PURESTORAGE®

CONSOLIDATE, CONNECT, AND ACCELERATE YOUR DATA

Put your data to work anytime, anywhere

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OVERVIEW

THE DAYS OF "BUSINESS AS USUAL" ARE OVER FOR FINANCIAL SERVICES ORGANIZATIONS.

Retail banks, insurers, investment firms, and wealth management companies alike are all under pressure to deploy new "anytime-anywhere" digital services. It's time for these organizations to become data-centric across the board for managing all key tasks, from customer facing services to internal back office operations.

This means taking a new approach to protect and grow business profitably. By adopting a data-centric approach, using application performance transformation, and by

consolidating critical data from multiple sources including IoT devices, financial services firms can now accelerate processing, adopt automation, deliver personalized experiences, and slash costs. Much of this will be achieved through artificial intelligence (AI), machine learning (ML), robotic process automation (RPA), and advanced analytics. Tapping into these innovations, however, requires highly scalable, high-velocity access to vast amounts of customer and business data.

The future of financial services will belong to those who can capture and capitalize on data. And it all begins with employing modern data strategies in the four critical areas to follow.

> "Digital banking will continue to grow as customers flock to financial institutions that can offer faster, secure, omnichannel digital services."
>
> **AMERICAN BANKERS ASSOCIATION //**
> "THE STATE OF DIGITAL LENDING"

BOOST PERFORMANCE

DIGITAL TRANSFORMATION REQUIRES FINANCIAL ENTERPRISES TO BECOME DATA-CENTRIC.

That calls for a platform that can consolidate, connect, and accelerate data. From both historic and current data sources.

The platform must have the capacity to accommodate streaming data from IoT devices and telemetry. It must also deliver analytics and AI/ML applications on-demand. This describes a data hub platform almost perfectly.

Financial services firms are now deploying data hub platforms to accelerate the data in a way that improves both performance and profitability. It has enabled some, in fact, to reduce all database job latency to below 1ms.

IMPROVING INTELLIGENCE

EVERY TYPE OF INVESTOR FACES CONSTANT PRESSURE TO IMPROVE PERFORMANCE AND TOP-LINE REVENUES.

To address this pressure and keep pace of constantly changing markets, more firms are deploying models powered by analytics that produce AI and ML driven insight. For example, quantitative analysts are sifting big data by using AI and ML to create more immediate investment strategies that identify profitable opportunities and balance risks. AI, ML, and predictive analytics also add

new capabilities to improve forecasting and optimize trading decisions. But none of this can be done without fast processing of large volumes of data from multiple sources.

Firms need scalable storage for constantly growing data volumes. They also require high-performance processing to optimize machine analysis and get human beings the answers they need.

$57.6 BILLION
Projected global spending on AI and ML by 2021, up from $12 billion in 2017[1]

$1.2 TRILLION
Value that Accenture projects AI will contribute to the financial industry by 2035[2]

REINVENTING THE CUSTOMER EXPERIENCE

ONLINE AND MOBILE BANKING CUSTOMERS DEMAND CONVENIENT SERVICES.

Whenever and wherever they want them. Therefore, delivering such experiences is strategically critical. Customer loyalty depends on it.

The opportunity now exists to reimagine the entire customer experience, from core banking to mobile to call center.

With analytics-driven ML, organizations can transform their retail applications, including conversational commerce, voice interfaces, and virtual assistants.

Financial firms can now obtain more value from the data they store and protect. They are now embracing AI, ML, and predictive analytic platforms to leverage their vast data sources, add new value, and deliver experiences that help them attract and keep customers. Data storage must be able to keep up with these new capabilities by offering fast access to all data resources with scalable processing power.

$170 BILLION
Economic impact of massive data integration on retail banking in developed markets[3]

$199 BILLION
Savings from reduced front-office locations, systems, and personnel by 2030, thanks to AI[4]

78%
Proportion of contact center interactions that Swedbank's AI resolves on first-contact[5]

TRANSFORMING GOVERNANCE, RISK, AND COMPLIANCE

REGULATORY COMPLIANCE IS NOW A HUGE EXPENSE FOR FINANCIAL INSTITUTIONS.

Analysts estimate it costs the banking industry $270 billion annually.[6] And compliance and risk practitioners expect that price to climb.[7]

Stopping fraud and criminal activity remains a top, yet expensive, priority. As does risk management in the "middle office." Both require more immediate access to data and intelligence. Consequently, many firms are accelerating the identification and reporting of liquidity, counterparty, market, and credit exposures. The ultimate challenge, however,

is to make all data immediately available to all applications in a cost-effective way.

Financial firms can't afford to devote more people to these problems. Instead, many are turning to new regulatory technology powered by AI and ML to automate some of the processes and complement existing systems. These solutions enable a comprehensive governance, risk, and compliance automation strategy that operates across all functional silos and delivers round-the-clock compliance monitoring, scalable capabilities, and lower costs.

