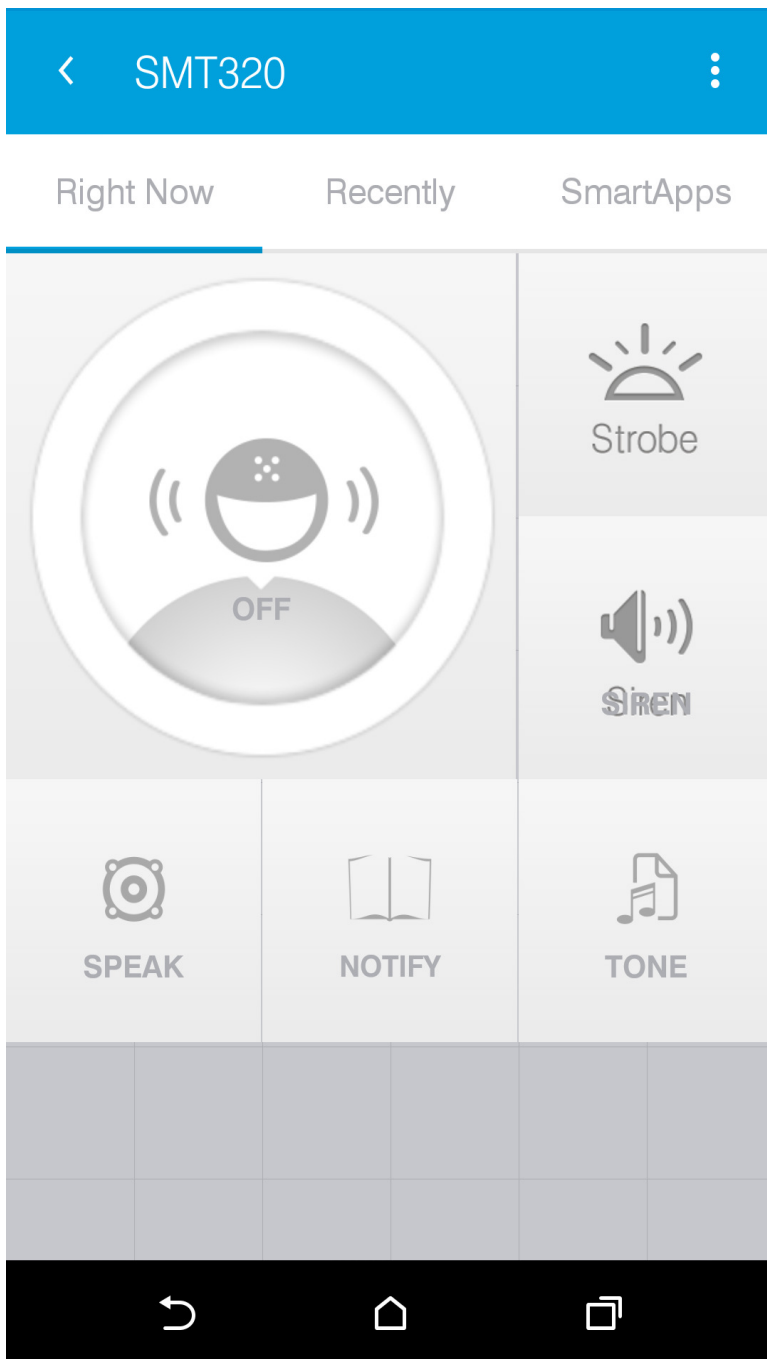
The menu allows editing settings; in this case they are:

(('🙂')) SMT320   OFF

Give your device a name

SMT320

Android IP Address

192.168.1.20

Android Port

1035

Say Nothing   ⬤

Remove

The "Device Name" will be how you refer to *this* device from SmartApps, including *Remote LANdroid*.

The "Android IP Address" *may* be empty, if this "LANnouncer Device" will be communicating via SMS using *Remote LANdroid*. You will have one *LANnouncer* device per target device. (Unless you happen to want the exact same messages sent to both a LAN and an SMS target.)

