

IDC PERSPECTIVE

Case Study: How badenIT Unlocks the Value of Data for Customers Using NetApp Hybrid Cloud Data Services and Object Storage

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EXECUTIVE SNAPSHOT

FIGURE 1

Executive Snapshot: How badenIT Unlocks Value of Data for Customers Using NetApp Data Services

Becoming data-driven is an imperative for success. However, it is a complex journey to balance data-driven innovation on one side with sovereignty, costs, skill shortages, and governance requirements on the other. As a result, small and medium-sized European organizations are turning to local services providers for Big Data as a service, and Germany-based badenIT is rising to the challenge.

Key Takeaways

- badenIT's customers want cloud-like scale, agility, and user experience, but they are risk-averse and prefer local IT providers.
- The company decided to consolidate its technology landscape using NetApp's enterprise storage, object storage, and data management capabilities.
- Alongside its ambitious Big Data project, badenIT is embarking on projects around Internet of Things (IoT), automation, sovereignty, hybrid cloud services, and skills training to deliver value-added services to its customers.

Recommended Actions

- badenIT should evaluate automation, cloud optimization, and container solutions from NetApp to deliver cloud-native services to its customers.
- It should keep an eye on evolving digital sovereignty needs and be ready to reprioritize its IT modernization strategy to align with market needs.
- It should also look to attract small, digital-native enterprises that want stability and cost control in their dynamic environments.
- It should continue its long-standing partnership with NetApp as well as co-create and co-innovate with the vendor and its ecosystem.

Source: IDC, 2023

SITUATION OVERVIEW

Data is the currency of a digital business. European C-suite personas IDC talked with unanimously agree that data is a valuable asset that drives competencies and digital trust for their businesses.

But becoming data-driven is a long-term journey, especially for small and medium-sized European businesses that want to compete with large organizations but have small budgets, few skilled resources, and a risk-averse culture.

Small and medium-sized organizations in Europe are increasingly relying on local, trusted IT services providers for managed IT services, Big Data, application development, and hybrid cloud services. These businesses are demanding in terms of cost of IT services, availability, security, and regulatory compliance. This means local IT service providers must have a world-class technical foundation to meet the needs of European SMEs in the region.

Opportunities are plentiful for IT service providers that get it right:

- According to IDC's research, there is focus on data protection, security, governance, and data capitalization. IDC estimates that in 2023, most C-suite leaders will implement business-critical key performance indicators (KPIs) tied to data availability, recovery, and stewardship as rising levels of cyberattacks expose the scale of risk.
- In addition, European organizations are seeking strategic autonomy of their data assets, IT assets, and operations by adhering to digital sovereignty principles. Lastly, additional European regulations such as the Digital Operational Resilience Act (DORA) will drive more European organizations to prioritize local or regional data services.
- But at the same time, these organizations don't want to compromise on data-driven innovation.

In this context, this IDC Perspective explores how Germany-headquartered IT services provider badenIT is meeting local businesses' hybrid cloud and Big Data needs using NetApp's storage and cloud data technologies.

About badenIT

Founded in 1997, badenIT is a managed IT services provider based in Southern Germany, mainly catering to local small and medium-sized organizations and public sector entities in Germany and Switzerland. It provides key IT services such as customized IT services, data services, hybrid cloud solutions, virtualized solutions, and communications services. In addition, it provides services around mobile working, IT networking, as well as secure and highly available datacenter services from its own three datacenters.

badenIT is a subsidiary of the local utilities company badenova with 1,600 employees, and it provides managed services for SAP, Microsoft, and other applications as well as operating the infrastructure as part of managed IT services. badenIT has 120 employees and has multiple certifications, including ISO27001 and ISAE 3402 type 2.

As a regional IT services provider, badenIT's services are valued by local customers that want cloud-like scale, agility, and user experience but are risk-averse to adopt public cloud technologies.

Customers choose badenIT because of the company's reputation and credibility to provide high-quality service levels. An example of this high-availability and resilient service level is that systems in its local datacenters have not experienced any downtime in the past five years. Many of its customers' organizations are small, boutique organizations still led by founders/owners who prefer to be in complete control of their businesses and have IT infrastructure that supports their businesses.

These local organizations choose local service providers so they can physically visit the provider's datacenters and be reassured that their business data resides safely in the geographical boundaries to ensure regulatory compliance, high performance, and low latency. But regardless of the size and nature of businesses, badenIT's customers will not compromise on IT service quality, security, or capabilities.

This means badenIT must ensure its IT environment is built to world-class technical standards to meet its customers' demanding service expectations.

The Company's IT Landscape

badenIT operates three datacenters across Southern Germany close to the Swiss-German border, with an ambition to expand through the rollout of a small edge datacenter in the region. In July 2022, badenIT joined forces with Zweckverband Broadband Supply Landkreis Lörrach to set up a highly available datacenter to align with customers' top-of-mind priorities such as sustainability, digitization, and energy transition. This shows that the company is at the forefront of technology investments to continuously adapt to customer needs.

