Pure1®

AI-Driven Management, Full-Stack Analytics, and Predictive Support

SUMMARY

Pure1® cloud-based management and effortless predictive support dramatically raised the bar in the storage industry. Now Pure Storage extends that leadership with full-stack analytics and the AI-driven power of Pure1 Meta™ — the global predictive intelligence enabling our vision for self-driving storage.

META IS AN AI ENGINE within Pure1 delivering global predictive intelligence

1 TRILLION DATA POINTS collected and analyzed daily from 10,000+ cloud-connected arrays

AI-DRIVEN, SAAS-BASED, CLOUD-MODEL MANAGEMENT for one array or an entire fleet

PERFORMANCE FORECASTING delivers worry-free consolidation and workload optimization

FULL-STACK ANALYTICS provides critical insight up the stack

ASTONISHING, CUSTOMER-FIRST SUPPORT including predictive analytics and ultra-proactive support staff

Net Promoter Score (NPS) of 83.7 — **TOP 1% IN CUSTOMER SATISFACTION** as validated by Satmetrix®

A GARTNER MAGIC QUADRANT LEADER for solid-state arrays 4 years in a row

For all the storage users who for years endured a complex and expensive storage management and support model, Pure1 demonstrated that there was a better way, by delivering storage management and support that was effortless, intelligent, and frustration-free. Now Pure Storage expands the capabilities of Pure1 with the global predictive intelligence of Pure1 Meta to give customers storage that drives itself — while enabling them to focus on innovating for their businesses.

Leveraging the accumulated real-time call-home data of 10,000+ cloud-connected arrays and deploying machine learning predictive analytics, Meta is the AI engine for Pure1 services that will deliver the next level in management and support:

- **Predictive Intelligence** means AI-driven forecasting of capacity and performance needs over time, plus modeling of your workload consolidation options and hardware upgrades.
- **Full-Stack Analytics** delivers critical information about the health and functioning of your entire stack, right up to each VM .
- **Support That's Above and Beyond** includes continuous monitoring and pro-active resolution of issues before they become problems; we'll even handle your upgrades.

GLOBAL PREDICTIVE INTELLIGENCE POWERS PURE1

Pure1 Meta leverages machine learning artificial intelligence to make the Pure customer experience ever more effortless. Meta applies predictive analytics to a massive collection of storage array performance data to enable both a white glove customer support experience and breakthrough capabilities like accurate performance forecasting.
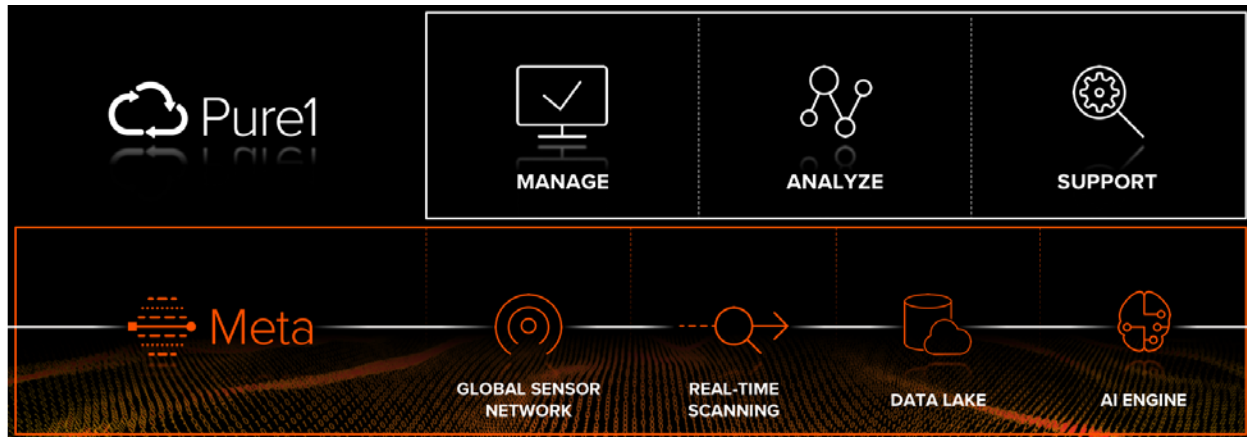
ONE TRILLION DATA POINTS PER DAY

