Ethernet Alliance
Technology Exploration Forum 2013
"The Future of Ethernet"

Technology Exploration Forum

Open Ethernet Switches

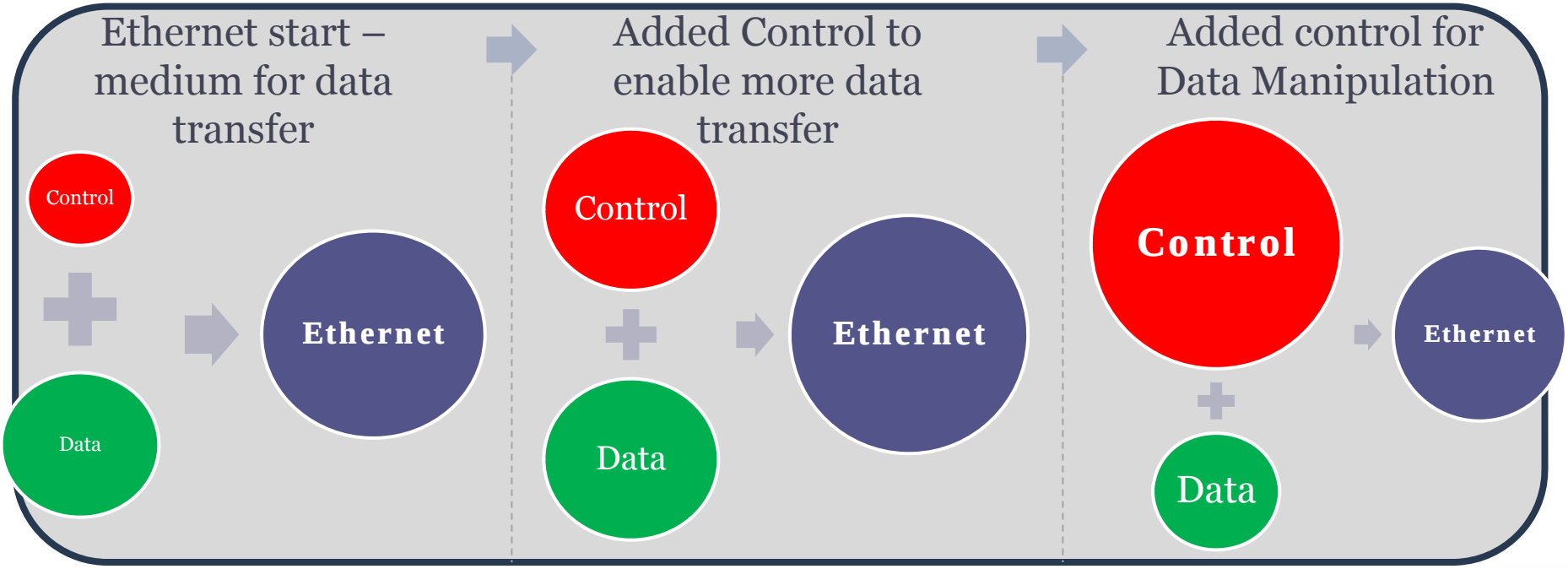
October 16, 2013

This presentation has been developed within the Ethernet Alliance, and is intended to educate and promote the exchange of information. Opinions expressed during this presentation are the views of the presenters, and should not be considered the views or positions of the Ethernet Alliance

PANELISTS

- Curt Beckmann, Brocade (moderator)
- Nick Ilyadis, Broadcom
- Mohnish Anumala, Dell
- Derek Granath, Extreme Networks
- Bruce Tolley, Solarflare
- **Ran Almog, Mellanox**

Ethernet's Impact on SDN



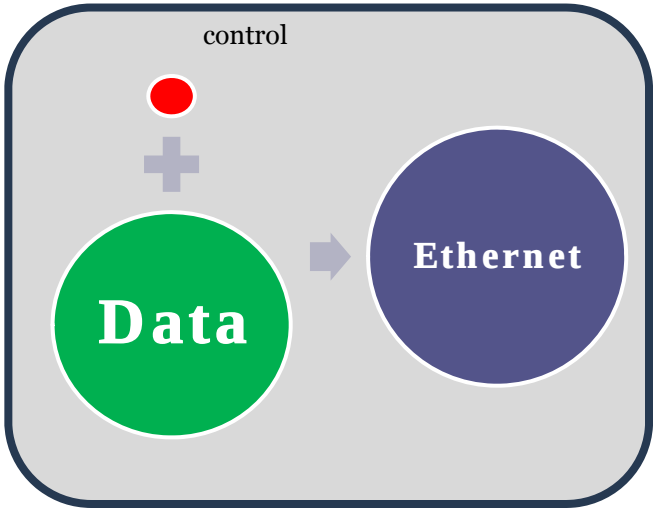
- Data growth is locked under control limitations
  - Hardware implications
  - Software stack implications
  - Proprietary implementations
  - Vendor dependencies
- Who (re)Moved My LAN?

