Managing Memory on Your Galaxy Tab 4

By Eric Butow

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The Samsung Galaxy Tab 4 8.0 and 10.1 models come with 16GB of memory, and the Tab 4 7.0 comes with only 8GB of memory. Some of that memory is reserved for specific processes; the actual amount of memory is closer to 11.5GB for the 8.0 and 10.1 models and 3.5GB for the 7.0 model. As you fill up your Tab 4 with interesting and useful apps, you may find your Tab 4 performance slowing down as more memory is taken up with apps and related services. In this article, you'll learn how to use the Application Manager page within the Settings screen to see what apps and services are taking up your memory. You'll also learn how to view applications in a variety of categories. Finally, you'll learn how to stop services and report any problems to the app developer.

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My Samsung Galaxy Tab 4

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You may not start thinking about how your Samsung Galaxy Tab 4 is managing memory until your Tab 4 is performing tasks within apps and/or the operating system much more slowly than you're used to. Checking to see how the Tab 4 is managing memory is the first thing you should do is check the Applications Manager page within the Settings screen. This page shows you the apps and services running on the Tab 4 currently so you can determine if you want to end an app or service. If you do, then the Applications Manager gives you options for stopping an app or service right away.

Start by tapping the Apps icon on the Home screen. In the Apps screen, tap Settings. Within the Settings screen, tap General in the blue menu bar at the top of the screen. Finally, tap Application Manager within the settings list on the left side of the screen. The Application Manager page appears as shown in Figure 1.

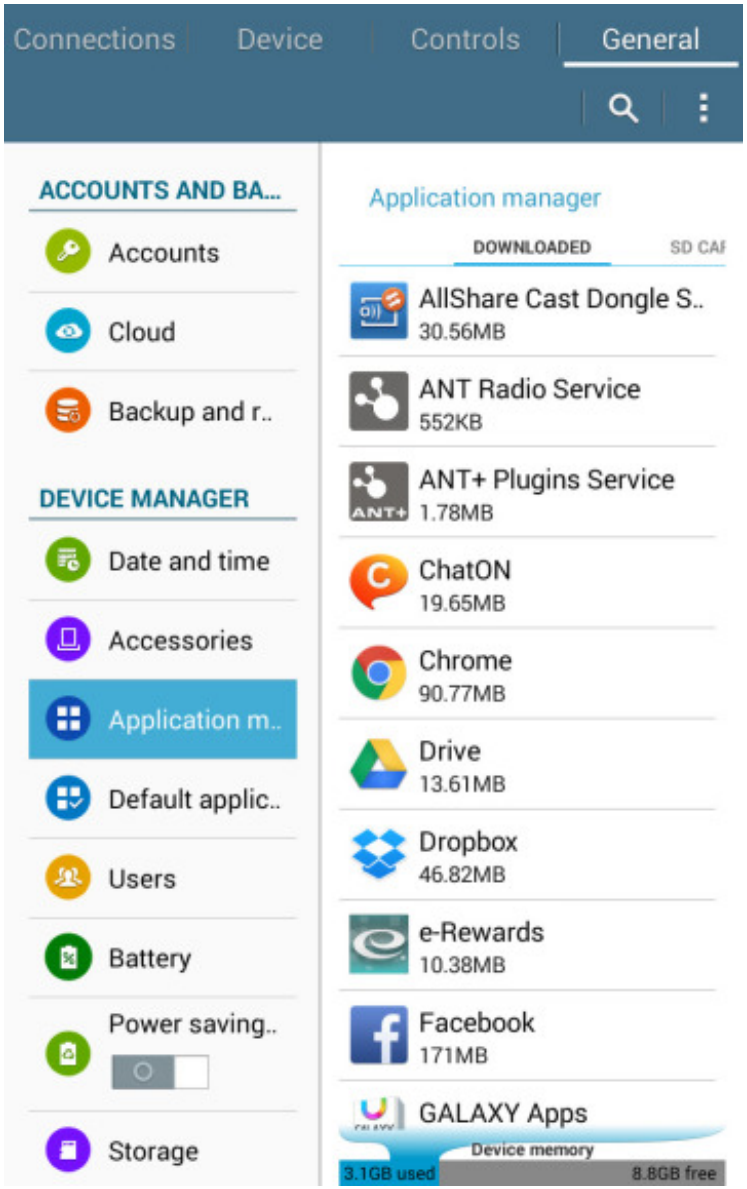

Figure 1. The Application Manager page appears on the right side of the screen.