74%
Expect to focus more on managing regulatory risk in the next year[9]

66%
Expect the cost of senior compliance staff to increase[9]

45%
Expect to invest in automated GRC applications by 2021[9]

"Identifying high-risk behavior associated with fraudulent activity does not need to impact the user experience. It is critically important for financial institutions to passively identify unsafe device masking and manipulation, the presence of malware, and other behaviors indicative of bot activity or fraud."

KIMBERLY SUTHERLAND

SENIOR DIRECTOR, FRAUD AND IDENTITY MANAGEMENT, LEXISNEXIS RISK SOLUTIONS[8]

DATA AS A STRATEGIC BUSINESS ASSET

A STRATEGIC DATA STORAGE ARCHITECTURE MAKES BUSINESSES MORE AGILE, SCALABLE, AND FUTURE-PROOF.

Which means they can achieve greater success with performance, intelligence, customer experiences, and GRC.

This, however, will require the use of data enrichment with "alternative data" from geolocation, demographics, Rx records, retail foot traffic, and other specialized external sources. It also requires that your data platform collect, aggregate, and process data in any format. The diagram below portrays the evolution of data maturity and corresponding business value at each stage.

This is where data hub comes in. A data hub is designed to share data from a multitude of

EVOLUTION OF DATA MATURITY

Consolidate, Connect, and Accelerate Your Data
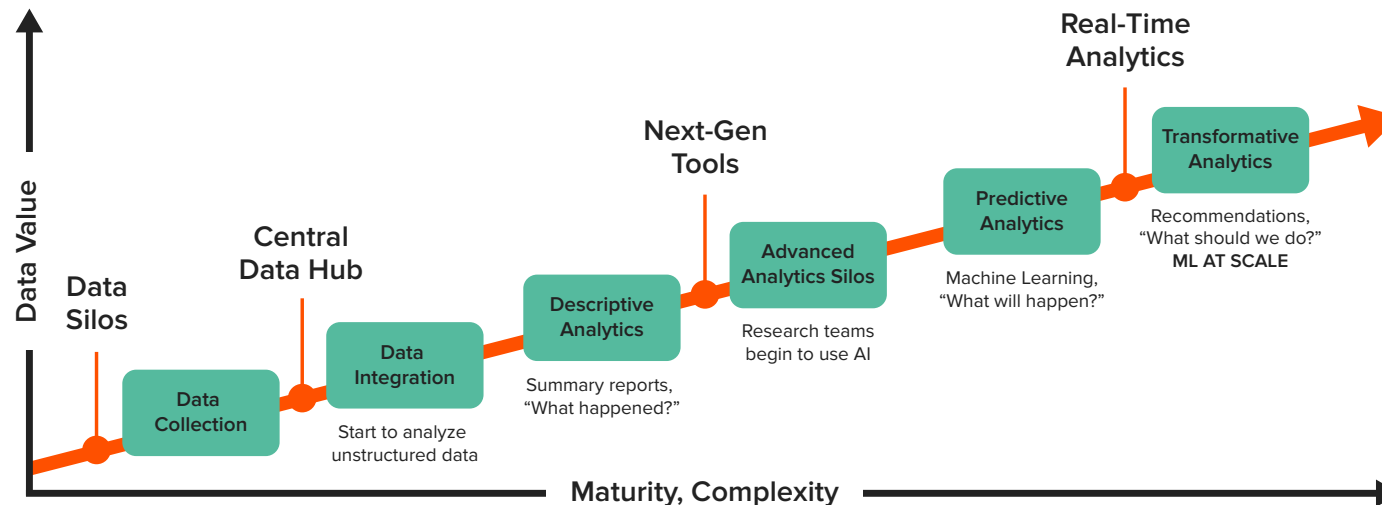
sources and facilitate the creation of data pipes for AI workloads. It is based on an approach to designing an end-to-end environment across computer, network, storage, and the cloud, which is optimized for ubiquitous and fast consumption of data to create value.
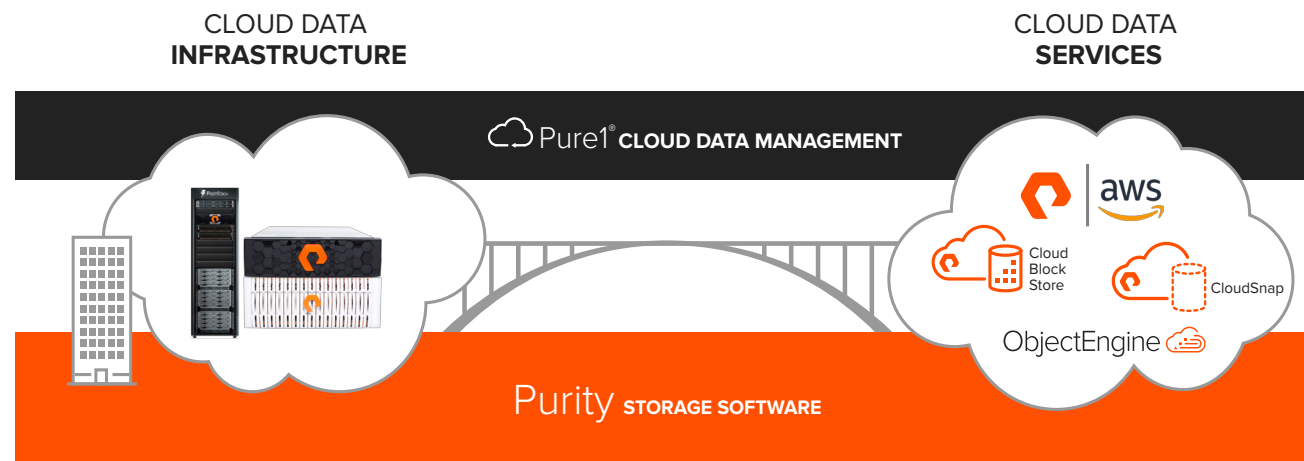
Many firms now deploy new services in the public cloud to improve agility and time-to-market. That trend is accelerating as cybersecurity capabilities improve. If

