

# InfiniVerse®

## Focus on Outcomes, Simplify Technology

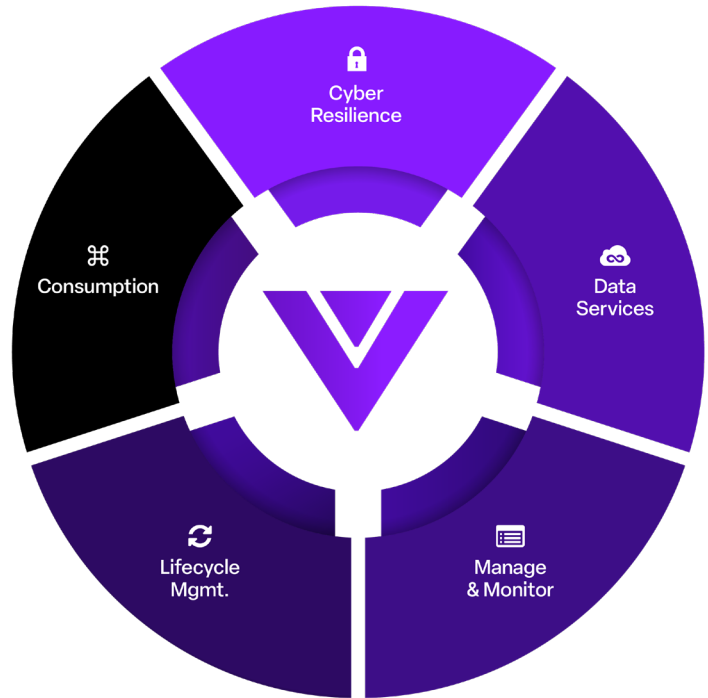
InfiniVerse is an enterprise, platform-native storage architecture designed to deliver comprehensive data services. This unique platform provides outstanding IT operating model outcomes and support for diverse modern workloads across on-premises and cloud environments. Infinidat’s cyber resilient infrastructure, consumption-based performance, guaranteed 100% availability, and guaranteed cyber security SLAs align with enterprise IT and business priorities. Whether you consume storage as a CapEx purchase or an OpEx subscription, it is important that you get the same benefits, insights, and SLAs.

Currently, InfiniVerse provides a secure, cloud-based platform driven by our portfolio of monitoring and management tools, the basis for our ease of use and management. By saving valuable time on many critical management tasks such as capacity planning, performance analysis, capacity management, and identifying performance concerns outside the storage system, InfiniVerse reduces total cost of ownership (TCO) and frees up IT teams to focus on business innovation, not day-to-day operations.

In a recent third-party report on the business value of InfiniBox, Infinidat reduced customers’ OpEx by 48%.<sup>1</sup> InfiniVerse simplifies IT operations by minimizing the hybrid complexity of physically distributed infrastructure across multiple domains. You can achieve hybrid cloud storage ownership through a cloud-like user experience and usage-based payment model.

### InfiniVerse Platform Architecture

InfiniVerse leverages a powerful set of telemetry data from our existing set of management, control, and data services layers that seamlessly integrate into a platform. This reduces storage administration costs through increased automation and orchestration. Each layer provides features and functionality that are then represented in InfiniVerse:



**InfiniVerse**

Cyber Resilience Services	Consumption Services	Lifecycle Management	Data Services	Manage & Monitor Services
<ul style="list-style-type: none"> <li>▪ InfiniSafe Core</li> <li>▪ InfiniSafe Cyber Detection</li> <li>▪ InfiniSafe Automated Cyber Protection</li> </ul>	<ul style="list-style-type: none"> <li>▪ FLX</li> <li>▪ Capacity on Demand (COD)</li> <li>▪ CapEx Purchase</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mobius Controller Upgrade</li> <li>▪ Partial Populated Capacity Upgrade</li> </ul>	<ul style="list-style-type: none"> <li>▪ InFuzeOS                             <ul style="list-style-type: none"> <li>• Neural Cache</li> <li>• Replication</li> <li>• InfiniRAID</li> </ul> </li> <li>▪ InFuzeOS Cloud Edition</li> </ul>	<ul style="list-style-type: none"> <li>▪ InfiniOps                             <ul style="list-style-type: none"> <li>• AIOps/DevOps</li> <li>• DevSecOps</li> <li>• Ecosystem Partners</li> </ul> </li> <li>▪ Management UI</li> <li>▪ InfiniMetrics</li> <li>▪ Power Monitor</li> </ul>

