

# SOS1, Santa Fe



8.3.06

SOS10

# SOS3, Villars



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## SOS4, New Orleans



## SOS6, Leukerbad



## SOS7, Durango



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## SOS9, Davos



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# **William Camp James Tomkins**

A retrospective of important HPC contributions

# Who is Jim Tomkins?



Bill Camp, Sandia Labs

# THOR'S HAMMER RED STORM

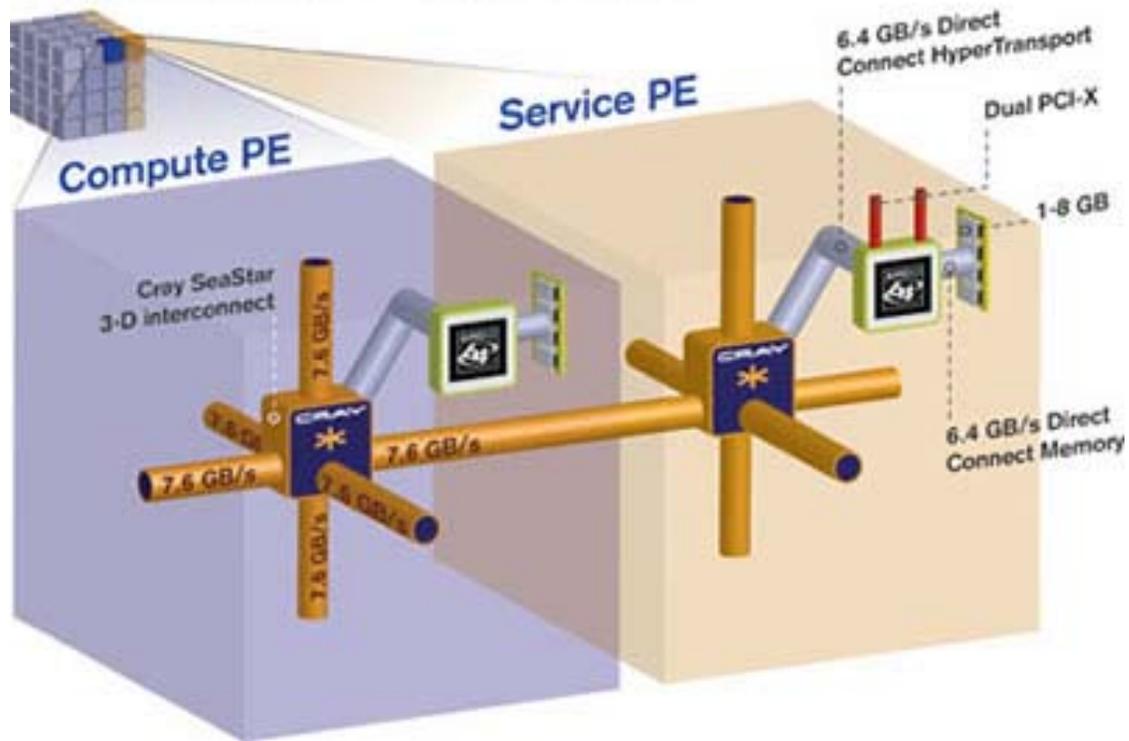


2nd Feature: Hints  
on MPP computing

Featured attraction:  
Computers for Doing  
Big Science

# THOR'S HAMMER RED STORM

## Cray XT3 Scalable Architecture



## Red Storm scalability

Communication hardware per processor is constant

1'000'000 nodes:  $\langle d \rangle \approx 80$ ,  $V_C \approx 250$

Much better for structured subdomain decomposition

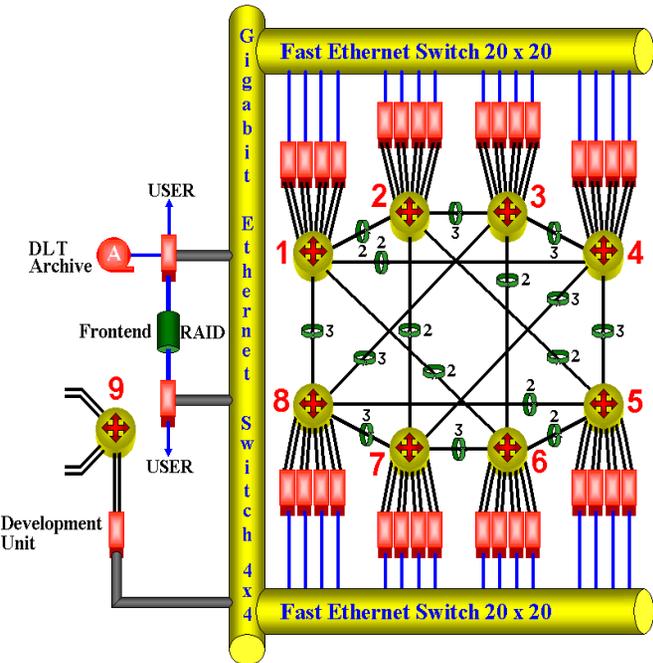
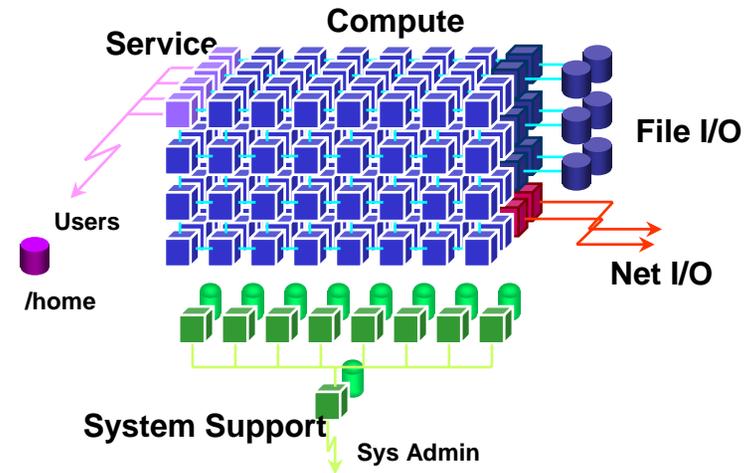
**Co-operations with Compaq (Alpha)**  
**Start 1997 (SOS1!)**

**Cplant: Myrinet, mesh topology**  
 ~3000 procs (3Tf) in 7 systems

**Swiss-T1: Tnet, K-ring**  
 36 dual procs in 2 systems

