Stream publishing from Android application in background mode

Overview

To prevent Android application unloading from device memory and stream publishing stopping when application goes to background, it is necessary to establish connection to WCS server and to publish a strem from service that should be launched from applications Activity. To prevent service unloading in its turn, a notification must be created to be in notification bar while service is working. Let's explore example of modification of Android Two WayStreaming application source code.

Application source code modification example

 Service creation on Publish button pressing when camera and microphone permissions are granted

```
@Override
public void onRequestPermissionsResult(int requestCode,
                                     @NonNull String permissions[],
@NonNull int[] grantResults) {
  switch (requestCode) {
      case PUBLISH_REQUEST_CODE: {
          if (grantResults.length == 0 ||
                  grantResults[0] != PackageManager.PERMISSION_GRANTED ||
                  grantResults[1] != PackageManager.PERMISSION_GRANTED) {
              Log.i(TAG, "Permission has been denied by user");
              mPublishButton.setEnabled(false);
              Intent intent = new Intent(StreamingMinActivity.this,
TestService.class);
              intent.putExtra("url", mWcsUrlView.getText().toString());
              intent.putExtra("streamName",
mPublishStreamView.getText().toString());
              startService(intent);
              Log.i(TAG, "Permission has been granted by user");
```

2. Session creation and stream publishing when service is started

```
@Override
public int onStartCommand(Intent intent, int flags, int startId) {
    SessionOptions sessionOptions = new
SessionOptions(intent.getStringExtra("url"));
    Session session = Flashphoner.createSession(sessionOptions);
    session.connect(new Connection());
    StreamOptions streamOptions = new
StreamOptions(intent.getStringExtra("streamName"));
    Stream publishStream = session.createStream(streamOptions);
    publishStream.publish();
    Toast.makeText(this, "Start service", Toast.LENGTH_SHORT).show();
    return START_STICKY;
}
```

3. Notification creation

4. Service stopping on ëUnpublishë button pressing

5. Stream publishing stopping while service stops

Full source code of modified file StreamingMinActivity.java



Full source code of modified application manifest



Known issues

- 1. It is not possible to display local video while stream is published from service.
- 2. In this implementation, if the application is closed from running applications list, service will also be stopped.