

A large, out-of-focus crowd of people at a stadium, with a person in a yellow jersey in the foreground. The image is partially obscured by a large orange circle on the right side of the slide.

Benefits of Sun Grid™ and Utility Computing

Peter Denyer

Group Manager, Market Development
Sun Microsystems, Inc.

Sun's Big Bets

Energy Matters

Space Matters

Network Services Will Dominate

Innovation Still Matters

Volume Always Wins



Sun Grid: Worlds Only Grid Based Compute Utility

Easy, Secure, Affordable, Powerful



- Standard Infrastructure
- Reliable
- Scalable
- Predictable pricing
- Metered pricing
- Multi-source
- Multi-tenancy

Technical Complexity Managed by Sun and Hidden from View
Provides Simple Plug-and-Play Experience for End Users

The Face of Utility Computing

Easy Access to Compute Resource to Anyone on the Network

Welcome to Sun Grid



POWER UP YOUR BUSINESS WITH

SUN GRID COMPUTE UTILITY

Access the secure compute power you need, when you need it, easily through the Internet for just \$1/CPU-hr. Register today »

Use the Sun Grid in three easy steps.
View the demo »

3 GET
Your Results

Sun Grid Resources

- » About Sun Grid
- » Sun Grid Developer Community
- » Utility Computing

Sun Grid Launch

- » View Executive Video
- » View Customer Testimonials
- » Read About the Benefits of Sun Grid



Free Test Drive! Our sample app reads any web page and converts it to a spoken-word MP3 file. Download the file, and publish your own podcast! No registration required! » Try It

Enter the Grid »

- » Register for a Sun Grid Account
- » Forgot User Name or Password?

A Comprehensive Utility Offering

“Sun Grid Private Utility”
Customized, Modular

“Commercial Utility”

Standard Offering,
Semi-Customized

“Public Utility”

Standard Offering,
Instant Deployment

| | | | |
|-------------------------|---|--------------------------------|--|
| Typical Customer | Large Enterprise and System Integrators | Medium to Large Enterprise | Anyone On the Network |
| Access | Customer or SI Hosted | Dedicated | Portal |
| Availability | Longer Term Contract | Short Notice | On-Demand |
| Scheduling | Dedicated or Time Based Reservation | Time-Based Reservations | No Reservation |
| Pricing | Negotiated | Negotiated \$/cpu-hr | Predictable and all-inclusive \$1/cpu-hr |
| Business Terms | Capacity Provisioning Contract | Service Level Contract | Standard Contract |
| Technology | Menu of Options | Solaris 10 x64 or Redhat Linux | Solaris 10 x64 |
| Storage | Menu of Options | Customer Defined | 10 GB Standard |



Customer Choice

Buy the System, Consume the Utility, or Both

Buy it:
Sun's Hardware & Software



Consume it:
Sun's Utility Portfolio

Public Sun Grid

Commercial Sun Grid

Sun Grid
Private Utility

Common Technology and IP
Common Architecture and Design
Common Building Blocks

Public Sun Grid Compute Utility

Simple, Known, and Predictable

- No surprises. No hidden fees. No access fees
- No minimum number of hours. No minimum number of CPUs. No reservation required. Click thru license
- Metered pricing: you only pay for what you consume – its an operational expense
- Easy access to enormous compute power. Proven scalability that grows as your demand requires. Enables better utilization of resources
- Levels the playing field – now available to “the little guys”
- Reduce time to results – run jobs on more CPUs for shorter time



\$ 1
\$1/CPU-hr

Affordable Pricing. Efficient Scaling

What Can Customers Do Today?

Expedite success running compute intensive batch jobs

Thousands of subscribers!

Monte Carlo Analysis

Digital Movie Rendering

Oil Well Exploration

Quantum Chromodynamics

Econometrics

Very Large Scale Integration (VLSI) Design

Molecular Drug Testing

Offload Peak Traffic Flow

Radiation Cancer Therapy

Stellar Evolution

Dow-Jones Forecasting

CAE Military Simulation Modeling

The Synthetic Environment

Digitalization & Network Modeling

Simulation Training

> 1,000 Developers Registered!