**Production operation for several yrs.**

**Cplant** ↔ **Swiss-T1**

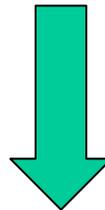


# Who is Bill Camp?

Research scientist?  
Computational scientist?  
Computer scientist?  
Manager?  
Politician?  
Utopist?  
Good friend?

Research scientist:

700 citations of publications made in the 70ies



Corresponds to two lives of a research scientist

## **Famous quotas collected by Steve Plimpton**

Clinton, Pauli, Einstein, Larry Ellison, Horowitz, Abba Eban,  
Woody Allan, Feynman, Kant, Rousseau, Sinatra



**Bill was mentioned 13 times (record!)**

**+ Newspaper quotas**

**What day of the week is Thursday? -- *Bill Camp* Philosopher**

**The Intel Touchstone will be transparent to program. -- *Bill Camp* Optimist**

**I wouldn't bet a fortune on nCUBE being the CRAY of the 90's. -- *Bill Camp* Gambler**

**Maybe we'll give the nCUBE-10 to some 3rd world university. -- *Bill Camp* Benefactor**

**I think I might believe what I just said. -- *Bill Camp* Ahead**

**We're being screwed by people who are better liars than us. -- *Bill Camp* Honest**

**Don't worry about people at Sandia with the wrong attitudes.  
Those people get old and die. -- *Bill Camp* Adolescent**

