

Netezza Performance Server for IBM Cloud Pak for Data

nz_migrate anywhere—On-premises,
in the cloud or as a hybrid solution

Highlights

- Upgrade with a single command: `nz_migrate` anywhere
- Patented and proven data analysis technology
- Secure, hybrid multicloud system of insight platform designed for speed, simplicity of use, and value
- Data science and in-database machine learning at scale
- Data virtualization—query anything, anywhere, using many databases as one
- Built for resilience and business continuity

Data deluge is the new synonym for complexity as it pertains to managing the volume, variety, velocity and veracity of data. This data is being duplicated across various repositories on premises and in the cloud, leading to data silos which drive high cost, project delays and security exposures. Thus, driving value from disparate data sources only becomes all the more complex.

Organizations today have a choice: either to reinvent themselves to manage this complexity or be relegated to history.

Data democratization and its monetization hold the key to unlock the value of data but need a resilient information architecture to make intelligent analytics work. IBM Cloud Pak® for Data, a system of insight platform, simplifies this complexity to provide a governed and trusted cloud-native data and AI platform. On cloud or on premises (as a hyperconverged architecture), it simplifies and unifies the management, governance, and analysis of data. With Netezza® Performance Server, which is built on Cloud Pak for Data, IBM is again changing the game for customers' data and AI journeys.

Netezza Performance Server

Netezza Performance Server is powered by the state-of-the-art Cloud Pak for Data, a highly modular, resilient and extensible, cloud-native data-for-AI platform built on IBM Red Hat® OpenShift®. This provides for a true cloud-ready software-defined environment enabling you to build composable microservices-based insights. Since it is cloud native, you can deploy Netezza anywhere; this includes on premises and on private or public clouds such as the IBM Cloud™ and Amazon Web Services (AWS).

Netezza Performance Server is a purpose-built, standards-based, data and AI system that integrates database, server, storage and advanced analytic capabilities into a single, easy-to-manage platform on premises or on IBM Cloud and Amazon Web Services. Designed for rapid and deep analysis of data volumes scaling into the multi-petabytes, it delivers insight never thought possible, at a low cost of ownership. The Netezza Performance Server family ranges widely from entry-level to multi-petabyte scale, covering a broad range of data capacity needs.

Netezza Performance Server delivers proven performance, scalability, intelligence, and simplicity for your business needs. It requires minimal administration and tuning both for the initial deployment as well as ongoing maintenance, which translates into a lower total cost of ownership (TCO).

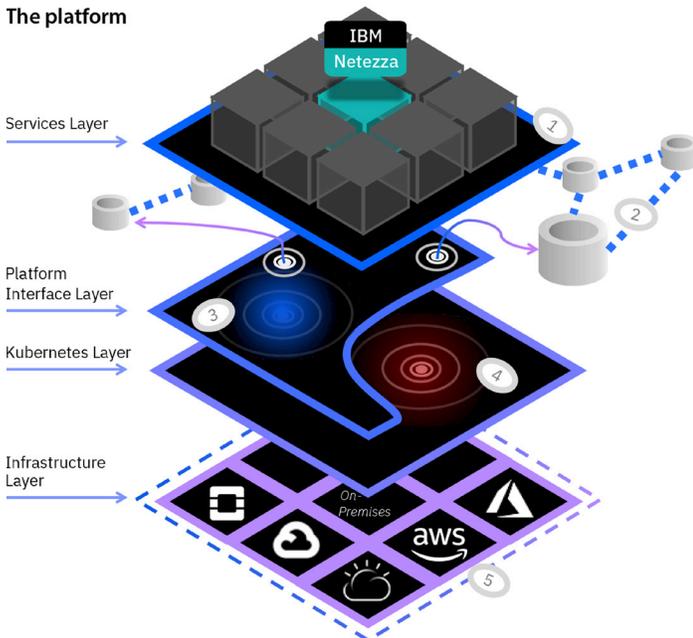
The analytics opportunity

Deep, sophisticated analytics on large data volumes are integral to enterprises in a competitive economy, giving them an edge over the competition. However, most organizations are challenged by both the time-to-market on new analytic capabilities, as well as maintaining service level agreements on existing analytics.