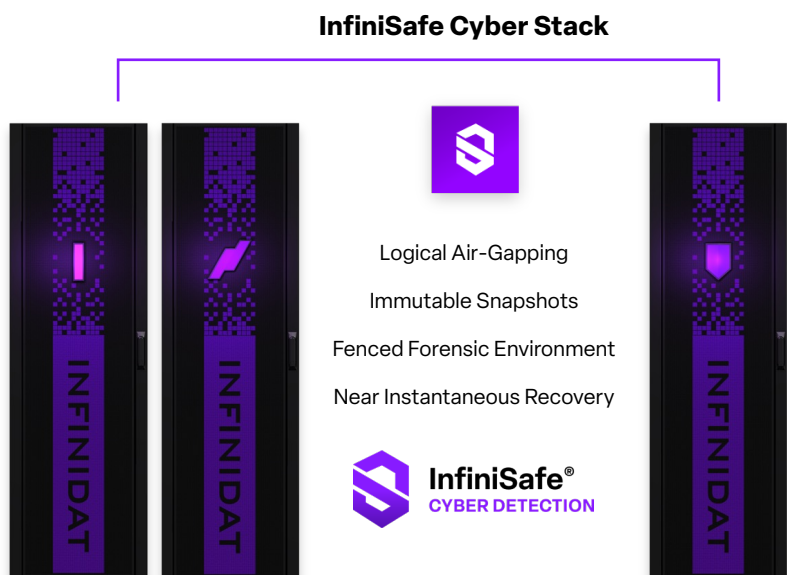
## Cyber Resilience Services

The InFuzeOS software-defined storage (SDS) platform provides advanced cyber storage capabilities to deliver cyber resilience services. We use a secure-by-design approach with our current InfiniSafe® core cyber stack along with optional InfiniSafe Cyber Detection capabilities to scan data for ransomware.

Our InfiniSafe Cyber Detection option extends cyber prevention by validating the integrity of your immutable snapshots using powerful, ML-based scanning engines. Comprehensive machine learning detects ransomware and malware attacks with up to 99.5% accuracy so you can quickly and easily identify your data's last known good copy for rapid, intelligent recovery.

Our approach aligns well with [NIST SP 800-209 \(2020\) Security Guidelines for Storage Infrastructure](#), which examines current data storage security threats and provides detailed security recommendations and guidance to address them. Infinidat provides tools, solutions, features, or methods to assist an enterprise with successfully implementing a secure storage infrastructure for 98% of the applicable NIST guidelines.

Additionally, InfiniSafe Automated Cyber Protection lets you proactively coordinate the detection of abnormal file activity with your syslog, SIEM, or SOAR applications to orchestrate automatic event-based, immutable snapshots, file scanning, and ransomware detection. This ensures that the InfiniVerse platform can be an active, automated defense mechanism for safeguarding critical data at the speed of compute.



## Consumption Services

Today, storage is the most critical part of your IT infrastructure, and as you make strategic decisions, it is sometimes difficult to align your business storage consumption needs with your budget. InfiniVerse Consumption Services are designed to be easy to use and help make Infinidat easy to do business with. Our white-glove service and support engage you with our expert pre-sales technical teams and corporate solution architects to map out what is required to manage your workloads. The optimal consumption method for your business is determined based on those requirements.

We have designed InfiniVerse Consumption Services to cover the ways businesses consume storage across three basic models.



### FLX

Our consumption-based, pay-as-you-grow STaaS solution is for customers who want cloud-like operations and economics for their on-prem or hybrid, multi-domain estate. Infinidat will ensure that your storage consumption meets your SLAs or will provide the necessary upgrades to support your required business outcomes.