The page shows a list of all your downloaded apps and services that you can view by swiping up and down in the list. Underneath the list the Device Memory bar shows you how much memory has been used and the amount of free memory available.

If you have a Tab 4 7.0, the unit only comes with 8GB of memory and the total available memory is 3.5GB. The Tab 4 8.0 and 10.1 models comes with 16GB of memory and has 11.5GB usable. (This

article uses the Tab 4 8.0.) The unusable memory is reserved for hardware and operating system functions.

The Application Manager page shows three different components that make up the apps you run on Android 4.4 (also known as KitKat):

- Applications are the programs themselves with which you interact.
- Processes are instances of a specific app file that KitKat executes. For example, the Samsung keyboard on the Tab 4 usually runs two processes at the same time to perform different tasks. You'll learn more about viewing each process task later in this article.
- Services are processes that run "under the hood". That is, these processes run in the background without interacting with you but they're vital to making the app work.

There are four different Application Manager sub-pages you can view by swiping to the left and right. The sub-page title appears at the top of the Application Manager page. You can perform specific tasks within each sub-page.

Downloaded

This sub-page appears by default and shows all apps and services that either were pre-installed or you downloaded to your Tab 4 as you saw in Figure 1. Underneath the app or service name you see the amount of memory that the app or service is using currently.

Swipe up and down the list to view all the apps and services in the list. If you want to get more information about an app or service, tap on the app or service name in the list. The App Info page appears; Figure 2 shows the App Info page for the Chrome app as an example.

