

INCORPORATION OF PRESCRIPTIVE ANALYTICS FOR PERFORMANCE ENGINEERING AND DYNAMIC PERFORMANCE MANAGEMENT OF BIG DATA APPLICATIONS



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Abstract: In a complex Big Data environment applications compete for resources and affect each other performance. Selection of Machine Learning Algorithms and Machine Learning Libraries and Big Data YARN's Scheduler, Queues and Containers rules can significantly affect accuracy, performance and scalability of Big Data applications.

We will review how predictive and prescriptive analytics can be used to develop recommendations optimizing selection of the algorithms, priorities, concurrency and resource allocation to effectively satisfy Service Level Goals for each of the workloads.

During this presentation we will review how prescriptive analytics can be used for evaluation of the options and justification of the changes necessary to proactively and continuously meeting Service Level Goals (SLGs) for each workload. We will review how comparison of the actual results with expected are used to organize a feedback control.