Strategic analytics should not be complicated to deliver and difficult to manage

IBM's approach to data analysis is patented and proven and with this release Netezza Performance Server has made multiple improvements over and above previous systems. Its multi-petabyte scaling enabled by a massively parallel system helps clients gain insight from enormous data volumes, significantly faster than they can with traditional systems. And that's done without the need to copy the data into a separate analytics server.

The platform



1. Services Ecosystem

With a click, access and deploy an ecosystem of 45+ analytics services and templates from IBM and third parties.

2. Data Virtualization

Quickly and easily query across multiple data sources without moving your data.

3. Platform Interface

Speed time-to-value with a single user experience that integrates data management, data governance and analysis for greater efficiency and improved use of resources.

4. Red Hat OPENSIFT®

Leverage the leading hybrid cloud, enterprise container platform for an innovative and fast deployment strategy.

5. Any Cloud

Avoid lock-in and leverage all cloud infrastructures with our multi-cloud approach.

Fast. Scalable. Smart. Simple.

Netezza Performance Server is designed specifically for running complex analytics on very large data volumes with faster execution times than competing solutions. It delivers the proven performance, scalability, intelligence, and simplicity that organizations need to drive insights from their data.

Simplicity

nz_migrate anywhere—on premises, on cloud or as a hybrid solution. You can upgrade today with this single command. Netezza Performance Server can coexist with existing Netezza (PureData® System for Analytics) solutions while you upgrade at your own pace to modernize your journey to cloud or hybrid.

The system integrates with leading ETL, data and AI applications through standard ODBC, JDBC and OLE DB interfaces and has 100% compatibility with your existing data integration and BI tools. All you do is re-point your existing ETLs or third-party applications when you upgrade. Zero changes are necessary to get the same predictable linear performance scalability that you like about Netezza.

Netezza Performance Server also provides a modernized and unified GUI that helps administrators monitor and manage system resources, administer database objects, configure workload management, view active sessions and monitor system resource utilization for capacity planning. The UI provides a consolidated administrative interface supporting Netezza Performance Server from one, easy-to-use access point.

Netezza Performance Server is architected for high availability and resiliency. Failure of a processing node or any element in the system causes no significant performance degradation. This enables a robust, production-ready environment from the moment the system is installed in your data center.

Simplicity and ease of development and deployment is what truly sets Netezza apart. It is a core differentiating value that delivers out-of-the-box performance with no indexing and tuning and minimal administration both for initial deployment as well as ongoing maintenance. This translates to a lower total cost of ownership while delivering leading time to value. IBM eliminates complexity at every step so you can redirect valuable resources to initiatives that will positively impact the bottom line.

Fast

Netezza Performance Server delivers unparalleled performance advantages over other options. This comes from its unique asymmetric massively parallel processing (AMPP) with IBM's patented hybrid columnar acceleration assist. On premises or on IBM Cloud and Amazon Web Services, it can leverage state-of-the-art hardware technologies such as faster cores and advanced NVMe flash drives while minimizing data movement. This enables analytics workloads that can support thousands of users and process data at considerable speed. In other words, it's fast, but at a low cost.

Hybrid multicloud scalability

With the Netezza Performance Server solution, you can deploy the right-sized environments for your data volumes and workloads, and be confident that as data volumes grow, the architecture enables you to scale quickly and easily as your growth needs change.

Architecturally, a cloud data warehouse is fast, elastic and scales to near infinite capacity. IBM has built Netezza on the Cloud to take those benefits to the next level. Available on both IBM Cloud and Amazon Web Services, the built-in automation and auto-recovery provides a highly available and fault-tolerant Netezza deployment with minimal human touch, ensuring your data warehouse can run 24x7x365.

Netezza also provides linear performance scalability as the size of your workload grows, which means that organizations can pick the appropriately sized system to meet both their data volume and performance requirements. This is accomplished with predictable, scalable performance with no need to add significant resources to manage and maintain the deployment as data volumes grow.