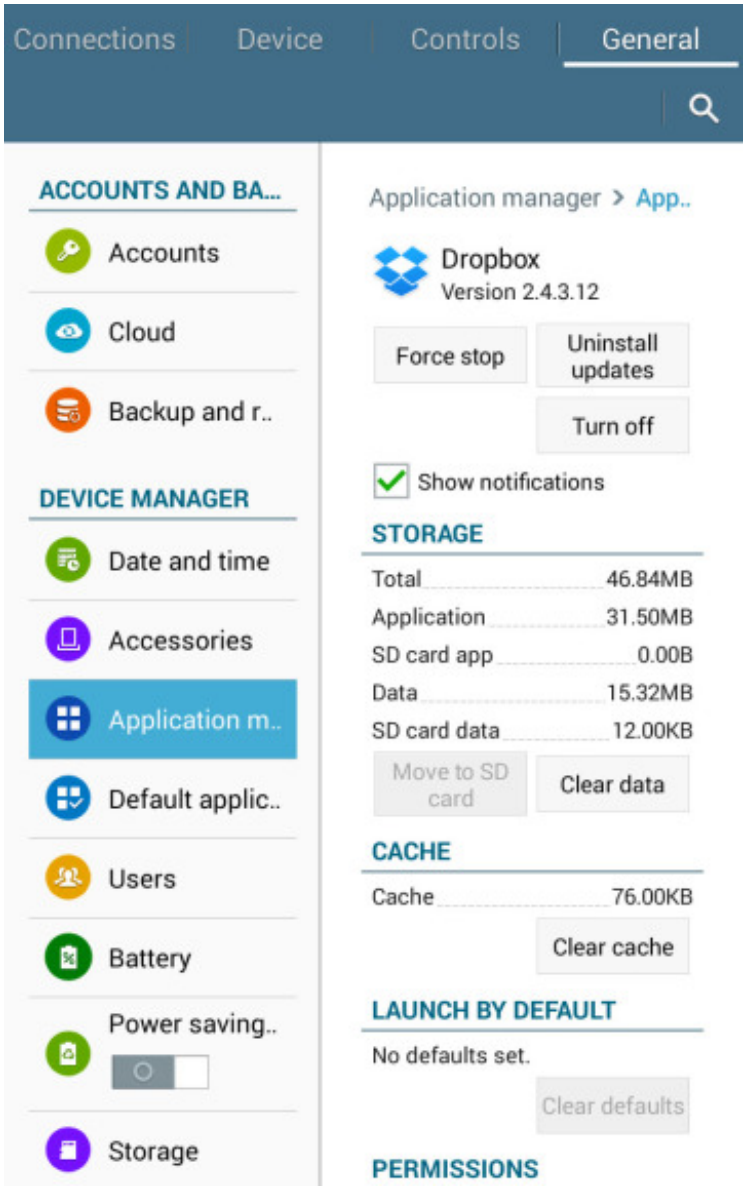

Figure 2. The App Info page for the Chrome app.

The App Info page contains five sections of information and/or buttons:

- At the top of the page you see the name of the app and the version you have installed. You can force the app to stop by tapping the Force Stop button. If the app isn't working correctly after you installed an update, you can remove all updates by tapping the Uninstall Updates button. You can turn off the app by tapping the Turn Off button. If you don't want

the app to show notifications in the Status bar and the Notifications page, tap the Show Notifications checkbox to clear it.

- Storage: This section tells you how much memory is used for the app and data. If the app is on your SD card then you'll also see how much memory on the card is used for the app and data. You can clear data from memory by tapping the Clear Data button. The Move to SD Card button is active if the app can be moved to the SD card and you can move the app by tapping the button.
- Cache: A cache is an area of memory reserved for app data that the app needs to access regularly while the app runs. This section shows how much app information is stored in the temporary cache for use when the app needs it. You can clear information from the cache by tapping the Clear Cache button.
- Launch by Default: If you have set up the app to launch by default when you start the Tab 4, you can remove this setting by tapping the Clear Defaults button. If you want to know if the app can run when you start the Tab 4, you can find out in the Permissions section.
- Permissions: You can swipe down the page to view a list of all the apps and services the app has permission to use. Swipe up the page to view the previous four sections. If the app or service doesn't use permissions, this section doesn't appear on the page.

You can return to the Application Manager screen by tapping the Back button.

SD Card

This sub-page shows you any apps that you have downloaded to your SD card. The amount of memory the app is using appears underneath the app name as shown in Figure 3. If there are no apps, then this sub-page says "No Apps". The bottom of the screen shows how much storage space you have used on your external storage device and how much more free space is available.

