# IMMERSED COMPUTING®
# AN INTRODUCTION

Asperitas is introducing Immersed Computing®, a concept driven by sustainability, flexibility and efficiency with a clean, self-contained, modular and plug and play solution which enables high density computing while reducing IT and cooling energy.

## Asperitas
### IMMERSED COMPUTING

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A concept driven by sustainability, efficiency and flexibility. Using the most efficient model for operating IT, Total Liquid Cooling, and going far beyond just technology. Immersed Computing® includes an optimal energy efficiency performance, optimised way of work, highly effective deployment, flexible choice of IT and drastic simplification of datacentre design.

### BENEFITS
Immersed Computing® provides benefits for many layers within the datacentre industry, from the physical infrastructure and facilities to the end user of a platform. Immersed Computing® is offering great advantages on all levels of the datacentre value chain. Realising maximum results in Cloud, HPC and Edge.

### ASPERITAS SOLUTIONS: AIC24
Asperitas has developed the solutions to make use of the full potential of Immersed Computing®. The outcome of thorough and high quality engineering is the first Asperitas solution: the AIC24.

The AIC24 is designed to ensure the highest possible continuity for your IT and a strong focus on usability. Immersion requires a different approach compared to traditional air-based operation. All aspects of Immersed Computing® are fully addressed with the Asperitas portfolio. The AIC24 is a fully self-contained, plug and play, modular unit with a footprint of 600x1200 mm. The AIC24 can contain up to 48 servers (twin configuration). Any type of server mainboard can be supported up to a maximum size of E-ATX for a 1U chassis.

### TOOLING
The most important elements of the tooling are the service trolley and the maintenance supplies for working with Immersed IT. Finally, Asperitas provides training which addresses the new elements around operating and maintaining Immersed Computing® as effectively as possible.

### ASPERITAS COMPANY
**ASPERITAS IS A CLEAN-TECH COMPANY** with a clear mission: greening the datacentre industry by introducing Immersed Computing®.

**THE ASPERITAS DEVELOPMENT PARTNERS** include University of Leeds, Vienna Scientific Cluster, Aircraft Development and Systems Engineering (ADSE), Super Micro, Schleifenbauer and Brink Industrial. Asperitas is supported by the Netherlands Enterprise Agency.

**COME AND SEE** the AIC24 at work in the Asperitas Technology Centre in Haarlem, The Netherlands. Send an e-mail to **experience@asperitas.com** and we'll contact you for an on site demonstration.

### BENEFITS
Immersed Computing® is offering great advantages on all levels of the datacentre value chain.

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| **Datacentre** Build | **Reduced floorspace** Compared to an average air cooled cloud datacentre, the AIC24 can facilitate 5-10 times as much density. |
| | **No raised floors** Raised floors and isle separation schemes are no longer required. |
| | **Flexible deployment** The physical location of the datacentre becomes less challenging with the AIC24. Since there is no noise, datacentres can be built closer to the edge. |
| **Datacentre Facilities** | **Smaller cooling installations** The minimized cooling requirements of the AIC24 result in smaller, simplified and cheaper cooling installations. |
| | **Minimised power systems** The emergency no-break power systems can be minimised to the lower power requirements for IT and cooling systems. |
| **Datacentre Operations** | **Less IT failures** Immersed Computing® eliminates the root cause of most electronic component failures. |
| | **Reduced facility maintenance** Downsized cooling and power requirements also reduce the amount of maintenance on these systems. |
| **IT Hardware** | **Less IT, more IT power** The loading of a single immersed server can be sized to replace 3 or more air cooled servers. |
| **Software** | **Reduced OS and CPU licenses** Because of the smaller number of physical servers, there are less OS or CPU licenses required. |

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