

HP HAVEn: See the big picture in Big Data



Profit from 100 percent of your data with HP HAVEN.

HP HAVEN is the industry's first comprehensive, scalable, open, and secure platform for Big Data. HP HAVEN provides the capability to handle 100 percent of your enterprise data—structured, unstructured, and semi-structured—and securely derive actionable intelligence from that data in real-time.

The HP HAVEN Big Data platform features data collectors, engines, and “n” (any number of) applications. All these components are deployed, and hundreds of HAVEN customers are transforming processes and understanding their customers better using HAVEN-powered applications.

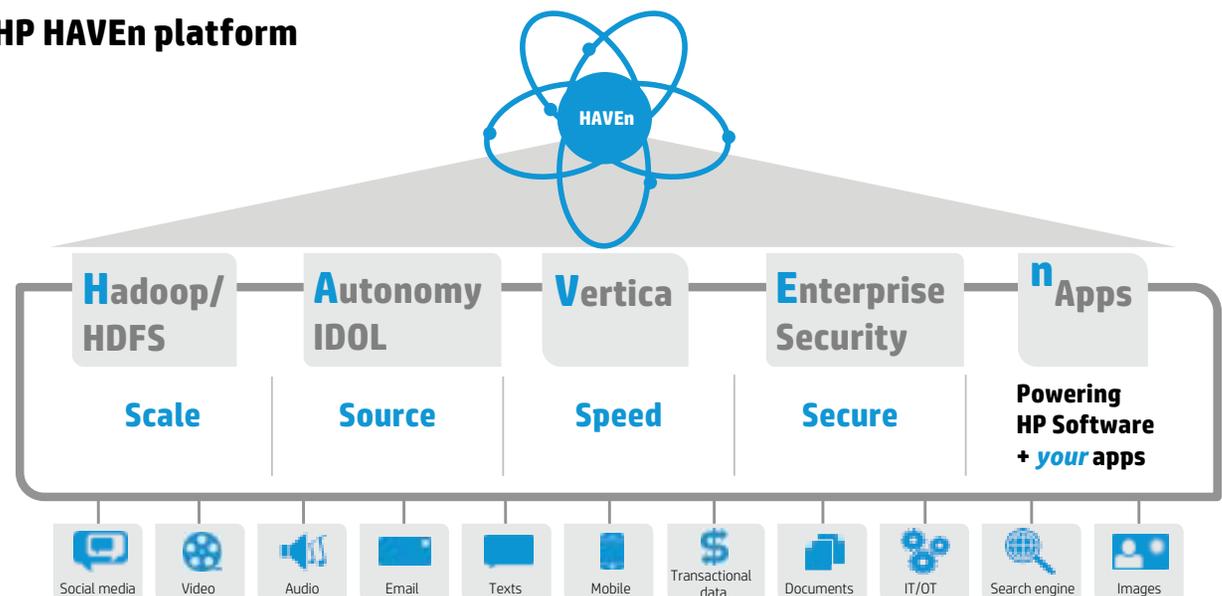
HP HAVEN Big Data engines are designed to handle specific high performance analytics functions. Autonomy, Vertica, and HP ArcSight interact with Hadoop to cost-effectively analyze and store massive amounts of data from virtually any source.

The HP HAVEN ecosystem further extends the HP HAVEN Big Data platform by bringing together everything you need to see the big picture in Big Data: hardware, software, and services.

HP HAVEN Applications:

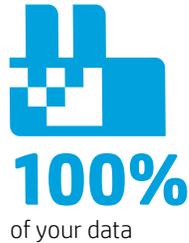
The combination of patented Big Data engines and over 700 connectors enables HAVEN to support a wide range of applications. ISVs, integrators, and partners have built new HAVEN applications that address both horizontal and industry-specific needs for data management and analytics. In addition, HP continues to enhance its own application portfolio to utilize the power of HAVEN.

HP HAVEN platform



HP HAVEn fuels better, faster insights.

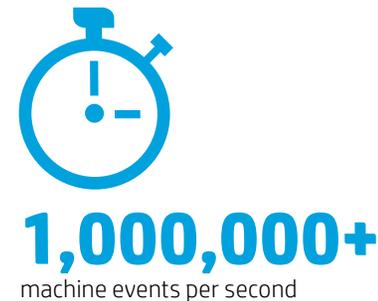
The HP HAVEn platform lets you collect, index, and query massive volumes of data across Hadoop and other enterprise sources for faster insights. You anticipate customers' needs faster. Design more relevant products and services. And gain the insight to secure your enterprise. See the big picture in Big Data and reach decisions with 100% confidence.



- Machine data
- Business data
- Human information

- Create better products/services
- Improve customer experience
- Defeat cybercriminals

- Protect your IT investments
- Protect your information
- Protect your applications



For more about Hadoop:
[Vertica white paper on Hadoop](#)

Hadoop

Hadoop complements HP technologies as a way to cost-effectively store massive amounts of data from virtually any source, including semi-structured data (like logs) and unstructured data (like audio, video, and email).

