



Return to the Edge and the End of Cloud Computing

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He's gone crazy...

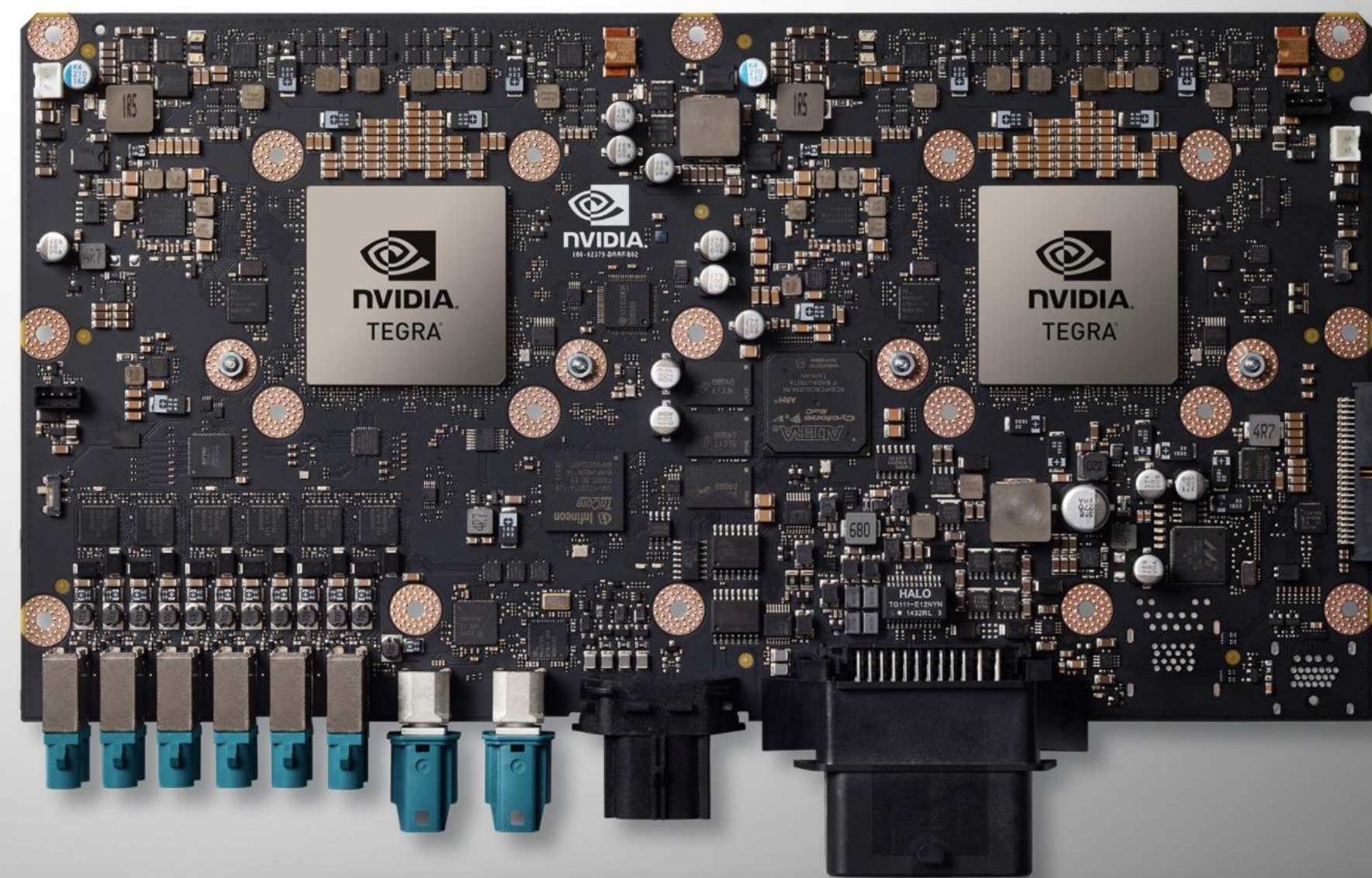


Today's World: Centralized



**But This is
About to
Change....**

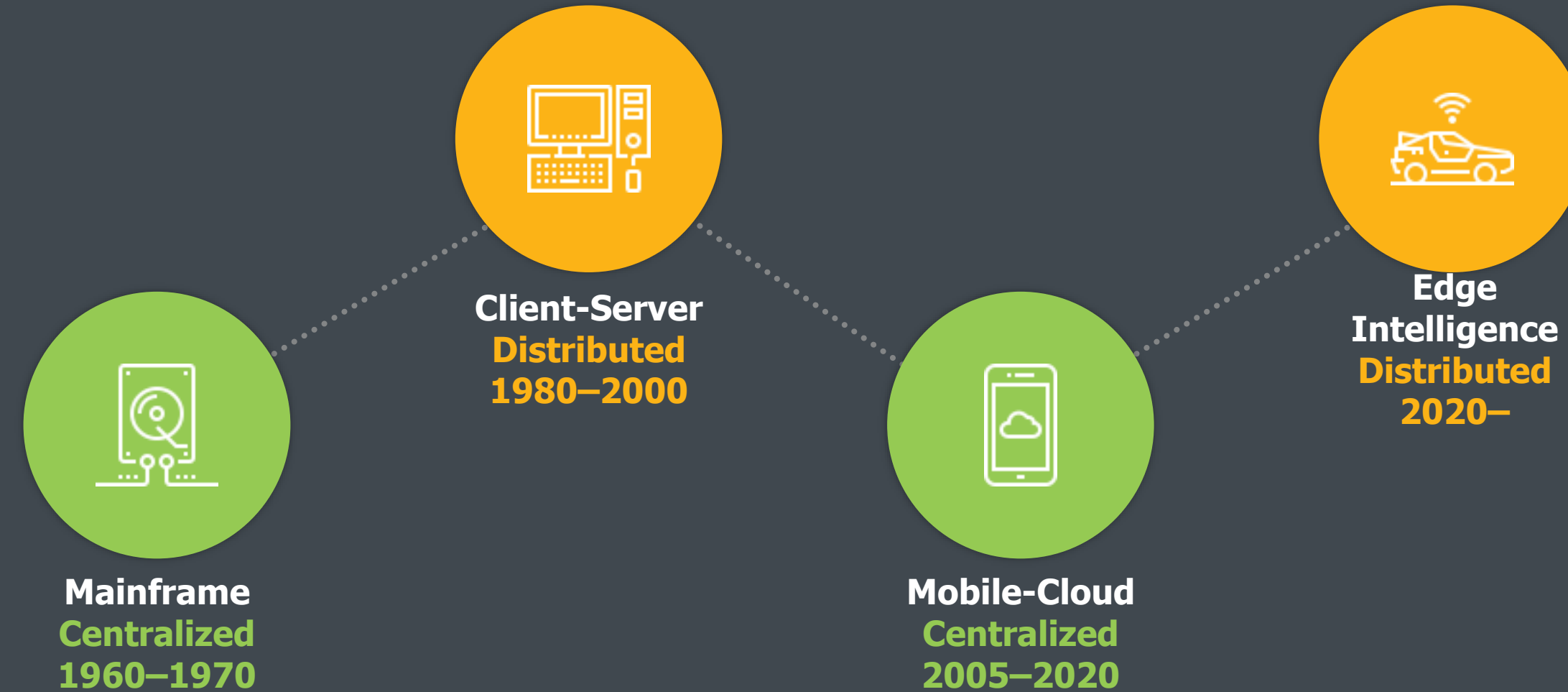




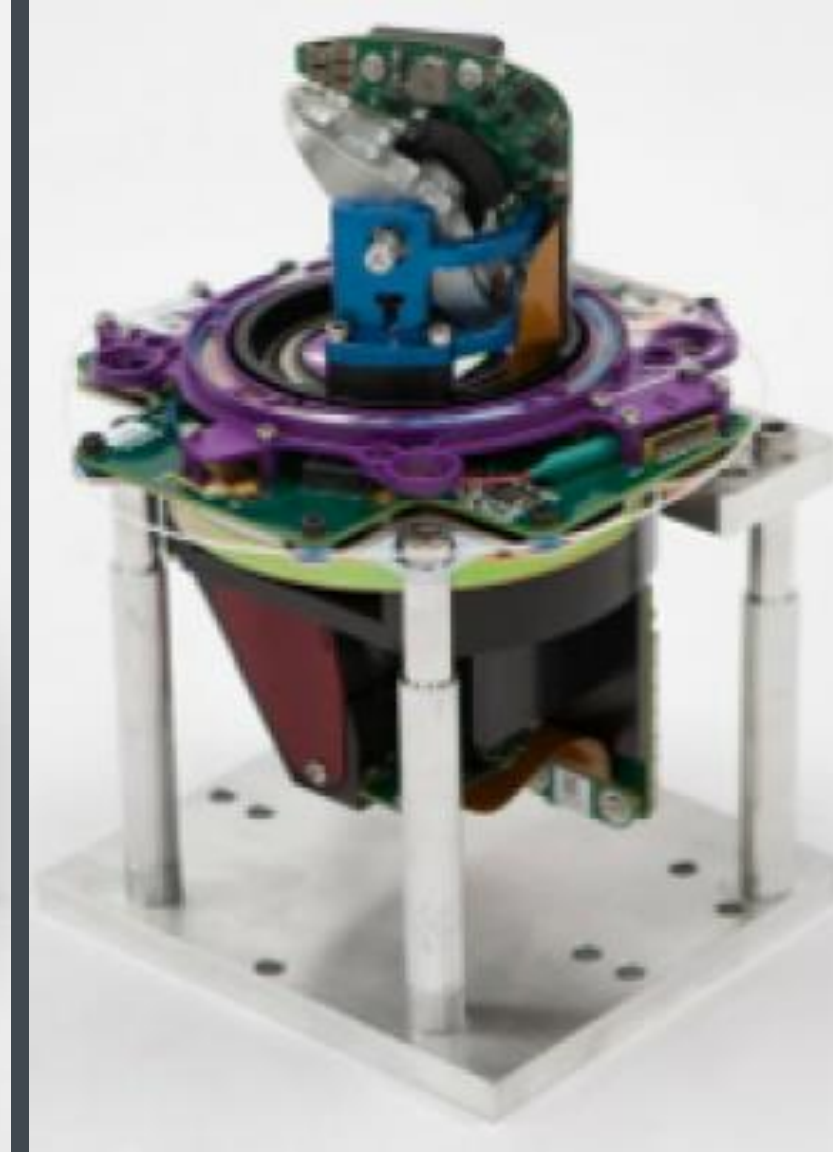


Data drives the change
Real-world
Real-time

Back to the Future



Machine Learning Unlocks the Power of the Edge



Inside the Edge



Sense



Infer



Act



Learn



Sense: Massive Volumes of Real-World Data

Sensors are
becoming
ubiquitous

Data collection is
forcing processing
back to the Edge



Infer: Machine Learning as a Key Driver

Extract
relevance

Continuous training
and data

Deep learning
brings accuracy
and automation



Act: Real-time Processing Systems

Point of access vs.
back at cloud

Over time, devices
become more
sophisticated





Learn: The Cloud Training Center

1

Curated
Data from the
Edge

2

Central
Learning

3

Cloud stores
important
data

4

"Learning"
pushed back
out to the Edge

A wide-angle photograph of a two-lane asphalt road winding through a dense forest. The road is flanked by tall evergreen trees and undergrowth. The entire image is overlaid with a semi-transparent yellow filter. The word "Predictions" is centered in a large, white, sans-serif font.

