PLC to eDCA Load Metrics

eDCA Load Metrics Video Overview

stress-test-slide_revised.mp4

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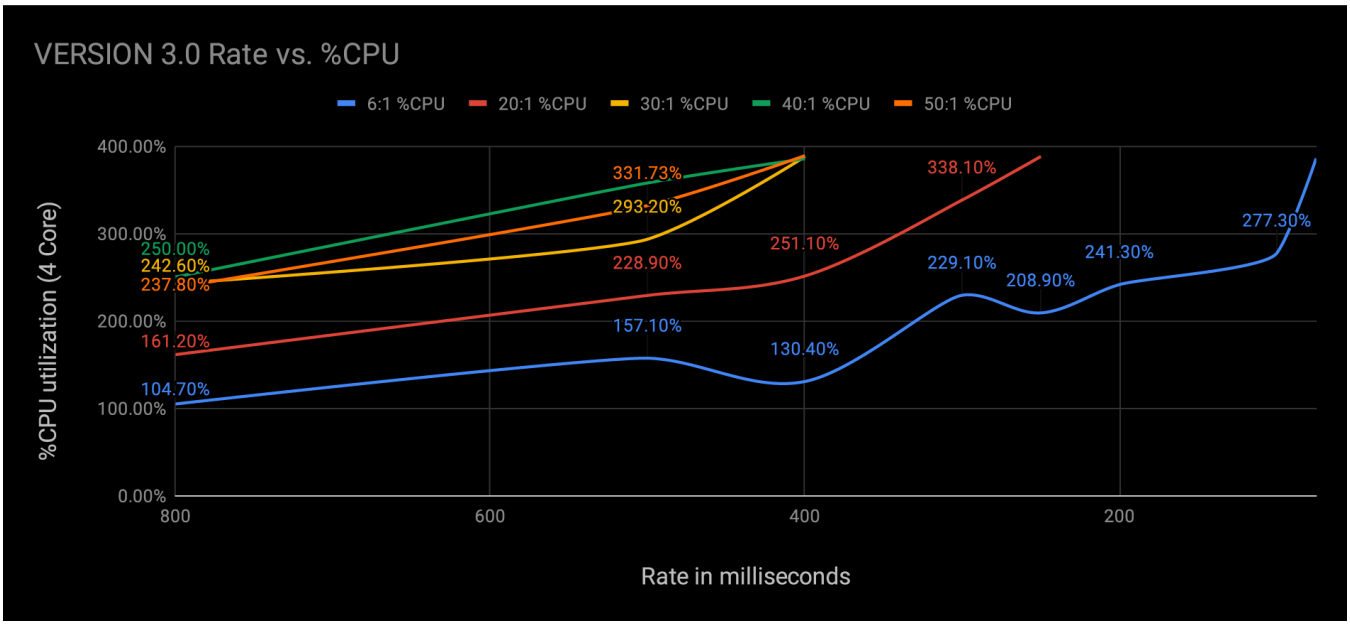
legend / Test Overview	
Test Environment =	Testing environment consisted of two main factors, 1.) Rate - after numerous beta testing (Previous testing without refined target metrics) rate became one of the key indicators of performance. 2.) Ratio - Also a key Performance Indicator (the amount of PLC simulators sending messages to the target node (eDCA)
Ratio =	Is the number of PLC simulators running against one physical eDCA, EXAMPLE a ratio of "6:1" would equal 6 plc simulators sending messages to 1 eDCA
Rate =	Ideal time per packet rate to aim for when sending (in ms) (default: 0 Message are sent as fast as then can be sent) ** Testing ranged from 800 ms - 75 ms
CPU Utilization =	Is the sum of work handled by a Central Processing Unit in the testing environment BEET eDCA is equipped with 4 CPUs for a total of %400 that can be utilized
Additional Notes:	**ITEMS -** There were other determining factors that were tested , like "Items - the amount of Items in a message, the default for the testing for both versions 3.0 & 2.6 was "50" any change in this metric was not of significance, the resource change was no more than 5-10%.which was concluded in beta testing
	COUNT - Count was another determining factor and was kept at a constant of a 1000 messages after beta test results. The default metric of 1000 was enough data to determine if a test would PASS or Fail. Test's with a status of FAIL meant that DeviceWise Que was climbing at a rate that was unrecoverable
	Network - was not a Key indicator on any of the testing at higher stress rates, network rate reached no higher than 1.7 Mbs . this was recorded with a constant stream of outbound data (under the condition that an internet connection was available at all times.
	RAM - Not a major concern of any resource utilization - **at higher stress rates Memory reached averages of only 2GB total out of 8 GB, most of the higher memory consumption came from version 2.6, memory management appeared to be optimized in version 3.0
File / Log Schema:	**Rv26 =** Version 2.6 - Test Number - Capture source = Top - Ratio = 6:1 - LogTopic = **Test EXAMPLE: Rv3-3-top-40-to-1-test = version 3 - test#3 - Ration 40:1 - test. test format**

Load Metrics for edca-transfer v3.0



Load Metrics for edca-transfer v2.6