SNIA Forward Looking Information Disclosure Statement

This SNIA presentation as part of the industry EPA ENERGYSTAR Data Center Storage Stakeholders Meeting November 18 2015 may include timetables, roadmaps, new technologies entering the mainstream, predictions, estimates or other information that might be considered forward-looking. While these forward-looking statements represent our current judgment on what the future holds, they are subject to risks and uncertainties that could cause actual timeframes and results to differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect our opinions and best effort planning only as of the date of this presentation. Please keep in mind that we are not obligating ourselves to revise or publicly release the results of any revision to these forward-looking statements in light of new information or future events. Throughout the discussion in the delivery of this presentation, we will attempt to present some important factors relating to the topic that may affect our estimates and predictions.

The Green Grid Data Center Storage Productivity Metrics (DCsP)

SNIA Green Storage Initiative

- TGG envisions a comprehensive set of metrics for measuring all facets of data center efficiency and productivity
- At the individual IT level, DCsP is defined as the ratio of useful storage system work to energy consumed
- DCsP builds upon SNIA Emerald metrics
  - Emerald defines a set of benchmark "proxy" workloads to generate Acquisition Phase metrics measured as capacity and performance per watt ratios. These can be used to make purchase (CAPEX) decisions. As used by the EPA spec.
  - DCsP utilizes data center "real-world" workloads to generate Operational Phase metrics measured as capacity and useful work per energy consumed ratios. These can be used to make operational expense (OPEX) decisions to improve upon the effective use of their storage equipment.
- A follow-on effort is needed to identify how-to aspects of DCsP measurements in an operational data center