



CID is a developer of bespoke software for some of Europe's leading businesses. The company is based near Frankfurt, Germany, with offices across Europe. It has spent decades evolving its approach to software products and services to maximize clients' potential. CID uses the latest and best-fitting technology and working practices to do better things for more customers, faster.

Industry

IT & Tech

Partner

evoila is an IT service provider with offices throughout Europe. Its expertise ranges from virtual data centers, cloud native/DevOps, security, networking and hyperscalers to big data analytics and development.

VMware footprint

- VMware vSphere® Foundation

CID Transforms Storage Performance to Unleash Developer Ingenuity

CID, a software developer and IT consultancy headquartered in Germany, creates bespoke solutions that address unique customer challenges across various industries. These could be enabling retailers to create better customer experiences, manufacturers to gain efficiencies from smart data, or enterprise heads empowering staff to find new ways of working. This customized approach requires CID developers to work closely with customers in a powerful agile environment to support the collaboration. By adopting VMware vSAN Express Storage Architecture, the latest evolution in Broadcom storage technology and the only hyperconverged infrastructure (HCI) solution natively integrated with VMware vSphere, CID is transforming its developer potential by accelerating application development, streamlining storage management, and laying the foundation for continued innovation.

Creating software as unique as your business

Software, as CID sees it, is now the lifeblood of any organization and customization is key. It's no longer a choice between build or buy.

CID understands there are a growing number of customers demanding personalized functionality that isn't provided by an off-the-shelf product but cannot tolerate the cost and complexity of outsourcing software development to a consultancy.

"It's an approach that empathizes with the nuances of our customers' operations as much as it appreciates their unique position within the market," says Alexander Lörch, chief executive officer and co-founder, CID. "It allows them to access true competitive advantages without risk."

"The adoption of VMware vSAN Express Storage Architecture gives us at least a five-year cycle, with the expectation that we can scale on the fly, if needed."

Marcus Viel, Senior Infrastructure Administrator, CID



Finding new opportunities for process efficiency

Creating a bespoke offering has always been done with the goal of providing value that isn't attainable with an off-the-shelf solution. It is a sweet spot that CID has been in for more than 27 years. The German software developer now works with some of the biggest names in the industry, including 3M, Engelbert, Strauss, T-Mobile and Volkswagen. The company has helped customers unearth new customer segments, spot kinks in global supply chains, and streamline ecommerce processes.

"When we started, our target was to establish our services in business-critical areas. That means really diving into the heart of our customers' processes," says Alexander Lörch. "We never wanted to be the biggest. But in our niche, we wanted to be the best."

To provide optimal levels of value, CID needs to be close to its customers. The organization also needs to attract and retain the best talent to develop the next round of software, while providing an environment for employees to excel.

To continue delivering tailored solutions that offer true competitive advantage, CID needed to enhance its storage performance, streamline management and lay a foundation for sustainable innovation and growth. If latency issues are holding back one of its big ecommerce retailer customers, loyalty only stretches so far. Developer ingenuity counts for nothing if the underlying infrastructure is lacking. "Our appetite is to work with very mature solutions," says Rouven Lörch, co-chief executive officer and founder, CID. "Our reality is that we're always dealing with the cutting edge."

Coping with unprecedented strain on storage infrastructure

From its earliest days, CID recognized the importance of its underlying data center operations. The business hosts customer applications that have always required highly performant, integrated, seamless data center operations.

"We have a huge variety of workloads, many going back years," says Rouven Lörch. "We have workloads on legacy hardware and other workloads broken down into containers."

The mainstream adoption of AI is placing new demands on the organization's infrastructure. CID was early to AI, with pilot projects as far back as 2007 looking at language processing. In recent years demand has snowballed. CID needed to gather and ingest huge amounts of data and be able to process and analyze it in real time. As its developers search for the next efficiency opportunity for customers, this has placed unprecedented strain on its storage infrastructure.

"We needed to act on IO latency. Our virtual machines were not performant enough," Rouven Lörch explains. "We always want to run our systems to the limit, but it's just that we now need to move the boundaries of what's possible."