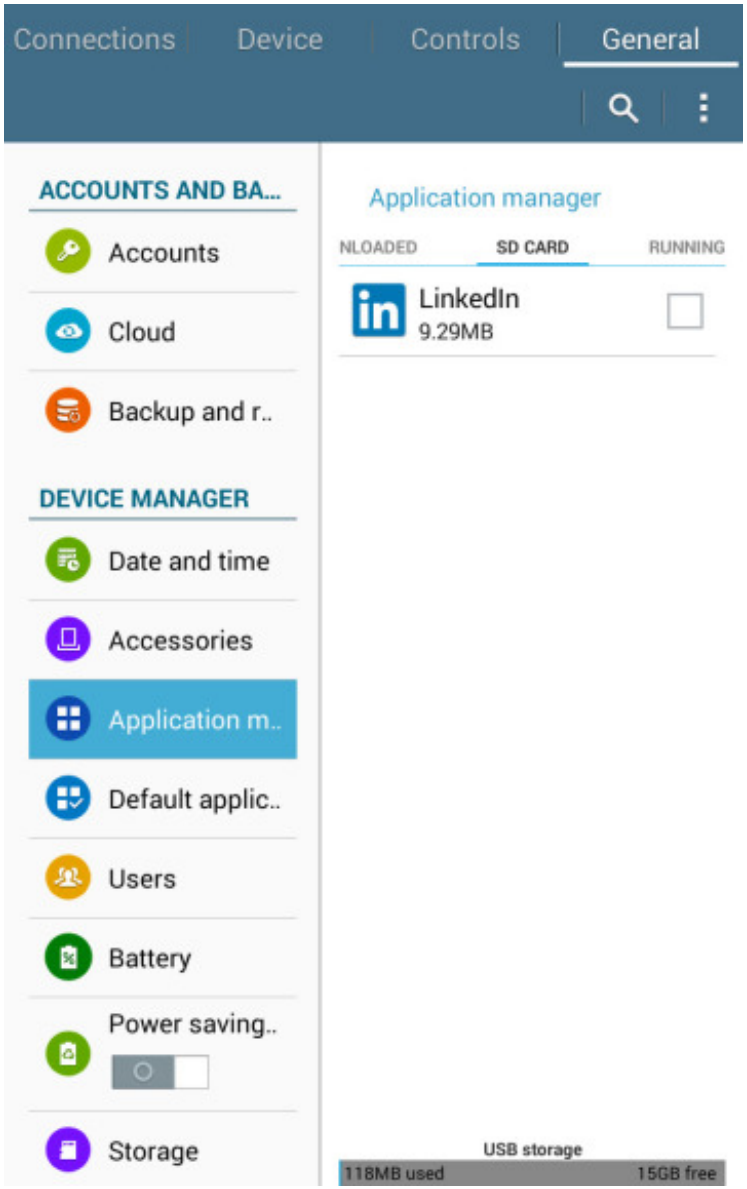

Figure 3. The amount of memory that the LinkedIn app is using appears underneath the app name.

Running

This sub-page shows all the app processes and services that are running currently as shown in Figure 4. You can view all the running app processes and services by swiping up and down in the list.

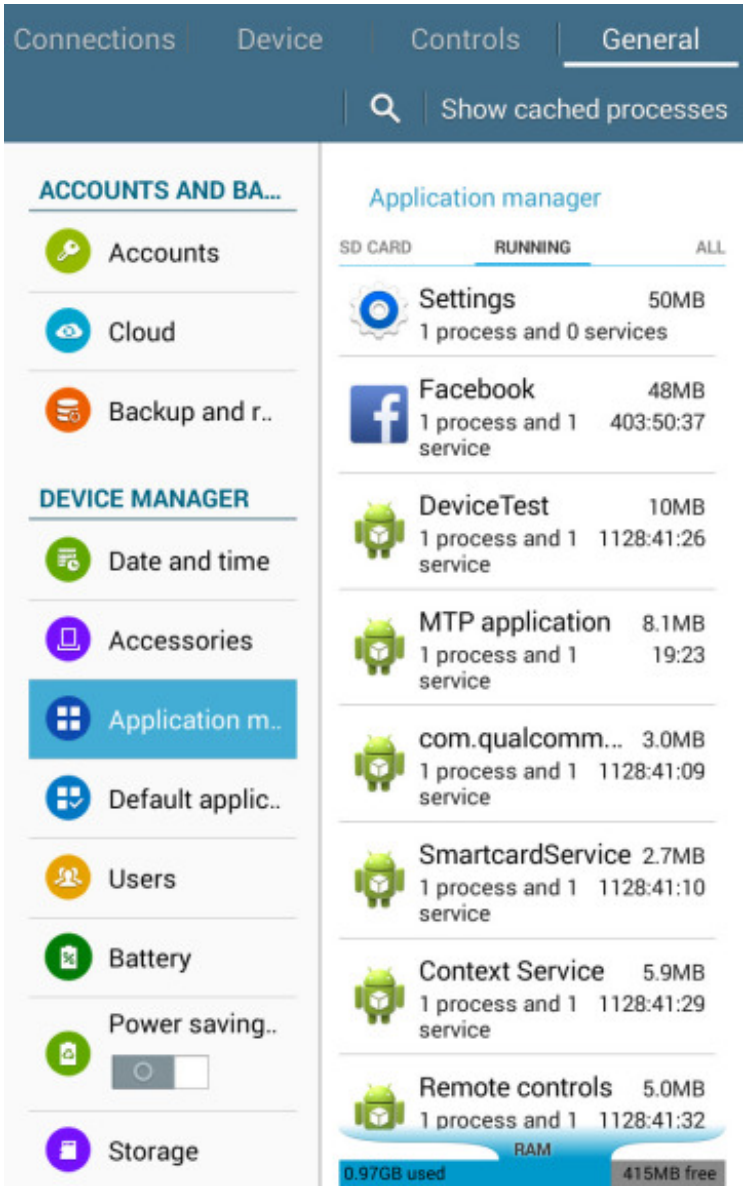

Figure 4. At the bottom of the screen you can see how much memory the processes and services use and how much memory is free.