Pure1 Meta receives a rich set of telemetry data from each of the 10,000+ cloud-connected Pure Storage arrays currently deployed. Sensors at multiple levels — from the array itself to external, connected devices — provide more than 1 trillion data points per day, which to date has created a data lake of more than 7+ PB that Meta is able to analyze.

GENERATING WORKLOAD DNA

With visibility into the performance of more than 100,000 workloads, Pure1 Meta is able to generate "workload DNA" — workload profiles based on deep analytics of key performance characteristics. From this continuously-refined set of profiles, Meta is able to give customers critical insights on how the workloads on a FlashArray™ will interact with each other, how they will grow over time in terms of capacity and performance, and whether a new workload will fit on the array. The result? Worry-free consolidation.

REAL-TIME SCANNING FOR ISSUE FINGERPRINTS

Pure1 Meta also scans telemetry data continuously to protect Pure Storage arrays from known vulnerabilities and to alert customers to potential issues beyond the array that may have an effect on performance. Pure1 Support develops "issue fingerprints" — a set of data points that are uniquely a predictor of an issue — and Meta then uses these fingerprints to examine incoming data from our global installed base of arrays. When Meta finds a match, the customer is notified, and Pure1 Support automatically opens a ticket and proactively remediates the situation, even before an issue has occurred.

PURE1 META IS CONSTANTLY GETTING SMARTER

The global predictive intelligence of Meta is always expanding and refining what it knows about array performance and health, moving toward a future of self-driving storage. For the customer, that means even less time spent thinking about storage and more time driving the business forward.

AI-DRIVEN MANAGEMENT AND PLANNING

Pure1 enables simple management of all your Pure arrays, from any device, with just a web browser. Better still, the new Pure1 leverages more AI to deliver industry-first capabilities that dramatically simplify management and planning. With Pure1, there simply won't be much for you to do; if something does require your attention, the Pure1 Mobile App will let you know.
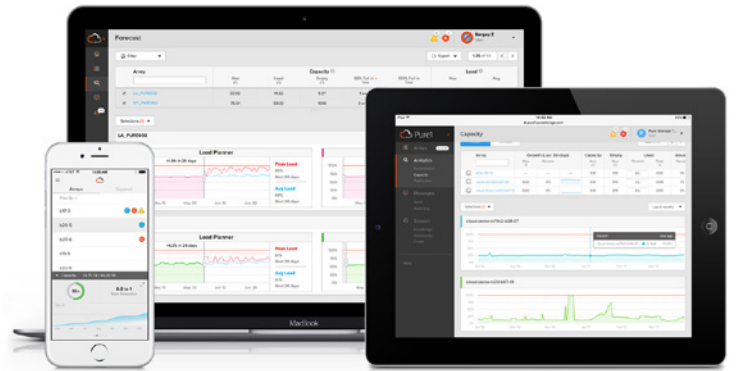
PURE1 WORKLOAD PLANNER DELIVERS INSIGHT

The expanded Workload Planner enables customers to use AI to better understand their environments and identify optimization opportunities. With Meta's Workload DNA modeling, Pure1 can predict array capacity and performance, model hardware upgrades, and preview your environment based on workload changes. In particular, Workload Planner will:

