

Qualcomm

August 6, 2019

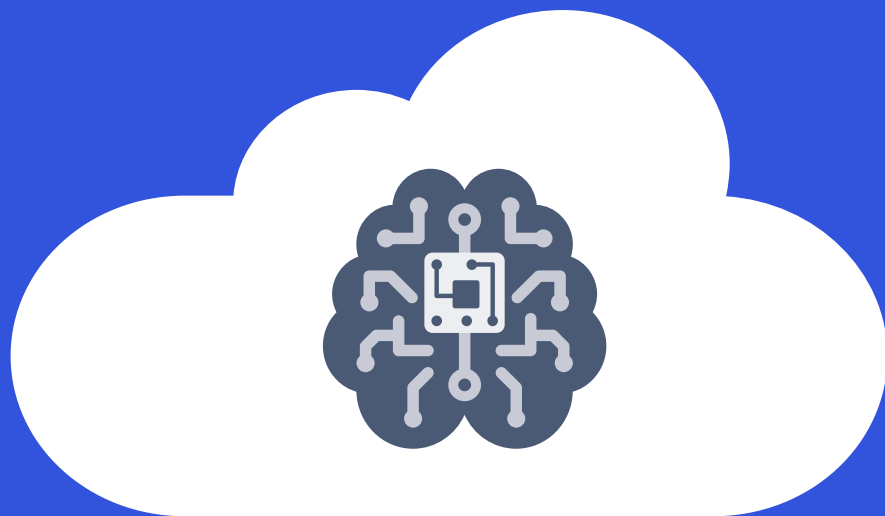
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5G at the Edge in IoT

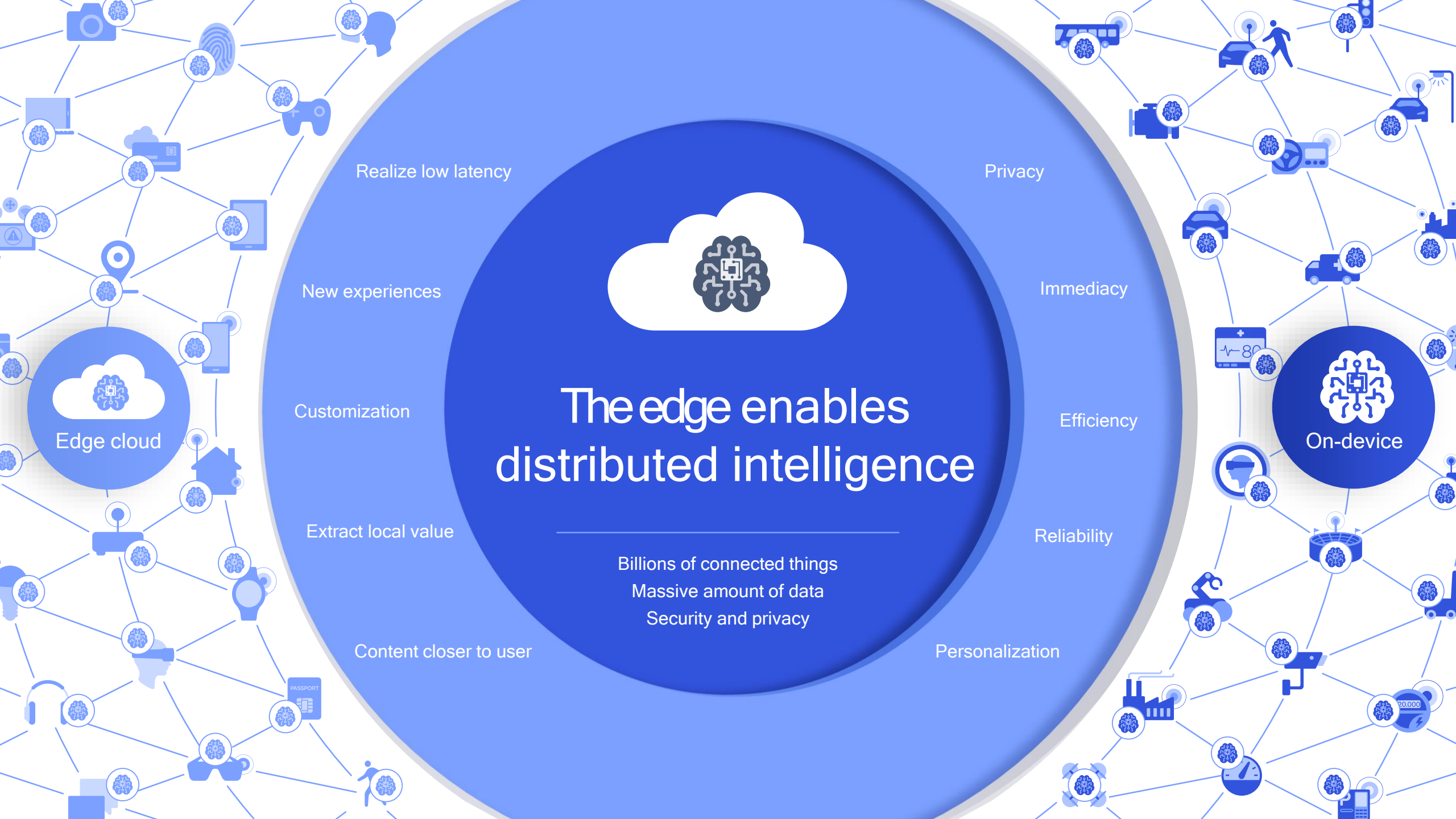
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Today,
intelligence is primarily associated with the cloud