By default the page lists all apps with services that are in use. If you want to show all processes that run in the background within the cache, tap Show Cached Processes within the blue menu bar at the top of the screen. You can view a list of all services in use again by tapping Show Services in Use in

the menu bar.

Each app entry contains the following information so you can see what's happening at a glance:

- The name of the app.
- The number of processes and services running within the app.
- To the right of the app name, you see the amount of memory the process and services are using.
- If at least one app service is running, you'll see the amount of time the service is running underneath the amount of memory the process and services are using.

You can view more information about the app processes and/or services by tapping the app name in the list. The Active App page appears as shown in Figure 5.

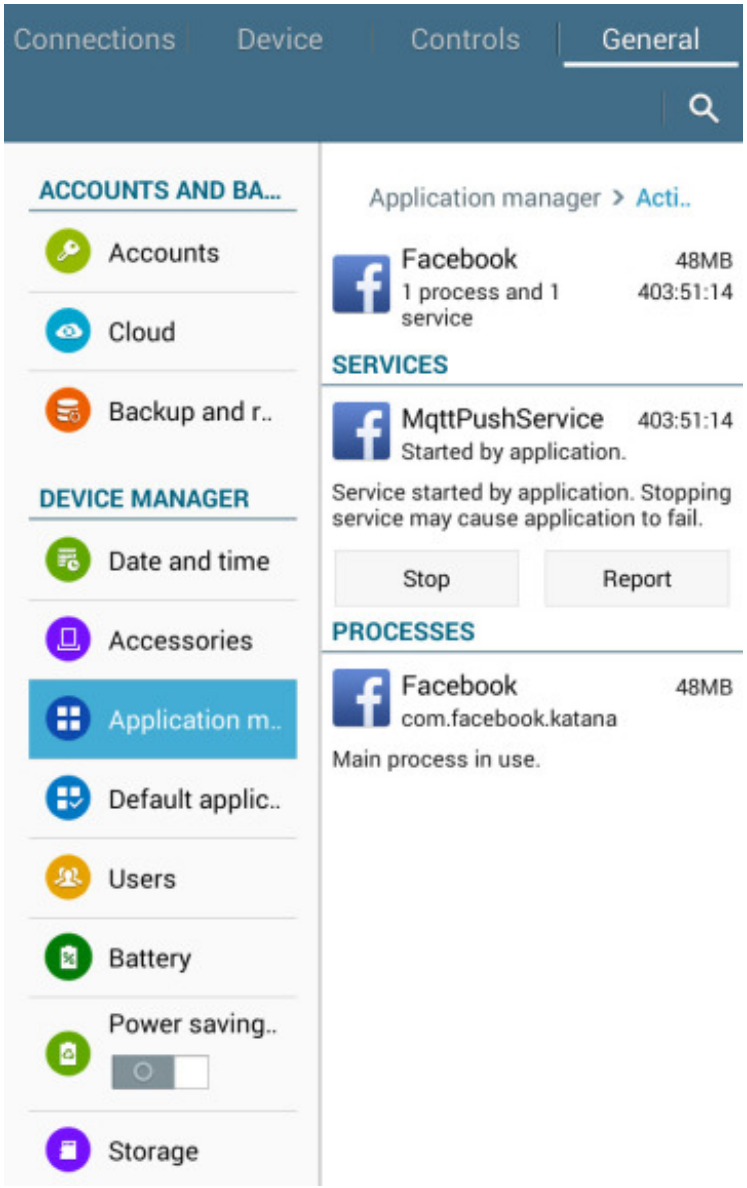

Figure 5. The Active App page for the Facebook app.