Predictions

Sensor/Data Explosion Will Kill the Cloud as We Know It



Sensors proliferate and produce huge volumes of geospatial data

Existing infrastructure won't be able to handle data volume or rates

Peer-to-peer networks are utilized to lessen load on core network and share data locally

Data-Centric Programming

Less code,
more math

Humans label data,
computers learn
from labeled
examples

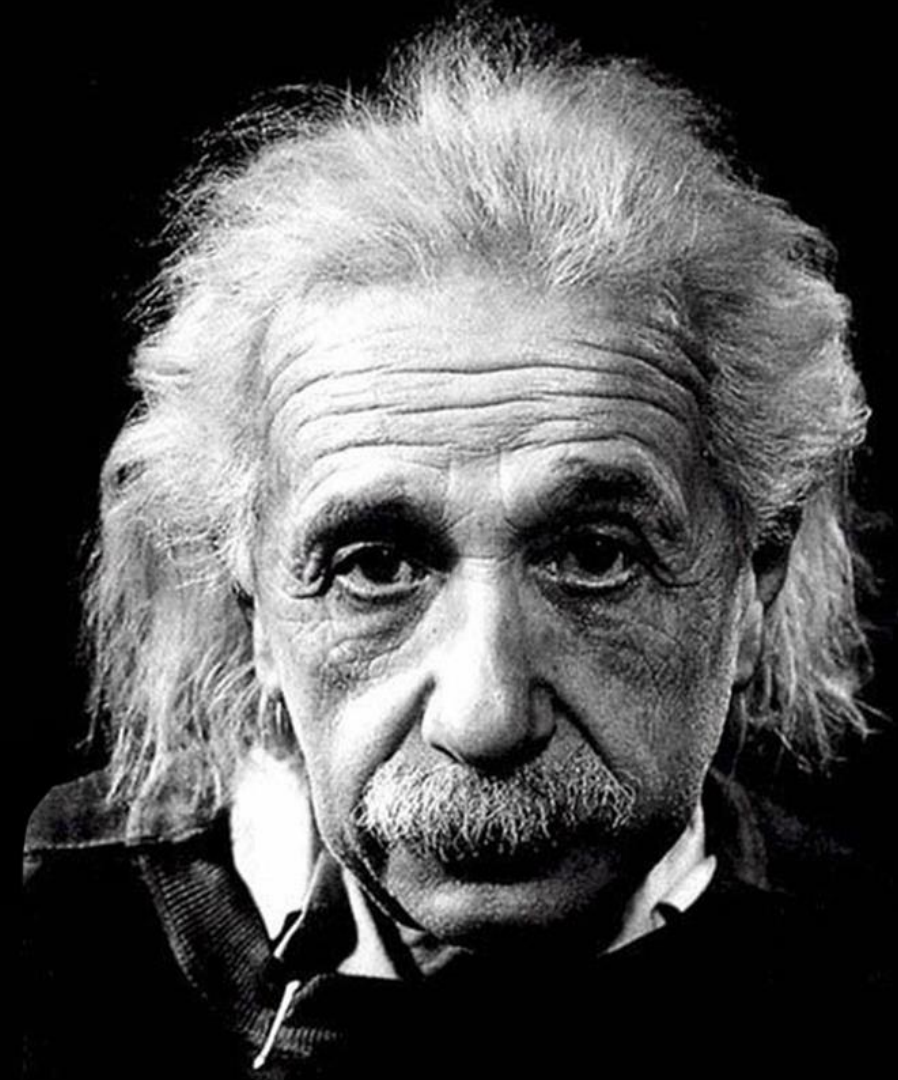
Processing Power of Edge Devices Increases, Price Decreases

Machine learning and vision chips become as commonplace as GPUs

Edge processing power follows same trajectory of mobile processing power



The Entire World Becomes
the Domain of IT



Crazy Indeed