OTA_from_Android9.0_to_Android10.0_Introduction

（第二系统产品部）

(Technical Department, R & D Dept. II）

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版 本 历 史 **Revision History**

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V1.0	纪大峣	2019/11/18	初始版本 Initial version release	

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1 概述 Overview

本文档描述了如何从 Rockchip Android 9.0 非 A/B 系统通过 OTA 的方式升级到 Android 10.0 非 A/B 系统。

This document describes how to upgrade from Rockchip Android9.0 non-A/B system to Android10.0 non-A/B system through OTA.

在 Rockchip Android 10.0 平台上,通过对应 lunch 项来实现对应 9.0 系统升级到 10.0 系统。如 rk3326 10.0 平台上 lunch 项 rk3326_pie 就实现了 Android 9.0 的 rk3326_pie 通过 OTA 升级到 rk3326 10.0 系统。

On Rockchip Android10.0 platform, the corresponding lunch option can implement upgrading from the system Android9.0 to Android10.0. For example, on rk3326 10.0 platform, lunch option rk3326_pie can implement rk3326 upgrading from Android9.0 to 10.0 system through OTA.

通过 OTA 方式实现的 Android 9.0 到 Android 10.0 系统,不具备 Android 10.0 的动态分区功能。

The upgrade from Android9.0 to Android10.0 system implemented through OTA doesn't support Android10.0 dynamic partition function.

2 Android 9.0 所需补丁说明 Patch required for Android9.0

在 Andriod 9.0 上需增加如下补丁,并确保升级 10.0 之前,设备中的 9.0 固件所包含该补丁。

The following patch needs to be added on Android9.0. Please confirm Android9.0 image in the device includes this patch before upgrading to Android10.0.

1.device/rockchip/rk3326 中的 recovery fstab 增加 dtbo 节点。

Add dtbo node in the recovery fstab of device/rockchip/rk3326.

diff --git a/rk3326_pie/recovery.fstab b/rk3326_pie/recovery.fstab

index 51fc8b5..e6b96cc 100755

--- a/rk3326_pie/recovery.fstab

+++ b/rk3326_pie/recovery.fstab

@@ -23,3 +23,4 @@

  /dev/block/by-name/trust   /trust   emmc
defaults   defaults

  /dev/block/by-name/baseparamer   /baseparamer   emmc
defaults   defaults

  /dev/block/by-name/vbmeta   /vbmeta   emmc
defaults   defaults

  +/dev/block/by-name/dtbo   /dtbo   emmc
defaults   defaults

2.关闭 libvintf 升级包兼容性检查

Disable the compatibility check for libvintf upgrading package

system/libvintf：

```
diff --git a/VintfObject.cpp b/VintfObject.cpp
index 604f7cb..afea999 100644
--- a/VintfObject.cpp
+++ b/VintfObject.cpp
@@ -528,7 +528,7 @@ int32_t checkCompatibility(const std::vector<std::string>& xmls, bool mount,
        }
        return INCOMPATIBLE;
   }
-
+#if 0
   if ((disabledChecks & DISABLE_RUNTIME_INFO) == 0) {
        if (!updated.runtimeInfo->checkCompatibility(*updated.fwk.matrix, error, disabledChecks)) {
            if (error) {
@@ -538,6 +538,7 @@ int32_t checkCompatibility(const std::vector<std::string>& xmls, bool mount,
            return INCOMPATIBLE;
        }
   }
+#endif

  return COMPATIBLE;
}
```

3.recovery 中关闭 compability 兼容性检查。

Disable the compatibility check in recovery.

bootable/recovery：

```
diff --git a/install.cpp b/install.cpp
index 9e43ce3..28ea1d6 100644
--- a/install.cpp
+++ b/install.cpp
@@ -508,7 +508,7 @@ bool verify_package_compatibility(ZipArchiveHandle package_zip) {
   ZipEntry compatibility_entry;
   std::string real_product = android::base::GetProperty("ro.target.product", "unkonw");
   if (FindEntry(package_zip, compatibility_entry_name, &compatibility_entry) != 0
-        || real_product.compare("box")==0 ) {
+        || real_product.compare("box")==0 || true) {
       LOG(INFO) << "Package doesn't contain " << COMPATIBILITY_ZIP_ENTRY << " entry";
       return true;
```

}

3 使用说明 Usage

在 Rockchip Android 10.0 平台上，按如下方式操作产生对应的 OTA 升级包，然后将该升级包放置在 Rockchip Android 9.0 设备上，进行正常的 OTA 升级即可。

On Rockchip Android10.0 platform, generate the corresponding OTA upgrading package according to the following steps, and then put the package on Rockchip Android9.0 device to do the normal OTA upgrade.

1. 选择 9.0 系统升级到 10.0 系统的对应 lunch 项，如 rk3326_pie

Select the corresponding lunch option for upgrading from 9.0 to 10.0, such as rk3326_pie

2. 正常编译系统（编译 uboot、kernel 并且 lunch 后执行如下命令编译）：

Compile the system normally (compile uboot, kernel and execute the following command after lunch to compile):

make clean && make –j32 && make otapackage -j32 && ./mkimage.sh ota

3. 取出第 2 步编译出来的升级包，命名为 update.zip

Fetch out the upgrading package compiled by step 2, and name it update.zip.

4. 将对应的 update.zip 放置在 Android 9.0 设备上升级即可。

Put the corresponding update.zip on Android9.0 device to do upgrading.