

Efficient & Cost Effective EDA Environment Built Easily in AWS Cloud

Nupur Bhonge, Cliosoft

Simon Rance, Cliosoft

Mark Duffield, AWS

Jessica Tandel, AWS



Cost Challenges with an On-premise Environment

1

Peak-capacity resource planning

difficult to predict and unused in non-peak times

2

Continuous upgrades of hardware

time consuming, disruptive and expensive

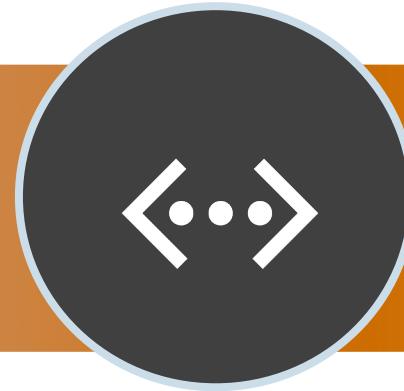
3

Capital expense

pay upfront for high uptime



EDA environments with SOS on AWS Cloud



Simple Migration Process

Easiest tool in the EDA chain for migration to cloud

Design data across EDA toolchain

SOS manages design data from EDA tools in the entire design process

Instant ROI

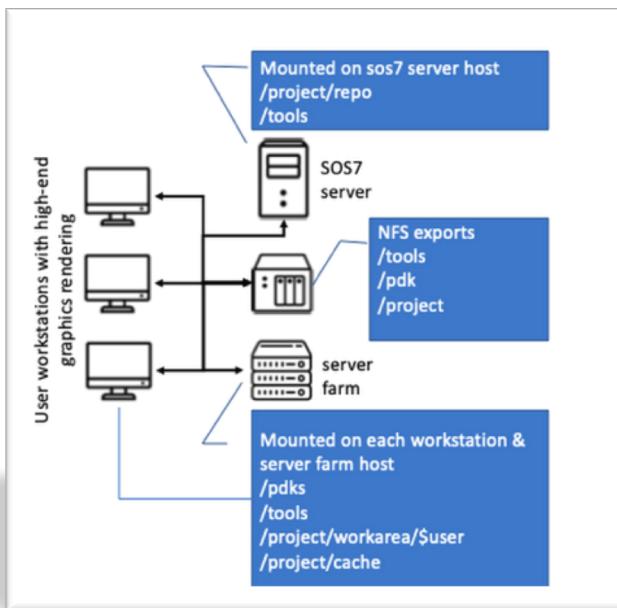
Fastest way for POC to migrate exactly what you need at reduced cost

Design management solution – First place to start!



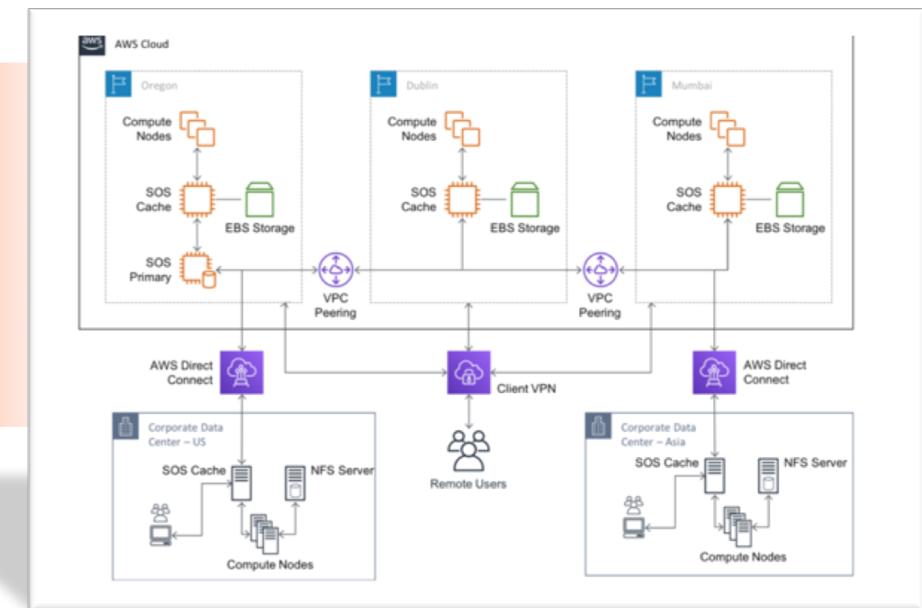
Replicate EDA Environment in AWS Cloud

Classical On-premise EDA Environment with Cliosoft SOS



Capital
Expense

EDA Environment with Cliosoft SOS on AWS



Variable
Expense

For faster POC – Cliosoft AMI available on the AWS Marketplace

https://aws.amazon.com/marketplace/pp/B07SBJZD6N?ref_=srh_res_product_title



Key Value



- Secure and optimized EDA clusters can be scaled up and down in seconds based on users job submissions
- Capital to variable expense reduced further by economies of scale for HPC environment



