



Datacenter Fabric Workshop



Windows InfiniBand Introduction

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Key Message



- OpenIB Windows repository
 - **All** necessary components for achieving **full** performance advantages of InfiniBand
- Industry **standard** interfaces, using industry **standard** interconnect
- Open Source Development
 - **One** Common Windows stack in the Industry



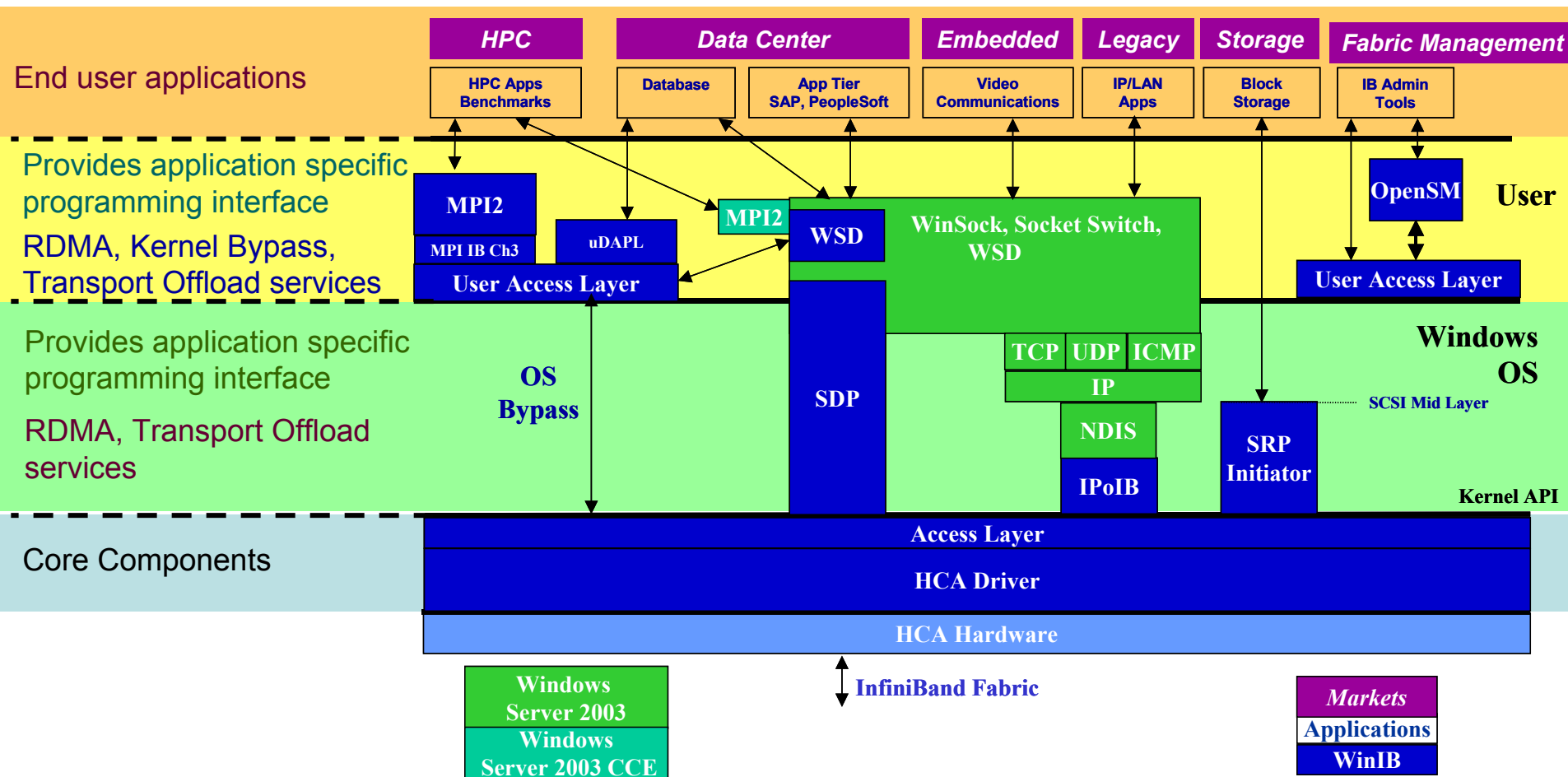
Windows!



