### Python Scripts

1. boot.py – used for programming Talaria TWO and generate .img file from application .elf files
2. flash.py – used to flash Talaria TWO. To run the flash.py script the Gordon application or factory\_loader application must first be loaded using boot.py

#### Write Image or FS

Generate application .img file using boot.py.

|  |
| --- |
| ./script/boot.py –output=<app.img> <application.elf> |

Use flash.py to flash image.

|  |
| --- |
| ./script/flash.py write <addr> <img file> |

#### Read

Use flash.py to read contents of flash.

|  |
| --- |
| ./script/flash.py read –output <filename> <addr> <size> |

#### Verify

Use flash.py to verify contents of flash.

|  |
| --- |
| ./script/flash.py verify <addr> <filename> |

#### Enroll

1. Generate keys in json format. A sample keys.json is provided.
2. Use flash.py to enroll keys.

|  |
| --- |
| ./script/flash.py enroll –keyfile <key.json> |

#### Programming & Reading Partition Table

1. Create/modify partition table (default partition table is provided)
2. Program partition table using flash.py

|  |
| --- |
| ./script/flash.py from\_json <default.json> |

1. Read partition table

|  |
| --- |
| ./script/flash.py to\_json <json\_file> |

#### Re-flashing the Factory Loader

1. Inhibit boot (short gpio17 to GND, press reset, unshort gpio17 and GND)
2. Load Gordon application

|  |
| --- |
| ./script/boot.py apps/gordon.elf |

1. Flash factory loader

|  |
| --- |
| ./script/flash.py write 0x1000 factory\_loader.img |

### Building a Filesystem

To build a filesystem for the user/root file system., the mklittlefs tool.

|  |
| --- |
| ./mklittlefs –s 0x70000 –c ./UFS |

### Partition Table Partition

The default partition table reflects the flash layout as shown in Figure 9 using SSBL.

|  |
| --- |
| {  "partitions": [  {  "index": 0,  "ptype": 30,  "sect\_start": 1,  "sect\_count": 31,  "\_last": 31,  "\_ptype": "BOOT"  },  {  "index": 1,  "ptype": 30,  "sect\_start": 32,  "sect\_count": 352,  "\_last": 383,  "\_ptype": "BOOT"  },  {  "index": 2,  "ptype": 15,  "sect\_start": 384,  "sect\_count": 112,  "\_last": 495,  "\_ptype": "DATA"  },  {  "index": 3,  "ptype": 14,  "sect\_start": 496,  "sect\_count": 16,  "\_last": 511,  "\_ptype": "SYSFS"  }  ],  "\_identify": {  "idcode": 13133077,  "num\_pages": 8192,  "page\_size": 256,  "sector\_size": 4096  }  } |