IDENTIFICATION OF VOLATILE AND NON-VOLATILE STORAGE AND SANITIZATION OF SYSTEM COMPONENTS

JUNIPER NETWORKS RE-S-X6-64G

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1 INTRODUCTION

1.1 Purpose

The purpose of this document is to provide direction to identify and remove all non-volatile (NV) storage from the Juniper Networks Routing Engine RE-S-X6-64G Non-Volatile (NV) storage is a system memory that can store user data information and system configuration data even when system not powered. Volatile (V) storage is a system memory that only retains data or its contents while system powered but when system powered off or interrupted, its data or contents are immediately lost.

1.2 Scope

This document only addresses the Routing Engine RE-S-X6-64G. Furthermore, this document only provides direction for the identification and removal of NV storage components. It does not address destruction procedures for those components. As all of the NV storage components used in the Routing Engine RE-S-X6-64G are commercial off-the-shelf (COTS) components, directions for destruction of those components are left to the governing Department, Agency, or Office.

2 EQUIPMENT OVERVIEW

2.1 Identification of Chassis/Hardware

The RE-S-X6-64G is a new Routing Engine (RE) for MX series of chassis (MX240, MX480 and MX960).

The Routing Engine performs provides the high-performance compute horsepower, memory and storage infrastructure that enables the operating system to run; it also provides the I/O interfaces that allows the software to interact with the rest of the system and the outside world.

The RE has the following salient features:

- Intel’s Haswell-EP processor. This is a socketed part and uses a LGA2011-3 socket.
- Wellsburg PCH (Platform Controller Hub), redundant boot flash devices and TPM
- Four DDR4 DIMM modules
- Two Slim SATA SSD drives serving as primary and secondary storage devices
- Dual 10GE controller (Intel Fortville/X710)

- Dual 1GbE controller I350 to provide connectivity to mate CB
- The Boot FPGA function.

Front-panel elements include:

- The two SSDs which are front-pluggable

Console, Auxillary and Management ethernet ports.

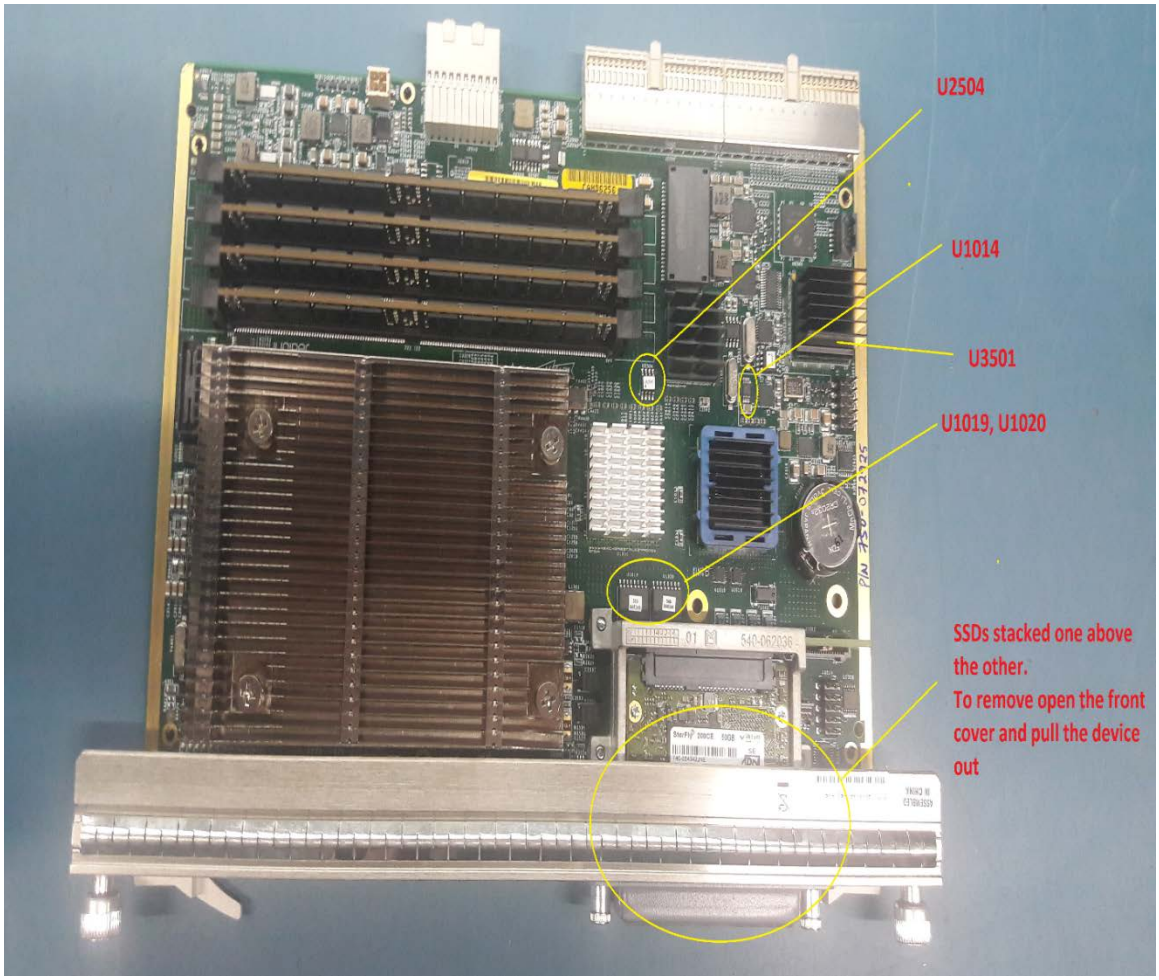


Figure 2-1: RE-S-X6-64G Routing Engine

2.2 Description of Field Replaceable Units (FRU)

The RE-S-X6-64G Routing Engine is a field replaceable unit. It is expected that the Routing Engine is properly shutdown to remove the board from the chassis

3 POWER DOWN AND REMOVAL OF NON-VOLATILE STORAGE

In order to ensure that no user data or system configurations remain resident on the RE-S-X6-64G Routing Engine, the following steps must be performed:

1. Routing Engine must be shut down. The board should be plugged out to remove power. This will to clear all volatile storage on the RE.
2. The NAND Flash modules must be removed from the board
3. The SPI Flash components must be removed from the board
4. Other programmable devices must be removed.