- Linux was the only InfiniBand open source software development under OpenIB
- Windows InfiniBand is emerging
- Huge market for InfiniBand Windows
 - HPC
 - Embedded
 - Data Center
 - Storage
- One open source solution to meet all needs



Windows Stack Overview





Windows stack Components



- InfiniBand HCA Verbs Driver
- InfiniBand Access Layer (IBAL)
- InfiniBand Subnet Management
- MPI-2 over native InfiniBand
- IOverIB driver
- SDP driver
- WinSock Direct Driver
- SCSI RDMA Protocol Driver (SRP)
- User-Level Direct Access Provider Library (uDAPL)



Platforms Supported



- CPUs:
 - x86, x64, Itanium

- Operation Systems:
 - Windows Server 2003 (SP1)
 - Windows Server 2003 CCE
 - Windows XP



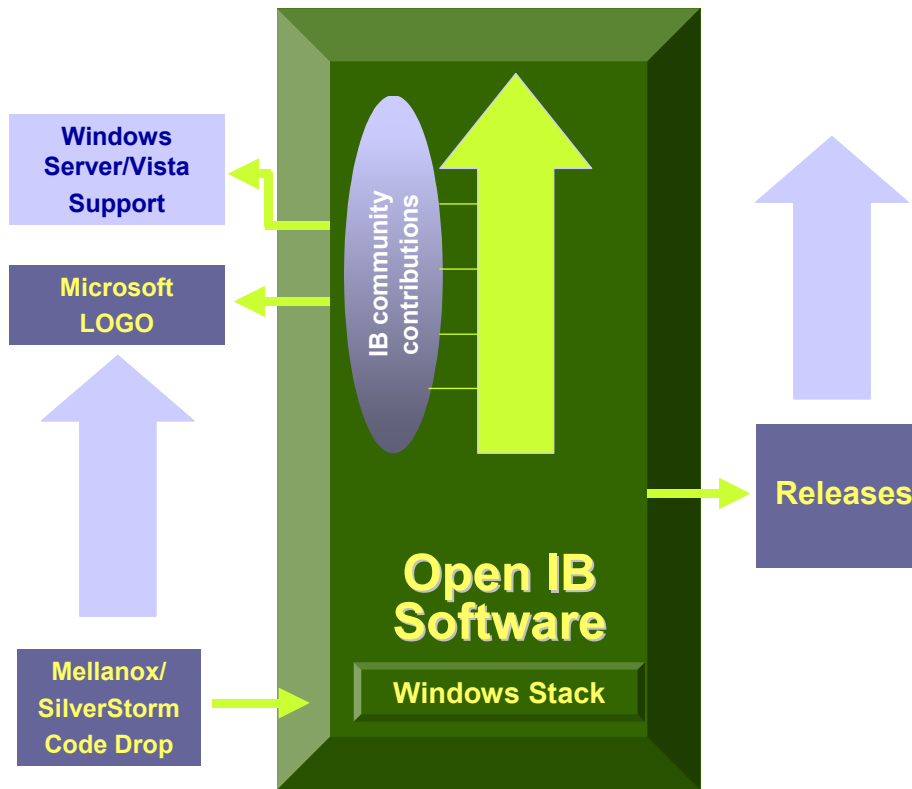
Windows Development Ecosystem - OpenIB



- Open Source Development Community
 - <http://windows.openib.org>
- Goals:
 - Standardization of protocols and out-of-the-box interoperability
 - Simplify obtaining Microsoft LOGO
 - Become part of Windows distribution