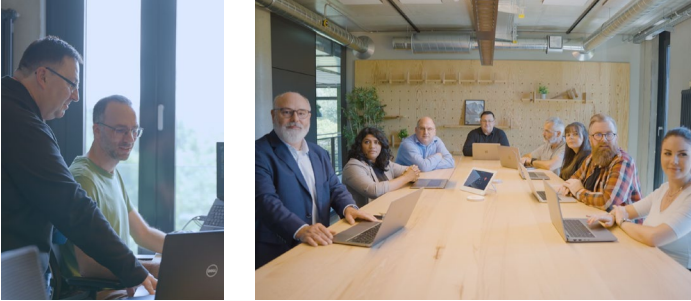
CID responded by rethinking its approach to the processing and storage of data with a goal of enabling developers to access flexible, agile storage. By leveraging VMware vSAN Express Storage Architecture, an add-on to VMware vSphere Foundation, CID was able to remove storage decisions from day-to-day considerations, addressing the need for developer-ready infrastructure and eliminating future uncertainty.

"We'd found ourselves trapped in a three-year storage review cycle," says Marcus Viel, senior infrastructure administrator, CID. "That process alone is a waste of time and energy."

Exploring a generational leap in system performance

CID adopted VMware vSAN Express Storage Architecture to power its next generation approach to storage. It is a significant advancement in the company's modernization journey.

"Hyperscalers are not the answer for our customers' workloads. The private cloud approach makes the most sense," says Alexander Lörch. "And if it's private cloud, then VMware technology is the best."



VMware vSAN Express Storage Architecture in VMware vSAN 8 stands on the shoulders of vSAN Original Storage Architecture, delivering all-new levels of efficiency, scalability and performance. The new architecture enables CID to achieve consistent sub-millisecond latency, which is critical for maintaining the high performance needed for its most demanding workloads.

The Lörch brothers admit, once they had seen initial glimpses of vSAN Express Storage Architecture, they wanted in early on the technology. “VMware vSAN Express Storage Architecture fits perfectly with our strategy. It’s a private cloud solution that is easy to extend and integrates seamlessly with our container workloads,” says Rouven Lörch. “Once we began to explore, with our partner evoil, we were confident we could achieve significant new levels of performance. We were particularly impressed with how vSAN Express Storage Architecture made use of the NVMe storage technology. We couldn’t wait for the test numbers.”

The test results, continues Viel, were so impressive the team didn’t believe them: “We thought there must be a bug somewhere and that the figures were wrong. We tested three to five times with real loads, SQL servers and natural language processing, the stuff you can’t fake. And the numbers were correct. It’s the most dramatic system improvement I’ve seen in 30 years.”

Testing done, says Alexander Lörch, CID moved quickly: “I think we had the fastest installation in Europe.”

Establishing a five-fold increase in transactional capacity

The vSAN Express Storage Architecture has had a transformative impact on CID. Most markedly, transactional capacity has risen from 300,000 to 1.5 million IOPS. There are no restrictions on how much capacity developer teams can access.

Rouven Lörch says this freedom is as much a cultural as a technological shift.

“VMware vSAN Express Storage Architecture, means our developers can focus on their work, with storage infrastructure on demand,” says Rouven Lörch. “This powerful combination is the chassis for business success, enabling creativity and innovation at unprecedented levels.”

With data-heavy AI and SQL workloads, CID has to complete customer back-ups very quickly. “We can now back-up over 1TB of data in less than a minute,” says Viel.

Flexible, on-demand scaling of capacity provides predictability into infrastructure growth and costs, removing the need for the three-year review cycle. “The adoption of vSAN Express Storage Architecture gives us at least a five-year cycle, with the expectation that we can scale on the fly, if needed,” says Viel. “Plus, as we grow the storage infrastructure, we don’t need to grow our storage team. This growth can be managed with the same personnel. It is a much denser storage system.”

The benefits also extend to support, “You have less troubleshooting in terms of performance and latency,” says Rouven Lörch. “And if there is an issue there are fewer people to point at. The whole process of investigating, testing and adopting vSAN Express Storage Architecture has strengthened our relationship with Broadcom.”

Evolving and improving to accommodate AI workloads

The Broadcom partnership, Rouven Lörch continues, is a long-term strategic play. “VMware technology is the best at building a private cloud. It is evolving and improving and is supporting our competitive advantage.”

With AI workloads escalating, CID is looking seriously at VMware Private AI Foundation. This promises to simplify Gen AI deployments and drive cost efficiencies. “It looks very promising. We’re looking forward to making use of this technology in 2025,” he says.

“The world is changing dramatically,” Alexander Lörch says, “Innovation is vital to future success, and new technology is critical to new levels of efficiency.”

“VMware vSAN Express Storage Architecture means our developers can focus on their work, with storage infrastructure on demand. They can go for it and be creative. This is the chassis for business success.”

Rouven Lörch, Co-Chief Executive Officer and Founder, CID