- badenIT manages a diverse IT landscape built on enterprise-grade technology. It consists of 2,000 virtual machines running on 120 UCS blade servers, as well as 2PB storage and 1PB backup storage. The IT infrastructure is primarily built on foundational datacenter technology pillars including products from NetApp, Cisco, VMware, and Microsoft.
- The company also manages around 50 SAP systems as part of its workload environment.

The business expectations from IT include:

- Cost efficiency
- Better data management and governance
- Minimization of complexity
- SAP estate
- Delivering faster services at scale

Introduction of NetApp Storage at badenIT

- Before migrating to NetApp storage seven years ago, badenIT had a rather complex IT infrastructure, consisting of many different storage and data management technologies. The fragmentation of the IT landscape led to high levels of complexity. This led to challenges in providing the desired service levels to customers.
- As a result, badenIT decided to consolidate its technology landscape and adopted NetApp file storage solutions. The storage modernization journey started with four systems and has consistently grown to a NetApp-based consolidated storage footprint of 30 systems in line with badenIT's growing customer and services portfolio.
- With storage footprint consolidation, the company currently has a storage environment that is entirely built using NetApp systems. The company uses fully licensed NetApp all-flash systems and capitalizes on native data management features such as backup with SnapVault, NetApp SnapMirror, and NetApp SnapManager, and it uses v-server to create multitenancy for its customers.
- The storage modernization strategy also has a cloud connection to enable a hybrid environment. The IT team at badenIT has created an S3 storage bucket based on NetApp StorageGRID as a target infrastructure for its SnapVault/Snapshot infrastructure backups and also as a Veeam application-level backup target.

NetApp's StorageGRID solution offers native support for the Amazon S3 API and delivers turnkey data services as automated life-cycle management to store, secure, protect, and preserve unstructured data cost effectively over long periods. This long-term retention is especially important for European service providers that cater to public sector organizations and local customers with strict data management and retention needs.

Long-term immutable archive on StorageGRID enables the establishment of data management policies that determine how data is stored and protected. When developing and enforcing policies, the object store examines a wide range of characteristics and needs, including performance, durability, availability, geographic location, longevity, and cost. You can comply with regulations using a variety of features within StorageGRID such as write-once-read-many (WORM) retention with S3 Object Lock, access control policies, encryption, and audit trails.

S3 storage is also offered externally as cloud storage to badenIT customers depending on their needs. This indicates the storage modernization journey has helped badenIT introduce flexibility and choice for customers.

Business Benefits of NetApp Storage

badenIT values its partnership with NetApp and has pointed to four main factors that make a difference for its managed services business. These factors connect closely to the business outcomes that badenIT has outlined: customer service excellence and reliability.

- **Tech refresh without downtime.** As a managed service provider, badenIT wants to be on the latest version of the NetApp technology, but it cannot afford downtime as customers rely on its services for business-critical applications. With NetApp, it can upgrade without any downtime and has not had any downtime for the past five years. badenIT also migrated its datacenters without any downtime for customer data.
- **High availability and stability.** badenIT's business model is built on delivering reliable premium services to its customers, and its IT infrastructure built on NetApp storage enables it to execute on that. It also capitalizes on integrated backup and restores.
- **Software portfolio enables efficient day 2 operations.** To compete with larger services providers, badenIT needs to operate very efficiently to scale its services without incurring high costs. This is important so that the company can deliver competitive services at competitive prices to its customers that now have a vast array of managed services options from local as well as global cloud services providers. The software portfolio of NetApp enables the company to achieve scale and efficiency.
- **Optimized for Big Data.** It has a scalable, flexible, and open infrastructure ready for Big Data projects without compromising on costs, scale, or governance.

Current and Future IT Modernization Plans for badenIT

The technology services company has grand ambitions to expand its technology capabilities to include modern services such as data lakes, IoT and edge computing, DevOps and cloud-native services, sovereign capabilities, as well as broader hybrid cloud services. It also has clear sustainability-driven strategies. These require a rock-solid technology foundation. In the next few years, badenIT's IT team will launch several IT modernization projects, most important of which is a Big Data project based on OpenStack and NetApp storage. European organizations' reliance on data has increased manifold since the pandemic, and majority of IT transformation projects are aimed at becoming data-driven. However, becoming data-driven is a long-term journey for most organizations that have multiple data silos, lack of skills, and inability to turn data into intelligence. As demand for managed Big Data services grows, badenIT's investment in this area is yielding results as it can provide Big Data as a service to its customers.

Why NetApp for the Big Data Project?

In IDC's opinion, a starting point for Big Data is a well-governed, open, and scalable technology architecture that can meet enterprise-grade demands from customers.

