ALCATEL-LUCENT RAINBOW™

8088 desk phone and Rainbow application

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1   Introduction

Rainbow Android application runs on a wide range of Android devices (smartphones). But the application also runs on the ALE 8088 Android desk phone. In this context, the Rainbow application has some specificities.

2   History

Modifications	Date	Edition
Creation of document	2019-03-12	Ed 01

3   Overview

On standard Android smartphones, the Rainbow application is deployed thru the Google Play store as any other Android application. The Rainbow application is available on the Play store at this URL: https://play.google.com/store/apps/details?id=com.ale.rainbow

On the 8088, the Google Play Store is not available. The Rainbow application installation / update is specific.

4   Application installation

The Rainbow application is not part of the 8088 platform. The application should be installed separately. Three methods are available on the 8088 desk phone. This binary may be installed using a dedicated USB key, the private store "view" or a JSON optional configuration file.

The first method is using an USB key. Rainbow application package has to be downloaded from the Rainbow server and copied on the key. The Rainbow binary is available at this URL: https://openrainbow.com/downloads/rainbow.apk.

The second method is using the private store view. It is HTML web page displayed on the 8088 that show a list of applications. This page is hosted on a server running in the PBX network infrastructure and is under the responsibility of the customer. When the user clicks on an application icon, the application is opened. If the application is not yet installed, the application is downloaded and installed. The URL used to download the application package is defined in the HTML web page.

The last method is the JSON configuration file. It gives a list of packages to be silently installed on the phone. This file is hosted on a web server running in the PBX network infrastructure. As for the private store view, this server is under the responsibility of the customer. The phone downloads this file at each boot and is read once per day. This file contains a list of applications to install with an URL to download the packages and the associated version. 8088 will detect if application is already installed and will only start installation if application is not yet available on the phone.

In a Rainbow context, the JSON configuration file and the private store view can be used but it is recommended to use the official Rainbow server as download and update URLs to be consistent with the default Rainbow mechanism.

The JSON configuration file is a way to deploy a Rainbow app version in early stage if needed. In this case a dedicated URL pointing to a specific Rainbow package can be used.

5   Application update

As on the 8088, the play store is not available, others update mechanisms are used. There are several ways to update applications.

The first one is using the 8088's private store view. When the user clicks on an application icon to open it, if a new version is defined in HTML webpage, it will be updated.

Thru the JSON configuration file, package version can be updated. Each time the private store service retrieves this configuration file, the device will verify if version defined in configuration file is higher than the one on the phone. If it is the case, the new version is downloaded and installed. As the file is downloaded once a day, an automatic update using the JSON configuration file service is possible.

Finally, the Rainbow application also comes with an auto update mechanism. It contacts directly the Rainbow backends. The application checks every 3 hours if a new version is available or not. If a new version can be installed, the Rainbow Android application starts the upgrade process.

The Rainbow update mechanism is always activated and will override any other version management process.

The package download is done by the platform using the native DownloadManager. If a VPN is configured on the device, the update is done thru the VPN until the DownloadManger application is also using the VPN.

There is no dependency between the Rainbow application update and the global device firmware update.

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