Open Source Development
One Common Windows stack in the Industry

Windows Development Ecosystem – Landscape



- **Mailing list**

- <http://openib.org/mailman/listinfo/openib-windows>

- **Sign up to contribute**

- <http://windows.openib.org/openib/contribute.aspx>

A single Windows-based software stack gives the confidence of InfiniBand solution interoperability



Windows HPC



- Major Implications
 - Engineering
 - Bioinformatics
 - Oil & Gas
 - Finance
 - Entertainment
 - Government/Research



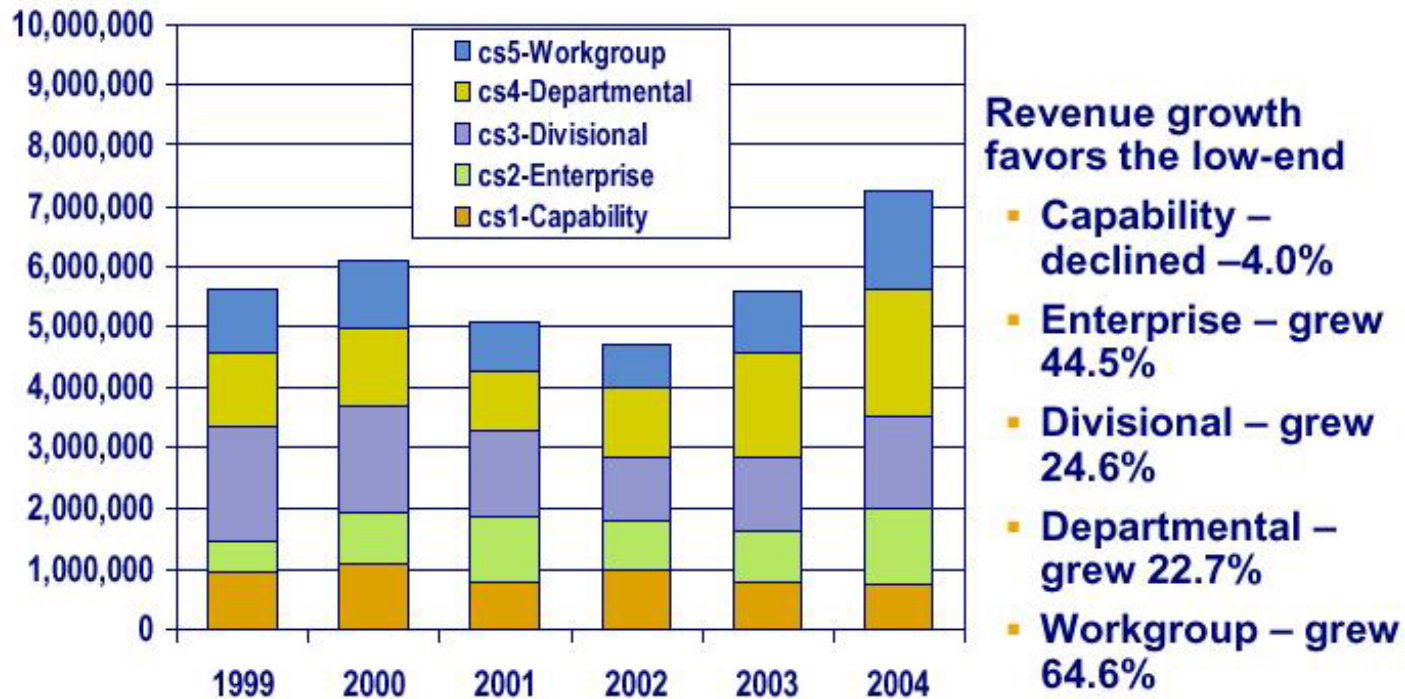
HPC Market Definitions



- Technical Capability
 - Systems configured and purchased to solve the largest most demanding problems
- Technical Enterprise
 - Systems purchased to support technical applications in throughput environments selling for \$1 million or more
- Technical Divisional
 - Systems purchased for throughput environments selling from \$250,000 to \$999,000
- Technical Departmental
 - Systems purchased for throughput environments selling for \$50,000 to \$250,000
- Technical Workgroup
 - Systems purchased for throughput environments selling for less than \$50,000