Sun Grid Customer: Applied Biosystems (Applera Corporation)

Life-Saving Products to Market in Record Time

Servicing the Life Science Industry and Research Community



Business Priorities:

- Develop genotyping assays as quickly as possible, in response to newly released data
- Access required compute resources securely and cost-effectively

Benefits Realized through Sun Grid:

- Sped time to market by reducing computing time from three months to six days
- Eliminated the need to invest in additional hardware, saving the company several hundred thousand dollars
- Simplified data management and delivery of results

“Genetic discoveries are going to become more and more important in terms of finding cures and finding the genetics of a disease, so our goal is to make sure that our researchers and customers have access to the tools they need to accelerate the science.

Sun Grid helped us achieve this goal.”

- Francisco de la Vega,
Scientific Fellow and Senior Director
Applied Biosystems, Inc.

Accelerating Market Delivery of Life-Saving Drugs

Sun Grid Customer: CD02

Software Vendor Gains Competitive Advantage

Pricing and Risk Technology to Small Financial Services Firms



Business Priorities:

- Achieve faster delivery of pricing and risk analysis computations for competitive advantage
- Ensure convenient, affordable and secure customer access to grid compute resource
- Grow business without financial constraints imposed by development of an IT infrastructure

Benefits Realized through Sun Grid:

- Computation time shortened from hours to minutes
- Able to scale business without making financially prohibitive investments in IT
- Sun Grid multi-layer security provides safe computing environment for customer data

“For us, using the Sun Grid is now core to our business.

We view our product as software as a service that we offer on the grid.

By being able to grow our business incrementally on the Sun Grid as our customers build up their businesses, we have a completely scalable business model without the constraints of having to invest hundreds of thousands of dollars to create our own IT infrastructure.”

- Gary Kendall, Director, CD02

Expanded target market tenfold due to affordable computing power

Sun Grid Customer: Virtual Computer Corporation

Service Provider Fuels its Future with Sun Grid

Tailored Solutions for Energy, Space, and Life Sciences Industries



Business Priorities:

- Scale infrastructure quickly
- Meet customer demands for high- performance computing power
- Meet customer deadlines
- Avoid large capital outlays

Benefits Realized through Sun Grid:

- Flexibility to meet cyclical business demands instantly through on-demand compute resources
- Saved up to \$3 million by avoiding build-out of additional infrastructure
- Met customers' project timelines
- Faster time to market – by 60 days

“By using the Sun Grid Compute Utility, we were able to save up to \$3 million and ramp up to production much more quickly than if we did it on our own.

The Sun Grid has also been instrumental in helping us meet customer expectations and increase sales.

Sun has proved to be a solid technology partner and has beaten the pants off the competition with an affordably priced and technically superior solution.”

- Edward Hawes, CEO,
Virtual Compute Corporation

Has consumed 2 million CPU hours; plans to consume 3-6 million CPU hours by end of 2006

Sun Grid Customer: Callidus Software

Powering On-Demand Software Service

Enterprise Incentive Management (EIM) Software for Global Companies

Business Priorities:

- Expand market by launching on-demand service
- Minimize capital and operational expenditures for infrastructure
- Keep internal IT and operations overhead focused on core business
- Scale services to match customer demand



Benefits Realized through Sun Grid:

- Able to deliver on-demand service at low cost
- Millions of transactions in tight time windows
- Matched computing expenditures to revenues for efficient cash flow management
- Scales easily to meet customers' business needs
- Minimized IT overhead and TCO
- 25%-40% reduction in deployment costs in target markets with 300-2,000 payees

"The Sun Grid Compute Utility enables us to roll out a new on-demand service that provides our incentive enterprise management customers with unmatched scalability, security, and business agility."

- Shanker Trivedi
Vice President and Chief Marketing Officer
Callidus Software

Sun Grid enabled Callidus to provide its customers with a uniquely scalable, secure and agile service – the first solution of its kind in the EIM marketplace.