**All you need to be a manager are good English skills  
and a liking for science fiction. -- *Bill Camp* Manager**

**If you're not pissing somebody off, you're not doing your job. -- *Bill Camp* Manager**

**The biggest impediment to making decisions is too much knowledge. -- *Bill Camp* Politician**

**The same way computers dominated the past 20 years, biology is going to dominate this new century like nothing else will.**

**How can Sandia not go into biology? -- *Bill Camp* Scientist**

**We couldn't afford a Rolls Royce --  
an entirely custom-designed machine . -- *Bill Camp* Economist**

**Our worry then and now was mainly about what to do when  
the last [supercomputer] vendor disappeared . -- *Bill Camp* Concerning**

**This is the most challenging and the most exciting problem that I've ever been  
exposed to . -- *Bill Camp* Short of money**



**Excellent lecturer**

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**The bosses**

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**An experimentalist**

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**A good friend**

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## SOS1, Santa Fe



## SOS3, Villars

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**Jim**  
**We thank you**  
**Have a good time**



## SOS6, Leukerbad

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## SOS7, Durango



**Bill**  
**We thank you**

**Have a good time**

## SOS9, Davos



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# About future

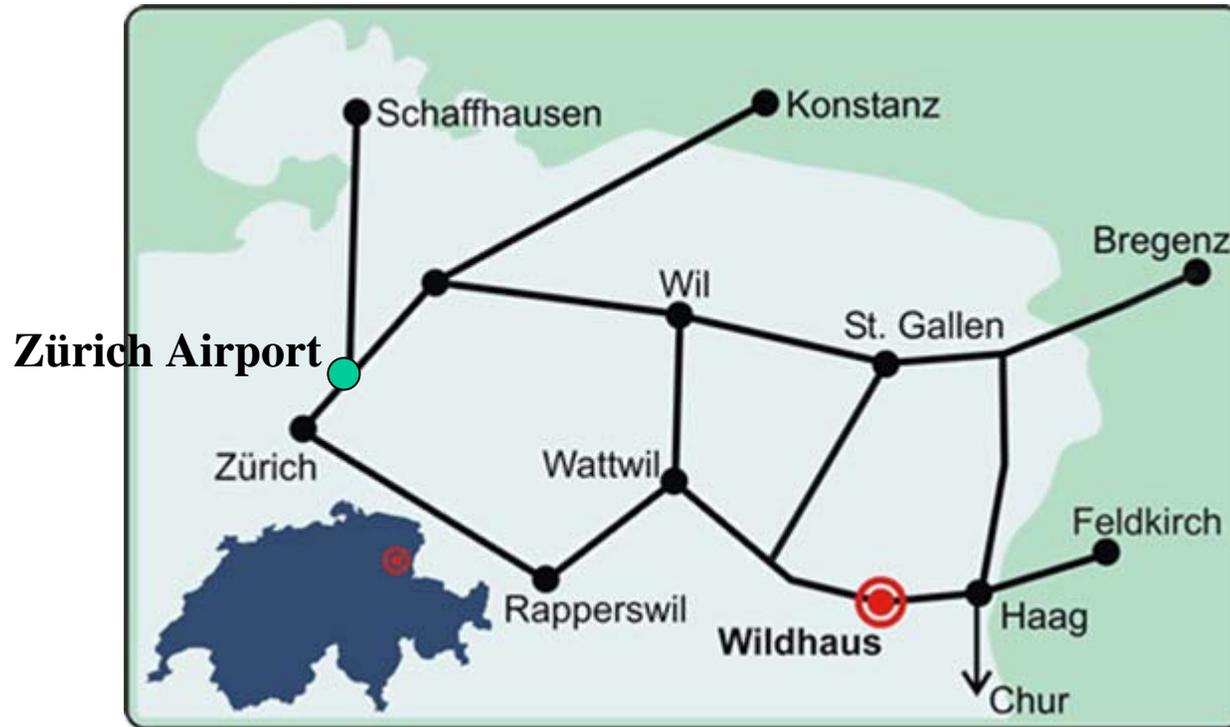


**Come back to SOS12**

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# SOS12: Wildhaus?





# Alpstein



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