

Improving Profitability and Reducing Time-To-Market in Semiconductor Design

5 REASONS

To deploy the Weka Matrix™ hardware independent storage platform in your EDA environment

Historically, Electronic Design Automation (EDA) systems have been architected using enterprise NAS. While easy to deploy, these systems were not designed for the performance and scale required by modern IC designs. The result is longer simulation times that increase the risk of a chip re-spin, which can have a major impact on profitability.

A better approach is needed that delivers dynamic and independent scaling of performance and capacity to handle peak design workloads. WekaIO's software-defined storage solution provides great small and large file performance at low latencies without the footprint, cost, and complexity of traditional storage solutions.

1

Reduce Tape-Out Time with Storage Optimized for the Entire Design Flow

WekaIO's radically simple storage platform is ideal for demanding EDA workloads, such as complex directory queries, metadata heavy I/O, large and small file reads and writes, or random and sequential access. Collocated storage and compute resources significantly reduces network traffic and latency, shaving months off the design cycle. Automatic load balancing prevents hot spots and performance bottlenecks, meaning that design teams are more productive and spend less time waiting for simulations to complete.

2

Benefit From Flash Performance at a Fraction of the Cost of Traditional Storage

The WekaIO Matrix platform was designed for flash technology and can deliver a 10x or more improvement in performance at less than half the cost of traditional network attached storage. Our software-only architecture features native NVMe support that delivers consistent high performance and low latency at scale. True hardware independence provides the complete freedom to choose any x86 based server, any off-the-shelf solid-state device (SSD), and standard Ethernet components. This eliminates costly vendor lock-in and inflated vendor margins.

3

Increase Designer Productivity with Instant File Access and On-Demand Scaling

MatrixFS is a POSIX compliant file system designed from scratch to leverage the power of flash technology. The parallel and distributed file system presents a global namespace so designers can easily access and share design files, libraries, project directories, and scratch space—all from a unified application and storage platform. Independently and dynamically scale up or scale down performance to meet design schedules and SLAs using our intuitive GUI, without costly and disruptive forklift upgrades. Our patented data placement and N+4 protection schemes ensure both data and metadata are fully protected and accessible.

4

Lower Design Costs and Increase Utilization of Existing Infrastructure

With Matrix, dramatically reduce job run-times, get more use out of EDA software licenses, and reduce the need for peak-use tool licenses to meet design schedules. Leverage the cost benefits and scale of a public or private cloud to further reduce design costs by migrating cold data in the background to any S3 or Swift compatible object store—all without sacrificing performance or security. Inactive design files remain instantly accessible, saving valuable time, and eliminating the cost of recalling data from tape. WekaIO's software-only deployment model requires zero additional footprint or specialized hardware, reducing power, cooling, and floor space requirements by as much as 80 percent.

5

Increase Business Agility with Reduced Complexity and Simplified Management

Integrated and granular policy based tiering dramatically reduces infrastructure complexity by consolidating multiple tiers of storage to a hot tier for active data and a cold tier for inactive data. Automatically and seamlessly migrate directories, files, or portions of a file to cost-optimized cloud storage without special software. Never lose access to your data as migrated files appear local to users and applications with near instantaneous retrieval. An intuitive graphical interface provides point and click ease of management and time-series charting for detailed analysis of performance and capacity utilization. Managing petabytes of storage is radically simple with the WekaIO Trinity console.

WEKA.IO2001 Gateway Place, Suite 400W, San Jose, CA 95110 USA T 408.335.0085 E info@weka.io www.weka.io

©2017 All rights reserved. WekaFS, Radically Simple Storage are trademarks of WekaIO, Inc. and its affiliates in the United States and/or other countries. Other trademarks are the property of their respective companies. References in this publication to WekaIO's products, programs, or services do not imply that WekaIO intends to make these available in all countries in which it operates. Product specifications provided are sample specifications and do not constitute a warranty. Information is true as of the date of publication and is subject to change. Actual specifications for unique part numbers may vary.

W01r4SB201703