you want to transfer your workloads to the cloud, you need a way to move your data freely and securely between on-premise and public clouds.

The future of cloud is hybrid cloud/multi-cloud, where applications, services, data and users can reside anywhere and stay connected.

Pure Storage's hybrid cloud solutions enable data sharing, application mobility, seamless management and automation across on-premises, hosted and public cloud resources.

PURE STORAGE UNIFIED THE CLOUD

CLOUD DATA
INFRASTRUCTURE

CLOUD DATA
SERVICES

Pure1® CLOUD DATA MANAGEMENT

aws

Cloud Block Store

CloudSnap

ObjectEngine

Purity STORAGE SOFTWARE

Overview | Performance | Intelligence | Experiences | Compliance | **Strategic Assets** | Success Stories | Expect More
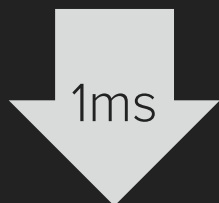
SUCCESS STORIES

PURE STORAGE TRANSFORMS THE INVESTEC CUSTOMER EXPERIENCE

Asset management company Investec wanted to use its data to improve both customer and trader experiences. It's expensive and aging storage infrastructure, however, meant applications took forever to load data and the system could only serve a small number of customers. Shifting to a modern data strategy powered by Pure's data hub produced dramatic changes.

10%

Faster load times.

1ms

Lowered database job latency to below this level.

Overview   Performance   Intelligence   Experiences   Compliance   Strategic Assets   **Success Stories**   Expect More

PURE STORAGE COMES TO A NORTH AMERICAN BANK'S RESCUE

One prominent bank began its AI journey with a different vendor. The company soon learned the vendor couldn't deliver the necessary performance and ease of use. By investing in Pure's turn-key data hub, this bank was able to quickly change their fortunes.

4X-5X

The increase in projects that the data team was able to run.

20%

Performance increase for data scientists.

Overview   Performance   Intelligence   Experiences   Compliance   Strategic Assets   **Success Stories**   Expect More

PURE STORAGE ACCELERATES
MAN AHL'S TIME-TO-MARKET

MAN AHL is a London-based, diversified, quantitative investment manager with more than $19 billion in assets. Pure Storage enabled the firm to expedite all of its investment decisions with mathematical models, computer algorithms, with no human involvement.

"Our quants want to test a model, get the results, and then test another one, and another one—all day long. So, a 10X-20X improvement in performance can be a game-changer when it comes to creating a time-to-market advantage for us."