According to the company – whether it is data lake, analytics, or data science – NetApp offered it a secure, stable, and flexible infrastructure with seamless integration into Hadoop and OpenStack, which were key for the company. In addition, the adjacent technology platforms at badenIT included SAP, VMware, Qlik, Kafka, Jupyter, and Python. Thus, NetApp's integration with these adjacent technologies along with OpenStack and Hadoop were important factors for project success. The company used a combination of NetApp ONTAP 9, FAS8200, FAS8040, AFF8080, and AFF700 for the Big Data project. It worked with IT distribution partner Tim to deploy this NetApp-based Big Data project.

In addition, badenIT will embark on the following projects:

- **IoT project.** This is for collecting smart meter data for utility company badenova. Edge computing and data analysis at the edge are becoming increasingly popular among manufacturing, utilities, and construction organizations in Europe. Having abilities around IoT can help badenIT deliver value to utilities provider badenova.
- **Providing more cloud services.** The first step is to provide a Microsoft Azure direct connect. More cloud services are planned on NetApp technology. Hybrid cloud is a reality for 8 in every 10 European organizations. Adding public cloud services and integrating them with managed services can help badenIT deliver hybrid cloud services to its customers without increasing complexities or inconsistencies.
- **Focusing on DevOps.** badenIT has invested heavily in automation over the past five years to streamline its operations. The next focus area will be to implement DevOps processes, but that initiative needs to be balanced with a continued focus on operations. A strong data management architecture based on NetApp will help it deliver "hardened" container orchestration, automation, and DevOps services with persistent data services capabilities.
- **Focusing on skills and talent enablement.** It is hard to find the right employees, and badenIT offers very attractive programs for employee development. It is important for the company to offer third-level support and to know the technology as well as the vendors do; only then can it handle the complexity of modern IT systems and offer optimal solutions for its customers. Its customers are very interested in understanding company values, and badenIT plays a key role in educating and developing people and lifting the availability of IT skills in the region.
- **Digital sovereignty.** Interest in this topic is exploding at the moment. badenova is a good example for the region with its digitization initiative. badenIT customers in the region want to know where their data is stored and who has access to the data. This topic has evolved from an IT to a C-level topic in the region.
- **Sustainability.** badenIT is very engaged in driving a sustainability strategy. All its datacenters are driven by green IT and energy-efficient resources; it manages the hardware life cycle very carefully.

Technology Advantages of badenIT's NetApp-Based Data Management Strategy

- A single platform for diverse Big Data applications and a single contact point for support
- Data management for analytics software certified or validated
- Independent scalability of compute and storage resources
- Costs savings of 75% through storage efficiency with deduplication and compression features that enables badenIT to have an attractive price structure to compete with hyperscale providers
- Ready for Big Data in hybrid cloud and multicloud and with in-place analytics
- Enterprise applications, especially robust SAP capabilities

- Big Data democratized, simplified, and made accessible to SME customers.
- Simplified for SME customers

ADVICE FOR THE TECHNOLOGY BUYER

The company is on the right path of continuous innovation and modernizing its foundational technologies to deliver tech-enabled business value to its long-standing customers. Its strategy of taking a step-by-step approach rather than a big-bang transformation will help it maintain customer service quality, which is core to its business ethos and values.

badenIT's strategy to expand to consolidate its data footprint and add object storage will help it bring the best of both worlds – security and governance of on-premises environments and scale as well as economics of public cloud storage services.

Moving forward, it should evaluate automation, cloud optimization, and container solutions from NetApp to deliver cloud-native services to its customers.

It should also keep an eye on the evolving digital sovereignty needs of its customers and be ready to reprioritize its IT modernization strategy to align with market needs. Over time, the company should also look to attract small, digital-native enterprises that want stability and cost control in their dynamic environments.

It should continue its long-standing partnership with NetApp as well as co-create and co-innovate with the vendor and its ecosystem.

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- *IDC FutureScape: Worldwide Future of Digital Infrastructure 2023 Predictions* (IDC #US48376222, October 2022)
- *Data Gravity: Managing the Impact as It Shifts to the Cloud* (IDC #EUR149305322, July 2022)
- *Making the Data-Driven Business Model a Reality: Winning Strategies from IDC's CIO Advisory Board* (IDC #EUR147632521, April 2021)

Synopsis

This IDC Perspective explores the value of IT modernization with cloud-centric data infrastructure and services. Becoming data-driven is no longer nice-to-have but a business imperative for European organizations' digital future. However, it is a complex journey to balance data-driven innovation on one side with sovereignty, costs, skill shortages, and governance requirements on the other. As a result, small and medium-sized businesses are turning to local IT services providers to access analytics and Big Data as a service.

"This is a golden opportunity for European IT service providers. As badenIT demonstrates with its rock-solid data architecture foundation, it is possible to compete effectively in the market and deliver Big Data as a service to local customers," said Archana Venkatraman, research director, CloudOps and Cloud Data Management, IDC Europe.

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