Mellanox ETH

Zjisteni part numberu a verze firmwaru u Mellanox karet. Potrebujeme mit nainstalovany balicek mstflint'' <code> # ethtool -i ens4f0np0 driver: mlx5_core version: 5.5-1.0.3 firmware-version: 14.27.1016 (MT_2420110004) expansion-rom-version: bus-info: 0000:10:00.0 supports-statistics: yes supports-test: yes supports-eeprom-access: no supports-register-dump: no supports-priv-flags: yes # lspci | grep Mella 10:00.0 Ethernet controller: Mellanox Technologies MT27710 Family [ConnectX-4 Lx] 10:00.1 Ethernet controller: Mellanox Technologies MT27710 Family [ConnectX-4 Lx] 81:00.0 Ethernet controller: Mellanox Technologies MT27710 Family [ConnectX-4 Lx] 81:00.1 Ethernet controller: Mellanox Technologies MT27710 Family [ConnectX-4 Lx] # lspci -vv -s 10:00.0 | grep "Part number" -A 3 [PN] Part number: MCX4121A-XCAT [EC] Engineering changes: AJ [SN] Serial number: MT2031J10949 [V0] Vendor specific: PCIeGen3 x8 # mstflint -d 10:00.0 q Image type: FS3 FW Version: 14.27.1016 FW Release Date: 27.2.2020 Product Version: 14.27.1016 Rom Info: type=UEFI version=14.20.19 cpu=AMD64,AARCH64 type=PXE version=3.5.901 cpu=AMD64 Description: UID GuidsNumber Base GUID: 0c42a10300eabd04 4 Base MAC: 0c42a1eabd04 4 Image VSD: N/A Device VSD: N/A PSID: MT_2420110004 Security Attributes: N/A <code> ==== Upgrade FW ==== Podle part number a PSID vybereme konkretni verzi FW na webu NVIDIA. V našem případě je to **Part number: MCX4121A-XCAT** a **PSID: MT_2420110004**. Vybereme tedy nasledujici firmware:

Po stazeni je dobre overit md5 prikazem md5sum a porovnat, jestli sedí s checksumem uvedeným na webu. 06adda309f41dae265387470cae6c880 fw-ConnectX4Lx-rel-14_32_1900-MCX4121A-XCA_Ax-UEFI-14.25.17-FlexBoot-3.6.502.bin.zip ''

A nyní můžeme po rozbalení přejít k upgradu FW:

```
# mstflint -d 10:00.0 -i fw-ConnectX4Lx-rel-14_32_1900-MCX4121A-XCA_Ax-
UEFI-14.25.17-FlexBoot-3.6.502.bin burn
```

```
    Current FW version on flash:  14.27.1016
    New FW version:               14.32.1900


FSMST_INITIALIZE -   OK
Writing Boot image component -   OK
-I- To load new FW run mstfwreset or reboot machine.

# mstflint -d 10:00.1 v

FS3 failsafe image

    /0x00800038-0x00801e8b (0x001e54)/ (BOOT2) - OK
    /0x00802000-0x0080201f (0x000020)/ (ITOC_HEADER) - OK
    /0x00804000-0x0081472b (0x01072c)/ (IRON_PREP_CODE) - OK
    /0x00815000-0x008150ff (0x000100)/ (FS3_RESET_INFO) - OK
    /0x00816000-0x00816bff (0x000c00)/ (FW_MAIN_CFG) - OK
    /0x00817000-0x008174bf (0x0004c0)/ (FW_BOOT_CFG) - OK
    /0x00818000-0x008195ff (0x001600)/ (HW_MAIN_CFG) - OK
    /0x0081a000-0x0081a13f (0x000140)/ (HW_BOOT_CFG) - OK
    /0x0081b000-0x0081dc7f (0x002c80)/ (PHY_UC_CONSTS) - OK
    /0x0081e000-0x0081e13f (0x000140)/ (IMAGE_SIGNATURE_256) - OK
    /0x0081f000-0x0081f8ff (0x000900)/ (PUBLIC_KEYS_2048) - OK
    /0x00820000-0x0082008f (0x000090)/ (FORBIDDEN_VERSIONS) - OK
    /0x00821000-0x0082123f (0x000240)/ (IMAGE_SIGNATURE_512) - OK
    /0x00822000-0x008230ff (0x001100)/ (PUBLIC_KEYS_4096) - OK
    /0x00824000-0x00873fff (0x050000)/ (FS4_PART_TYPE_PROGRAMMABLE_HW_FW) -
OK
    /0x00874000-0x00925e27 (0x0b1e28)/ (ROM_CODE) - OK
    /0x00926000-0x00935fff (0x010000)/ (CRDUMP_MASK_DATA) - OK
    /0x00936000-0x009369ff (0x000a00)/ (PHY_UC_CMD) - OK
    /0x00937000-0x0094091f (0x009920)/ (PHY_UC_CODE) - OK
    /0x00941000-0x0096c457 (0x02b458)/ (PCI_CODE) - OK
    /0x0096d000-0x00cbb8bf (0x34e8c0)/ (MAIN_CODE) - OK
    /0x00cbc000-0x00cc9cbf (0x00dcc0)/ (PCIE_LINK_CODE) - OK
    /0x00cca000-0x00ccae3f (0x000e40)/ (POST_IRON_BOOT_CODE) - OK
    /0x00ccb000-0x00ccce0f (0x001e10)/ (UPGRADE_CODE) - OK
    /0x00ccd000-0x00ccd3ff (0x000400)/ (IMAGE_INFO) - OK
    /0x00ccd400-0x00ccdb6f (0x000770)/ (DBG_FW_INI) - OK
    /0x00ccdb70-0x00ccdb77 (0x000008)/ (DBG_FW_PARAMS) - OK
    /0x00fa0000-0x00faffff (0x010000)/ (NV_DATA) - CRC IGNORED
    /0x00fb0000-0x00fbffff (0x010000)/ (NV_DATA) - CRC IGNORED
    /0x00fc0000-0x00fcffff (0x010000)/ (FW_NV_LOG) - CRC IGNORED
    /0x00fee000-0x00fee1ff (0x000200)/ (DEV_INFO) - OK
    /0x00ff8000-0x00ff813f (0x000140)/ (MFG_INFO) - OK
    /0x00ff8140-0x00ff81b7 (0x000078)/ (VPD_R0) - OK

-I- FW image verification succeeded. Image is bootable.

# mstflint -d 10:00.0 q full
Image type:          FS3
FW Version:          14.32.1900
```

```
FW Version(Running):   14.27.1016
FW Release Date:       25.8.2024
Part Number:           MCX4121A-XCA_Ax
Description:           ConnectX-4 Lx EN network interface card; 10GbE dual-
port SFP28; PCIe3.0 x8; ROHS R6
Product Version:       14.27.1016
Rom Info:              type=UEFI version=14.20.19 cpu=AMD64,AARCH64
                       type=PXE version=3.5.901 cpu=AMD64
Description:           UID                GuidsNumber
Base GUID:             0c42a10300eabd04        4
Base MAC:              0c42a1eabd04            4
Image VSD:             N/A
Device VSD:            N/A
PSID:                  MT_2420110004
Security Attributes:   N/A
Default Update Method: fw_ctrl
```

Nakonec provedeme reboot stroje.

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