



# GPU TECHNOLOGY CONFERENCE

## roc»etick

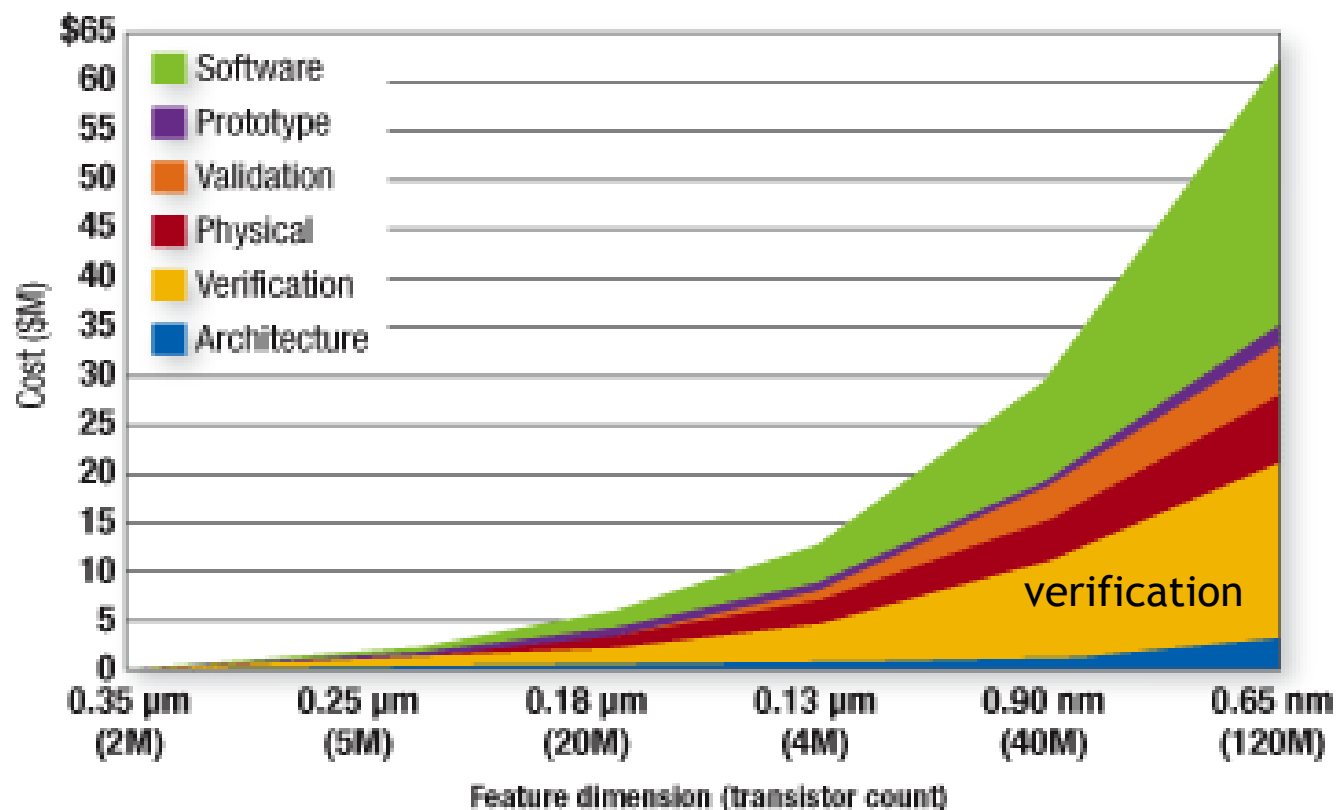
Uri Tal - CEO  
Accelerating Chip Verification

GTC, San Jose Convention Center, CA | Sept. 20-23, 2010

PRESENTED BY  NVIDIA.



