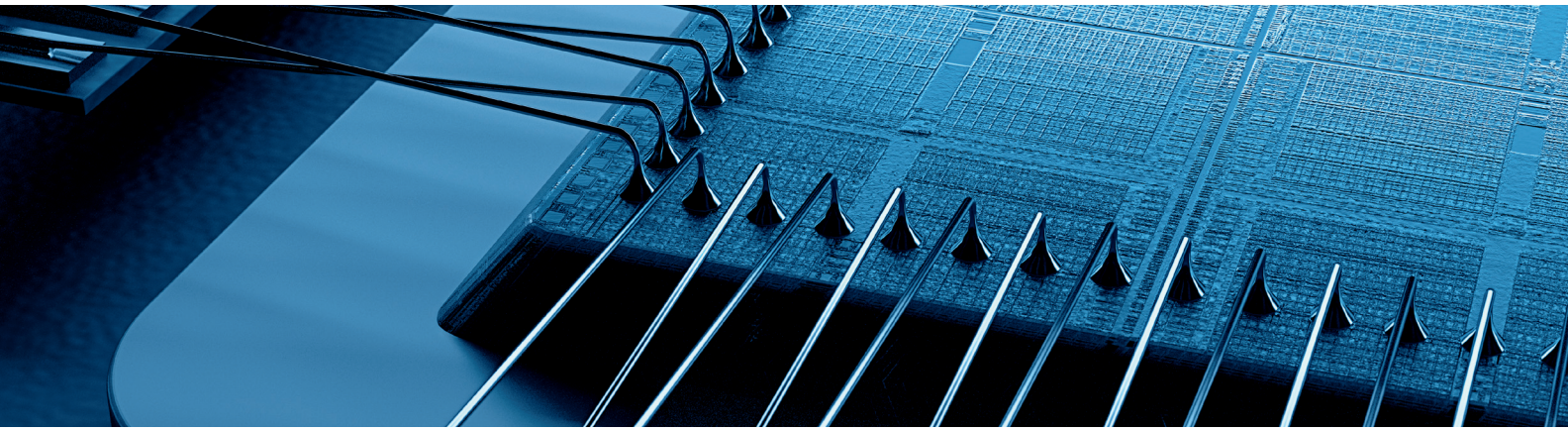
SOLUTION PROFILE
Intel® Xeon® Processor E7 Family
QlikTech

Delivering Advanced Intelligence at the Speed of Business

QlikTech's in-memory technology provides very fast, scalable business intelligence and analysis, optimized for the Intel® Xeon® processor E7 family.



Solution provided by:
QlikView

Companies across all industries own geometrically growing data stores, presenting a clear opportunity to build value by turning raw information into actionable intelligence. Moreover, the ability to analyze the data in real time as events unfold is increasingly a competitive imperative. QlikTech has risen to the occasion with its QlikView* product, which generates insights to support advanced decision making as fast as the company's business customers need it.

CHALLENGE:

Create a business intelligence (BI) solution that can process massive data stores in real time and scale across large-scale computing environments to handle open-ended growth and complexity with the agility, flexibility, and robustness business users demand.

SOLUTION:

QlikView uses in-memory database technology that holds all data in system memory, eliminating the latency associated with disk access during queries. Highly optimized for the Intel® Xeon® processor E7 family, the solution combines speed advantages with very high scalability.

CUSTOMER BENEFIT:

Companies that deploy QlikView on the latest Intel Xeon processor-based platforms can offer their users a rich, user-friendly BI platform that takes advantage of familiar productivity tools. It also scales almost linearly across the up to 10 cores per socket provided by the Intel Xeon processor E7 family and takes excellent advantage of the platform's up to 500 GB of addressable memory per socket. These factors allow QlikView to deliver superior performance and ease-of-use from hardware investments.

Making a Great Thing Better: Optimization for the Intel® Xeon® Processor E7 Family

As adopters of advanced BI technology, QlikTech's customers push the envelope. They place high demands on their compute resources, always pushing for more comprehensive analysis and reports to gain new insights into business trends and opportunities.

In today's business climate, where it is more vital than ever to balance resource needs with budget realities, these customers are poised to benefit from the advantages in scalable performance enabled by the Intel Xeon processor E7 family. The greater number of cores, larger caches, and higher levels of accessible memory compared to predecessor platforms deliver up to 1.27x higher performance[1] and allow larger groups of users to do more with larger universes of business data.

Those capabilities help customers make critical business decisions faster. Further, the reliability, availability, and serviceability advantages of the Intel Xeon E7 family make the platform well-suited to large-scale, mission-critical QlikView deployments. QlikTech has focused on a number of goals in optimizing the QlikView environment for the Intel Xeon processor E7 family:

- **Performance tuning.** QlikTech carefully follows optimization best practices to ensure that QlikView takes excellent advantage of the latest hardware features. In particular, its tuning process benefits from deep hotspot analysis using Intel® VTune™ Performance Analyzer.
- **Enhanced software parallelism.** Using Intel® Thread Profiler and Intel® Thread Checker, QlikTech created a robust threading model that takes excellent advantage of the large core count and Intel® Hyper-Threading Technology built into the latest Intel Xeon processors.
- **Ongoing platform testing.** Each new generation of server platforms represents an expanded set of opportunities for QlikTech to better meet its customers' needs, and the company tests its solution exhaustively against new platforms, such as the Intel Xeon processor E7 family, to ensure smooth interoperability.

The new server platform represents an opportunity for both QlikTech and its customers. Decisions that are faster and more intelligent make business more efficient, and these benefits are only the beginning.

Engines of Change: The Intel® Xeon® Processor E7 Family

The Intel Xeon processor E7 family extends the limits of scalable performance, reliability, security, and energy efficiency for enterprise servers:

- **Scalable Performance.** Up to 10 cores (20 threads), support for 32-GB DDR3 DIMMs (2 TB per four-socket system),[2] and 30 MB of last-level cache.
- **Reliability and Security.** Intel® Trusted Execution Technology, Double Device Data Correction (DDDC), and Partial Memory Mirroring.
- **Energy Efficiency.** More performance within the same power envelope as predecessors, Intel® Intelligent Power Technology,[3] and low-voltage DIMM support.[4]

Learn more about QlikTech: **www.qlikview.com**

Learn more about the Intel® Xeon® processor E7 family: **www.intel.com/xeon**

[1] Testing by QlikTech and Intel. Configurations:
- Intel® Xeon® processor 7500 series at 2.26 GHz, 128 GB DDR3-1066 RAM, Microsoft Windows Server 2008 R2 Data Center x64, QlikView 9 SR5 build 7502, Intel® Hyper-Threading Technology enabled, Intel® Turbo Boost Technology enabled, NUMA enabled.
- Intel® Xeon® processor E7 family at 2.4 GHz, 128 GB DDR3-1066 RAM, Microsoft Windows Server 2008 R2 Data Center x64, QlikView 9 SR5 build 7502, Intel Hyper-Threading Technology disabled, Intel Turbo Boost Technology enabled, NUMA enabled.

[2] Up to 64 slots per standard four-socket system x 32 GB/DIMM = 2 TB.

[3] Uses similar core and package C6 power states enabled on Intel® Xeon® processor 5500 and 5600 series. Requires OS support.

[4] Savings dependent on workload and configuration. Example: At 100-percent SPECpower* load it can save ~0.8W for 4-GB DIMM DRx8 based on early Intel internal estimates.