

# numascale

## Qualified systems for NumaConnect

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▶ *We currently have three servers who are tested and qualified with NumaConnect*

▶ *IBM System x3755 M3*

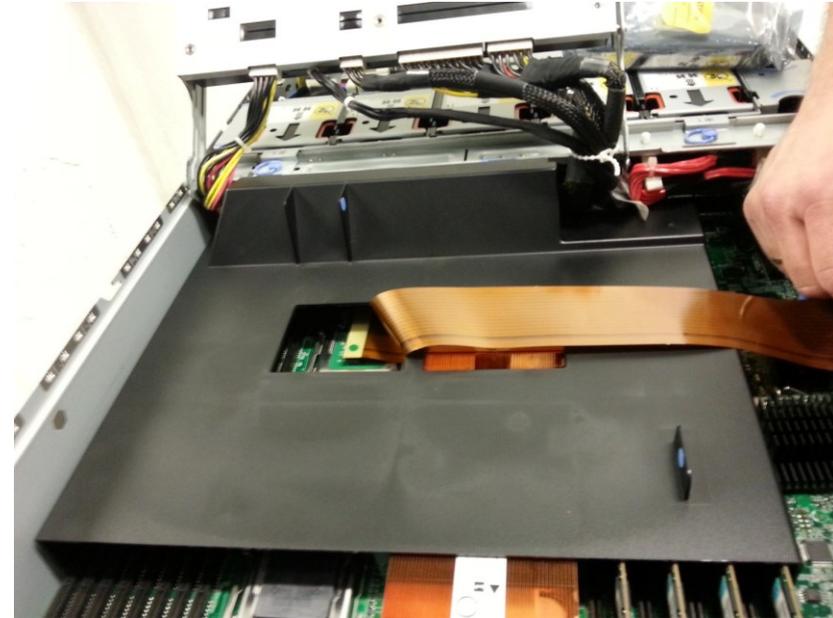
▶ *Supermicro*

– *A+ Server 1042G-LT*

▶ *Dell Poweredge R815*

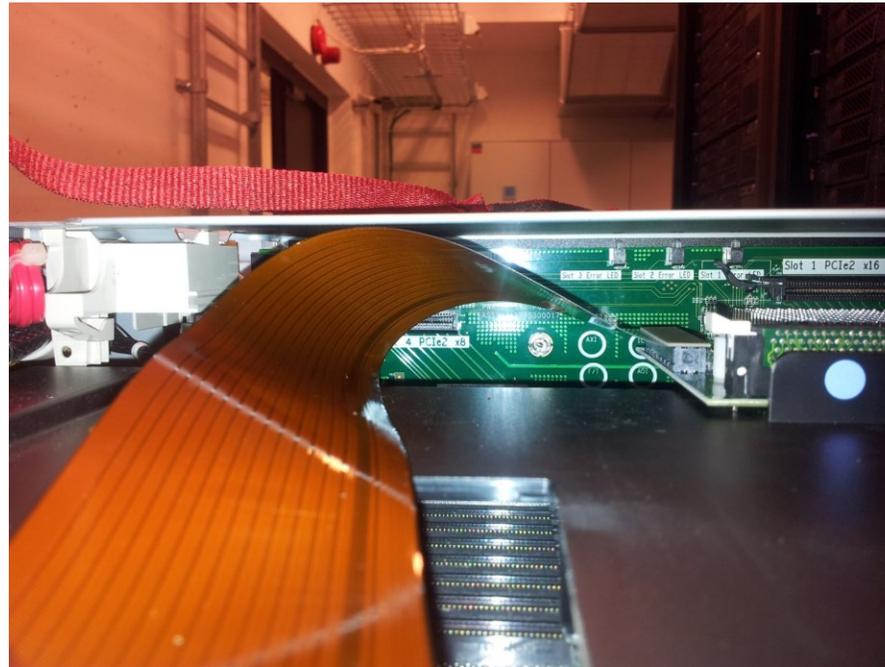


- ▶ IBM System x3755 M3 uses the N323 card with pickupmodule



- ▶ NumaConnect N323 card, installed in Riser #2
- ▶ Pickup-module kit for Dell R815 (two pickup modules, one small and one large flex cable)
- ▶ A Numascale shared memory system with Dell PowerEdge R815 servers can have a maximum of two CPUs per server.
- ▶ A customized BIOS from Dell is used
- ▶ A Numascale shared memory system with Dell PowerEdge R815 restricts Riser #1 to be the only active riser with PCIEx signals

- ▶ IBM System x3755 M3, cable from pickup module connected to N323 card, which itself resides in a PCIe slot:



- ▶ Supermicro 1042G-LTF uses the N313 card, which plugs into the HTX slot



- ▶ NumaConnect are compatible with the following CPUs
  - AMD Opteron 61xx series ("Magny-Cours")
  - AMD Opteron 63xx series ("Abu Dhabi")

The AMD Opteron 62xx series have an issue which makes it incompatible with NumaConnect

- ▶ Using Socket G34 CPUs, we can support a maximum of 3 CPUs in a system
- ▶ The NumaChip counts as one "CPU ID", each G34 CPU counts as two, and the maximum allowed is eight
- ▶ For the systems with pickupmodule, one socket is occupied for the module itself

- ▶ The NumaChip can utilize a maximum of 240GB of memory in each server, see [http://www.numascale.com/numa\\_pdfs/NumaConnect-1D.pdf](http://www.numascale.com/numa_pdfs/NumaConnect-1D.pdf)
- ▶ The memory should be distributed as evenly as possible on each socket for optimal utilization of the total memory

- ▶ Numascale provides a hardware install manual for each of these systems, including installation recommendations like BIOS settings etc.

## ▶ **IBM System x3755 M3, 2U rack server**

- Supports two or three 6380 CPUs
- Supports N323-xx NumaConnect card with pickup module
- 1 Free PCI Express slots

## ▶ **Supermicro 1042G-LTF+, 1U rack server (with HTX slot)**

- Supports two or three 63xx CPUs
- Supports N313-xx NumaConnect card

## ▶ **Supermicro 2U**

- We are working with Supermicro to build a 2U machine with the same motherboard as the 1042G-LTF+
- Supports N313 NumaConnect card
- Up to 3 63xx CPUs
- 1-2 PCIExpress slots

## ▶ **Dell Poweredge R815**

- 61xx CPUs qualified
- Qualification for 63xx CPUs in progress
- Supports up to 2 CPUs
- Supports N323 NumaConnect card and pickup module
- PCIExpress slots

## ▶ **HP ProLiant DL385p G8**

- Lab qualification is in progress
- Supports one 63xx series CPU
- PCIExpress slots

## ▶ **AIC Octans**

- Single 43xx series CPU system
- Supports N313 NumaConnect card
- 2 PCIExpress slots