

**TOP
5
CONSIDERATIONS**
for CIOs

Implementing edge computing in digital transformation

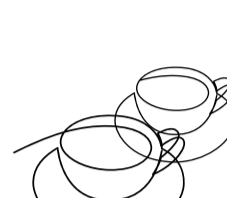
Deploy Edge Devices at Strategic Locations

Data near,
insights clear

Make decisions
without fear

Place edge computing devices close to data sources to reduce latency and improve data processing speeds.

Bottom line: Identify critical points in your network where data is generated and deploy edge devices there. Walmart uses edge computing to process data from in-store sensors in real-time, optimising inventory management and improving customer experience.



Apply Edge Analytics for Real-Time Insights

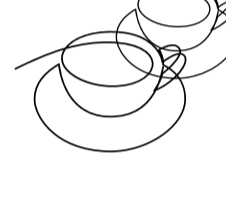
Raw data to action
in a blink

Edge computing
makes you think

Use edge computing to perform data analytics at the data source, enabling immediate insights and actions.

Bottom line: Integrate edge analytics software with edge devices to analyse data locally. Provides instant insights, enabling quicker response to events and trends. Note, this will require robust edge devices capable of handling complex analytics.

GE's Predix platform uses edge analytics in industrial IoT to monitor and analyse equipment performance in real-time, preventing downtime and optimising operations



Enhance Security with Local Data Processing

Secure the source,
data stays near

Local processing
keeps it clear

Process sensitive data locally on edge devices to enhance security and privacy by reducing data transmission risks.

Bottom line: Configure edge devices to handle sensitive data processing and store only necessary data centrally. Reduces the risk of data breaches during transmission and complies with data privacy regulations. Requires robust security measures on edge devices to prevent local breaches. Hospitals use edge computing to process and analyse patient data locally, ensuring compliance with HIPAA regulations and enhancing patient privacy.



After 30+ years of experience...

“ Edge computing is transforming the landscape of digital infrastructure by bringing processing power closer to where data is generated, enabling faster, more reliable, and secure decision-making.

As Grandmaster Flash says “Don't push me 'cause I'm close to the edge, making data smarter, staying ahead.”

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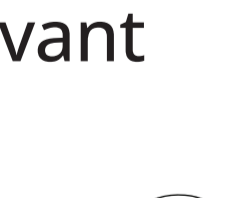
Optimise Network Bandwidth

Filter at the edge,
bandwidth's delight

Streamline data
keep it light

Reduce the amount of data transmitted to central servers by processing and filtering data at the edge.

Bottom line: Implement edge gateways to aggregate and preprocess data before sending it to the cloud. This decreases bandwidth usage and reduces costs associated with data transmission. Note, this requires careful management to ensure only relevant data is transmitted. Video surveillance systems use edge computing to analyse footage locally, sending only relevant events to central servers, thus saving bandwidth.



Improve Reliability and Resilience

Edge solutions
keep processes lean

Running smooth,
unseen but keen

Mobile apps offer citizens real-time information on public services, enable issue reporting, and encourage community participation.

Bottom line: Deploy edge nodes that operate independently and synchronise with central systems once the connection is restored. This enhances system resilience and ensures continuous operation. However, this may require additional investment in backup and synchronisation systems. Autonomous vehicles use edge computing to process sensor data locally, ensuring safe operation even when disconnected from central servers.



Like to delve into, dissect or draw on my experience over a coffee —let's set up a time...

