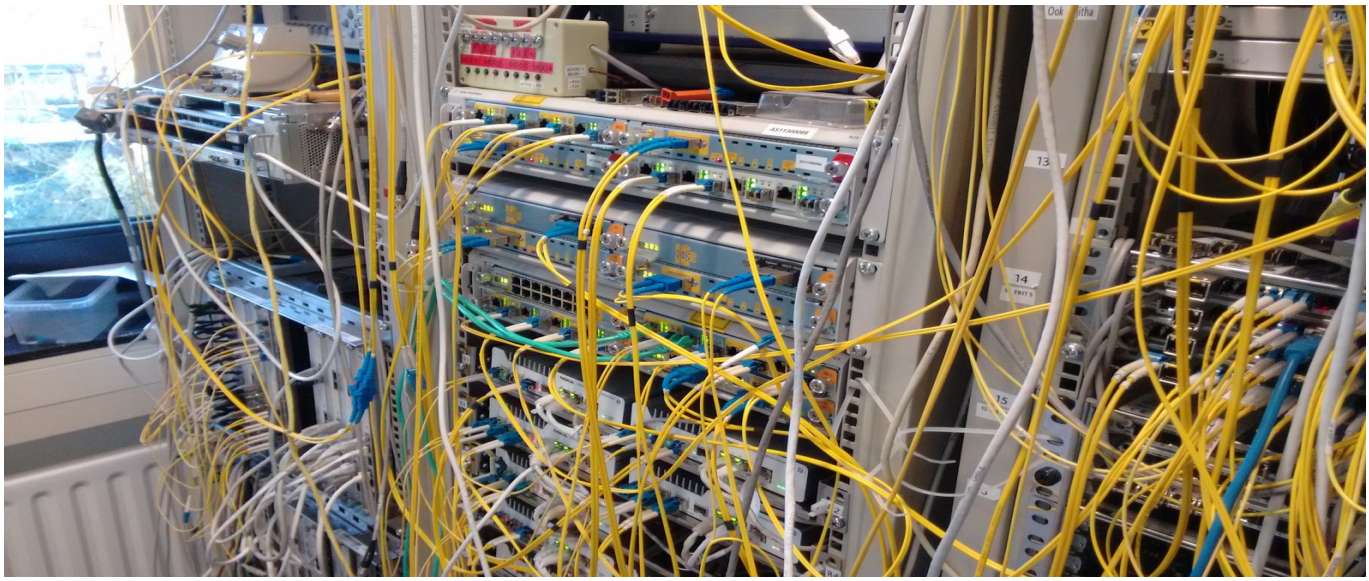
AimValley

Test Labs in Software Development
Design Brief



Developing Software?
Consider the Final Test Environment Up Front

When it comes to complex and specific product development that includes aspects of interoperability, it is wise to consider the capabilities of development partners in terms of system verification and final testing.

Sometimes the actual software development is less of a task than the testing and the test environment and associated test equipment can even cost more than the software being developed.
There is no point choosing a lower cost software development house if you will need to build an expensive test lab to test what they have delivered.

One danger in system and device design and more specifically in verification and test exists when the Engineers that created the design also design and perform verification and test. Proper testing should go well beyond testing each function, one at a time, to confirm that each behaves as expected during creation.

AimValley employs a “black box” approach where the entire element, device or system is tested wholistically with verification routines that create real world use-case scenarios including parallel and scaled-up use of functions.

Our System Test & Certification team tests products as seen from an end-user’s perspective. The team members are experienced in developing innovative test methods for new functionality. Automation is applied to enhance coverage and quality. Serious attention is given to quality indicators like performance, reliability and stability.

Utrechtseweg 38
1213 TV Hilversum
The Netherlands

phone +31 35 689 1900
sales@aimvalley.com
www.aimvalley.com

In addition, AimValley introduces test signals, commands, and stimulus that are made fuzzy or randomized on purpose to ensure that unintended behaviours such as system lock-ups do not occur. Our testing process covers error conditions and proper error messaging.

The System Test & Certification team carries out in-house environmental testing, including thermal investigation and climatic testing, or contracts external test parties for vibration, earthquake, solar radiation and EMC testing.

More and more devices and systems are serving mission critical applications where reliability and continuous availability are required. When electronic systems operate in ideal conditions, the probability of issues is greatly reduced.
AimValley ensures that devices and systems also behave as expected when events such as power failures occur. Our power cycle testing not only monitors recovery and reliability but also verification of data integrity during and after multiple iterations of power down and power up cycles over long periods of time.

Often the weakness of any element or system is not its ability to reliably function but rather to handle maximum processing rates and to deal with issues that are introduced at scale. AimValley goes to extra efforts to build-out verification scenarios to test systems at scale. For example the behaviour of 1000's of AimValley SmartSFPs being managed by a single switch using AimValley's Tiitan software during power cycles.

Why AimValley?

AimValley is a reliable provider of Edge 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 more than 2 000 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

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