## NSF/IUCRC CAC PROJECT

## MONITORING, VISUALIZING, AND PREDICTING HEALTH STATUS OF HPC CENTERS

Jie Li Doctoral Student, TTU 03/27/2020

## Advisors:

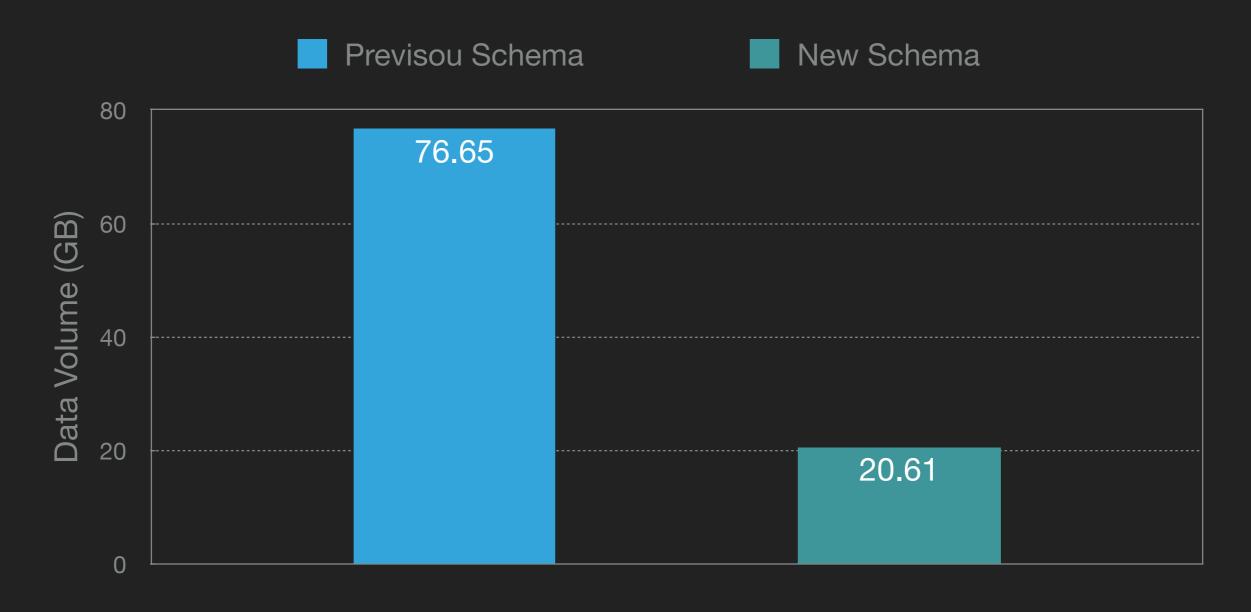
Mr. Jon Hass, SW Architect, Dell Inc.

Dr. Alan Sill, Managing Director, HPCC, TTU

Dr. Yong Chen, Associate Professor, CS Dept, TTU

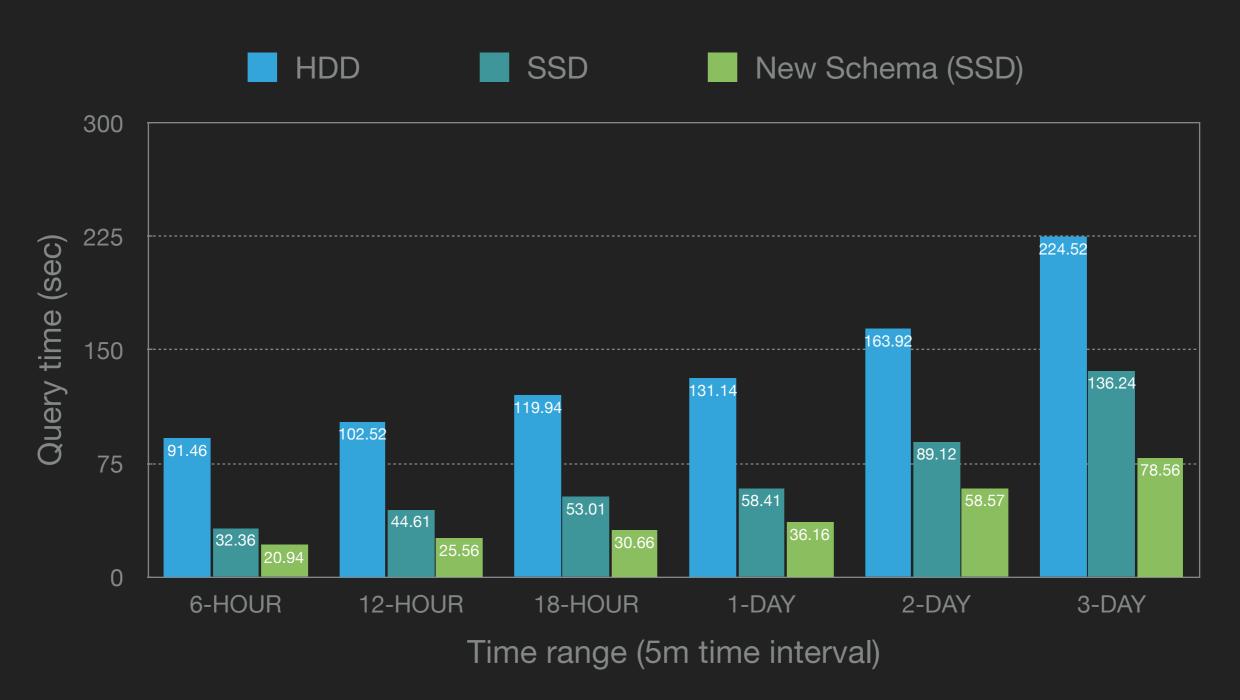
Dr. Tommy Dang, Assistant Professor, CS Dept, TTU

