



Introducing Intents

Intents are used as a message-passing mechanism that lets you declare your intention that an action be performed, usually with (or on) a particular piece of data.

You can use Intents to support interaction between any of the application components available on an Android device, no matter which application they're part of. This turns a collection of independent components into a single, interconnected system.

One of the most common uses for Intents is to start new Activities, either *explicitly* (by specifying the class to load) or *implicitly* (by requesting an action be performed on a piece of data).

Intents can also be used to broadcast messages across the system. Any application can register a Broadcast Receiver to listen for, and react to, these broadcast Intents. This lets you create event-driven applications based on internal, system, or third-party application events.

Android uses broadcast Intents to announce system events, like changes in Internet connection status or battery charge levels. The native Android applications, such as the phone dialer and SMS manager, simply register components that listen for specific broadcast Intents — such as “incoming phone call” or “SMS message received” — and react accordingly.

Using Intents to propagate actions — even within the same application — is a fundamental Android design principle. It encourages the decoupling of components, to allow the seamless replacement of application elements. It also provides the basis of a simple model for extending functionality.