### Capacity on Demand (COD)

Customers can own and control the hardware with the flexibility to pay for the baseline capacity they need today and purchase additional capacity over time.



### CapEx

Traditional ownership where storage hardware is purchased for on-premises deployment.

## Lifecycle Management Services

Customers want the ability to future-proof their investment in storage infrastructure over an extended period of time. This provides you with peace of mind that your hardware will always stay current with technology advancements and also provides a longer lifecycle for your asset.

### InfiniVerse Mobius

With InfiniBox G4, traditional CapEx storage ownership is modernized with a subscription for hardware and software upgrades to keep your investment modern and cutting-edge. We ensure that your InfiniBox G4 will always have the best available controller and performance over its lifetime. Modernize your storage infrastructure on an ongoing basis without disruption.

## Create a NIST-compliant Secure Storage Infrastructure



We don't rely on immutable snapshots alone. Instead, we have incorporated numerous advanced features that align with the [National Institute of Standards and Technology \(NIST\) SP 800-209 \(2020\) Security Guidelines for Storage Infrastructure](#).

InfiniVerse Cyber Resilience Services fulfill approximately 98% of the NIST storage infrastructure security guidelines, and we will continue to enhance this important service offering.



## Mobius

## Data Services

Our software-defined data services layer, InfuzeOS, allows for the control of all infrastructure components through software—a very powerful capability! This model abstracts and removes the hardware components and dependence on hardware suppliers to the point where enterprise data services can be delivered anywhere within the hybrid infrastructure environment.

InfuzeOS provides a unified data platform that provides block connectivity over numerous protocols (FC, NVMe-oF, iSCSI) and tightly integrated high-speed file protocols such as NFS and SMB. This enables you to choose your workload environment without concern about file vs. block capabilities.

InfuzeOS utilizes our innovative Neural Cache to optimize data placement dynamically and predictively. It places the most active data—hot data—in DRAM cache to minimize the retrieval of data from SSDs or HDDs. This ensures ongoing optimized performance, best-in-class latency, and capable operational support for diverse modern workloads across on-premises and cloud environments, including SLAs aligned with IT and business priorities.

Enterprise-class data services are key to providing and extending modern data protection in all organizations. Starting with InfiniRAID®, data is intelligently optimized and protected. InfiniSnap® provides non-locking, efficient, redirect-on-write snapshots that support data protection and increase the utilization of information resources. Immutable snapshots are key for immutable data stores and cyber resilience and are leveraged by InfiniSafe, our award-winning storage cyber resilience stack.

Local, metro, and long-distance data replication is built-in, providing active/active, synchronous, and asynchronous topologies with async updates in as little as every four seconds. Infinidat's Active/Active Data Mobility (AADM) capabilities facilitate flawless, non-disruptive data migration, eliminating the pain of traditional migrations.

Most enterprises now require the ability to operate in a hybrid cloud environment. The InfiniVerse platform-native storage architecture also seamlessly integrates into and operates both on-premises and in the cloud. Today's modern storage platform needs to be able to deliver both standardized data services and data workflows between core and public cloud. Our InfuzeOS on-premises SDS is extended to the cloud with InfuzeOS Cloud Edition (in AWS and Azure) to provide a seamless extension from on-premises to customers' multidomain storage estate in the multi-cloud.

