BOSTON
Servers | Storage | Solutions

Asperitas
IMMERSED COMPUTING®

INTEGRATED IMMERSED COMPUTING® SOLUTIONS OPTIMISED FOR SYNERGY

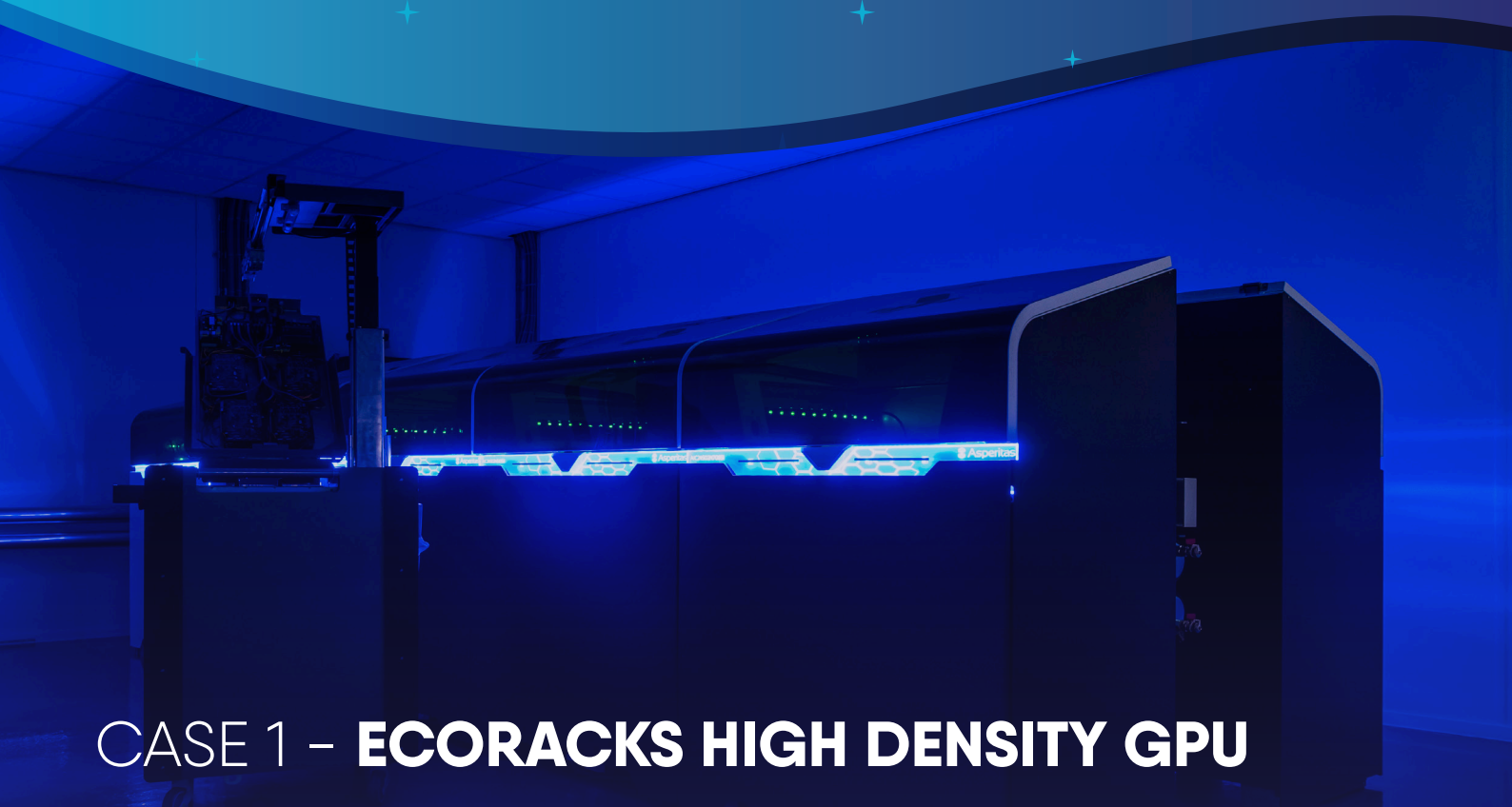
CASE BY CASE

EcoRacks
uw datacenter dichtbij

COOLDC

cloud simplified
peasoup

SENCKENBERG
world of biodiversity



CASE 1 – **ECORACKS HIGH DENSITY GPU**

The Asperitas AIC24 solution did meet the requirements to deliver a 300kW facility on less than 35m2 with ten AIC24 modules. In order to do this a unique server configuration had to be developed by Asperitas for a GPU-based cluster. This Immersed Computing® optimised configuration is able to run 12 GPUs in a 1U server; totaling up to 288 GPUs per AIC24. For the system to run all year round a simple dry-cooler system was deployed. Optionally, the high temperature cooling water is ready to be fed into a district heating system.

CASE

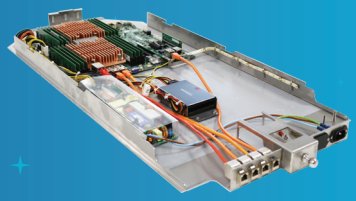
The Department for Applied Bioinformatics in conjunction with the LOEWE Centre for Translational Biodiversity Genomics (LOEWE-TBG) was looking for a solution, which is highly energy efficient, sustainable, reliable and maintainable. It should support our existing IT infrastructure by fulfilling ambitious HPC requirements for comparative genomics research across hundreds and even thousands of species. The newly acquired system forms the central computing infrastructure of the recently founded LOEWE-TBG .

"We fully share the vision to reduce power consumption for data centres by transforming from the current compute-centric to a more green and efficiency-centric infrastructure. We were impressed with the very advanced solution Asperitas has developed in the immersive cooling market segment. The data centre in a box solution is easy to plug in & play, which made it easier to adapt Immersed Computing® technology. Latest AMD EPYC™ processor generation was chosen together with dual socket motherboards from SuperMicro® in all compute nodes because of high memory bandwidth and good scalability of our application." – **Prof. Doc. Ingo Ebersberger**

ANNA AIC24

SOLUTION

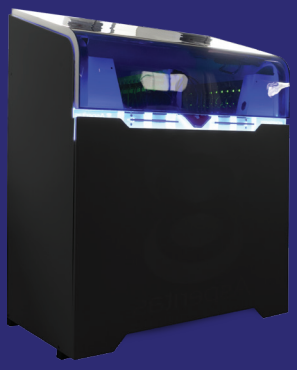