- Illustrate the effects of potential capacity and/or performance upgrades on all workloads in your environment – even when moving from //M to //X.
- Show the performance and capacity results over time of scaling or deleting particular workloads.
- Model the effect of migrating a workload – on both host and target array.
- Show you the effect of cloning a workload within your environment.
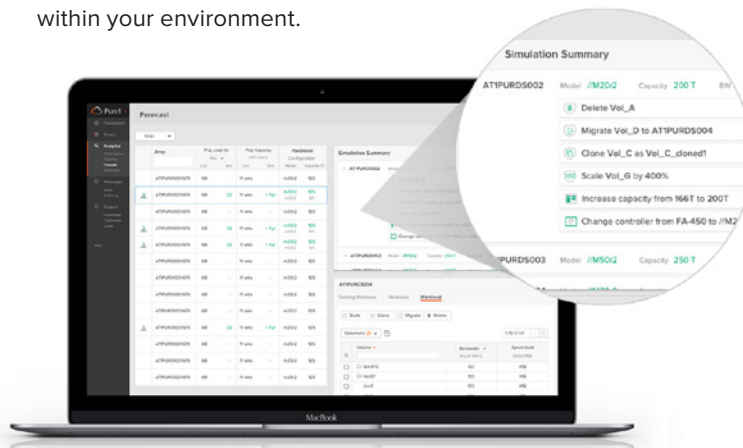
ELIMINATE THE RISK OF RED-LINING

No more wondering whether your current workloads are putting you at risk of maxing out your array's performance or capacity – and no more overprovisioning for safety.

INTELLIGENTLY ADD OR CHANGE WORKLOADS

Get clear visibility into whether a new workload will fit based on predicted performance and capacity load, as well as the compatibility of workloads.

GET THE VISIBILITY TO OPTIMIZE

With volume-level analysis of migration or growth impacts, Pure1 Meta can help optimize your workload placement as you grow.

ENJOY CONSISTENT APIs ACROSS YOUR CLOUD

Connect to Pure's on-premises and cloud-based storage offerings – and automate deployments – in the same way via Pure's consistent APIs. Develop your apps once and deploy seamlessly across your hybrid cloud.

PURESTORAGE®

FULL STACK VISIBILITY AND ANALYTICS

Pure1 has long featured deep analytics on your storage infrastructure. But now Pure1 extends that visibility up the stack to give you deep performance metrics on volumes and VMs in your VMware environments, enabling fast and efficient troubleshooting: with visibility throughout the stack, you have insight into the latency, bandwidth, and IOPs of your workflows – and the data points you need to quickly resolve issues and pinpoint latency problems or other bottlenecks.
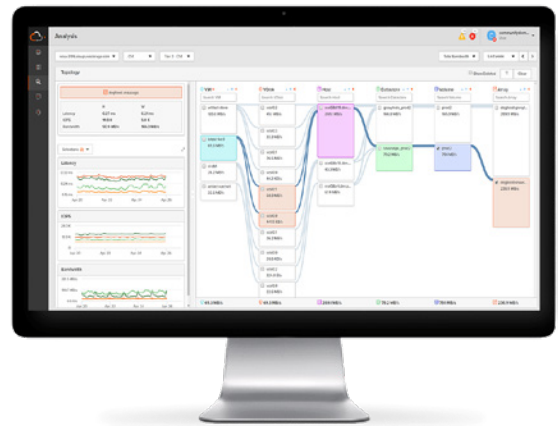

SURVEY YOUR FLEET

Pure1 puts your entire fleet at your fingertips via our Global Dashboard. Cloud-connected analytics and reporting keep you updated on the health and performance of your storage as well as provide recommended actions. Get key metrics on every FlashArray™ of FlashBlade™, see recent notifications and updates, and track your replication schedule. Pure1 is SaaS-based, so all reporting can be accessed with any browser – even on your phone.

