Intel_RDT

Metrics List & Descriptions:

Technol ogy /Catego ry	Metric /Featur e/Input	Name	Dat e Type	Form at Exam ple	Colle ctd Relea se	Colle ctd Plugin	Description	Depend encies	Limitations	Comments
Intel RDT	Metric	Memory Bandwidth on Local NUMA Node	Byte s /Sec ond	39343 25	5.7 & 5.8	intel_ rdt	Memory bandwidth utilization by the relevant CPU core on the local NUMA memory channel	PQOS ToolSet	Does not provide the value per process basis due to lack of resctrl fs support	Dependent on PQOS toolset to read the metric value
Intel RDT	Metric	Memory Bandwidth on Remote NUMA Node	Byte s /Sec ond	39343 25	5.7 & 5.8	intel_ rdt	Memory bandwidth utilization by the relevant CPU core on the remote NUMA memory channel	PQOS ToolSet	Does not provide the value per process basis due to lack of resctrl fs support	Dependent on PQOS toolset to read the metric value
Intel RDT	Metric	Total Memory Bandwidth	Byte s /Sec ond	39343 25	None	None	Total memory bandwidth utilized by a CPU core on local and remote NUMA memory channels	PQOS ToolSet	Does not provide the value per process basis due to lack of resctrl fs support	Not part of the Collectd plugin
Intel RDT	Metric	L3 Cache Occupancy	Bytes	45345 434	5.7 & 5.8	intel_ rdt	Total Last Level Cache occupancy by a CPU core	PQOS ToolSet	Does not provide the value per process basis due to lack of resctrl fs support	Dependent on PQOS toolset to read the metric value
Intel RDT	Metric	Instructions Per Cycle	Inte ger	23734	5.7 & 5.8	intel_ rdt	Total instructions per cycle executed by a CPU core	PQOS ToolSet	None	Dependent on PQOS toolset to read the metric value
Intel RDT	Input	Cores	Inte ger Array	[0- 12] or [1,2,3]	5.7 & 5.8	intel_ rdt	The list of CPU core(s) to be provided as input by the user for which the corresponding metrics are required	None	None	Configuration input in the plugin .conf file
Intel RDT	Input	Configuration Interval	Inte ger	1 or 10	5.7 & 5.8	intel_ rdt	The interval in seconds at which the metrics need to be collectd	None	None	Configuration input in the plugin .conf file
Intel RDT	Metric	Memory Bandwidth of the process on Local NUMA Node	Bytes	39343 25	5.10	intel_ rdt	Memory bandwidth utilization by the relevant process on the local NUMA memory channel	resctrl fs & kernel 4.14	TBD	Still to create Collectd PR
Intel RDT	Metric	Memory Bandwidth of the process on Remote NUMA Node	Bytes	39343 25	5.10	intel_ rdt	Memory bandwidth utilization by the relevant process on the remote NUMA memory channel	resctrl fs & kernel 4.14	TBD	Still to create Collectd PR
Intel RDT	Metric	Total Memory Bandwidth of the process	Bytes	39343 25	5.10	intel_ rdt	Total memory bandwidth utilized by a process on local and remote NUMA memory channels	resctrl fs & kernel 4.14	TBD	Still to create Collectd PR
Intel RDT	Metric	L3 Cache Occupancy of the process	Bytes	45345 434	5.10	intel_ rdt	Total Last Level Cache occupancy by a process	resctrl fs & kernel 4.14	TBD	Still to create Collectd PR
Intel RDT	Metric	Instructions Per Cycle of the process	Inte ger	23734	5.10	intel_ rdt	Total instructions per cycle executed by a process	resctrl fs & kernel 4.14	TBD	Still to create Collectd PR
Intel RDT	Input	Process List	Array	[qemu , pmd]	5.10	intel_ rdt	List of processes for which metrics are to be collected	resctrl fs & kernel 4.14	TBD	Still to create Collectd PR

Sub-sections:

RDT Cache plugin High Level Design

RDT Cache Plugin Executed Tests