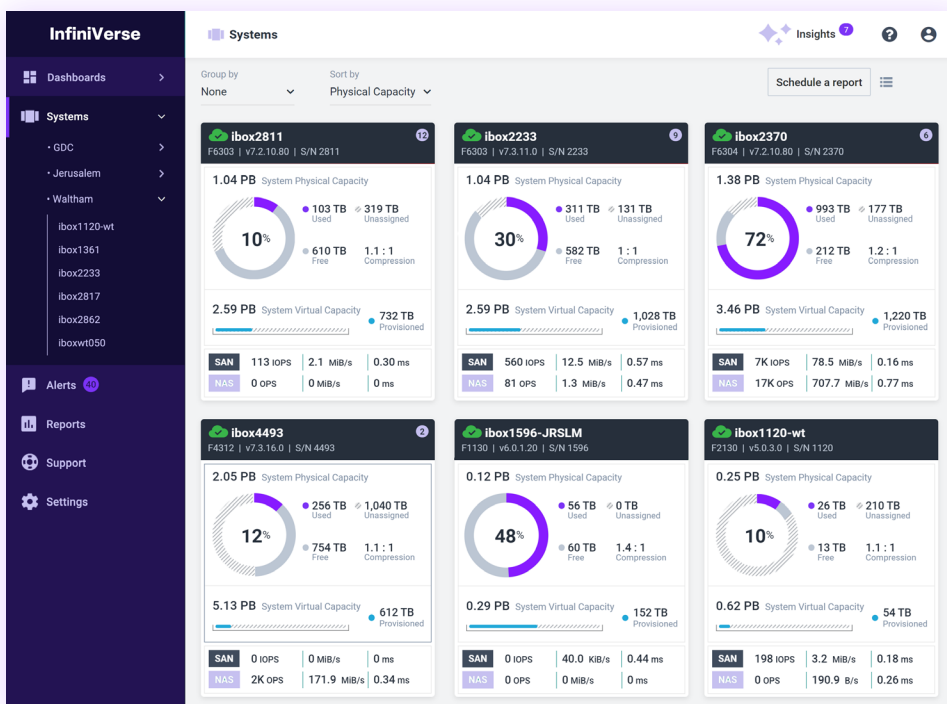


## Manage and Monitor Services

InfiniVerse enables users to monitor, manage, control, and automate infrastructure components across the hybrid, multidomain estate. The InfiniVerse platform provides a consolidated AIOps environment for customers' full Infinidat estate by delivering predictive analytics, early issue detection, and enhanced, proactive support—a key component that enables an enterprise-grade STaaS experience.

This AI-enabled operation uses telemetry-based AI/ML insights and analytics to simplify IT operations management and support SLA commitments. In a recent IDC survey, users reported 51% more efficient storage management productivity by streamlining and automating IT operations.<sup>1</sup> Productivity improvements made by autonomous storage and the use of AI to operationalize storage environments simplify and contain management costs, reduce carbon footprint, and help address the IT skills gap.

API-driven infrastructure refers to an approach in which management and control of infrastructure components are orchestrated through application programming interfaces (APIs). This enables automation, programmability, and streamlined integration of infrastructure components, creating agile management of IT resources. We follow an “API first” strategy across our platform, which ensures that all our interfaces use the same APIs and CLIs that are available to our entire customer base. This strategy greatly extends our reach beyond our own products to other ISV ecosystems and partners that are important and critical to our customers. The result is a broad range of specialized software offerings including instrumentation, monitoring, management, and virtualization DevOps tools provided by the likes of ServiceNow, BMC, and Broadcom, that easily integrate Infinidat storage into their solutions.



**InfiniVerse provides insights and analytics to simplify IT operations**

InfiniOps is a collection of extensive software capabilities that exploit world-class AIOps functionality and expedite DevOps activities. By leveraging the unique operational visibility of InfiniVerse, IT teams have streamlined storage oversight and management to high levels of simplicity. Additionally, InfiniOps offers a wide variety of tools to streamline IT operations, accelerate solution deployment, and reduce internal solution development risks, all in a proven set of IT tools that are available to further integrate InfiniBox capabilities into IT operations for standard and container application deployment environments.

In addition to providing safe, consistent power to the core storage and preventing data loss in a power-related failure, Power Monitor also helps with power consumption planning and usage. Historically, InfiniBox systems require up to 66% less power and cooling than other enterprise-class storage competitors, resulting in reduced OpEx costs and a smaller carbon footprint.

Finally, InfiniVerse leverages local real-time telemetry data from the customer's entire Infinidat estate. This enables cloud-based predictive analytics, support, monitoring, analysis of power data in real-time, and other extensive reporting capabilities.

The InfiniVerse enterprise platform-native storage architecture is a comprehensive set of data services that address key business priorities and is aligned with simplifying IT operating models to reduce complexity and focus on outcomes. We will continue to drive functionality and capabilities in all these areas for our customers.

**Contact your Infinidat representative or channel partner for more information.**