

1) Inter process communication (IPC) is a mechanism which allows processes to communicate with each other and synchronize their action. Communication can be done by message passing and shared memory.

2)

AIDL: It allows you to define the programming interface that both the client and service agree upon in order to communicate with each other using interprocess communication (IPC). First you need to create an .aidl file and then implement the methods inherited from the aidl files.

Messenger: Both the main and worker thread needs to implement a Handler to handle message receiving and sending.

Binder: Base class for a remotable object, the core part of a lightweight remote procedure call mechanism defined by IBinder. This class is an implementation of IBinder that provides standard local implementation of such an object.

Most developers will not implement this class directly, instead using the aidl tool to describe the desired interface, having it generate the appropriate Binder subclass.

3) When an app goes into the background, it has a window of several minutes in which it is still allowed to create and use services. At the end of that window, the app is considered to be idle. At this time, the system stops the app's background services, just as if the app had called the services' Service.stopSelf() methods.

In many cases, your app can replace background services with JobScheduler jobs. For example, CoolPhotoApp needs to check whether the user has received shared photos from friends, even if the app isn't running in the foreground. Previously, the app used a background service which checked with the app's cloud storage. To migrate to Android 8.0 (API level 26), the developer replaces the background service with a scheduled job, which is launched periodically, queries the server, then quits.

4) The Android system excludes all receiver from receiving intents by default if the corresponding application has never been started by the user or if the user explicitly stopped the application via the Android menu.

5) The client computer sends a request to access a file or service that is located on the server. The server computer receives the request and grants access to the requested file or service.