

## Creating an Emergency Boot Device for Routing Engines with VM Host Support

If Junos OS on your router is damaged during loading in a way that prevents it from loading completely, you can use the emergency boot device to revive the router. The emergency boot device repartitions the primary disk and reloads a fresh installation of Junos OS. For RE-MX-X6, RE-MX-X8, RE-PTX-X8, and RCBPTX Routing Engines, you can use a USB storage device with at least 8 GB of free space to create an emergency boot device.

To create an emergency boot device on a router with RE-MX-X6, RE-MX-X8, RE-PTX-X8 and RCBPTX Routing Engines:

1. Copy the installation media into the router's `/var/tmp` directory.

2. Insert the USB storage device into the router's USB port.

3. In the UNIX shell, navigate to the `/var/tmp` directory:

```
start shell
cd /var/tmp
```

4. Log in as `su`:

```
su [enter]
password: [enter SU password]
```

5. Gunzip the copied file.

For example, to convert `junos-vmhost-install-usb-mx-x86-64-15.1F6.8.img.gz` to `junos-vmhost-install-usb-mx-x86-64-15.1F6.8.img`, use the following command: `gunzip junos-vmhost-install-usb-mx-x86-64-15.1F6.8.img.gz`

6. Issue the following command:

```
dd if=/path/to/downloaded.img of=/dev/devicenode bs=4M
```

where:

- `devicenode`—Refers to the name of the removable media of the emergency boot device. For names of storage media, see [Routing Engines and Storage Media Names \(ACX Series, M Series, MX Series, PTX Series, T Series, TX Matrix, TX Matrix Plus, and JCS 1200 Routers\)](#).
- `downloaded.img`—Refers to the installation media copied to the `/var/tmp` directory. For example, `junos-vmhost-install-usb-ptx-x86-64-15.1F6.8.img`.

The following code example can be used to create an emergency boot device by using a USB storage device:

```
dd if=/path/to/junos-vmhost-install-usb-mx-x86-64-15.1F6.8.img of=/dev/da0 bs=4M
```



**Note:** In the `dd` command, use `junos-vmhost-install-usb-mx-86` for RE-MX-X6 and RE-MX-X8 Routing Engines and `junos-vmhost-install-ptx-86` for RE-PTX-X8 Routing Engine respectively.

7. Log out as `su`:

```
exit
```