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Agenda

- History lesson
 - Telephone network
 - Internet
- Consumer services
- Cloud
- Internet of things
- Service economy

- Capitalism is “creative destruction,” in which the old economic order is perpetually cast off to make room for new sources of wealth creation.

Joseph Schumpeter's

- Incumbents face the “innovator's dilemma.”
 - , “The reason why it is so difficult for existing firms to capitalize on disruptive innovations is that their processes and their business model that make them good at the existing business actually make them bad at competing for the disruption.”

Clayton Christensen Harvard Business School

History Lesson

- Telephone Systems
- Peer to peer connectivity
- Virtual connections were created between handsets
- Network was smart but transparent and carried all the functionality
- Phones were dumb hence not much functionality was needed

History Lesson

- Internet
- Peer to peer design
- Pass through medium nothing guaranteed in the middle
- Unreliable datagram delivery in each packet switching
- Single network-wide addressing model
- Stripping out network-centric virtual circuit states
- Internet has whole is minimal in design and functionality

Consumer service

- Financial
- Retail
- SaaS
- Remote monitoring
- Not good for
 - Next generation service
 - Remote surgery
 - Digital twin

Business Transformation

- Digitalization - An existential threat to those who do not transform
- Inhibitor – The Network continues to be the greatest challenge in edge transformation



The promise of digitalization for companies that is being held back by the network

Business Transformation

- Current trend is “cloud first” may be the trend, but future is amore about “cloud first but not always.”
- Future of workload placement , is about application portfolio, not about physical infrastructure.
- Application portfolio would be designed around services-driven strategy.

Why Cloud Networking Cannot Handle Edge Computing and IoT

- The Cloud is not designed for direct peer to peer communication
- The Cloud is not designed for optimized low latency transaction between remote endpoints
- The Cloud assumes all compute resides there and does not incorporate a distributed compute model
- The Cloud is terrible for transit because it charges you for every packet rather than the rate at which pass traffic
- You want to be in a world where you can take the highway and not pay for how far you drive, but only for when you take the fast-track tolls, and pay penalties when you go over you allotted speed limit

Summary

- We transforming from data centers to centers of data
- Workload would be placed based on service offering not around IT services
- Data is the next oil so anywhere data is generated will be monetized
- Internet will have to change to its original architecture