# Chip Complexity is Growing Exponentially



## Simulators are single threaded



## The cache becomes useless





## A Brute-Force Approach

### How Intel Manages 100,000 Servers

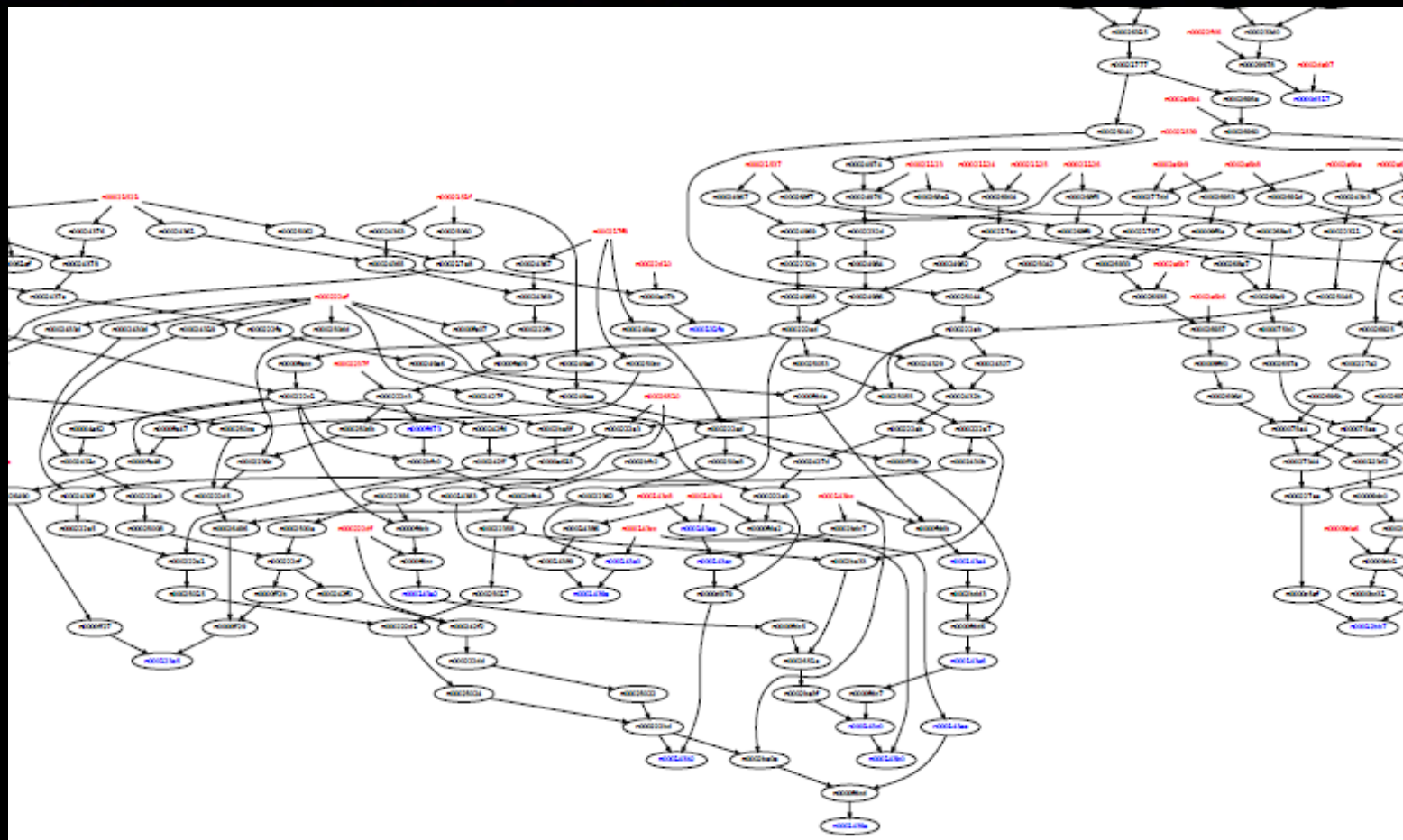
February 17th, 2010 : Rich Miller



*A look at the dense server configurations in one of the 97 data centers operated by Intel Corp, which runs more than 100,00 servers.*

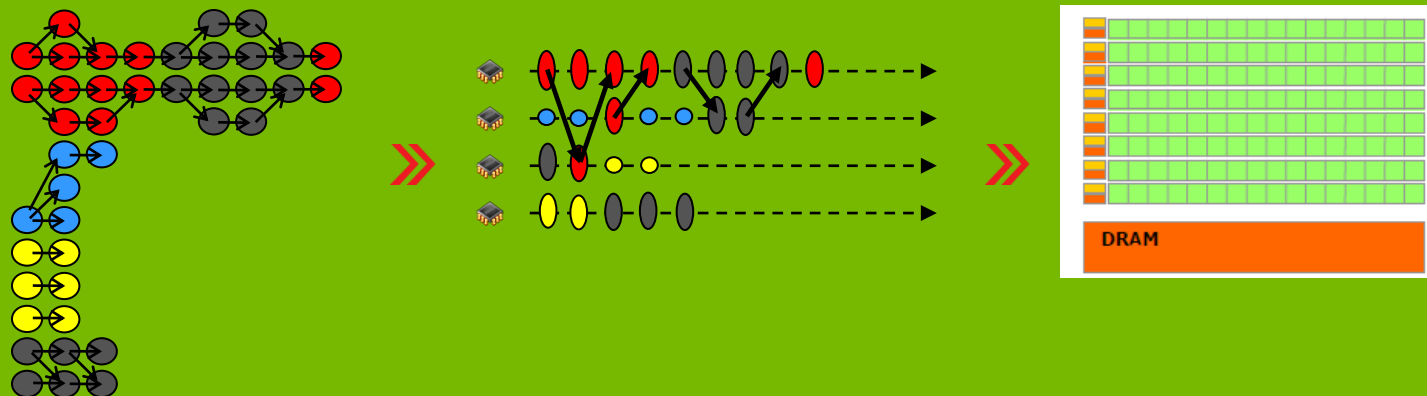
Chipmaker **Intel** has one of the largest data center management challenges on earth, with more than 100,000 servers housed in 97 data centers around the globe. About 70 percent of those servers support Intel staffers designing microprocessors, with the remainder dedicated to Intel's office, IT and web operations. The company manages

# How about GPU?





# Unique Scheduling Algorithms





## Helping to Design Better GPUs

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## Summary

- Verification is becoming a bottleneck
- GPUs hold great promise
  - But parallelization is the challenge
- Rocketick enables to extract parallelism from complex graphs and run it over GPUs
- Our technology is broadly applicable
  - Chip simulation is only our first application



**Thank you!**