- SOS highly effective scrubbing of unused data from storage and disk space optimization for storage cost savings
- Tiered data management to reduce storage cost
- Seamlessly push only relevant data to AWS Cloud for performance efficiency

Next Steps / Future Innovation

- AWS native approach that reduces the customer-managed overhead using AWS managed services



Cost Effectiveness for EDA Environments in AWS

On Demand
Compute

On demand compute resources to address exact usage
ease of access to efficiently deploy and tear down

EDA optimized
resources

Compute instance best suited to EDA workloads
pay-per-use for these resources

Cost Effective
Storage

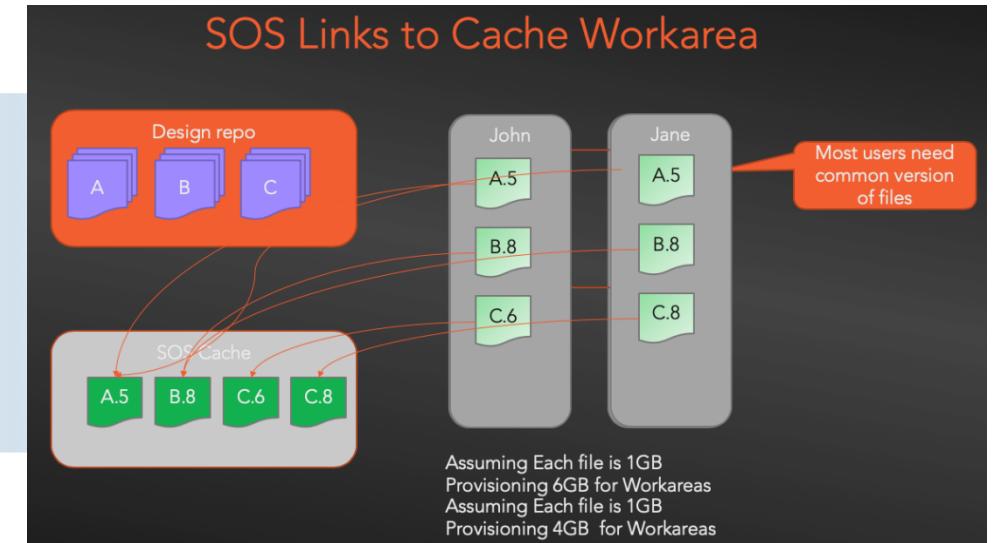
Durable and cost effective storage
backups and redundancy for fault tolerance