The page is divided into as many as three sections:

- The top of the screen shows you the summary of information contained with the app entry list.
- If there are any services associated with the app then you see each service in the Services section. You can stop the service by tapping the Stop button; doing so may cause the app

to stop working. Some services allow you to report what you were doing when the app failed along with your Tab 4 system data so the app developer can research the problem; you can open the feedback form and send feedback by tapping the Report button.
- The Processes section shows you the name of all processes in use and how much memory each process is using.

You can return to the Application Manager page by tapping the Back touch button.

All

This sub-page shows all running apps and processes both on the Tab 4 and on the SD card. Underneath each app name you see the amount of space the app is taking up on the Tab 4 as shown in Figure 6.

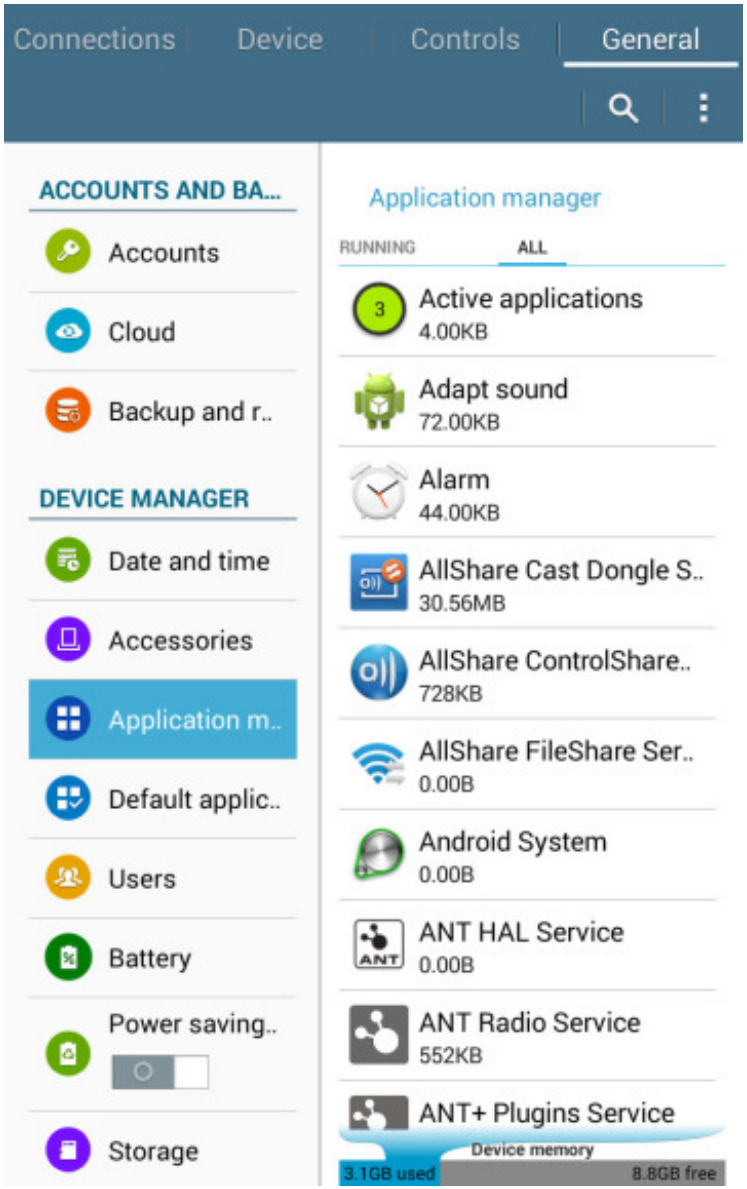

Figure 6. The Device memory bar at the bottom of the page shows how much memory all apps have used and how much free memory remains.

View all the apps in the list by swiping up and down in the list. When you want to get more information about an app, tap on the app name in the list. The App Info screen appears and displays the information that you saw in Figure 2. Return to the Application Manager page by tapping the Back touch button.

That’s all there is to reviewing and managing apps and memory on your Tab 4. Now that you’ve taken a tour of the Application Manager, you can use it to resolve speed and performance issues whenever you encounter them.