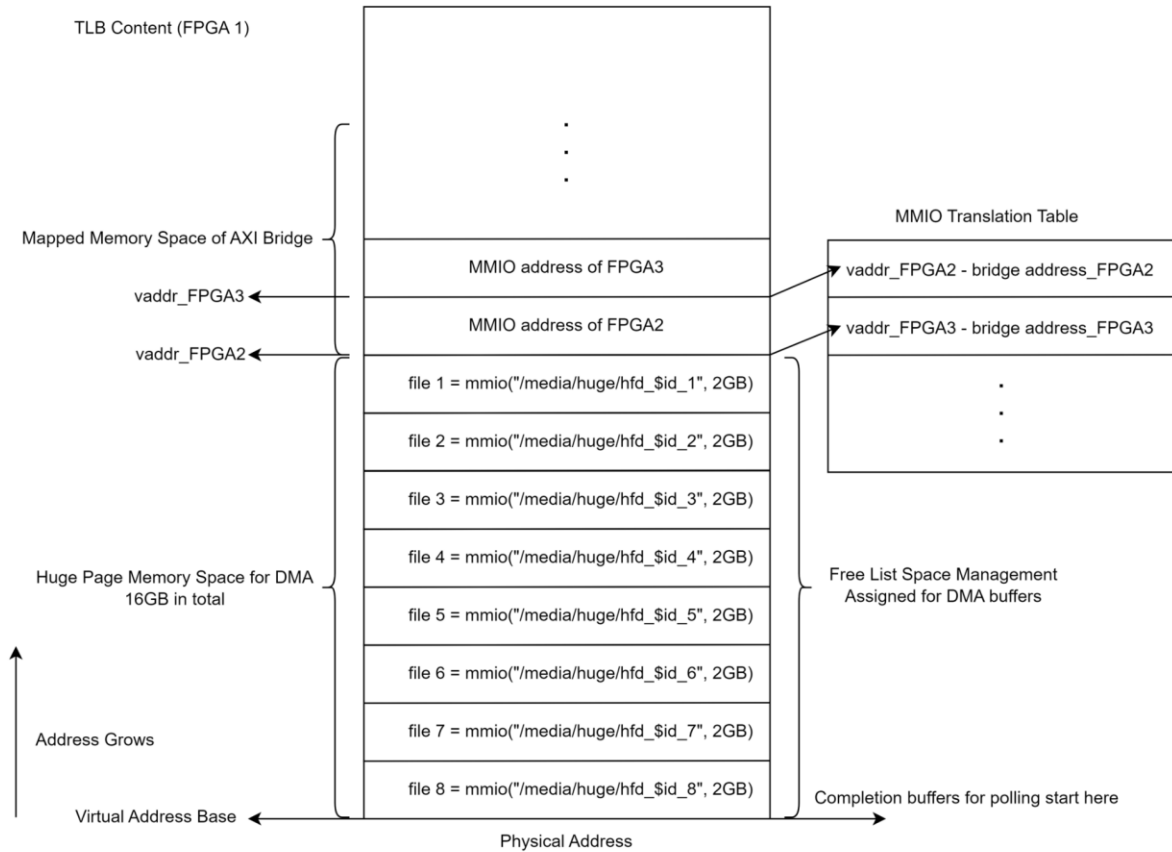


Memory Management:



Component Name QDMABlackBox

Basic

Capabilities

PCIe : BARs

PCIe : MISC

PCIe : DMA

Base Address Registers (BARs) serve two purposes. Initially, they serve as a mechanism for the device to request blocks of address space in the system memory map. After the BIOS or OS determines what addresses to assign to the device, the Base Address Registers are programmed with addresses and the device uses this information to perform address decoding.

Pf0

Bar	Type	64 bit	Prefetchable	Size	Scale	Value (Hex)	PCIe to AXI Translation
<input checked="" type="checkbox"/>	DMA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	256	Kilobytes	FFFFFFFFFC000C	0x0000000000000000
<input type="checkbox"/>	AXI Bridge Master			128	Megabytes	00000000	0x0000000000000000
<input checked="" type="checkbox"/>	AXI Lite Master	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	4	Kilobytes	FFFFFFFFFFFFF00C	0x0000000000000000
<input type="checkbox"/>	AXI Bridge Master			128	Kilobytes	00000000	0x0000000000000000
<input checked="" type="checkbox"/>	AXI Bridge Master	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	Gigabytes	FFFFFFFFFC000000C	0x0000000040000000
<input type="checkbox"/>	AXI Bridge Master			128	Kilobytes	00000000	0x0000000000000000
<input type="checkbox"/>	Expansion ROM			4	Kilobytes	00000000	0x0000000000000000

```
netlab@netlab-node8:~$ cat /sys/bus/pci/devices/0000\:d8\:00.0/resource
0x00000dff80000000 0x00000dff8003ffff 0x000000000014220c BAR0
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x00000dff80040000 0x00000dff80040fff 0x000000000014220c BAR2
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x00000dff80000000 0x00000dff80000000 0x000000000014220c BAR4
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
0x0000000000000000 0x0000000000000000 0x0000000000000000
```

MMIO to HBM translation: 0x00000dff80000000 to 0x0000000040000000

eg: host address 0x00000dff80001000 maps to AXI address 0x0000000040001000