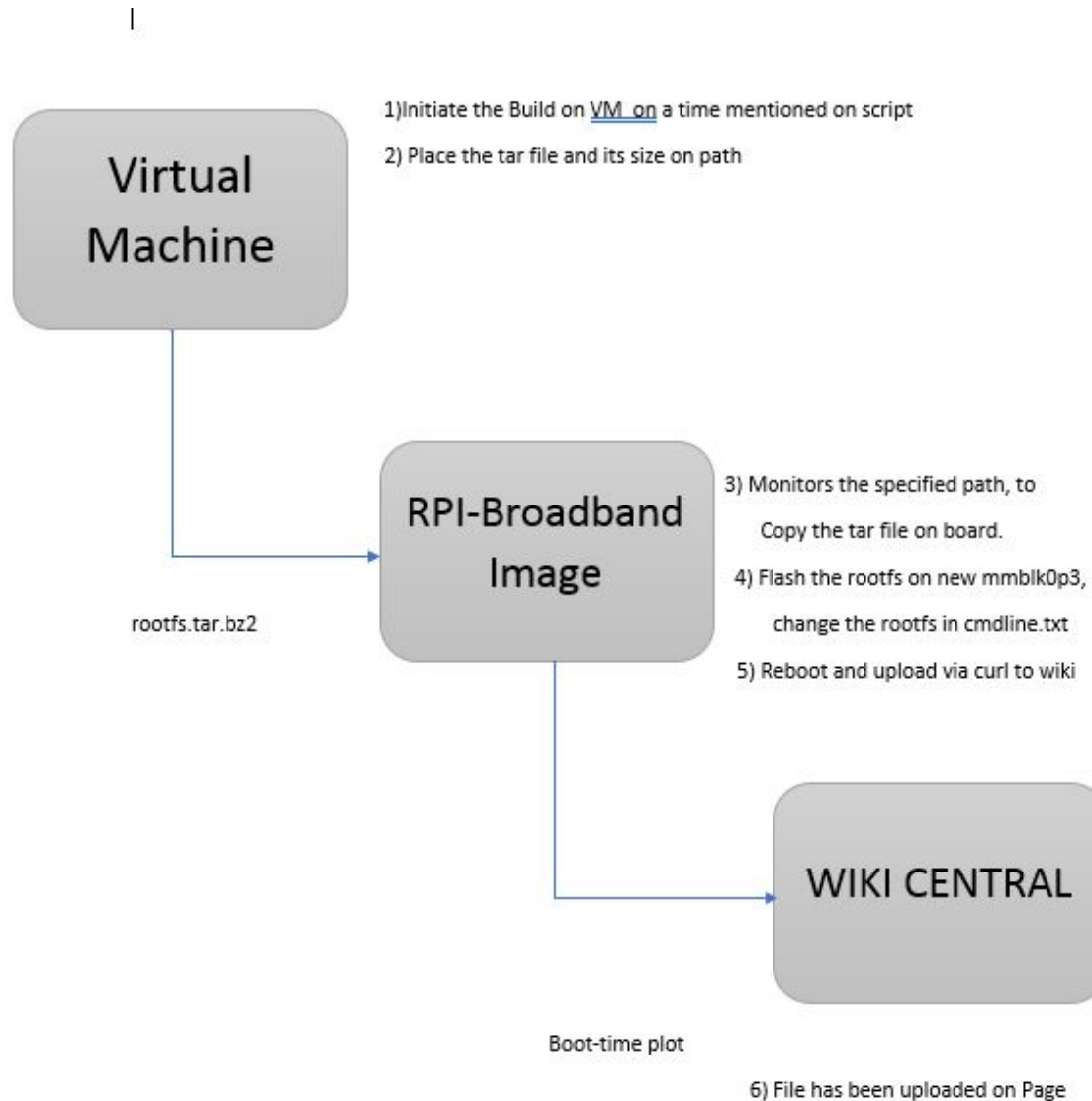


RDK-B Boot time data automation - Design

INTRODUCTION

Uploading Boot time information of raspberry-pi broadband image on wiki.rdkcentral.com on a weekly basis. The boot time information includes data-plot as PNG file and total-time , top-consumers list as TEXT file, Uploaded under a date page on wiki. VM initiates the build and copied rootfs tar file to image running on the board. After successful completion of scp the new image is booted and the information uploaded to wiki page.

WORK FLOW



The Build is initiated on Virtual Machine at Mentioned time, and copy the rootfs tar file into the specified location, and waits for time to initiate next build.

Already there is broadband image running on the board and waits for the root tar file to be placed on the path. Once the file is placed on VM path, It copy the tar file on board via scp openssh key.

To scp the file from VM the openssh key is placed on rpi board and stored in kernel partition for further new rootfs flashing.

As soon as the file is copied completely, it Creates new rootfs partition named /dev/mmbk0p3, and flash the new rootfs on /dev/mmbk0p3, and changes /dev/mmbk0p3 as rootfs in cmdline.txt. Waits for next build to be triggered on VM and copies the new rootfs, flash it on /dev/mmbk0p2 and changes cmdline.txt rootfs as /dev/mmbk0p3.

cmdline.txt is a kernel partition file, which decides rootfs partition to be loaded.

Now the system is rebooted, As mentioned in cmdline.txt the new rootfs is active.

On changing of new rootfs, the boot time plot and top consumers list is uploaded to rdk.wiki.central.com, by creating month page under boot time data plot page.

Systemd-bootchart generates SVG file, which is converted as PNG using rsvg-convert utility on image. Also top-consumers list is uploaded on every flashing of new image.

The uploaded file can be found on following link.

[RDK-B Boot time data plot](#) , on the page named date of the build.