Rather than rely on hardware to deliver high availability, the Hadoop distributed file system (HDFS) detects and handles failures at the application layer, delivering a highly available service on top of a cluster of computers.

For more about Autonomy

[Autonomy overview](#)

For more about HP Vertica and Big Data

vertica.com

All of the HP HAVEn engines, including Autonomy, Vertica, and ArcSight, are able to interact with Hadoop for data collection and analysis.

For other high-value data, HP customers typically rely on the real-time engines of HAVEn to store data in an optimal format for analysis, meaning that HAVEn processes data up to 100 times faster than the batch-oriented data processing of Hadoop.

Autonomy

HP Autonomy's Intelligent Data Operating Layer (IDOL) automates the process of recognizing, categorizing, and retrieving concepts and meaning in unstructured human information, which falls into two categories:

- 1. Unstructured text data:** Includes content in blogs, news feeds, documents, and social media interactions.
- 2. Unstructured rich media:** Includes photos, videos, sound files, and forms of information that do not include text beyond simple metadata

IDOL can automatically analyze any piece of information from over 1,000 different content formats and perform over 500 operations on digital content.

HP Vertica

HP Vertica is a powerful, highly-scalable analytics engine that drives down the cost of capturing, storing, and analyzing data while producing answers 50 to 1,000 times faster compared to traditional data warehouse technology. Vertica's high-performance analytics capabilities enable:

- **Massive scalability:** Infinitely scale your solution by adding an unlimited number of industry-standard servers.
- **Open architecture:** Protect your investment in hardware and software, with built-in support for Hadoop, R, and a range of ETL and business intelligence tools.
- **Optimized data storage:** Store 10 to 30 times more data per server than row databases with patented columnar compression.
- **Advanced in-database analytics:** Conduct analytical computations closer to the data—and get immediate answers without extracting data to a separate environment for processing.

For more about HP Enterprise Security and Big Data

[Big Security for Big Data white paper](#)

HAVEn Platform & Ecosystem

[Learn more](#)

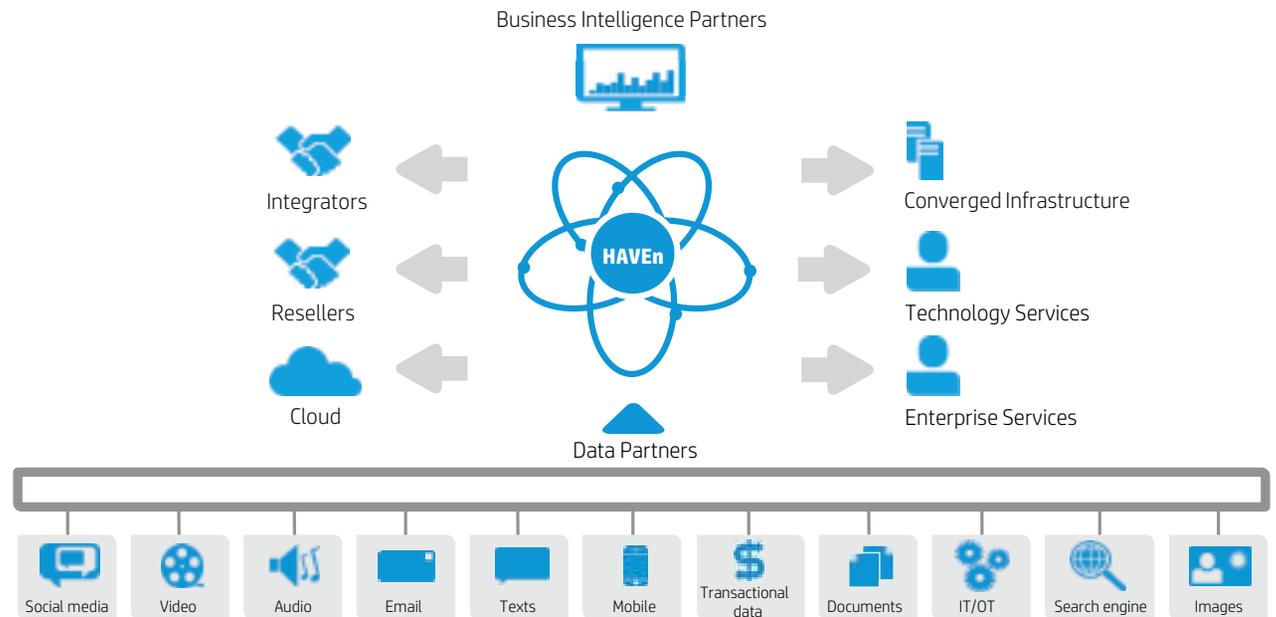
The Haven ecosystem

The HAVEn ecosystem brings together everything you need to profit from Big Data: hardware, software, and services. A rich ecosystem extends the HAVEn platform with a wealth of HP resources, partners, and integrators across the globe.