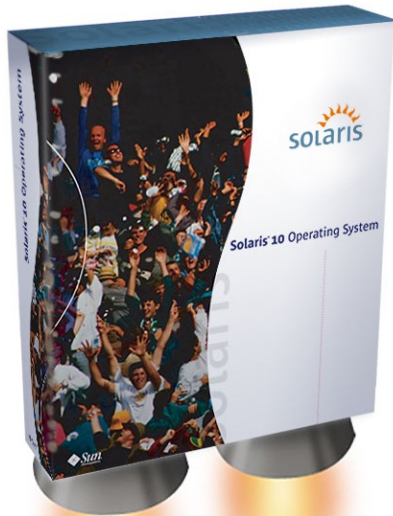
What it Means to the CIO

Helping Business Thrive, Compete, and Win

| CIO Priorities ... | Sun Grid Helps Deliver ... |
|--|--|
| Cost Containment | Predictable, pay as you go pricing model |
| Manage Data Explosion | Scalable utility service that grows with your business needs |
| Manage Power, Cooling, Space Constraints | That's Sun's problem – not yours |
| Improve Infrastructure Flexibility | Turn it on when you need it, turn it off when you're done |
| Improve Business Processes | Open and standards-based infrastructure |
| Improve Security and Compliance | Built-in security, runs on Solaris™ 10 OS |

Security Is Paramount

Built-in Security on Multiple Levels



Industry Standard Architecture

Sun AMD Opteron x64 servers
Sun Grid Engine software, and Solaris 10 OS

Our Innovation Fuels Your Business

Sun's R&D Investments are Paying Off for Customers

- Rich product product portfolio of software and hardware
- Powered by Sun IP
- All Sun IP included optimized for Sun Grid
- Solaris 10 OS provides security and scalability
- Award winning Identity and Access management



Sun Grid Benefits: Access

Unprecedented Access to Compute Power on the Network

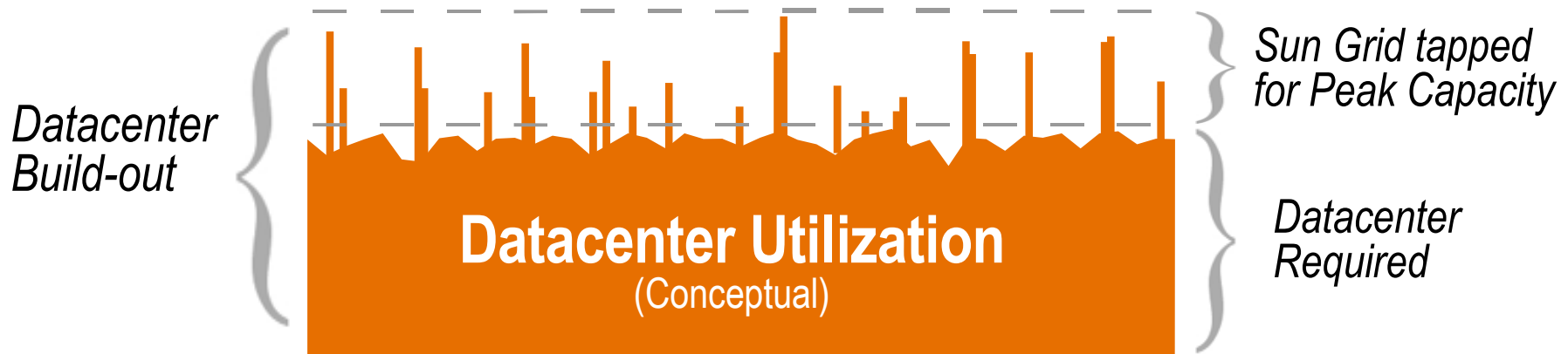
-
- Speed time to market
- Accomplish jobs you wouldn't have otherwise
- Datacenter power, cooling, space and complexity hassles managed by Sun
- All without the need to invest in expensive IT infrastructure



Sun Grid Benefits: Extra Capacity

Improved Utilization of Resources

- Sun Grid can be tapped for compute power to handle peak capacity
- Flexible capacity facilitates better utilization of existing IT infrastructure
- Frees up budget for strategic business initiatives and IT investments
- Bottom line impact; expedite results when it counts
- Enables enterprises to react quickly to emerging business opportunities and needs

