THE LIPPIS REPORT

The Resource for Network/IT Business Decision Makers

SDN for Enterprise Networks

at the

ONS OPEN NETWORKING SUMMIT 2012

April 18, 2012

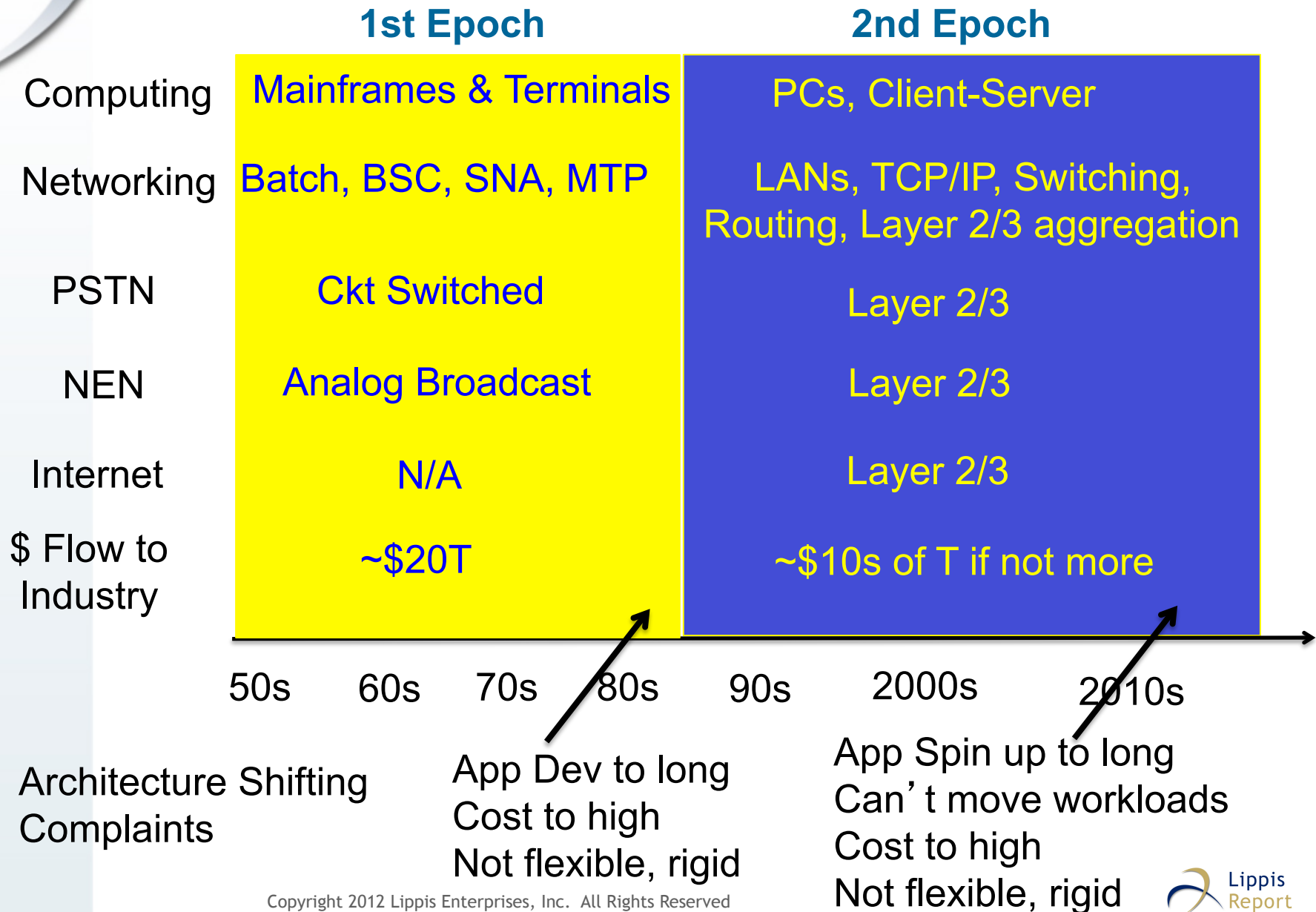nick@lippis.com
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Lippis Report

ep·och /ˈepək/

Noun:

1: A period of time in history, typically one marked by notable events or particular characteristics.

2: The beginning of a distinctive period in the history of someone or something.

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Computer Networking's First Two Epochs

	1st Epoch	**2nd Epoch**
Computing	Mainframes & Terminals	PCs, Client-Server
Networking	Batch, BSC, SNA, MTP	LANs, TCP/IP, Switching, Routing, Layer 2/3 aggregation
PSTN	Ckt Switched	Layer 2/3
NEN	Analog Broadcast	Layer 2/3
Internet	N/A	Layer 2/3
$ Flow to Industry	~$20T	~$10s of T if not more

50s 60s 70s 80s 90s 2000s 2010s

Architecture Shifting Complaints

App Dev to long
Cost to high
Not flexible, rigid

App Spin up to long
Can't move workloads
Cost to high
Not flexible, rigid

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The 3rd Epoch: Software Defined Networking

Computing — Mobile, Cloud & Virtualized

Networking

PSTN

Software Defined Networking

NEN

Internet

$ Flow to Industry

Trillions of Dollars

2010s   2020s   2030s   2040s

- Virtualized networks
- Network Services in the virtualized domain
- Programmable Networks
- Software Ecosystem driving innovation
- Configuration Automation
- Much lower OpEx
- Workload Mobility, geographically independent

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But ...

- Established Vendors are dialed into these requirements
- May offer programmable Layer 2/3 networks
- Address 80% of requirements
- Architecture shifts take time to materialize
- Slowing Down SDN

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So ...

Is SDN the 3rd Epoch

Or

A set of features added to Layer 2/3 networks

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Session Speakers

- **1) SDN Deployment in a University Enterprise & Lessons Learned**
    - Matt Davy, Indiana
- 2) **Challenges in Enterprise Networking & How SDN Can Help**
    - Eric Murray, Kindred Healthcare
- 3) **Enterprise Data Center & Networks**
    - Michael Beesley, Juniper Networks
    - Jim Harding President, CODONiS and CTO, Sabey Data Centers
- 4) **OpenFlow in the Enterprise Data Center - Products, Lessons and Requirements**
    - Renato Recio, IBM

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