The edge enables distributed intelligence

Billions of connected things
Massive amount of data
Security and privacy

Realize low latency

Privacy

New experiences

Immediacy

Customization

Efficiency

Extract local value

Reliability



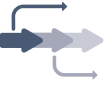


Content closer to user

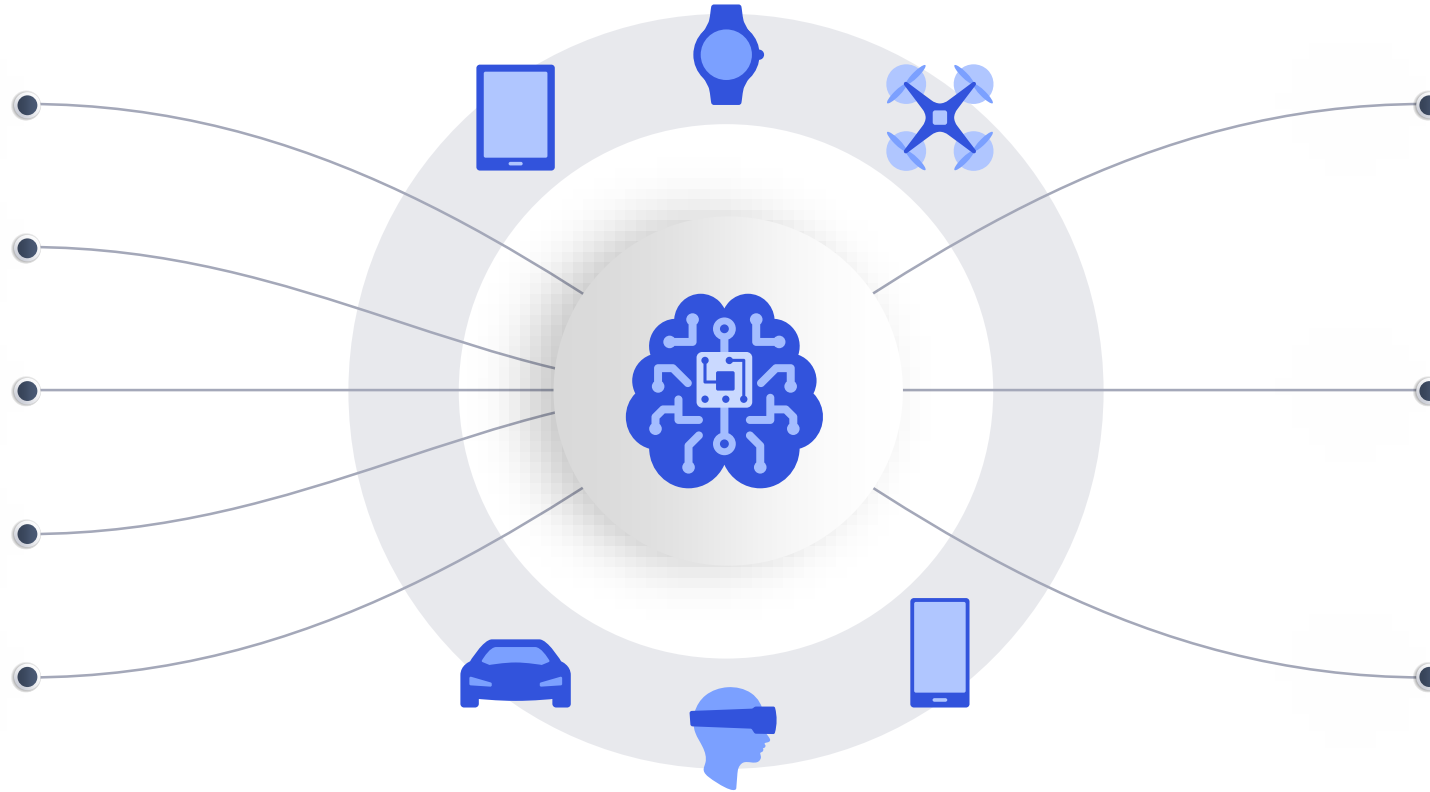
Personalization

Edge cloud




On-device

The challenge of AI workloads

-  Compute intensive
-  Large, complicated models
-  Complex concurrencies
-  Real-time
-  Always-on



Constrained edge environment

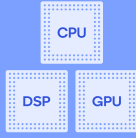
-  Thermally efficient for small form factors
-  Requires long battery life
-  Storage/memory bandwidth limitations

Unique requirements for IoT devices

Technology improvements are enabling the IoT edge to grow rapidly



Sensing



Processing



On-device AI



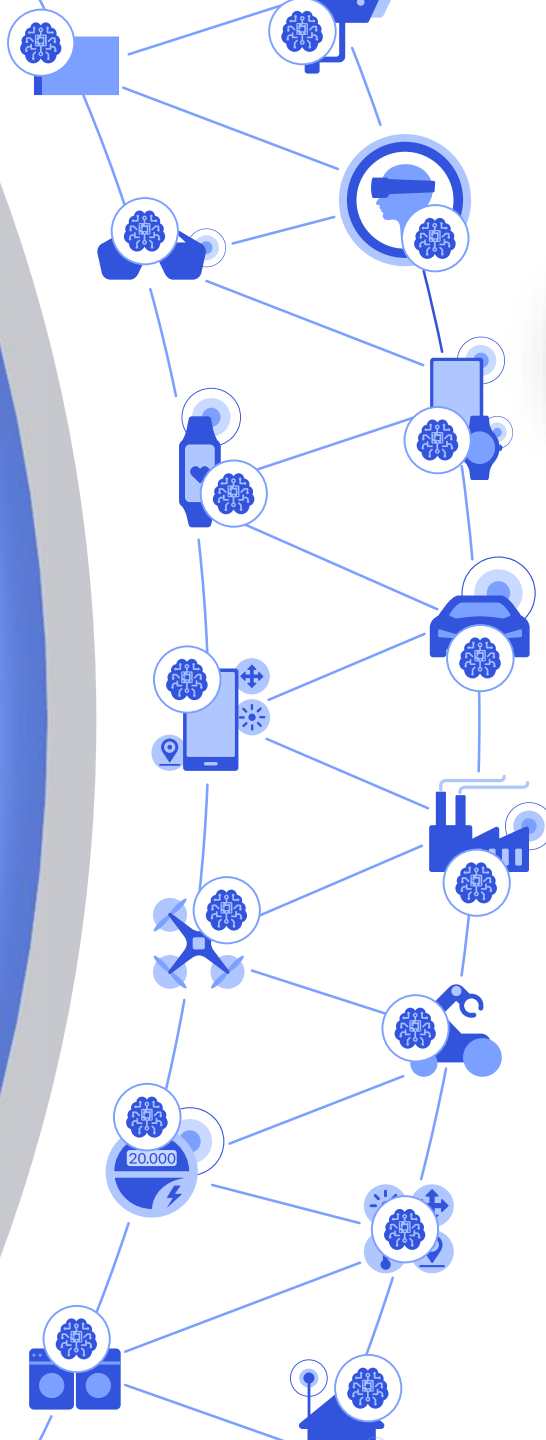
Connectivity



Security

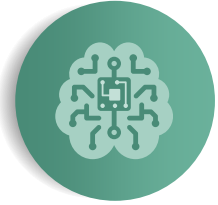


Edge services



Perceive

Hear, see, monitor, and observe



Reason

Learn, infer context, and anticipate



Act

Act intuitively, interact naturally, and protect privacy

A unifying connectivity fabric for society

Like electricity, you will just expect it everywhere



Scalable to extreme simplicity

Multi-gigabit speed

Ultra-low latency

Virtually unlimited capacity

Extreme reliability

On-device intelligence






Enabling the IoT at the edge with 5G

- Essential on-device capabilities augmented with processing/compute, content, control at edge cloud
- Supporting massive diversity of devices, applications, and end services
- New experiences with new levels of immersion, immediacy, personalization and privacy





Thank you!

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