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## PYTHIAN IT FOUNDATION SERVICES HADOOP SERVICES

*Customized consulting, implementation and management services that ensure a reliable, scalable and efficient Hadoop environment for your business.*

### HIGHLIGHTS

- Flexible engagements: Mix and match the services you need month after month
- 24/7/365 service coverage for always-available, high-performing systems
- Services available around the world through remote geo-distribution
- Two millennia of accumulated and documented experience
- Certified team that has been providing Hadoop solutions to clients since Hadoop first came to market

A subscription to Pythian's Hadoop Technical Services gives you access to a dedicated team of certified Hadoop engineers that provide you with the services you need when you need them. Customize your service package by choosing what you need—from initial consulting to system design and architecture, through to ongoing 24/7 incident handling and proactive management. This continuity of service ensures the optimal performance and efficient operation of your Hadoop database. Anywhere, anytime—in the cloud or on-premise.

Our expert team is experienced with Hadoop distributions from Apache and Cloudera, Amazon EMR, Microsoft HDInsight, MapR, Hortonworks, and Google Cloud DataProc, and have created innovative solutions across Hadoop ecosystem components including: Kafka, Hive, Pig, MapReduce, Spark, HDFS, HBase and more. We offer unparalleled experience and expertise in a range of cloud deployments including Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform and Rackspace.

Hadoop Services provides you with as much support as you need. Choose from these service options to customize your subscription:

### CONSULTING SERVICES

- Assessment of current technology environment
- Identification of potential use cases
- Discussion of desired big data outcomes
- Architecture and platform recommendations to support business needs
- Creation of detailed deployment plan
- Future expansion planning
- Solution design
- Big data platform recommendations and deployment—from hardware and software recommendations to complete deployments
- Capacity planning

## IMPLEMENTATION SERVICES

- Review of data source details and availability
- Review of data transformations needs
- System architecture design
- Deployment and configuration of big data technology components
- Development of data models, data ingestion procedures, and data pipeline management
- Data integration
- Pre-production health checks and testing

## MANAGEMENT SERVICES

- Remote DBA services
- On-premise DBA services
- Hadoop 24X7 monitoring, alerting, and problems resolution
- System optimization
- Proactive and reactive monitoring
- Continuous improvements
- Performance tuning
- Platform upgrades
- Security config

## SUPPORTING YOU IN THE CLOUD

We have strong partnerships with the top cloud and Hadoop vendors, and offer some of the industry's leading cloud expertise. So when you choose to host your database in the cloud, your dedicated Pythian team will include cloud experts who will provide valuable advice and consulting in:

- Cloud solution development
- Cloud platform selection: IaaS vs DBaaS—Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP)
- Detailed design and build
- Deployment to Amazon EMR, Microsoft HDInsight, Google Cloud DataProc, MapR, Hortonworks and more
- Hadoop and data migration to, and configuration on, the cloud
- Data access and security configuration
- Cloud platform testing and validation
- Resource optimization for cost savings
- Cloud solutions operations support

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“Not only did Pythian fix our performance issues, but they provided guidelines to avoid issues in the future and help us get the most out of our Hadoop infrastructure. Thanks to Pythian we now have a healthy, finely-tuned Hadoop environment that scales easily even while operating at peak levels.”

— A Major Daily News Publisher

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We do this all while maximizing your cloud investment to ensure cost efficiency, scalability and high availability.

## SAMPLE PROJECTS

- Designed and deployed a big data stack with multiple data centers, Hadoop and Kaka deployments, events ingestions, data quality control, and a data transformation pipeline for a leading online music-streaming provider.
- Conducted a big data workshop to define a large postal company's big data strategy and applicability for a variety of existing business needs and challenges.
- Designed and implemented a Hadoop-based solution serving as an analytical platform for speech recognition modeling for a provider of interactive voice response solutions.
- Developed Hadoop proof-of-concept project to verify platform capabilities and adherence to a large bank's standards in security, availability, operations, and integration requirements.
- Performed architecture review, tuning, and operational practices for embedded Hadoop clusters and Flume-based distributed events ingestion for a security appliance provider.
- Deployed a Hadoop cluster for a fraud detection solution: high availability, security (Kerberos, Active Directory, SSL, data at rest), performance tuning for a large financial services company.
- Designed and implemented Cloudera Hadoop cluster on AWS and integrated data ingestions using Amazon Kinesis with focus on cost efficiency and ability to scale for a coupon management application.
- Designed and implemented a data pipeline in Azkaban to ingest Omniture and other data sources and transformed the reporting structure for an online digital media newsstand and application provider.
- Designed and deployed a Hadoop-based Enterprise Data Hub architecture as the central analytics platform: data ingestion and integration with SAS, Tableau and ad-hoc SQL access interfaces using Cloudera Impala for a provider of SaaS solutions for dealerships.
- Analyzed existing MySQL-based solution and provided recommendations and architecture for the next-generation platform to scale 100x times leveraging NoSQL and Hadoop technologies for a leading provider of embedded and cloud digital home media platforms.
- Conducted a big data workshop to analyze a company's current data management challenges. Recommended data

## WHY PYTHIAN IT FOUNDATION SERVICES

Pythian IT Foundation Services ensure your data infrastructure foundation is solid, scalable and efficient, setting the stage for successful data enablement for your organization.

