

# Geolocalización

android.location

# Permisos

- ▶ `<uses-permission  
android:name="android.permission.  
ACCESS_FINE_LOCATION" />`
- ▶ `<uses-permission  
android:name="android.permission.  
ACCESS_COARSE_LOCATION" />`

# Gestor de localizaciones

```
LocationManager locationManager =  
    (LocationManager) this.getSystemService(  
        Context.LOCATION_SERVICE);
```

# Proveedores de señales

- ▶ LocationManager.*NETWORK\_PROVIDER*
- ▶ LocationManager.*GPS\_PROVIDER*

# Disponibilidad

- ▶ `locationManager.isProviderEnabled(LocationManager.GPS_PROVIDER)`
- ▶ `locationManager.isProviderEnabled(LocationManager.NETWORK_PROVIDER)`

# Activar GPS

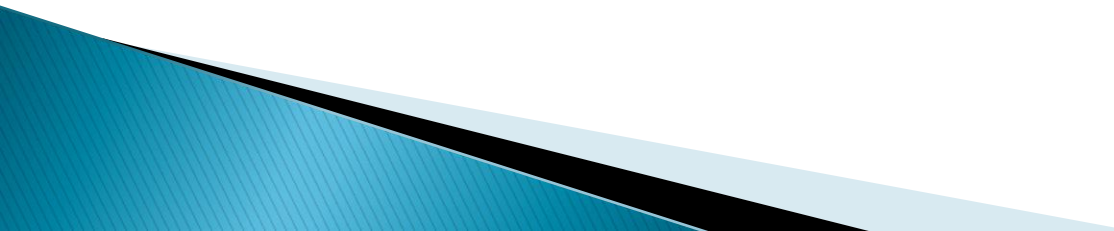
- ▶ startActivity(new Intent(Settings.ACTION\_LOCATION\_SOURCE\_SETTINGS));

# Última localización conocida

- ▶ `Location ultimaRed = locationManager.  
getLastKnownLocation(  
LocationManager.NETWORK_PROVIDER);`
- ▶ `Location ultimaGPS = locationManager.  
getLastKnownLocation(  
LocationManager.GPS_PROVIDER);`

# LocationListener

```
LocationListener locationManager = new LocationListener() {  
    @Override  
    public void onLocationChanged(Location location) {  
    }  
    @Override  
    public void onStatusChanged(String provider, int status, Bundle  
    extras) {  
    }  
    @Override  
    public void onProviderEnabled(String provider) {  
    }  
    @Override  
    public void onProviderDisabled(String provider) {  
    }  
};
```





# Obtener localizaciones

- ▶ `locationManager.requestLocationUpdates(LocationManager.GPS_PROVIDER, tiempo, distancia, locationManager);`
- ▶ `locationManager.requestLocationUpdates(LocationManager.NETWORK_PROVIDER, tiempo, distancia, locationManager);`
- ▶ `locationManager.removeUpdates(locationListener);`

# Procesar localizaciones

@Override

```
public void onLocationChanged(Location  
    location) {  
    location.getAccuracy();  
    location.getAltitude();  
    location.getLatitude();  
    location.getLongitude();  
    location.getProvider();  
}
```