March 14, 2019 12:00:00AM – March 4, 2020 12:00:00AM

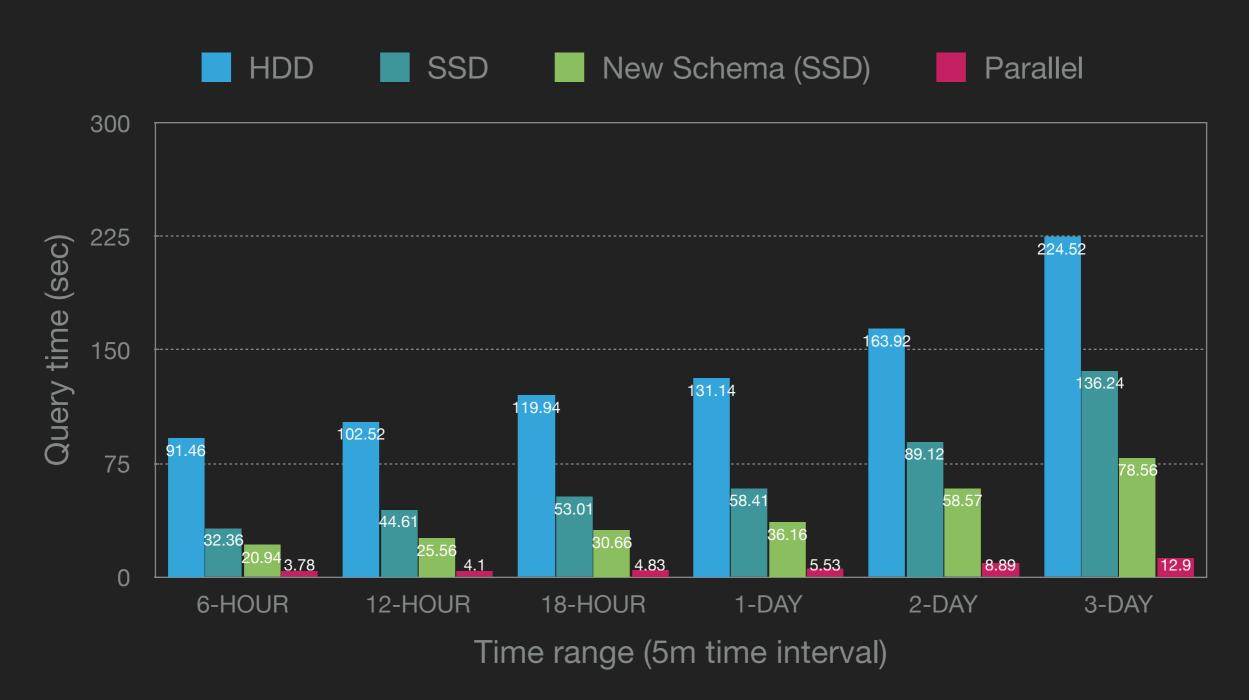


Schema

Data volume in New Schema is 26.9% of the one in previous schema



Query data from New Schema performs  $1.6x \sim 1.76x$  faster than previous schema Query data from New Schema performs  $2.8x \sim 4.3x$  faster than previous schema on HDD



Query data in Parallel from New Schema performs  $5.5x \sim 6.5x$  faster than in sequence Query data in Parallel from New Schema performs  $17x \sim 25x$  faster than previous schema on HDD