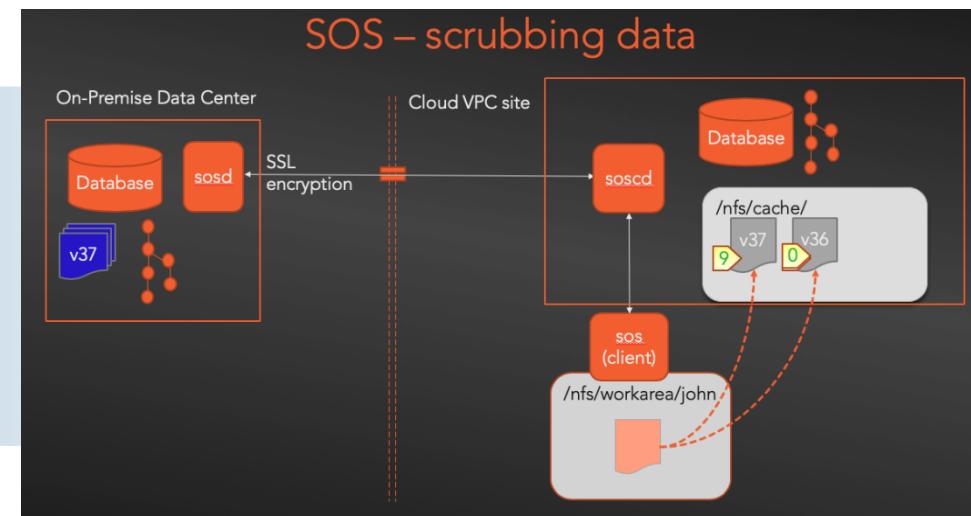
Storage Cost Savings with SOS on AWS

Links-to-cache Cliosoft SOS Clients

Up to 90% Disk Space Savings



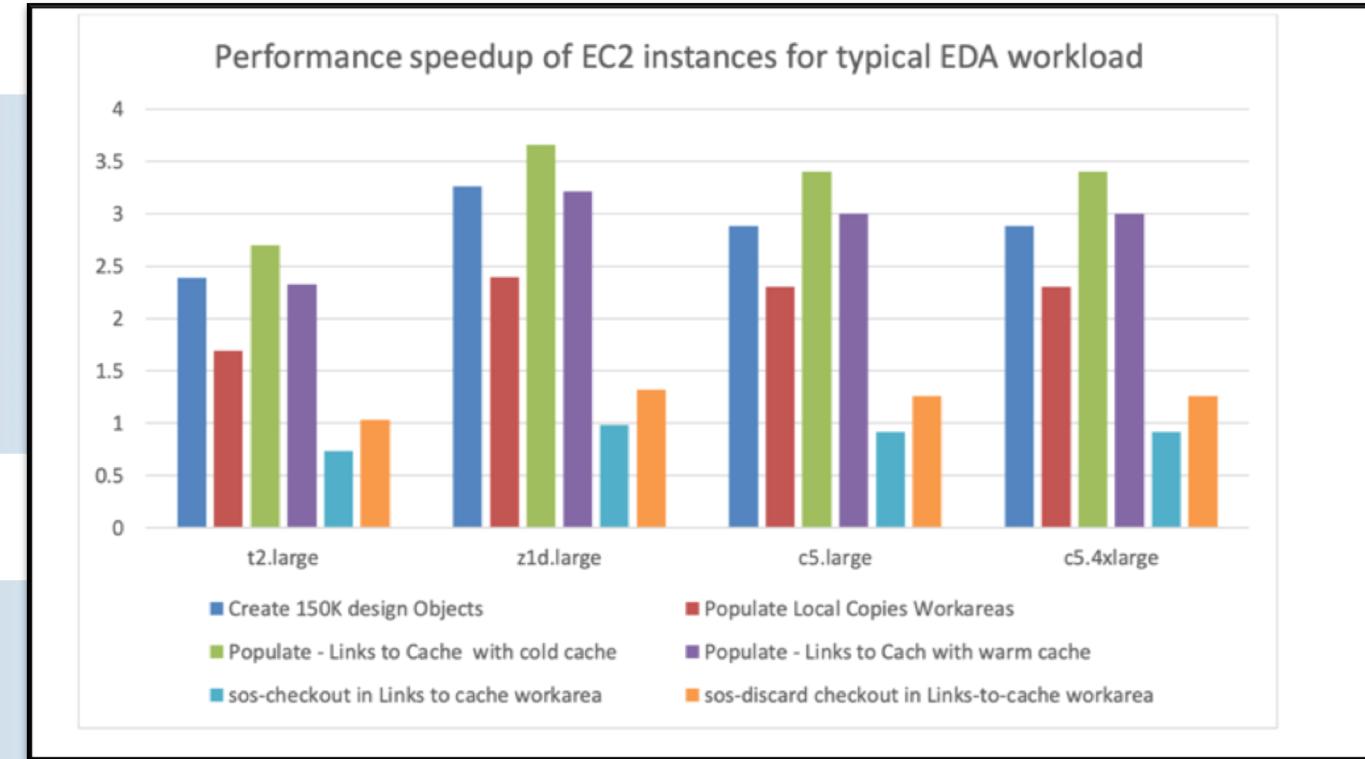
Cliosoft SOS Cache Scrubbing
Removes Unused Revisions



Performance Efficiency with SOS on AWS

Using AWS Provides Near
**2-3.5x Performance
Gain**

Choosing the Optimal Compute
Configuration (EC2) is Critical for
EDA Tool Performance



Selecting the right AWS EC2 instance

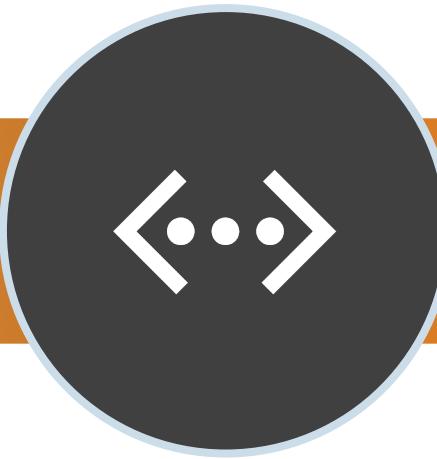


Summary



On Demand Durable Infrastructure

Optimized infrastructure options with AWS for specialized EDA workloads



Flexible Configurations

Cliosoft SOS application flexibility to support hybrid and all-in-cloud configurations



Cost Effectiveness

Cliosoft SOS disk space optimization for reduced storage cost added onto the AWS cost optimization



Questions

