

Setting the QPI speed

Introduction: The speed on the QPI links is configured by the factory according to the type of Nehalem processor:

6.4 GT/s for E7540, X7550 and X7560 **(1)**

4.8 GT/s for E7520, E7530, L7545, L7555, X7542 **(2)**

If the speed is not set with the correct value, then the server is not able to start.

The QPI Link speed must be configured again in case of:

- replacement of processor, from one type to the other type
- replacement of the ILB, because the setting is stored in this board. The setting of the QPI Link speed is done via a 'hidden' page in the SHC:

- Connect to the BMC target and authenticates in the SHC console.

- in the browser, enter the following URL:

- [http:// BMC IP@/___QPI_Link.asp](http://BMC_IP/___QPI_Link.asp)

- select the right value and click Apply (see the picture below).

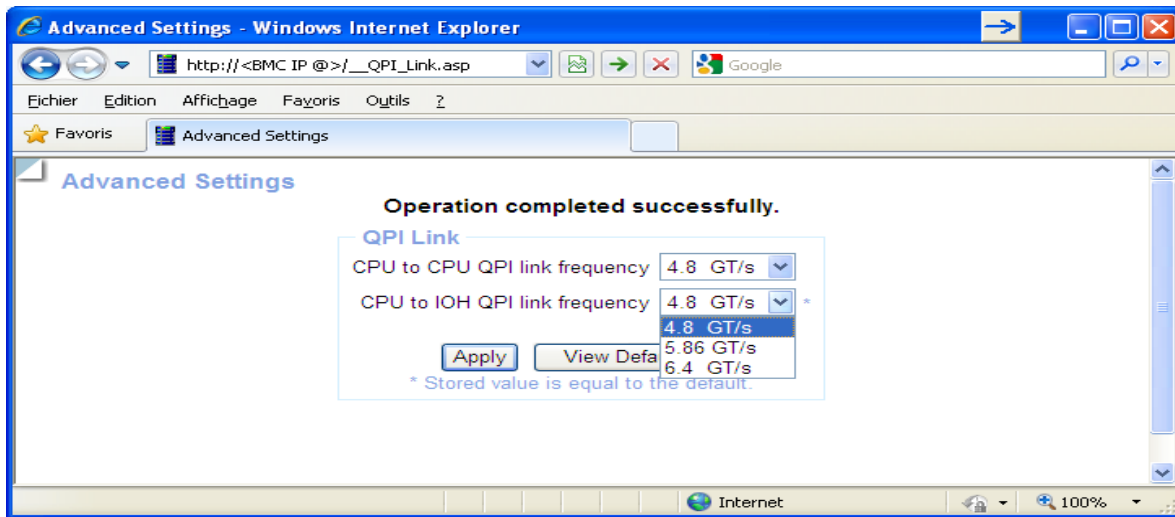
- CPU to CPU QPI link frequency : 6.4 GT/s for processors of list (1)

- CPU to IOH QPI link frequency : 4.8 GT/s for processors of list (1)

- CPU to CPU QPI link frequency : 4.8 GT/s for processors of list (2)

- CPU to IOH QPI link frequency : 4.8 GT/s for processors of list (2)

The change will take effect on the next Power ON.



Note : In some cases, an unexpected disconnection can occur, which prevents the CPU-CPU link speed control.

The workaround is the following :

- 1) In your browser, connect on the SHC
- 2) Open a second window and start-up the EMM "hidden" page in it to change the QPI Link speed (Using 2 sessions can prevent this unexpected disconnection)
- 3) Then , do a complete power cycle (power OFF/power ON).

IMPORTANT :

Sometime, it is necessary to repeat the procedure 4 or 5 times. If there is an unexpected disconnection on the 'hidden' page, it is necessary to reconnect also on the first SHC window.