

Artificial Intelligence (AI)-Driven Smart Grid Intrusion Detection Market Reach USD \$4.3 Billion by 2029 at 19.5% CAGR

*The Business Research Company's
Artificial Intelligence (AI)-Driven Smart
Grid Intrusion Detection Global Market
Report 2025 – Market Forecast 2025-
2034*

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/EINPresswire.com/ -- What Is The

Estimated Industry Size Of [Artificial Intelligence \(AI\)-Driven Smart Grid Intrusion Detection Market?](#)

The market size of the artificial intelligence-powered smart grid intrusion detection industry has been expanding at a swift pace in recent years. Forecasts project that it will increase from \$1.76

billion in 2024 to \$2.11 billion in 2025, achieving a compound annual growth rate (CAGR) of 19.9%. Several factors have contributed to the expansion during the historic period; including, an upsurge in cyberattacks on power facilities, the broadening acceptance of smart grids, the implementation of government policies aiming to safeguard critical infrastructure, heightened consciousness regarding energy security and the privatisation and deregulation of power sectors.



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The market size for the smart grid intrusion detection

sector, powered by artificial intelligence (AI), is predicted to experience substantial growth in the coming years. It is set to expand to \$4.30 billion by 2029, with a compound annual growth rate (CAGR) of 19.5%. The predicted growth over the forecast period is due to factors such as the widening of renewable energy resources, the rise in internet of things (IoT), and connected devices in grids, escalating investments in grid modernization, stricter regulatory compliance, and increasing urbanization and electricity demand. The forecast period also witnesses key trends like the shift towards real-time threat detection, the implementation of edge computing for grid security, the use of blockchain for data integrity, the burgeoning application of digital

twins in grid management, and a rising trend of partnerships between utilities and cybersecurity firms.

Download a free sample of the artificial intelligence (ai)-driven smart grid intrusion detection market report:

<https://www.thebusinessresearchcompany.com/sample.aspx?id=27554&type=smp>

What Are The Major Factors Driving The Artificial Intelligence (AI)-Driven Smart Grid Intrusion Detection Global Market Growth?

Escalating threats in cybersecurity are projected to accelerate the expansion of the artificial intelligence (AI)-powered smart grid intrusion detection market in the future. Such cybersecurity menaces, which endanger the confidentiality, integrity, or accessibility of digital networks or data, are on the rise mainly due to increasing digitization which extends the potential for attacks by placing more data, systems, and services on the web where they can be targeted. AI-powered smart grid intrusion detection provides a practical solution by persistently observing the grid, identifying irregularities promptly, and blocking prospective strikes before they impair vital infrastructure. For example, the Australian Signals Directorate, a government agency in Australia, reported in November 2023, that during the 2022-23 financial year, nearly 94,000 cybercrime complaints were lodged to report cyber, indicating a 23% surge compared to the prior fiscal year, and one report was received on average every 6 minutes. Hence, the escalating threats in cybersecurity are fuelling the expansion of the AI-powered smart grid intrusion detection market. The Market Growth is Being Propelled by the Increasing Number of Connected Devices and the Resulting Cybersecurity Risks

Who Are The Leading Companies In The Artificial Intelligence (AI)-Driven Smart Grid Intrusion Detection Market?

Major players in the Artificial Intelligence (AI)-Driven Smart Grid Intrusion Detection Global Market Report 2025 include:

- Siemens Energy AG
- Hitachi Energy Ltd.
- IBM Corporation
- Cisco Systems Inc.
- ABB Ltd.
- BAE Systems plc
- Cognizant Technology Solutions Corporation
- Palo Alto Networks Inc.
- Fortinet Inc.
- Splunk Inc.

What Are The Primary Segments Covered In The Global Artificial Intelligence (AI)-Driven Smart Grid Intrusion Detection Market Report?

The artificial intelligence (AI)-driven smart grid intrusion detection market covered in this report is segmented

- 1) By Component: Software, Hardware, Services
- 2) By Deployment Mode: On-Premises, Cloud
- 3) By Security Type: Network Security, Endpoint Security, Application Security, Other Security Types
- 4) By Application: Energy Management, Critical Infrastructure Protection, Fraud Detection, Other Applications
- 5) By End-User: Utilities, Industrial, Commercial, Residential, Other End-Users

Subsegments:

- 1) By Software: Intrusion Detection Systems, Security Information And Event Management, Network Monitoring Tools, Data Analytics Platforms, Machine Learning Algorithms
- 2) By Hardware: Sensors, Servers, Network Devices, Gateways, Storage Devices
- 3) By Services: Consulting Services, Managed Security Services, Support And Maintenance, Training And Education, System Integration

View the full artificial intelligence (ai)-driven smart grid intrusion detection market report:

<https://www.thebusinessresearchcompany.com/report/artificial-intelligence-ai-driven-smart-grid-intrusion-detection-global-market-report>

Which Region Is Forecasted To Grow The Fastest In The Artificial Intelligence (AI)-Driven Smart Grid Intrusion Detection Industry?

In 2024, North America led the global market in [AI-driven smart grid intrusion detection](#). The projections for the fastest-growing region point towards Asia-Pacific. The report on AI-driven smart grid intrusion detection includes an analysis of several regions, specifically Asia-Pacific, Western Europe, Eastern Europe, North America, South America, the Middle East, and Africa.

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Speak With Our Expert:

Saumya Sahay

Americas +1 310-496-7795

Asia +44 7882 955267 & +91 8897263534

Europe +44 7882 955267

Email: saumyas@tbrc.info

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Oliver Guirdham

The Business Research Company

+44 7882 955267

info@tbrc.info

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