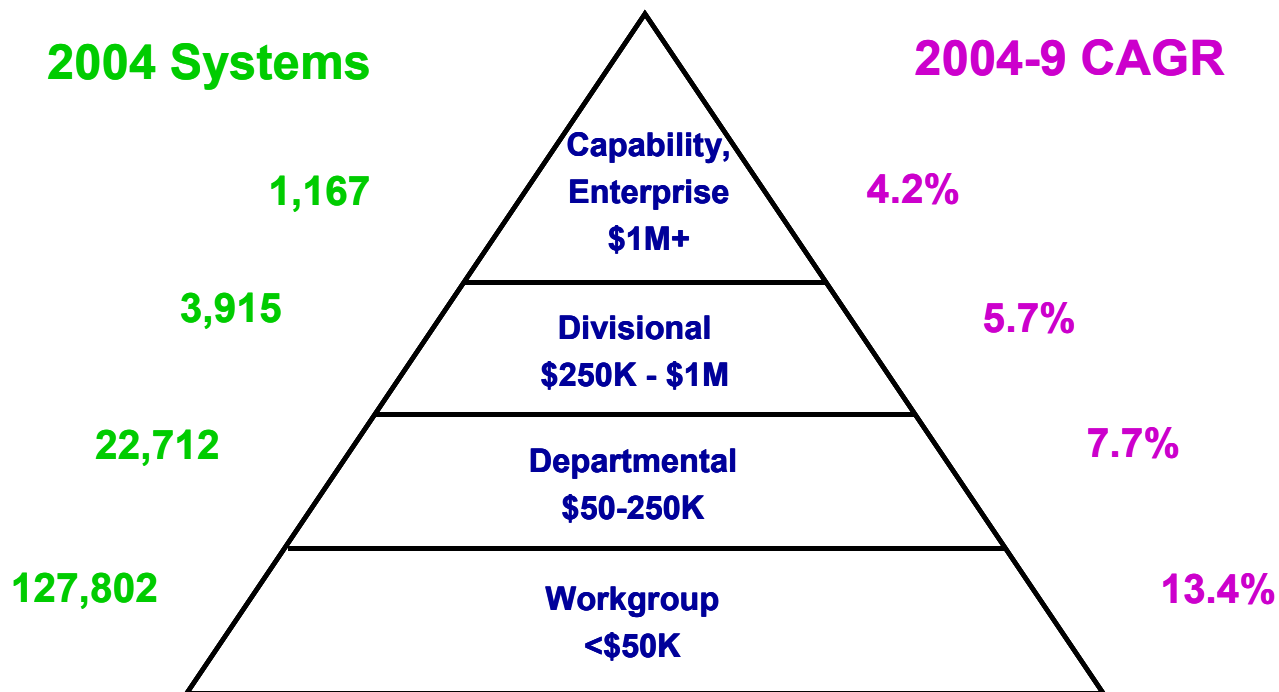


HPC - Revenue by Competitive Segment (\$M)



- Strong market performance
 - Revenue = \$7.25B, Growth = 30.2%
 - Units = 155,596, Growth = 70.2%

HPC – Segments Trend



HPC Market Revenue = \$7.25B, Growth = 30.2%
<\$250K – 97% of the systems, 52% of revenue



Call for Actions



- Development is gaining momentum
- There is room for new ULPs
 - iSER
 - VIPL
 - and more...
- Don't miss the action!



Resources



- OpenIB Wiki
 - <https://openib.org/tiki/tiki-index.php?page=OpenIB+Windows>
- Openib-windows mailing list
 - <http://openib.org/mailman/listinfo/openib-windows>
- Sign up to contribute
 - <http://windows.openib.org/openib/contribute.aspx>



Q & A

