

Access control and permissions in Android

Stefan Wysocki

Senior Software Engineer
Tieto
stefan.wysocki@tieto.com

tieto

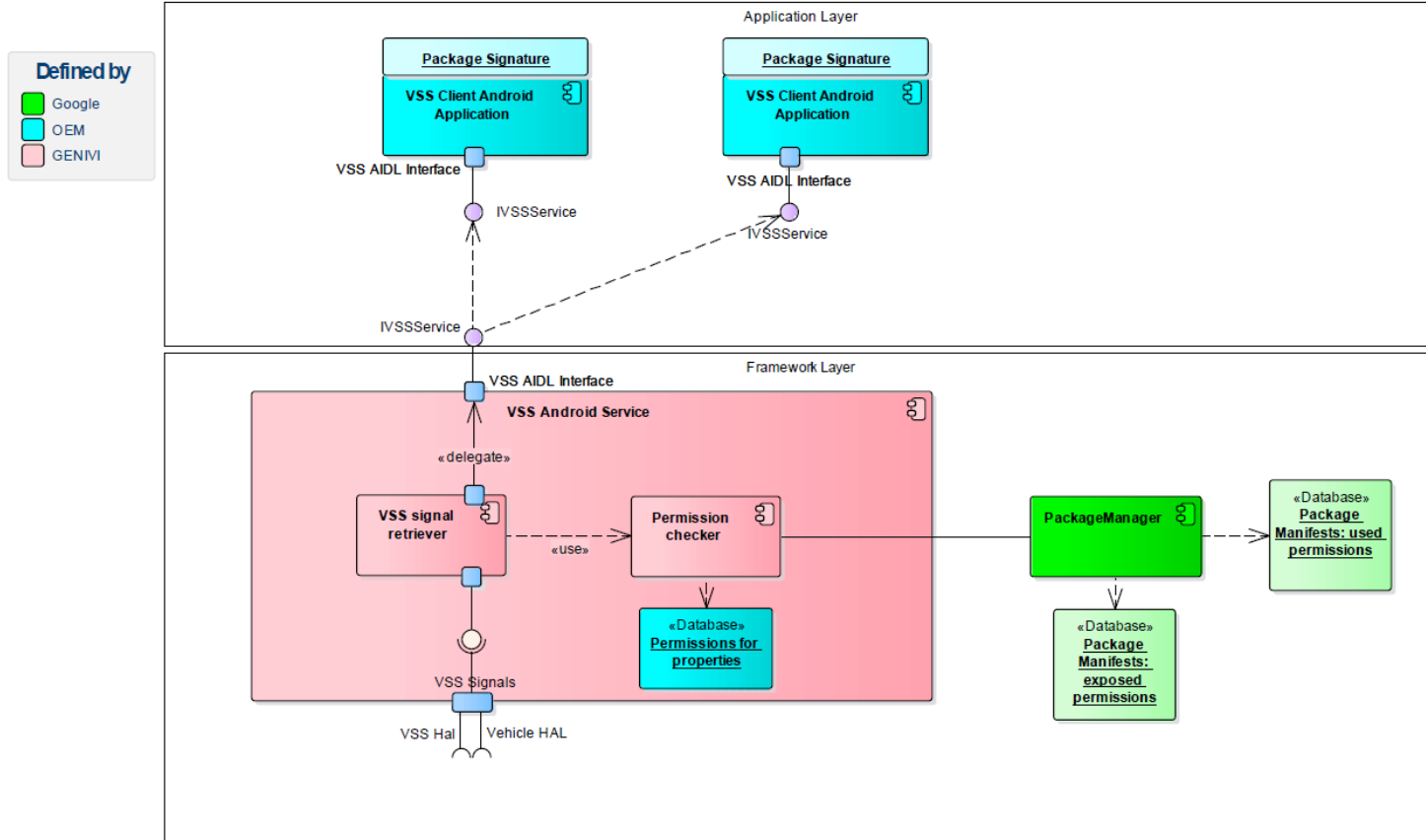
Build connection VSS to Android permissions model

Android permissions

- Android has a groups of permissions for defined Vehicle Properties:
<https://android.googlesource.com/platform/packages/services/Car/+refs/heads/master/service/AndroidManifest.xml>
- For custom permissions - only one available:
android.car.permission.CAR_VENDOR_EXTENSION