KEEP TRACK OF SNAPSHOTS, ACTIVECLUSTER, AND ARRAY PERFORMANCE

With Pure1 Analyze, you get a wealth of simple-to-understand metrics on the health and performance of your infrastructure. See all your snapshots in one place – whether the target is an on-premises FlashArray, FlashBlade, another NFS target, or public cloud (like Amazon S3). Confirm that your ActiveCluster volumes are in sync, and check your RPO status. Track performance and capacity consumption in real-time, at a granular level, or drill down to see capacity usage trends over months, performance detail over hours, and historical replication metrics.
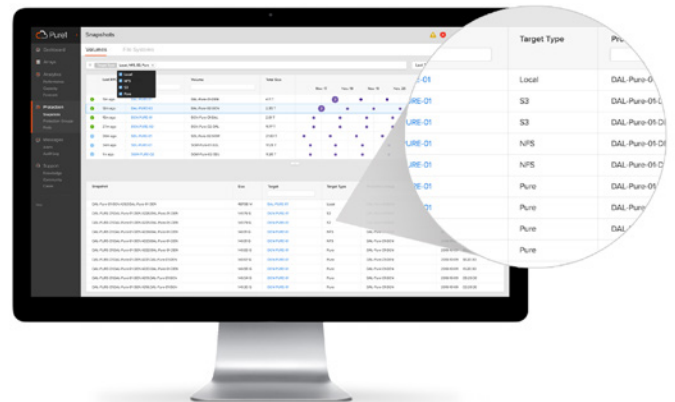

REMEMBER, IT'S LIKE SAAS

Whether managing locally or from the cloud, there's never any software to install, upgrade, or manage – and no need for any extra servers. Pure1's cloud-based model is like SaaS, so our continuous improvements are available to you instantly.

PURESTORAGE®

FOCUSED ON CUSTOMER SATISFACTION

Pure's industry-leading customer satisfaction is driven by continuous monitoring, proactive support at every stage, and our driving philosophy: Always do what is right for the customer. Whatever the situation may be, we focus on delivering a solution – so that you can focus on growing your business. What's the best gauge of our customers' happiness? A Satmetrix-validated NPS score of 86.6, which puts us in the top 1% of all businesses.

Pure1 Support has been a core factor in Pure delivering proven 99.9999% availability for FlashArray, inclusive of maintenance and generational upgrades. Continuous monitoring, predictive analytics, and proactive responses have all played essential roles in keeping our customers' data online and productive.

PURE STORAGE vs ALL OTHER BUSINESSES IN CUSTOMER SATISFACTION

TOP 1%
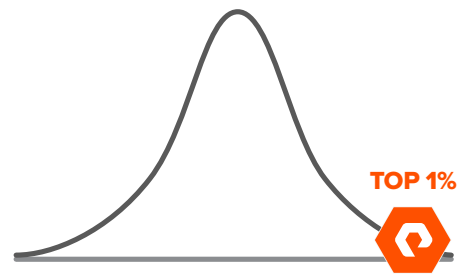
(As measured by Satmetrix 2018 NPS Global B2B Benchmarks.)

Satmetrix®

SMART PEOPLE + SMART TECHNOLOGY

Pure's proactive and predictive support experience combines top industry talent with the global predictive intelligence of Pure1 Meta to go beyond just detecting potential issues – we aim to fix issues before they become problems – and even before the customer notices the issue. We open the majority of support cases, and so far we've resolved more than 500 Sev1 cases before they affected our customers.
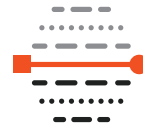
+ Meta

PROACTIVE

We Monitor Your Environment

With Pure's proactive support, our team becomes your team. Our experts keep tabs on your arrays at all times, helping you through upgrades, responding within a mere 15 minutes for any Sev 1 incident, and ready to notify you if we need your assistance. If you do call us, we'll be standing by with instant access to L2 support. As we work with you, our goal is to resolve issues and maintain availability while providing an unmatched, global support experience that is 100% Pure.

PREDICTIVE

We Resolve Issues Before They Happen

Predictive support means you'll be delighted when we find and fix issues you did not even know existed. Pure1 Meta provides big data predictive analytics and machine learning built around our array telemetry to identify and resolve issues before they affect you. Pure arrays send home logs every 30 seconds, which Meta compares against a growing issue fingerprint library. If any matches are found, incidents are automatically opened and support staff are notified of a potential customer issue.

VISIT **PURESTORAGE.COM** TO LEARN MORE