Enterprise security, powered by HP ArcSight

The HAVEn platform brings a new level of enterprise security, allowing you to not just see if a breach will occur, but also know when it is likely to occur. HAVEn enables you to unify data in various formats, improving security with the ability to:

- **Collect:** Collect any data from any device in any format from over 300 distinct log-generating sources.
- **Enrich:** While the data is being collected, you can filter and parse it with rich metadata, helping to unify the machine data.
- **Search:** As the machine data is enriched during collection, you can search millions of events using text-based keywords—no obscure commands or domain expertise required.
- **Store:** The unified data can be stored in any format you have through a high compression ratio of up to 10:1, eliminating the need for additional database administrators.
- **Analyze:** Rely on real-time alerts to use machine data for IT security; governance, risk and compliance (GRC); IT operations; security information and event management (SIEM) solutions; and log analytics.



Where to start

HP HAVEn's engines are being applied by leading enterprises today. When you're utilizing 100% of the data relevant to your organization, creating solutions is only limited by your imagination.



Scenario 1: Understanding customer sentiment

In a multi-channel world, getting a firm grasp on customer sentiment poses a complex challenge. As customers browse your website, what is their experience? What offers are more likely to generate increased revenue? Beyond your own Web presence, the Internet serves as a 24/7 focus group with insights and opinions freely conveyed in unfiltered voices. Brand images can be made or broken based on your ability to react to spiraling social media commentary.

The customer insight triggers

- Poor online conversion rates
- Difficulty attracting new customers or retaining your existing base
- Transitioning to or enhancing a brick-and-mortar business
- Shrinking revenue makes you question what your customers are doing/thinking
- Sudden shifts in customer opinion

Real-life examples:

Successful marketing is as much about engaging with customers as it is knowing their preferences.

Cardlytics focuses on tracking and understanding consumer buying behavior and delivering actionable intelligence. [Learn how](#)

The smartest websites cater to visitor behavior.

Hp.com streamlines processing of hp.com clickstream data. [Learn how](#)

Multi-channel sentiment integration is critical.

NASCAR facilitates real-time response to traditional, digital, broadcast, and social media with its Fan and Media Engagement Center. [Learn how](#)



Scenario 2: Improving your enterprise security

A recent HP Enterprise 20/20 survey by IDG found the number one IT concern for business leaders today is security breach and data theft. Organizations need a security framework that can collect, analyze, and assess IT and enterprise security—plus non-security events—for rapid identification, prioritization, and response.

The security triggers

- An internal security breach or awareness of similar breaches in your industry
- You need to meet government or industry mandates that dictate compliance monitoring
- Large internal or external user sets need access to previously siloed sets

Real-life examples:

Big Data increases the need for continuous monitoring.

U.S. Department of Health and Human Services (HHS) established a department-wide cybersecurity program. [Learn how](#)

The best enterprise security balances security and access.

Henan Mobile improves the overall security and defense capability. [Learn how](#)

Big Data requires big judgment

The best data in the world doesn't guarantee you'll make good business decisions. The era of Big Data brings with it a clear need for "big judgment." See the Harvard Business Review's take on this: hbr.org/2012/04/good-data-wont-guarantee-good-decisions



Scenario 3: Applying IT operations analytics

With virtualization and cloud services so pervasive today, your IT organization no longer controls all the technologies in its environment. Operational analytics can help predict problems and identify issues before they occur.

The operational analytics triggers

- Need to determine the cause of recurring or sporadic system or network issues
- Need to integrate fragmented IT operations for a single view of the infrastructure
- Want to improve ROI by streamlining IT operations, adding efficiency
- Need to distinguish between performance and functional quality issues and security threats

Real-life examples:

Applying predictive analytics in IT operations

Vodafone Ireland enhances application and infrastructure performance. [Learn how](#)

What's your next move? Consider these 6 questions.

Our customers and partners are rapidly embracing HAVEn for a wide variety of industry-specific uses, tailoring the platform to solve their specific Big Data challenges. The best way to get started on the road to addressing your unique data needs is to ask yourself these questions:

- 1. Are you able to process, store, and index all critical data across your organization, structured, unstructured, and semi-structured?**
- 2. Do you have insights into customer behavior, sentiment, churn, and brand loyalty? And how easily and quickly can you gain these insights and act on them?**
- 3. Do all components of your data management infrastructure work together? Or are data and applications siloed, with little or no centralized access?**
- 4. Are you adequately addressing your industry-specific and government mandates for compliance monitoring and data retention?**
- 5. Do you have the Big Data expertise in-house to efficiently handle explosive data growth and the increasing need to deliver meaningful analytics/insights to the business?**
- 6. Can you draw connected, actionable intelligence from a combination of traditional transactional, new “network-of-things” machine data, and unstructured data such as social media and disparate knowledge worker documents and records?**

Learn more at

hp.com/haven



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