

## strongSwan - Bug #3583

### Android App - No clear error when failing to import VPN profile with invalid UUID

29.09.2020 13:10 - Jason Congdon

<b>Status:</b>	Closed	<b>Start date:</b>	
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Tobias Brunner	<b>Estimated time:</b>	0.00 hour
<b>Category:</b>	android	<b>Resolution:</b>	Fixed
<b>Target version:</b>	5.9.1		
<b>Affected version:</b>	5.9.0		

#### Description

Android OS: 9  
Strongswan APK: 2.3.0

`testProfile.sswan` created according to <https://wiki.strongswan.org/projects/strongswan/wiki/AndroidVPNClientProfiles>

When trying to import a VPN profile when in the app the error message `Failed to import VPN profile` is displayed.  
When selecting the same file via a file browser, the app briefly opens, the error message `Failed to import VPN profile: File not found` is displayed and the app closes.

I can create the profile in the app by manually entering the server address and selecting a pre-installed User certificate and leaving the the CA certificate option set to `Select automatically`.  
But entering the same server details and `base64` of the User certificate for the `local.p12` into a profile file has not proven fruitful.  
My `testProfile.sswan` contains the following:

```
{
  "uuid": "54b1e56c62544cc2937b8e20fb2d3e96",
  "name": "TestProfileCertificate",
  "type": "ikev2-cert",
  "remote": {
    "addr": "azuregateway..."
  },
  "local": {
    "p12": "MIIN..."
  }
}
```

#### Associated revisions

##### Revision ec317c29 - 29.10.2020 10:57 - Tobias Brunner

android: Throw an exception if UUID can't get parsed

The parser is quite picky and e.g. doesn't accept UUIDs without dashes.  
Even without a specific error, this at least points the users into the right direction.

Fixes #3583.

#### History

##### #1 - 29.09.2020 13:45 - Tobias Brunner

- Status changed from New to Feedback

When trying to import a VPN profile when in the app the error message `Failed to import VPN profile` is displayed.  
When selecting the same file via a file browser, the app briefly opens, the error message `Failed to import VPN profile: File not found` is displayed and the app closes.

This exception occurs when the app tries to open the file/content URL provided by the system. Maybe some limitation on your system (e.g. some security settings).

**#2 - 29.09.2020 14:12 - Jason Congdon**

I just checked permissions for the app. There was a listing for Storage, which was not enabled. At no time was I prompted for Storage access. I enabled the permission and am getting the same errors messages.

**#3 - 29.09.2020 14:27 - Tobias Brunner**

There was a listing for Storage, which was not enabled. At no time was I prompted for Storage access.

Neither should it be required (at least in terms of Android's own permissions). That's the whole point of using the SAF, which is particularly the case when opening a file from the app as that uses the file browser provided by that framework.

I enabled the permission and am getting the same errors messages.

Perhaps the app that actually stores the file needs to explicitly allow access to it. No idea.

**#4 - 29.09.2020 16:28 - Jason Congdon**

There is no app storing the file... it is located in "SDCard" space

**#5 - 30.09.2020 11:43 - Tobias Brunner**

There is no app storing the file... it is located in "SDCard" space

Hm, the app has the `android.permission.READ_EXTERNAL_STORAGE` permission in its manifest, which might be required for this (it was on in some scenarios on old Android systems). I think on newer Android systems this permission has to be requested explicitly from the user at runtime, but I've never implemented that because it seemed unnecessary on those systems (at least I wasn't able to produce a situation where it was). It might still be required on your device.

**#6 - 30.09.2020 15:06 - Jason Congdon**

Ok. Well, I've enabled it. And it still is not working.

**#7 - 30.09.2020 15:52 - Tobias Brunner**

Ok. Well, I've enabled it. And it still is not working.

Sorry, no idea.

**#8 - 01.10.2020 19:12 - Jason Congdon**

I assume this is something that Andreas or Martin would know more about?

**#9 - 02.10.2020 09:50 - Tobias Brunner**

I assume this is something that Andreas or Martin would know more about?

Why would you think that?

**#10 - 02.10.2020 16:34 - Jason Congdon**

Tobias Brunner wrote:

Sorry, no idea.

'Cause that statement felt like a `\_(||)_/` - a little dismissive  
I was thinking maybe you weren't the one that worked on the Android side of the application.  
So I figured I'd get the source and see if I can figure out why it's failing for me.  
Do so, I see your name in the repo as Author, so maybe you are - IDK.  
I didn't mean anything by it, just trying to figure out how to get my issue resolved is all. :)

#### #11 - 02.10.2020 17:22 - Tobias Brunner

'Cause that statement felt like a "\\_()\\_/" - a little dismissive

Which is how I felt :)

I didn't mean anything by it, just trying to figure out how to get my issue resolved is all. :)

No problem, just wondered. When a profile is imported from the app, it basically does what the [best practices recommend](#) regarding opening non-media files (see <source:src/frontends/android/app/src/main/java/org/strongswan/android/ui/VpnProfileImportActivity.java#L215>). Not sure if `intent.addCategory(Intent.CATEGORY_OPENABLE)`; is just a filter or actually causes content providers to behave differently. Maybe you simply wouldn't see some of the files/folders that can't be opened. (We don't use `openFileDescriptor()` but `openInputStream()`, which is not explicitly mentioned in the docs for [CATEGORY\\_OPENABLE](#) but I guess opening an FD is implied for an input stream.) I could release a test version of the app with that attribute set next week if you want to try it out (send me the email address of your Play account and afterwards you can opt-in to the test track via the link on [AndroidVPNClient](#) to install it).

#### #12 - 02.10.2020 17:56 - Jason Congdon

So, it took some work, but I was able to get the source into Android Studio and compile it.

Using Logcat I was able to see that it did not like the UUID. The UUID generated I have strips out the `` for some reason (I can't remember why it was set up that way)

I then updated the UUID with the dashes and it imports correctly.

It was user error. Though, it would have been an added bonus if that error was handled and displayed to the user. :)

#### #13 - 02.10.2020 19:06 - Tobias Brunner

I then updated the UUID with the dashes and it imports correctly.

It was user error. Though, it would have been an added bonus if that error was handled and displayed to the user. :)

Interesting. You should not have received a "File not found" error if that was the case (I guess that could have been something else when you were opening the file from an external app and not via file picker from within our app). Some syntax errors in profile files (e.g. invalid proposals or traffic selectors) are explicitly handled, the import dialog then shows which field was incorrectly formatted. But as you saw, for invalid UUIDs that's currently not the case and you'll just get a generic error. I'll add one for the next release of the app.

It's a bit unfortunate that Java's UUID class can't parse these without dashes, but at least it's documented. [The API doc](#) explicitly says it parses the format [toString\(\)](#) produces, which is the one defined in RFC 4122 (also mentioned on [AndroidVPNClientProfiles](#)) and that includes dashes. Additionally, we could maybe also add some dashes if they are missing or parse a dashless UUID directly as two unsigned integers and use the [UUID constructor](#).

#### #14 - 29.10.2020 12:36 - Tobias Brunner

- *Tracker changed from Issue to Bug*

- *Subject changed from Android App - Failed to import VPN profile to Android App - No clear error when failing to import VPN profile with invalid UUID*

- *Status changed from Feedback to Closed*

- *Assignee set to Tobias Brunner*

- *Target version set to 5.9.1*

- *Resolution set to Fixed*