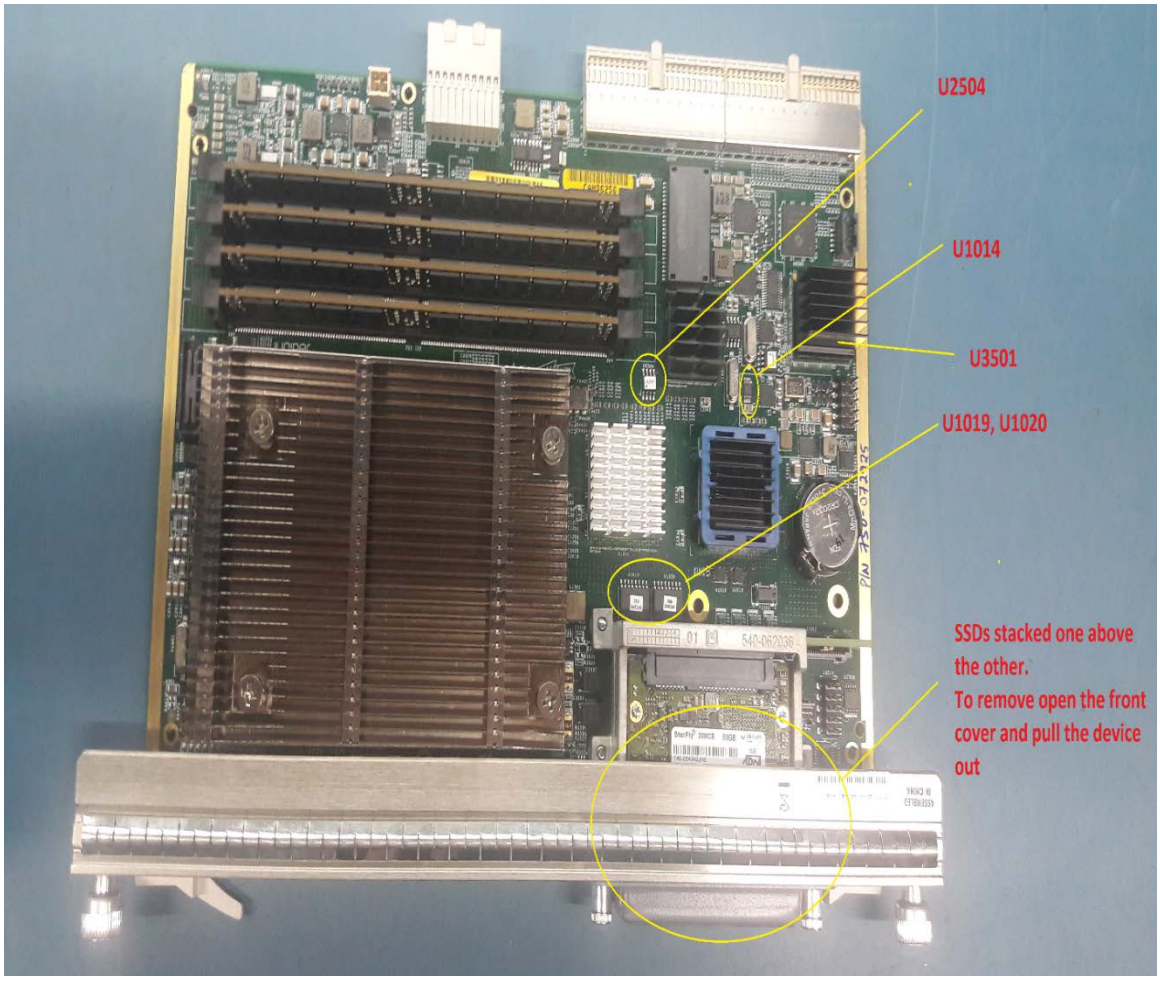
A detailed process is included in the following sections.

3.1 System Power Down

1. In the RE console, execute the command ‘request vmhost power-off’ command to shut down the RE
2. After the RE prompts a message power is down, remove the RE board. This will power down the RE completely.

3.2 Identification of NV storage elements

#	MPN	Ref Des	Functionality	Qty
1	MX25L3235EM2I-10G Macaronix SPI Flash	U1014	XL710, 10G Ethernet controller Config flash	1
2	MX25L3235EM2I-10G Macaronix SPI Flash	U1019 U1020	BIOS Flash	2
3	AT25256B-SSHL-T ATMEL SPI Flash	U2504	I350, 1G Ethernet controller Config flash	1
4	LTC3880EUJ#2MEPBF Linear technology	U2810	Power Controller	1
5	LTC3880EUJ#2MEPBF Xilinx FPGA	U3501	FPGA, UART, glue logic and power sequencer	1
6		NA	Solid State Disk	2



3.3 Removal of the NAND FLASH and SPI FLASH from the System Board

Once the NV storages has been located, remove them from the board.

NOTE : Before removal, ensure J-TAC and the appropriate account team has been notified of your intentions.