

Key Market Trends

AI

Application-Driven Edge Computing

Data volumes are exploding—driven by IoT devices, Industry 4.0, augmented/virtual/extended reality (XR), and data-intensive applications in logistics, manufacturing, and healthcare.

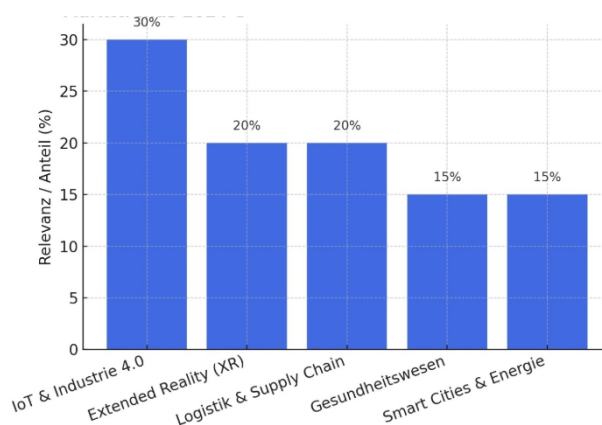
Analysts estimate that by 2025, over 50% of all enterprise data will be generated at the “edge” rather than in a central data center. Companies therefore need decentralized, application-driven edge infrastructures to reduce latency and enable real-time analytics.

Market Trends 2025/2026

1. **Edge as a Growth Market:** IDC forecasts that global investment in edge computing will grow at a double-digit annual rate through 2027. The main drivers are IoT sensors, autonomous systems, and immersive applications (XR).
2. **Industrial Applications:** Manufacturing companies are using edge computing to monitor machines in real time, perform predictive maintenance, and minimize production downtime.
3. **Healthcare:** Edge enables imaging procedures and patient monitoring with minimal latency—crucial for telemedicine and robotics-assisted procedures.
4. **Logistics & Supply Chain:** Real-time tracking of goods and vehicles improves transparency, reduces delivery times, and increases efficiency.
5. **Security & Data Protection:** Edge solutions enable the local processing of sensitive data before it is selectively transferred to the cloud—a clear advantage in terms of data protection laws.
6. **Extended Reality (XR) & Training:** Virtual and augmented reality in training, design processes, and customer interaction require extremely low latency—edge computing is the enabler here.
7. **Smart Cities & Energy:** Smart grids, traffic control, and energy distribution rely on decentralized processing to enable real-time local decision-making.

8. **Real-time analytics for retail:** Retailers use edge computing to instantly analyze customer traffic, inventory movements, and sales data, and dynamically manage their stores.
9. **Edge + AI combination:** More and more companies are combining edge computing with artificial intelligence to run AI models closer to the data source—for example, for visual quality control or security applications.
10. **Integration with the cloud:** The trend is toward hybrid architectures: computing power at the edge for real-time requirements, and a central cloud for storage and deep analytics.

Application Areas of Edge Computing



Business Benefits

- **Reduced latency:** Real-time analytics enable proactive decision-making.
- **Cost efficiency:** Not all data needs to be transferred to central clouds—this saves on bandwidth and storage costs.
- **Compliance & data sovereignty:** Local processing facilitates compliance with data protection laws.
- **New Services:** Edge computing enables new business models (e.g., autonomous vehicles, immersive customer experiences, smart production systems).

Challenges

- Integration into existing systems: Edge must not become a “silo.” Successful strategies connect edge, cloud, and core IT into an orchestrated unit.
- Security risks: More nodes = more attack surfaces. Zero-trust models and end-to-end encryption are essential.
- Complexity & Standardization: Different platforms, hardware, and vendors complicate Scaling. Companies need consistent governance.
- Investment Decisions: Where is edge computing truly worthwhile? Without a business case roadmap, there is a risk of misallocated investments.

Example: 90-Day Roadmap

- Weeks 1–3: Identification of relevant edge use cases (e.g., predictive maintenance, XR training). Business case calculation.
- Weeks 4–6: Determine infrastructure baseline: latency, bandwidth, security. Target architecture
- Weeks 7–10: Pilot project at an edge location (manufacturing, logistics, or healthcare). Clear KPIs: response time, availability, cost per transaction.
- Weeks 11–13: Scaling & Sourcing: Optimize contract models, evaluate providers, and define a governance framework.

How SAVECALL supports

SAVECALL helps companies leverage edge computing strategically, technically, and commercially

- Edge Readiness Analysis: We work with customers to identify which processes and applications generate the greatest added value through edge computing.
- Architecture & Integration: Development of hybrid architectures that scale edge, cloud, and core Optimal connectivity.
- Provider and platform evaluation: Independent comparison of leading providers (telecommunications, cloud, hardware) with a focus on performance, costs, and future-proofing.
- Security frameworks: Consulting on the implementation of zero-trust networks, data encryption, and edge security standards.
- Sourcing & Cost Optimization: We ensure that edge projects are economically viable—through smart contract design and market transparency.

Future-proofing: SAVECALL ensures that the infrastructure remains flexible to integrate upcoming applications such as AI models at the edge or mixed-reality scenarios.

Get advice now



Geschäftliche Vorteile von Edge Computing

