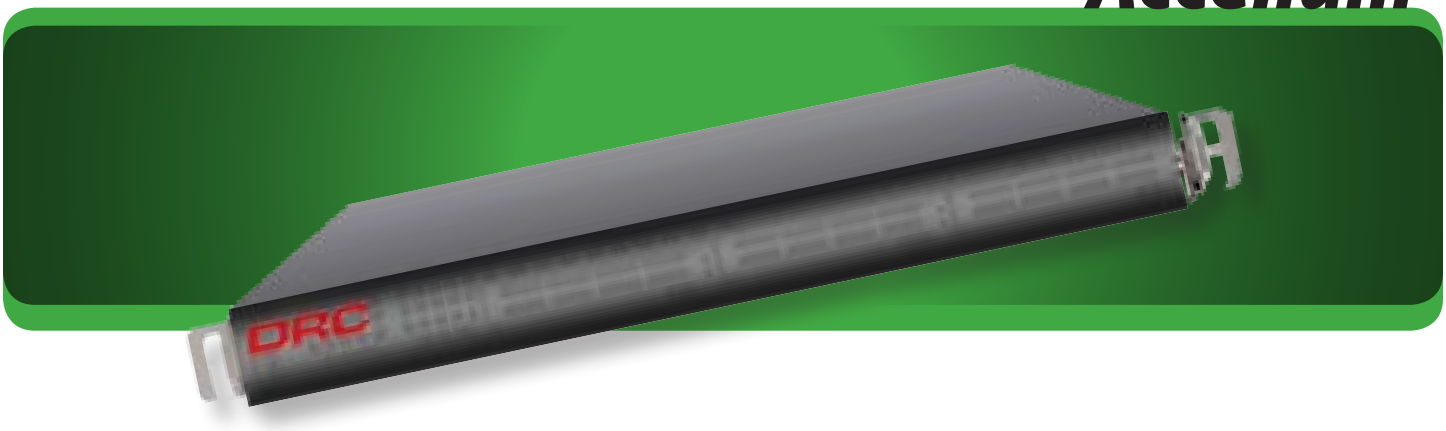
DRC

Accelium™



Low Latency Data Appliance

Architected for ultra-high bandwidth—streaming applications at 1.5 GB/s and with < 3µs latency.

Highest Capacity Platform

Powered by the DRC Coprocessor with more memory, bandwidth and application capacity than any other platform.

Application Transparency

Maximum acceleration with no application source code changes.

Open Linux Environment

Accelium ships with a standard Linux distribution.

Ultra-High Performance Data Appliance Platform

- Delivers massive application performance gains.
- Accelium runs search, sort, encrypt and compress at hardware speeds.
- No software changes to gain up to 100x, or more, performance improvement.
- Reduces x86 server needs by up to 10x — major power, real estate savings.
- Hardware encoded security for maximum application protection.

Gigabyte throughput, microsecond latency

The DRC Accelium appliance foundation is a patented, ultra-high performance coprocessor that executes complex data manipulation routines up to 100 times, or more, faster than software equivalents. These coprocessor routines are available to co-resident x86 based applications through the DRC API and require no source code changes to the application.

Tightly coupling the Accelium coprocessor with a CPU delivers very low latency, ultra-high data bandwidth to the most demanding applications. Architected for applications that are sub-second time-critical and which process gigabytes of data, the Accelium appliance delivers unprecedented performance.

The Accelium engine uses process pipelining and replication in its massively parallel architecture. Further advantages are achieved with the ability to right-size operators to any data width and to utilize multi-input operators, frequently reducing iterative processes to single cycle operations.

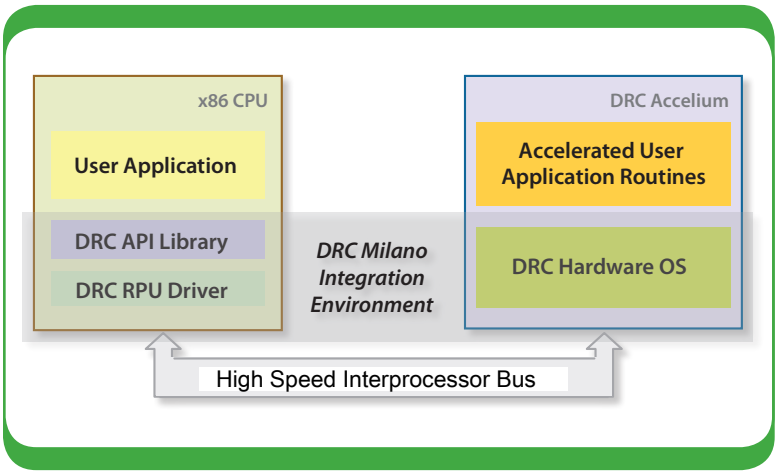
All of which adds up to an application appliance that can substantially reduce the servers, up to 10 fold, required to deliver a specific application. The resulting savings in power and real estate can be substantial. Alternatively you can apply the freed up computing power for new or enhanced tasks.

Accelium Appliance Engine

The Accelium Appliance is powered by the industry's most powerful coprocessor. Delivering ultra-high throughput, very low latency and massive memory support the coprocessor can support the most demanding of applications. Accelium fits into a standard AMD Opteron™ Socket F slot and supports the AMD Direct Connect Architec-ture providing very low latency transfers directly to motherboard memory unencumbered by intermediate memory controllers.

The Accelium coprocessor consists of 4 onboard low latency memory systems as well as direct access to the motherboard memory, the largest FPGA commercially available and support for 3 interprocessor busses. Specifically the coprocessor delivers:

- Total memory support of 20.5GB rising to 68.5GB with high density DRAM
- Internal memory bandwidth in excess of 1 TB/s
- External memory bandwidth of 15 GB/s
- 300 nanosecond latency
- Very low power with maximum consumption of 40 watts
- Xilinx Virtex™-5 FPGA with 330,000 logic cells and 576 x 18kbits Block RAMs



Milano™ Hardware Operating System

Milano™ is a set of DRC services that seamlessly integrates the DRC RPU with the x86 CPU. With API, driver and management interface on the CPU, and a hardware operating system on the DRC RPU the following realtime functions are provided:

- DMA and interprocessor bus arbitration management
- Very low overhead and low latency paths
- Coprocessor resource arbitration management
- Run Time Reconfiguration
- In-field upgradeable
- Set of well behaved, consistent interfaces
- Full Linux support

Accelium Configurations

The Accelium Appliance Platform is available in a variety of configurations to suit a range of operational requirements. Standard configurations are based on a 2-way or 4-way rack mounted server.

Configuration options include:

- 2U or 4U rack mounted servers
- 2 way or 4 way motherboards
- 1,2 or 3 DRC Accelium 2000 coprocessors
- 1, 2 or 3 AMD Opteron™ dual or quad processors
- Gigabit Ethernet support
- Fibre Channel support for up to 8 x 4 Gbps channels
- Various memory and disk drive options

For those customers who wish to do their own development DRC offers a range of 2-way and 4-way tower and rack mounted workstations and servers.

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