Important: The IP Address should be static or your device may change IP address. You can typically set this by:

- Settings
- Wi-Fi
- (Touch *and hold* the name of the Wi-Fi connection to modify, until a pop-up menu appears)
- Modify Network
- *Scroll to the bottom of the menu*

- Check "Advanced Options"; this will cause more options to appear. *Scroll down* to the newly-exposed options.
- Under "IP SETTINGS", if "DHCP" is listed, touch it and change it to "Static"
- Enter the desired IP Address.

Note that if you have a sufficiently advanced router, you can assign a static IP to the device based on the MAC address from the router.

You can *find* your Android's IP Address under [Settings] [Wi-Fi], typically the menu button, and then [Advanced Settings]; it's usually near the bottom.

Note On Updating

If you update the device code (version), you may have to force SmartThings to recognize the new version. Just FYI.

LANnouncer Service

The LANnouncer Service (formerly LANdroid / TTSService, but Google didn't like the embedded "android") is the Android application/service that runs on the phone or tablet. It specifically watches for network or SMS messages coming from LANroid, and acts on them. This differs from some other contemporary SmartThings speech devices in that the speech synthesis is done *on the Android device*, rather than merely being played on it.

The LANnouncer Service can be set to listen on the network (on the port of your choice; 1035 is the default), or to watch for SMS messages, or both.

There are some configuration options on LANnouncer, but they're largely unimplemented currently (Alpha stage.) All you really need to know is:

- You *must* start LANnouncer for it to run and work
- *If* you are in LAN mode (which you probably should be), you should press "Start Network Services" *once*
- You can then switch away from LANnouncer , and it will continue running in the background

LANdroid should be downloaded from the Google Play Store to get the latest version.

LANnouncer Android Requirements

LANnouncer requires SDK 21, which means Lollipop, Android 5.0, or above. This isn't capricious; because I've updated all of my devices and because I initially wasn't even considering publishing this (it was just to solve an annoyance), I used Android methods supported by my devices. Specifically, the **AudioAttributes.Builder** class, added in SDK 21.

Remote LANDroid

Remote LANdroid is a SmartThings SmartApp that watches for LANnouncer events and forwards them to the desired Android phone via SMS. These will be a bit cryptic, of the form ALARM=ALARM&@DONE@, and consequently you will not only receive the speech, alarm or strobe, but also an SMS - with the audio notification if enabled and with the slightly-cluttered inbox.

Due to a foible in how Android contexts and receivers interact, Remote LANdroid's U.I. will pop-up in SMS mode when playing Text-To-Speech. It should go back into the background quickly. *Do not press "back"* if this happens; you can press Home or "Recently Used", but not Back, or you will terminate the service.

The phone number is the entire number to send the SMS to.
The "Which" refers to which *LANdroid* Device. It is *possible* that non-LANdroid devices will be listed; select only a LANdroid device.

The name selected may be used by applications, and will appear as the SmartApp in the Device listing, as below:
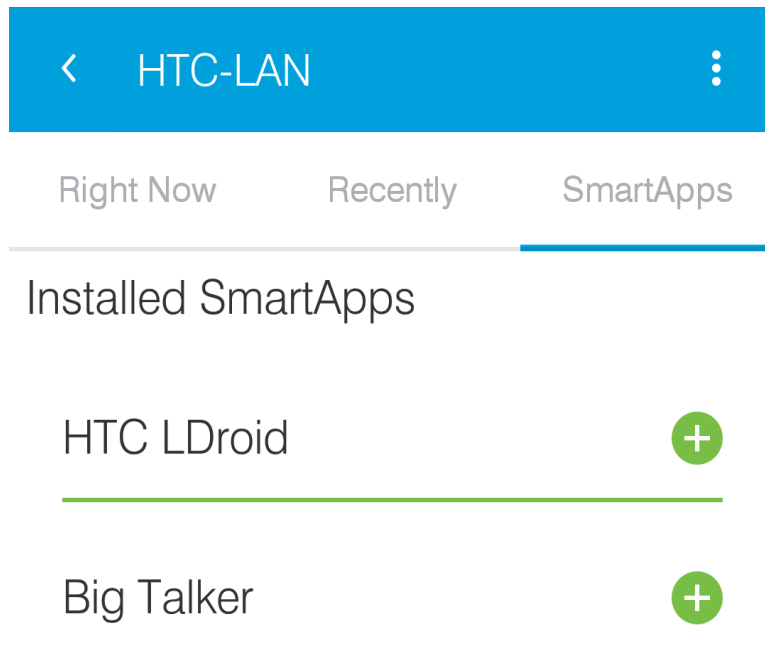
As mentioned at the top, the *Remote LANdroid* functionality uses SMS. This does mean you will *also* receive SMS notifications (e.g. a "bing" if that's what your phone does when you get an SMS), and additional messages in your SMS inbox. I added the incoming address to my address book with the name "SmartThings Hub", so I could recognize and ignore them.

