Guidehouse
Outwit *Complexity*

The Organizations seeking to improve the resilience and reliability of their network can benefit from a partner with the AI/ML capabilities to help predict outages before they occur.

Network Outage Solutions

In today's business environment, outages can have far-ranging negative impacts. With organizations facing unprecedented challenges in maintaining network stability and performance, resilience and the ability to swiftly detect and address problems are integral to success. To that end, both tech and talent must be on-point.

Mitigating Network Outages With AI

Guidehouse has significant experience designing and implementing solutions to predict and reduce network outages. We partner with our public and commercial clients to build and deploy AI and automated services that gather real-time network data and use ML models to analyze traffic, thereby detecting and responding to issues before they become critical.

Our team has developed expertise across the many technology stacks necessary to develop sophisticated, predictive, and automated solutions for network infrastructure monitoring and crisis response. Thus, we are able to provide increased visibility into network problems as well as tools to prevent them. In addition to preventing outages, our solutions also improve overall network efficiency.

Network Fortification Capabilities

The key to predicting and mitigating outages is identifying the right solution to match your organization's network pain points. Our years of experience designing full AI and automation strategies for IT business problems across industries enable us to guide all levels of leadership to strengthen valuable network assets via both tech and workforce advances.

Proven Methodology and Framework

Guidehouse professionals are skilled in a full suite of network outage prediction and mitigation capabilities. We are technology-agnostic and work collaboratively with our clients to deploy tailored tools for:

Data Collection

We start by building and implementing effective data collection solutions. This generally includes interacting with network devices via application programming interfaces and writing scripts to gather data from relevant network devices. This collected data will then be cleaned and processed with extract, transform, and load scripts to properly format it to be stored in a data warehouse.

Data Warehousing

We design and implement a data warehousing solution to efficiently and securely store the large amounts of data that will be used for ML analysis and reporting using cloud services such as Amazon Web Services (AWS) S3 or Azure Storage Server, in addition to onsite data warehousing tools.

AI and ML

We develop and maintain sophisticated AI and ML algorithms that analyze the collected data to rapidly predict when service disruptions are likely to occur on the network. Guidehouse has expertise in a wide variety of ML tools, including Spark on AWS Elastic MapReduce, Hadoop's MapReduce, and other technologies.

Process Automation

Once the data is analyzed and predictions are made by the ML models, our products are designed to automatically respond to potential network issues in a variety of ways, including automated troubleshooting and ticket submission to alert the IT team about a problem or potential future problem.

IT Reporting

Our solutions include robust, customized reporting systems designed to effectively communicate important metrics to stakeholders. This can include automated reports through email, or other channels, along with interactive dashboards.

IT Procedures and Training

We work with clients to develop new standard operating procedures and trainings for IT support teams, ensuring effective utilization of newly implemented systems to prevent outages and increase network efficiency.

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Guidehouse Technology Solutions

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Success Strategies

The reasons for reducing outages are obvious, but the path to actually doing so is less straightforward. With help from the right partner, however, organizations may find that the positive ramifications of the process extend beyond simply addressing network outages.

Our Solutions:

- Enable network support teams to quickly become more proactive by helping them detect and prevent outages before they happen.
- Lead to less tickets, tickets with better quality information, and a reduced chance of incidents escalating to a higher tier.
- Help find, identify, and mitigate a very wide range of potential incidents on different devices and in varied locations.
- Generate greater overall network availability and efficiency.
- Ensure a more secure/optimized IT service infrastructure.

The Guidehouse Advantage

Our approach to predicting network outages helps clients identify potential network issues and resolve them before they become full-blown outages. Our AI proficiency ensures our systems successfully deliver on key metrics, while our people skills guarantee your IT support team is agile, informed, and prepared to keep those systems running at their best. Additionally, Guidehouse is the only large professional services firm that have won a Malcom Baldrige National Quality Award, the nation's highest presidential honor for performance excellence.

Contact Guidehouse to learn more about how our network outage solutions can help your organization.

About Guidehouse

Guidehouse is a leading global provider of consulting services to the public sector and commercial markets, with broad capabilities in management, technology, and risk consulting. By combining our public and private sector expertise, we help clients address their most complex challenges and navigate significant regulatory pressures focusing on transformational change, business resiliency, and technology-driven innovation. Across a range of advisory, consulting, outsourcing, and digital services, we create scalable, innovative solutions that help our clients outwit complexity and position them for future growth and success. The company has more than 12,000 professionals in over 50 locations globally. Guidehouse is a Veritas Capital portfolio company, led by seasoned professionals with proven and diverse expertise in traditional and emerging technologies, markets, and agenda-setting issues driving national and global economies. For more information, please visit **www.guidehouse.com**.

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