

NSF/IUCRC CAC PROJECT

INTEGRATED VISUALIZING, MONITORING, AND MANAGING HPC SYSTEMS

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METRICS THAT ARE ALWAYS 0

CPUC0ResidencyHigh	32 MSBs of the 64-bit counter containing the aggregate C0 residency count from all the cores	NULL
CPUC0ResidencyLow	32 LSBs of the 64-bit counter containing the aggregate C0 residency count from all the cores	NULL
CUPSIIOBandwidthDMI	Utilization counter of the DMI Port	CUPS
CUPSIIOBandwidthPort0	Utilization counter of the integrated IO Port on a per x16 port granularity	CUPS
CUPSIIOBandwidthPort1	Utilization counter of the integrated IO Port on a per x16 port granularity	CUPS
CUPSIIOBandwidthPort2	Utilization counter of the integrated IO Port on a per x16 port granularity	CUPS
CUPSIIOBandwidthPort3	Utilization counter of the integrated IO Port on a per x16 port granularity	CUPS
ComputePower	Computer power that is not wasted	W
DiscardedPkts	Total number of discarded packets	Pkt
IOUsage	IO Usage Percent	%
ITUE	es the power utilization efficiency. It is expressed as the ratio of total system power to compute	NULL
MemoryUsage	Memory Usage Percent	%
NonC0ResidencyHigh	32 MSBs of the 64-bit counter containing number of Package C2 and C6 cycles	NULL
NonC0ResidencyLow	32 LSBs of the 64-bit counter containing number of Package C2 and C6 cycles	NULL

PSUEfficiency	PSU efficiency in percentage	%
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METRICS THAT ARE ALWAYS 0

PowerToCoolRatio	Fan Power over system power ratio (PCTR)	NULL
SysAirFlowEfficiency	System airflow efficiency metric (SAFE)	%
SysAirflowPerFanPower	System airflow per unit of system fan power consumption	CFM
SysAirflowPerSysInputPower	System airflow per unit of system input [DC] power consumption	CFM
SysAirflowUtilization	Specifies the system airflow utilization (CFM / Max CFM). CFM (cubic feet per min)	CFM
SysNetAirflow	System net airflow	CFM
SysRackTempDelta	Temperature difference between exhaust air and inlet air temperature of the server	Cel
SystemAvgInletTempHour	Average Inlet temperature for the last hour	Cel
SystemMaxInletTempHour	Peak Inlet temperature for the last hour	Cel
SystemMaxPowerConsumption	Peak system power consumption	W
TotalFPGAPower	Overall FPGA power consumption	W
TotalFanPower	Overall Fan power consumption	W
TotalPSUHeatDissipation	Heat dissipated from the PSU as a result of its inefficiency	BTU
TotalPciePower	Overall PCIe power consumption	W
TotalStoragePower	Overall Storage power consumption	W