When milliseconds count

Accelerating the path from data to intelligence with edge computing

ThinkEdge **Lenovo**

More data and less intelligence

Data created, captured, copied, and consumed globally

(data volume in zettabytes)[1]

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2	5	7	9	13	16	18	26	33	41	59	74	94	118	149
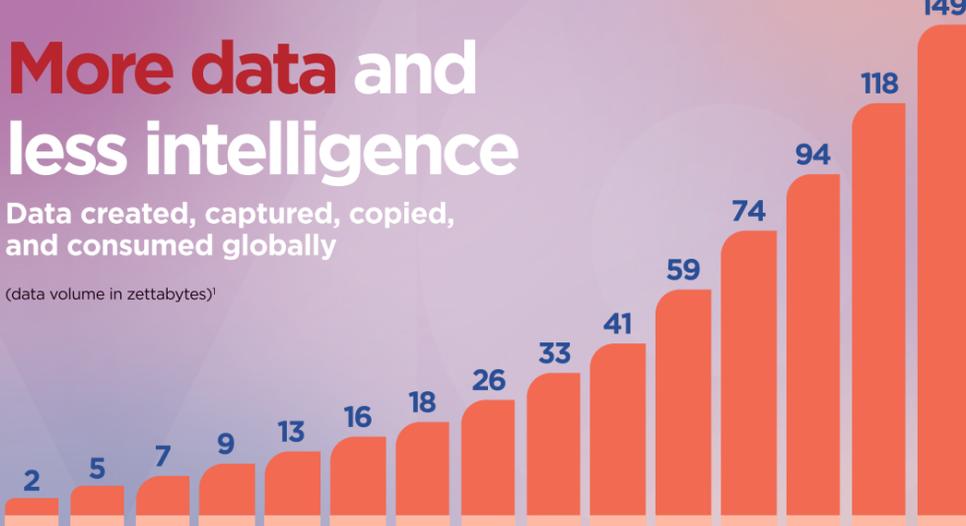
Cloud computing vs. the speed of light

"The agility of cloud computing is great but it simply isn't enough. Massive centralization, economies of scale, self-service, and full automation get us most of the way there, but it doesn't overcome physics - the weight of data, the speed of light ... waiting on a data center miles (or many miles) away isn't going to work."

Gartner

400 milliseconds
Time in which the fastest pitches reach the strike zone

56 milliseconds
Time for data to travel from New York to San Francisco on modern fiber optic cable

1 millisecond
Typical camera flash

400-100 milliseconds

Time typically lost in congested first- and last- mile connections[2]

Edge computing's speed and agility promise

Cloud
- Limitless data storage
- At-scale processing
- Advanced analytics
- Integrations (eg., ERP)

Edge computing
- Real-time processing
- Basic analytics/visualization
- Caching/buffering
- Filtering/aggregation

ThinkEdge

IoT
- Sensors
- Smart cameras
- Thermostats
- Smart phones
- Controllers
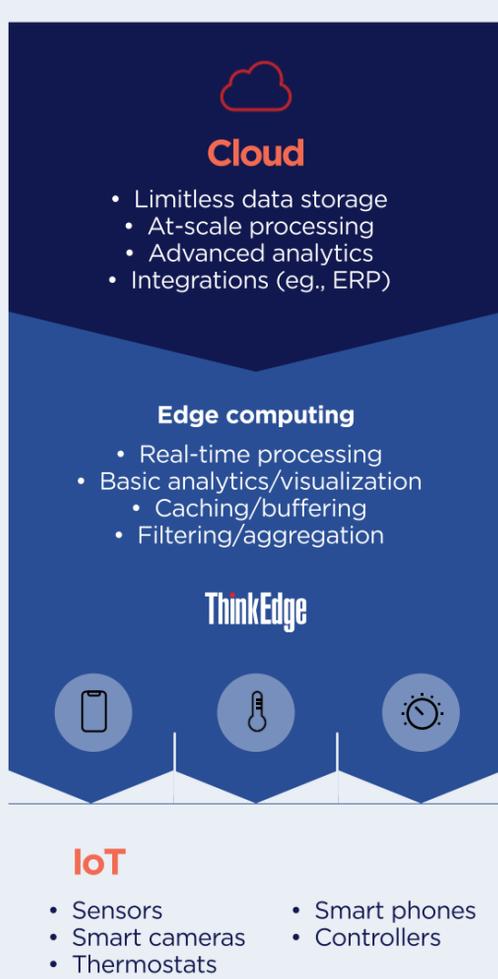
Getting the edge with edge computing

- ✓ Improved responsiveness and reliability
- ✓ Reduced bandwidth costs
- ✓ Enhanced security
- ✓ Less risk of system failures

Around **10%** of enterprise-generated data is created and processed outside a traditional centralized data center or cloud.

By 2025, Gartner predicts this figure will reach

75%

Get from data to intelligence faster with Lenovo

Connect with Lenovo. Our ThinkEdge devices are powered by Intel® technology and built for the data needs of tomorrow. They deliver speed and agility to smart enterprises seeking faster processing power, better security, and scalability. When you're ready, we're here to help.

Contact your Lenovo Account Representative or local Business Partner

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Sources
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2. Ilya Grigorik, "Primer on Latency and Bandwidth," High-Performance Browser Networking, HPBN.co, 2013
3. Rob van der Meulen, "What Edge Computing Means for Infrastructure and Operations Leaders," Smarter With Gartner, Gartner-com, October 2018

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