

# Five Steps to Data Resilience

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What we value in business changes over time. The Greeks and Romans traded huge amphorae of olive oil across the then-known world. Medieval European merchants built fortunes on silks and spices. The industrial revolution transformed the scope and scale of business through mechanization. And over the last 50 years, some of the world's biggest, fastest-growing companies focused on the technology of information – computer hardware, software, the internet, and, increasingly, the data contained in these environments.

Today, data is the core obsession of any business seeking global scalability and unicorn status. If you want to transform your business and take it to another level, data will likely be somewhere at the heart of your strategy.

But let's not pretend this is an easy path. Simply deciding to elevate data into an engine for growth is not the end of the story. Ransomware is a huge challenge right now – how do you protect your data and your investment in data? Sustainability is big and becoming a more significant business consideration, too – can you make ever-expanding data consumption fit with your organization's sustainability commitments? And is cloud still the no-brainer that it seemed a few years ago? Or is a hybrid environment the more realistic and affordable choice today?

We listened closely to our clients. Based on their thoughts and feedback, we identified five key scenarios and challenges for resilient data platforms and formulated possible solutions.

## 1. Start by challenging your data and storage strategy

We believe that the secret to optimizing digital transformation outcomes is in the planning.

Sure – easily said, but how do you even know the right steps? Today, every business has data dispersed across countless devices and users, locations, and clouds. With the proliferation of shadow IT, they likely have data, applications, and use cases they don't know about. As a result, few companies truly have a complete and accurate picture of exactly what data they have and where it is.

We recommend clients start with AI-based, standardized "data exploration" assessment and implementation services to find out where their workloads and data are, what it's doing, and what is holding them back from becoming a breakout DX (digital transformation) engine.

Note that this step is not about solutions but optimizing the entire infrastructure – whether on-premises or in the cloud. You need objective analysis to assess your underlying enterprise and applications estate before developing a transformation strategy perfectly aligned with your business goals.

## 2. Is the hybrid cloud right for you?

Honestly, the cloud vs. on-premises question went away some time ago. It's increasingly unlikely that any IT environment will be 100% one or the other.

For reasons now well understood – legacy application complexity, latency, compliance – on-premises is always likely to have a footprint, even in greenfield startups. And then there's cost: Many organizations are currently re-migrating data back on

premise to avoid the excessive costs they experienced in the cloud. [According to analyst firm IDC](#), 71% of organizations plan to move some or all workloads back on-prem from the cloud.

We recommend evaluating three different types of infrastructure to deliver hybrid cloud benefits.

- 1) Traditional server virtualization – flexible enough for optimization but complex - requires significant in-house knowledge.
- 2) Converged systems combine industry-standard components optimized for virtual workloads. Predefined, is so easy to deploy, but fine-tuning is impossible, making future changes challenging.
- 3) Hyper-converged systems are economically attractive with fast time-to-value - perfect for exploring software-defined data centers.

### **3. Storage on-premises**

If hybrid is here to stay, that implies a need for on-premises storage.

Traditional RAID storage delivers the highest levels of storage performance and reliability. However, it can limit the ability to expand capacity. Software-Defined Storage (SDS), with an easy scale-out concept of “just add additional nodes”, is one solution. It’s not always the best fit, but it handles the challenges of digital-native ways of working – things like microservices to provide flexibility, containers for deployment, and the extensive use of APIs, all of which stress underlying systems and storage in quite different ways.

However, SDS creates its own complexity, as it requires new know-how. Our advice is to mitigate potential complexity by deploying fully functional infrastructure, plus a thoroughly tested storage system and virtualization layer ready to use.

### **4. Data protection**

Data protection, ransomware, disaster recovery, and cyberattacks are topics often not given the necessary attention until it's too late – after the worst has happened. Planning for effective data backup, archiving, and recovery puts you on top of the situation.

Before considering technology options, define service-level agreements (SLAs) based on actual business demands. RPO (Recovery Point Objective) is how far back you go to a recovery point - a backup copy from before any disruption event. RPOs might only be a few seconds ago in the case of live operational data. RTO (Recovery Time Objective) defines how long it takes until you are up and running again. Don't pay for what you don't need. Not all data is business-critical. We recommend managing and classifying it according to business needs to balance an acceptable SLA on the one hand and manageable cost on the other.

Compliance can come into play here too. For example, ECB (European Central Bank) guidelines require banks to maintain a specific number of backup copies.

Protection is no longer an issue just for the core data center. You must be able to embrace the data contained in all the shadow IT projects in your organization. Thankfully, it's easy to apply hyper-converged Infrastructure (HCI) to handle this. Effective software tools are also essential to ensure a constant backup of large databases so that current data can be restored at any time via real-time backup. For archiving, tape libraries are a proven, cost-effective solution.

### **5. Profit from your data**

Now recheck your starting point – are you extracting as much value as possible from your data?

In the past, data typically got colder with age. It was tiered down to slower media until the retention period expired — or was just forgotten. Today, more and more companies recognize that old can be gold. Data from an IoT sensor or social media app

may have little value at the time of creation. But its value can increase exponentially when aggregated, analyzed, or sold to consumers or other vendors.

A good starting place is to get data under control, identifying duplicates hidden in silos or incomplete files. In the past, organizations invested in Business Intelligence (BI) and data warehouses. Today, data analytics handles multiple types of structured and unstructured data and diverse data sources and processes them very quickly.

What this all means is that archiving can be the basis of data protection and the basis of significant cost reductions. But it also provides a platform for data analytics and — potentially — new income streams.

### **Think hard, start small, and pay as you go**

No one has, if they ever did, money stashed aside for “nice to” projects. Let alone all-in-one transformation projects. In a world of declining budgets — in real terms — it's essential to set meaningful objectives and test out possible solutions before making larger investments.

AI-based analysis of workloads and data can be put to work in think tank environments like Fujitsu's [Customer Experience Lab \(CX Lab\)](#) to develop resilient data platforms. Hybrid environments enable the benefits of cloud economics, replacing high, one-off investments with regular, predictable costs, scalable in proportion to business growth. On-premises can be leveraged where it makes practical sense to do so. And pay-per-use access to on-premises IT infrastructure and services is also now widely available — with [Fujitsu uSCALE](#), for example.

This is our recommended blueprint for companies to reach their business potential. For more information, visit <https://www.fujitsu.com/global/products/computing/storage/>.

### **Dirk Thiele Head of Solutions Business Development at Fujitsu**

Dirk leads Fujitsu's Solution Business across EMEA with profit and loss responsibility. He directs the definition of Fujitsu's competitive products and offerings for EMEIA and enables successful go-to-market initiatives across the region. He is passionate about revenue and margin achievement as well as creating deep and successful win-win channel partnerships.



Dirk joined Fujitsu Siemens Computing in 2000 after completing his MBA at Paderborn University, becoming Executive Assistant to the CMO. He transferred to Fujitsu in 2008, holding positions including Head of Corporate Training Academy and Principal Business Development Manager.

Based in Munich, Germany, he puts a strong emphasis on healthy eating and sport, and closely follows developments in blockchain and crypto.