



Achieving high speed performance in no-time!

Latency is the term given to the speed and consistency of real-time data streaming, in short: 'how much time does it take for information to get from A to B.

The more latency can be reduced, the better a group of connected devices can communicate. This is what we call 'Ultra Low Latency'.

Access to real-time information and the ability to respond instantaneously to ever-changing data can significantly increase the efficiency and productivity of your business.

For example: manufacturers that rely on machinery can monitor, identify and fix technical failures before their business operations are impacted, thus avoiding costly downtime.

Applications

- Healthcare Industry
- Transportation applications
- High Frequency Trading
- Smart Electricity Grid

Bandwidth versus Latency

To achieve the best possible performance of your data/internet speeds both bandwidth and latency are key components. The bandwidth component ensures a high volume of data transfer and the latency ensures that it takes less time for this data to travel.

One is not more important than the other. For the ultimate experience, you need the ideal combination of high bandwidth and (ultra) low latency.

Benefits of Ultra Low Latency

- Ability to react to changed data instantaneously
- Avoiding costly down-time
- Improved customer experience

AimValley Expertise on Ultra Low Latency

Our solutions support both the current systems and the next generation architecture. What we have found is that CPUs, or merchant switching silicon do not always achieve the required speeds and low latency. Using our FPGA experience, we have shown that ultra low latency is possible, down to sub-microsecond performance.

Customers can use the same architecture for their future systems, preventing the need for multiple parallel developments, and high amount of reuse for software, tools and factory test configurations.

AimValley Proven Track Record

For a supplier of industrial equipment we developed a replacement for their control infrastructure. Their current solution is based on legacy technology and protocols. With the global shortage of these components, a serious concern regarding component availability was tackled. More info on [this project example](#).

Why AimValley?

AimValley is a reliable provider of ultra low latency technology since 2003, delivering solutions for:

- High speed data processing applications
- Complex FPGA-based accelerated systems
- High speed, low power hardware equipment
- Robust embedded software
- Early adopter of Acceleration Technology

AimValley understands the full complexities as well as the subtle nuances of designing great edge solutions. We excel in building complex systems that are part of your product in the fields of Industry 4.0, Big Data, Healthcare and Transportation markets. Our combined skills represent all the important aspects required for the development of end-to-end systems.

Our customers enjoy the benefits of working with a strong team with over 2000 years engineering experience. AimValley is a trusted partner of Tier 1 customers in Telecom and Industrial markets and has shipped more than 100 000 products.

Quality Focus

- Outstanding track record of on-time delivery
- Best in Class Designs – Time, Budget & Quality
- ISO9001, ISO140001, Ecovadis Platinum CSR

