"32 1-core nodes" Cluster: Strong vs. Weak scaling

Strong Scaling with constant global vector size of 200000

Nodes	MPI Time	LocalVecSize
1	2.93341	200000
4	1.04825	50000
8	0.853577	25000
12	1.10917	16667
16	21.0579	12500
20	78.5637	10000
24	74.644	8333
28	93.9001	7143
30	103.744	6667
32	*see note	6250

Weak Scaling with global vector size of (15000) x (# of nodes)

Nodes	MPI Time	LocalVecSize
1	0.219734	15000
4	0.565912	15000
8	0.768079	15000
12	0.89891	15000
16	20.9338	15000
20	85.3367	15000
24	74.384	15000
28	95.2535	15000
30	103.885	15000
32	*see note	15000

*I was not able to run 32 nodes. I queued the Strong and Weak scaling jobs on 32 nodes for over an 8 hour period, and for some reason the AWS server would not run them.