Access your cloud data lake, whether on IBM Cloud Object Store or AWS S3 with high speed Netezza external tables. Backups can also be scheduled at your convenience and kept in object stores as well as replicated to multiple availability zones.

Of course, not all organizations want to commit to a fully cloud or fully on-premises environment. To provide additional choice IBM offers a seamless Netezza ground to Netezza cloud experience that allows organizations to maintain a hybrid architecture. Full compatibility between both deployment options alongside data virtualization means that you can always place your data and run workloads where it is most advantageous. Furthermore, there is no costly ETL or migration when the data is needed elsewhere.

Smart

Netezza Performance Server dramatically simplifies analytics by consolidating all analytic activity to one place: where the data resides. Moving analytics to the Netezza Performance Server is straightforward with IBM's embedded analytic platform. In addition, the data virtualization capability that comes with IBM Cloud Pak for Data enables you to query any data source, anywhere, without moving any data—letting you treat many databases as one.

IBM Watson® Studio—which comes with Netezza Performance Server for IBM Cloud Pak for Data—helps data scientists and analysts prepare data and build models at scale across any cloud. With its open, flexible, multicloud architecture, Watson Studio provides capabilities that empower businesses to simplify enterprise data science and AI.

Data scientists can build their models using all enterprise data and then iterate through different models much faster to arrive at the best solution. Once the model is developed, it can be seamlessly executed against the relevant data in the appliance. Prediction and scoring can be done where the data resides, too. Users can get their predictive scores in near-real time, helping operationalize advanced analytics and making it available throughout the enterprise.

Netezza Analytics offers a built-in analytical infrastructure and extensive library of statistical and mathematical functions, supporting a breadth of analytic tools and programming languages, including Open Source R. It is delivered with a library of more than 200 prebuilt, scalable, in-database analytic functions that execute analytics in parallel while abstracting away the complexity of parallel programming from the developers, users and DBAs.

The Netezza Analytics functionality also includes the market-leading in-database geospatial analytics that are compatible with the industry-standard ESRI GIS formats. This enables easy integration with existing geospatial analytic environments.

The best value

Netezza Performance Server is a cost-effective data and AI system. It requires minimal ongoing administration and tuning, which in turn minimizes internal resources and implementation costs, for an extremely low total cost of ownership. The performance and scalability of Netezza Performance Server is available immediately, without requiring tuning, indexing, or aggregated tables.

IBM offers your company fast time-to-value for important data and AI initiatives, so your organization is armed with more accurate intelligence to react quickly and accurately to opportunities and risks as they present themselves. At a time when companies need flexibility to react to changing market conditions and growing data and AI demands, a simple, easy-to-maintain system that runs fast and analyzes your growing data volumes makes sense.

Learn more about Netezza Performance Server

Netezza offerings combine the flexibility of a general-purpose system, the elasticity of cloud and the simplicity of an appliance. They are integrated by design and come with built-in expertise gained from decades of experience to deliver a simplified IT experience.

Whether on premises, on the IBM Cloud or Amazon Web Services, or all of the above, Netezza Performance Server provides a massively parallel processing environment that is easy to manage and requires minimal setup and ongoing administration while producing faster and more consistent analytic performance. Netezza Performance Server intelligently simplifies data and AI dramatically by consolidating all analytic activity in the appliance, right where the data resides, for industry-leading performance.

Visit ibm.com/analytics/Netezza to see how the family of expert integrated systems eliminates complexity at every step and helps you drive true business value for your organization. Or, contact your IBM Representative or Business Partner.

Why IBM

IBM provides the most comprehensive portfolio of data warehousing, information management and data and AI software, hardware and solutions. This helps clients maximize the value of their information assets and discover new insights to make better and faster decisions and optimize their business outcomes.

Additionally, IBM Global Financing can help you acquire the software capabilities that your business needs in the most cost-effective and strategic way possible. We'll partner with credit-qualified clients to customize a financing solution to suit your business and development goals, enable effective cash management, and improve your total cost of ownership. Fund your critical IT investment and propel your business forward with IBM Global Financing. For more information, visit ibm.com/financing.



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New Orchard Road
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Produced in the United States of America
May 2020

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