Android permissions

- What if "CAR_VENDOR_EXTENSION" permission is not enough?
 - Create custom based on vspec?
 - "Category" concept?
 - Other metadata?
- Generate a map object with „checkPermissionsForProperty” method called in implementation

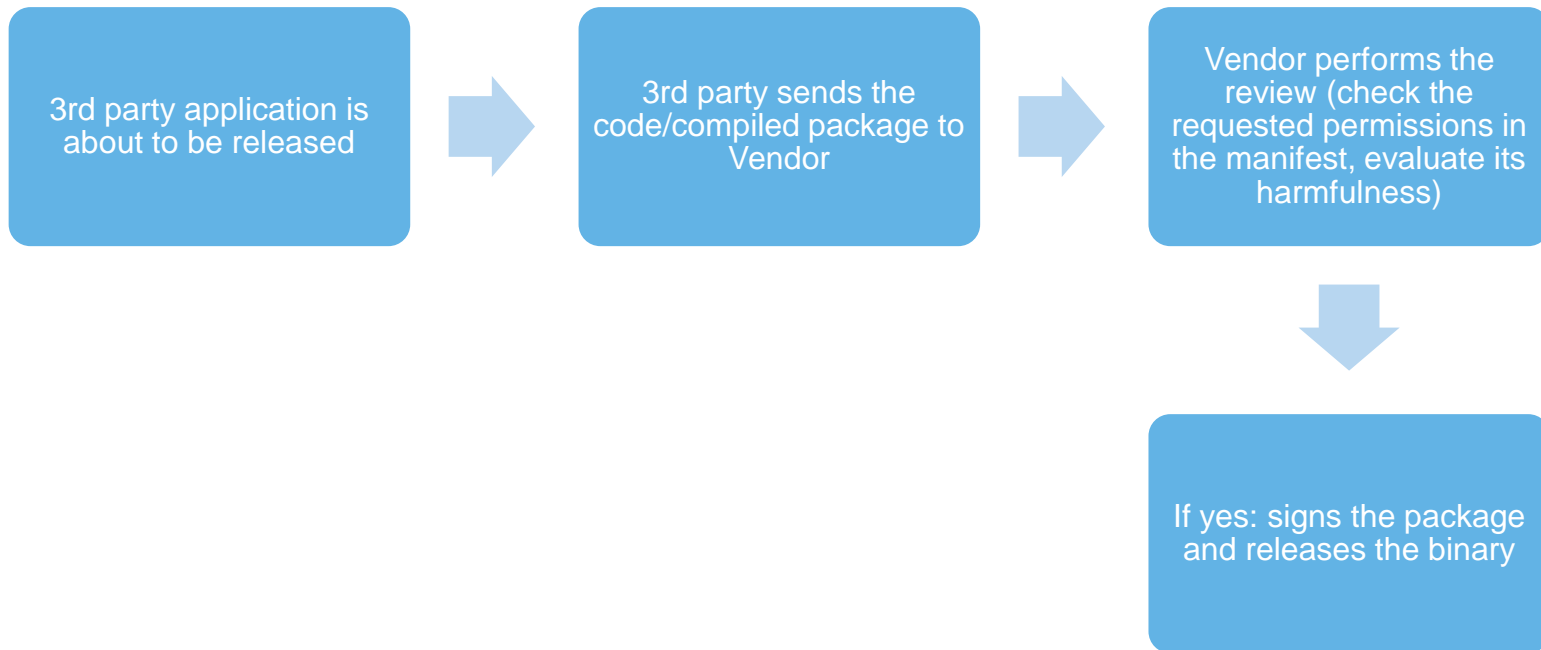


How to verify permissions

Permissions verification

- Permissions granted after installation and if signed with correct key;
- Signing Key is kept as a secret by Vendor;
- Signature is bound to specific compiled version:
 - Every release needs to be signed again
- Signature ensures integrity of the package
- Vendor to statically check the harmfulness of application

Permissions verification



tieto

Stefan Wysocki

Senior Software Engineer
Tieto
stefan.wysocki@tieto.com