Asperitas Immersed Computing® solution does not require any raised floor, CRAC units, Chillers which drastically saves customer's CAPEX and OPEX. The data centre in a box solution is easy to plug in & play, which made it easy to adapt Immersed Computing® technology. Latest AMD EPYC™ processor generation was chosen together with dual socket motherboards from SuperMicro® in all compute nodes because of high memory bandwidth and good scalability of the application.



FENWAY AIC24-DSi

CASE

Unlike other cloud providers, PeaSoup designed their cloud architecture using hyper-converged technology. This technology reduces the risk of cloud outages by 40% compared to more traditional models, and PeaSoup were the first to deliver this using VMware technology since 2014. In partnership with Asperitas, PeaSoup brings a secure cloud to Lincoln the new coolDC data centre. This is a hyper-converged, total immersed cloud solution.



"An enhanced performance, no peak heat slowdowns and reliability are the three absolute essentials for PeaSoup cloud infrastructure services, and this was fully recognised and mitigated by Asperitas staff understanding every aspect of those technical requirements. Overall this is a fantastic opportunity to expand our service whilst retaining our original approach of underlying cost and risk reduction. Also, by adding our cloud services to the coolDC solutions portfolio and choosing to work with Asperitas and Boston, we can deliver a cost-efficient service with superb hardware performance and reliability." – **Martin Bradburn, CEO**

FENWAY AIC24-DDW

SOLUTION

With Asperitas Immersed Computing® it's possible to bring a totally immersed cloud solution to the enterprise market in no time. The reason behind choosing a liquid cooled solution is simply that it's driven by sustainability, flexibility and efficiency with a clean, self-contained modular and plug and play solution. This design required a custom server configuration to deploy into the immersed technology. Working with Asperitas and Boston, the server configurations were designed and tested to ensure the PeaSoup design systems were fully compatible with both VMware support and Asperitas immersed technology ensuring there were no risks of failure on servers.