### DEEPEST BENCH

You get a dedicated experienced Pythian team—backed by hundreds of additional Pythian experts who can collaborate on particular issues or provide additional expertise as needed. Our ability to hit the ground running means we can start solving your Hadoop issues faster, or quickly take on the management of your Hadoop environment from initial planning to monitoring to analytics and APIs.

### FLEXIBLE CONTRACTS FOR BETTER VALUE

Customize your subscription to get the right services and the right skills at the right time for you. Your Pythian team is equipped with the best tools and technologies to deliver the best outcomes faster—which means a better return on your investment. Increase, reduce, or cancel your Pythian subscription with only 30 days' notice and experience the Pythian difference risk-free.

### RESPONSIVE, RELIABLE TEAMS

Your Pythian team works seamlessly with your organization to become your remote colleagues. We can help you fill the gaps in your in-house team or become your entire Hadoop team, taking on the management of your system, 24x7x365. We use the FIT-ACER™ human reliability checklist as a method of ensuring the highest standard of quality, repeatability and reliability.

### TECHNOLOGY ENABLED

We have captured and documented processes and knowledge from two millennia of successful engagements—if you have a challenge, we've probably seen it, solved it, and documented it. This amassed knowledge is always accessible to your Pythian team, and enables them to securely and efficiently deliver the best outcomes, faster.

technologies and blueprints and optimized existing solutions for a provider of multi-platform advertising sales software.

- Designed and implemented a solution to offload large structured and unstructured data sets from relational databases to Hadoop to optimize costs, provided new analytical capabilities, and the ability to work with unstructured data for a SaaS solution provider for the wellness industry.
- Implemented data ingestion pipeline using Hive and Spark Streaming for an online gaming company.
- Recommended deployment blueprints as well as required components and products from Hadoop ecosystem for a large bank.
- Performed HBase performance tuning and re-architecture of application to optimize for Hbase for an inbound marketing analytics software SaaS provider.
- Redesigned and implemented the new data warehouse platform based on Hadoop and Oracle Exadata for an eCommerce retail giant.
- Used machine learning for artists similarity modeling for a leading online streaming music provider.
- Used machine learning for personalization and automated tagging for a leading online streaming music provider.

## SECURITY FOCUSED

Pythian's security framework includes the policies, methods, and tools to ensure your systems and data are always protected. At the core of this framework is Adminiscope™, our unique privileged access management solution that enables your Pythian team to bypass the Internet and its associated risks whenever they work remotely on your business-critical systems. We ensure a high level of security in our people through comprehensive employee background checks, rigorous employee security policies, and mandatory training on HIPAA/HITECH, PCI DSS and the Privacy Act.

## BEYOND CUSTOMER CENTRIC

Our work goes beyond just delivering a positive customer experience. Because we work so closely with our clients, we are able to see things through the customer lens and take a proactive approach to resolving anomalies and issues before they become problems.

## WHATEVER YOUR DATA NEEDS, WE HAVE YOU COVERED

We provide expert services for the leading traditional and emerging database, data warehouse and analytics technologies, both on-premise and in the cloud. We are the top choice for businesses that have a combination of traditional and non-traditional databases, or hybrid on-premise/cloud environments. Your Pythian subscription also gives you access to experts in many data systems including Hadoop, Cloudera, MapR, Hortonworks, Oracle Database, Oracle EBS, Cassandra, MongoDB, MySQL, SQL Server, DBaaS offerings on Google Cloud Platform (Google Cloud SQL, Google Cloud Datastore, Google Cloud Bigtable, Google BigQuery, Google Cloud Dataproc), AWS (Amazon RDS, Amazon DynamoDB, Amazon Redshift, Amazon Elastic MapReduce), Microsoft Azure (Microsoft Azure SQL Database, Microsoft Azure SQL Data Warehouse, Microsoft Azure DocumentDB, Microsoft Azure HDInsight). We help our clients get the most from these technologies by offering everything from reliable, scalable and efficient IT infrastructure services, through to enterprise analytics platforms.

For more information on this or other Pythian services, contact us at [info@pythian.com](mailto:info@pythian.com)

## ABOUT PYTHIAN

Pythian is a global IT services company that specializes in designing, implementing, and managing systems that directly contribute to revenue and business success. We help companies adopt disruptive technologies to advance innovation and increase agility. Our highly skilled technical teams work as an integrated extension of our clients' organizations to deliver continuous transformation and uninterrupted operational excellence using our expertise in cloud, DevOps, big data infrastructure, advanced analytics, infrastructure management, and databases.

## OFFICES

Ottawa, Canada

New York City, USA

San Francisco, USA

London, England

Sydney, Australia

Hyderabad, India