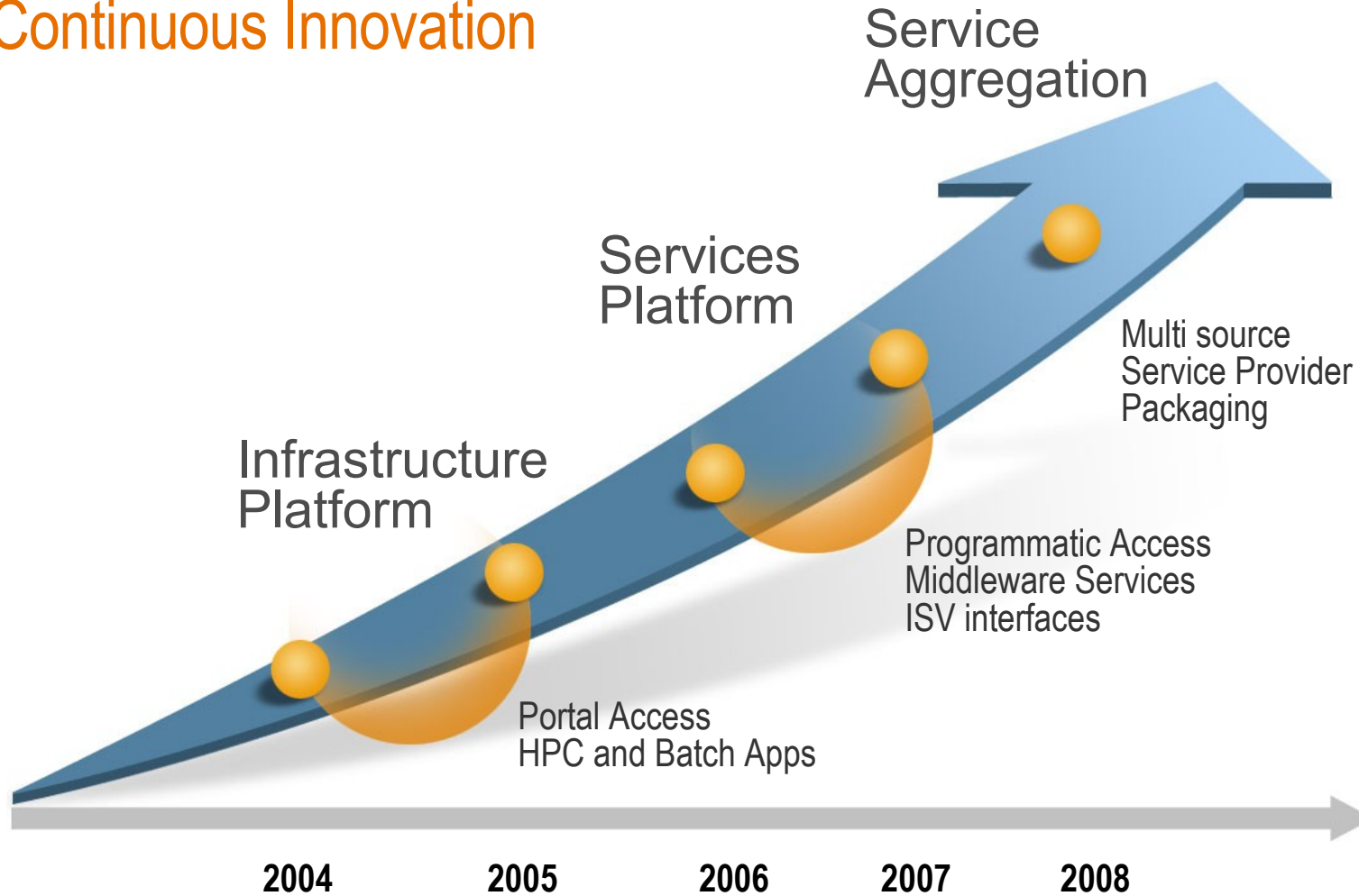


“70-80% of processing power often sits idle”

- Insight : Grid Computing A Vertical Market Perspective 2005-201

The Evolution of Public Sun Grid Utility

Continuous Innovation



Continuous Innovation

Summary

Providing the Compute Recipe for Success

Affordable



Simple and
Predictable Price:
\$1/CPU-hr

Metered Pricing
ZERO Commitment
Required

Flexible



Own or Consume
Grows with Your
Business

Use it on Your Terms
Turn It Up, Down, or
Off as Needed

Secure



Built-In Security on
Multiple Levels
Runs on Solaris 10
OS

Call to Action

- Sign up to be a beta customer using Mathematica on SunGrid
- Visit the demo in our booth
- Get a Sun Grid Account
- Sign up for the Sun Grid Developer Community



Benefits of Sun Grid™ and Utility Computing

Peter Denyer

+1 650 352 5437

peter.denyersun.com