Taking Advantage Of LANnouncer

The basic aspects of LANnouncer can be configured using standard SmartThings functionality. The Alarms, for example, work just as expected. But SmartThings as shipped is a bit light on functionality.

Add BigTalker

In addition, you will probably want to add [Ray Zurbock's Big Talker](#) or a similar SmartApp, to make configuring speech easy. This then can connect speech to most events. (Not, unfortunately, alarm modes, but beyond that, most events.)

Additional Commands

The standard SmartThings commands are a bit light on flexibility. For example, there's no distinction between a chime, a doorbell and an alarm. But LANdroid supports these.

To get there, use Big Talker or another speech driver to send the following strings to LANdroid:

String	Purpose
@#ALARM=CHIME	Sound a chime, like a store entry (Same as using the Notification.beep device capability.)
@#ALARM=DOORBELL	Sound a doorbell
@#ALARM=ALARM	Sound a alarm, like a missile warning
@#ALARM=SIREN	Sound an old-style police siren (Same as using the Alarm.Siren device capability.)
@#VERSION=ON	Speak the version
@#FLASH=STROBE	Strobes the flash for about 10 seconds (Same as using the Alarm.Strobe capability.)
@#FLASH=LONG	Turns the flash on for about 10 seconds
@#PHOTO=BACK	Takes a photo from the device back camera. (FRONT is an unimplemented option currently.)
@#PHOTO=BACK&STSHRINK=TRUE	You wouldn't use this from BigTalker, but this will return the image in a SmartThings-friendly size. e.g. curl "192.168.1.xx:1035/? PHOTO=BACK&STSHRINK=TRUE&@DONE@" > test3.jpg would retrieve a small copy to test3.jpg
@#PHOTO=BACK&WAIT=TRUE	Same as above, but for a full-sized photo
@#RETRIEVE=*camera_name*&WAIT=TRUE	RETRIEVE grabs an image from the configured camera (see Installation.) The WAIT and STSHRINK commands will cause it to be returned; otherwise it merely is copied to the Android device media folder and, if configured, to the Dropbox folder.
@#VIDEO=*seconds_to_record*	Takes video with the Android camera, putting it in the media folder and optionally to Dropbox.
@#RETRIEVESEQ=*camera_name*	

Retrieves a sequence of photos from the remote camera. This is set for 4 photos, at 3+ seconds apart, though is generally constrained by the camera login speed.

SPECIAL COMMANDS

SPEAK=@|

This is the SPEAK ENVELOPE, that allows arbitrary strings (commands) to be sent via text-to-speech.

The LANnouncer service is not limited to contacts from the SmartThings hub. Commands can be sent directly via, e.g. curl:

- curl "192.168.1.xx:1035/?ALARM=SIREN&@DONE@"
- curl "192.168.1.xx:1035/?VERSION=ON&@DONE@"

The SPEAK extensions can also be sent via curl, however be aware that in some environments, curl cannot send "#", so "|" is used for LANdroid instead, as in...

- curl "192.168.1.20:1035/?SPEAK=@|ALARM=CHIME&@DONE@"

See the [Command Overview page](#) for more commands.

About

LANdroid and LANnouncer were written by NWTony/KeyBounce in response to his frustration at the lack of audio outputs from SmartThings.