—

CO-CTO, MAN AHL

See the full MAN AHL Co-CTO interview.
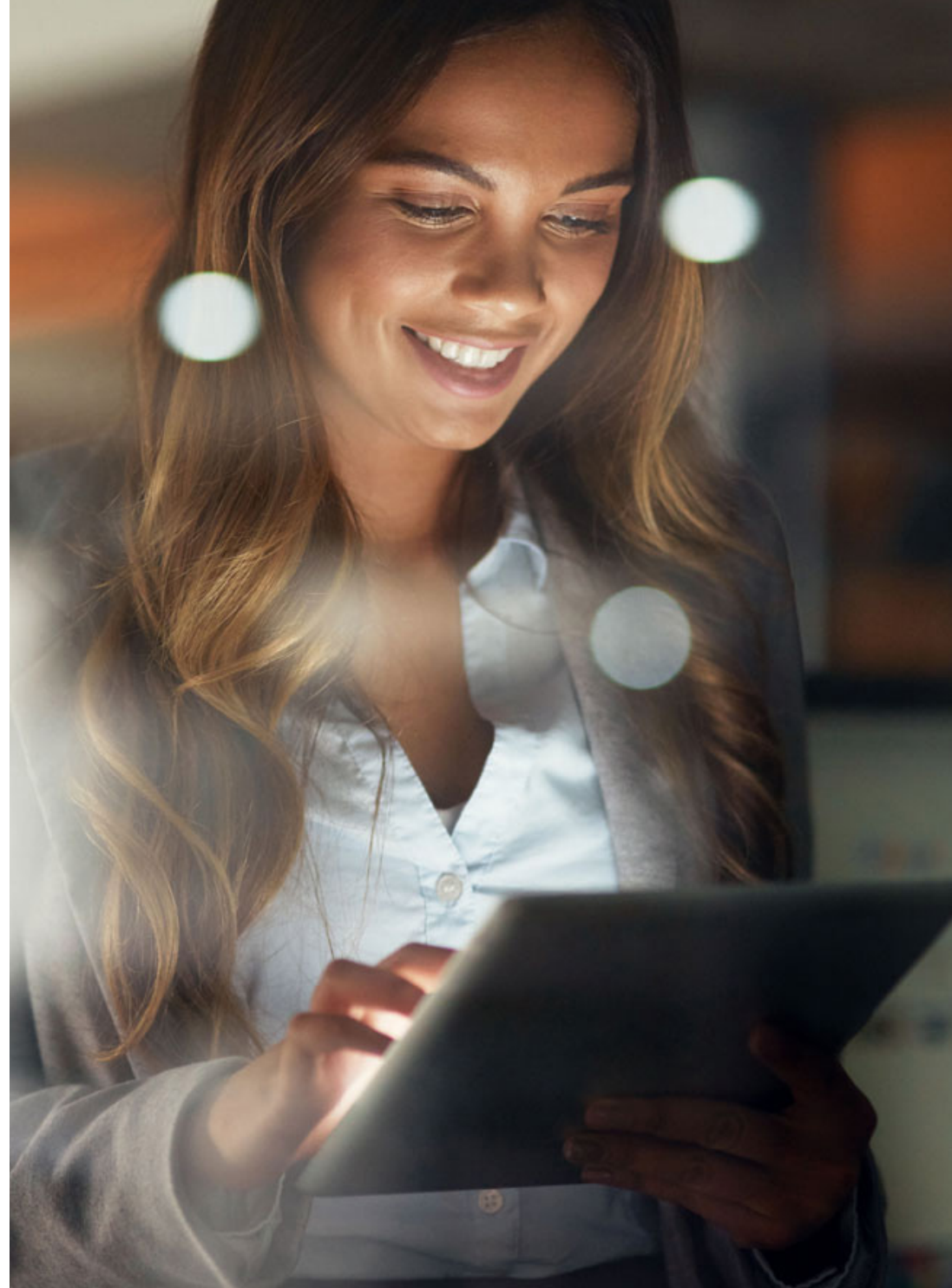
EXPECT MORE VALUE FROM YOUR DATA

If financial services firms are to differentiate themselves in the competitive marketplace, innovation is now more critical than ever. Digital transformation and capitalizing on data provide a vital opportunity for organizations to focus on emerging customer needs, uncover deeper insights, and mitigate risks when launching new services. The starting point for all this is a high-performance, highly-agile data storage platform.

It's time to put your organization's data to work. Pure Storage can help.

LEARN MORE

1. IDC. "IDC Spending Guide Forecasts Worldwide Spending on Cognitive and Artificial Intelligence Systems to Reach $57.6 Billion in 2021". September 25, 2017.

2. Joyce, Lisa. The Financial Brand. "Artificial Intelligence and the Banking Industry's $1 Trillion Opportunity".

3. McKinsey Global Institute, McKinsey & Company. "The Age of Analytics: Competing in a Data-Driven World". December 2016.

4. Autonomous NEXT. "#Machine Intelligence & Augmented Finance". April 2018.

5. FinTech Futures. BankingTech. "Clever banking with artificial intelligence". June 1, 2016.

6. Arnold, Martin. Financial Times. "Banks' AI plans threaten thousands of jobs". Jan. 5, 2017.

7. Thomson Reuters. "Cost of Compliance Report 2018."

8. Digital Transactions. "Financial institutions' Costs Increase to $2.92 for Every Dollar of Fraud, Says LexisNexis Risk Solutions". September 26, 2018.

9. Thomson Reuters. "Cost of Compliance Report 2018."

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