SDN's Impact on Ethernet

- Ethernet switches should be primarily dealing with switching…
- Reduce (Eliminate?) control plane complexity on the switch

Open Ethernet

- Simplify network handling:
  - Simpler hardware
  - More common software stack
  - End user control
  - Vendor independencies



- Enable higher data rates

What is Open Ethernet

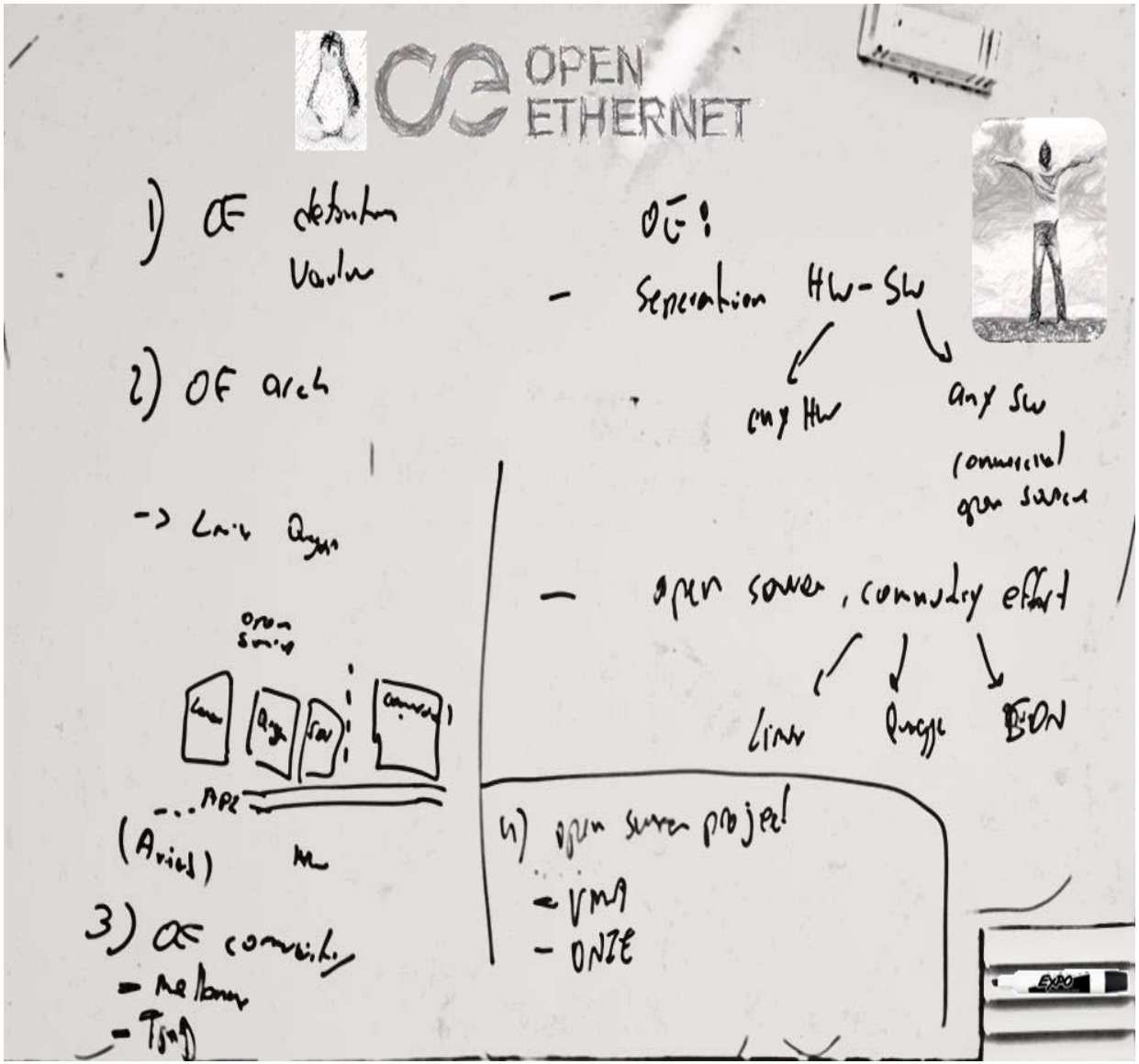
Its not a product

Its A new network concept

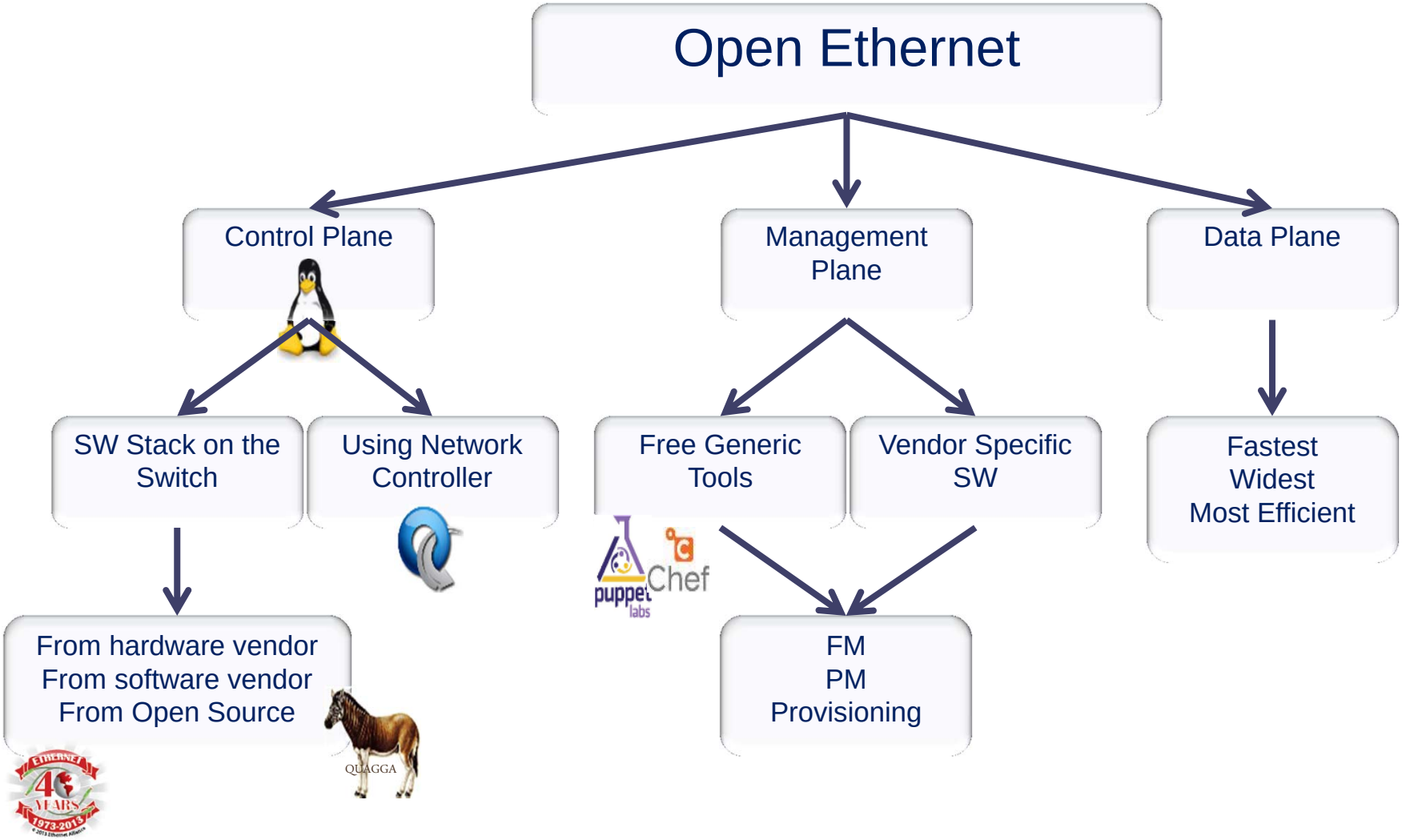
Its an architecture

It's a community

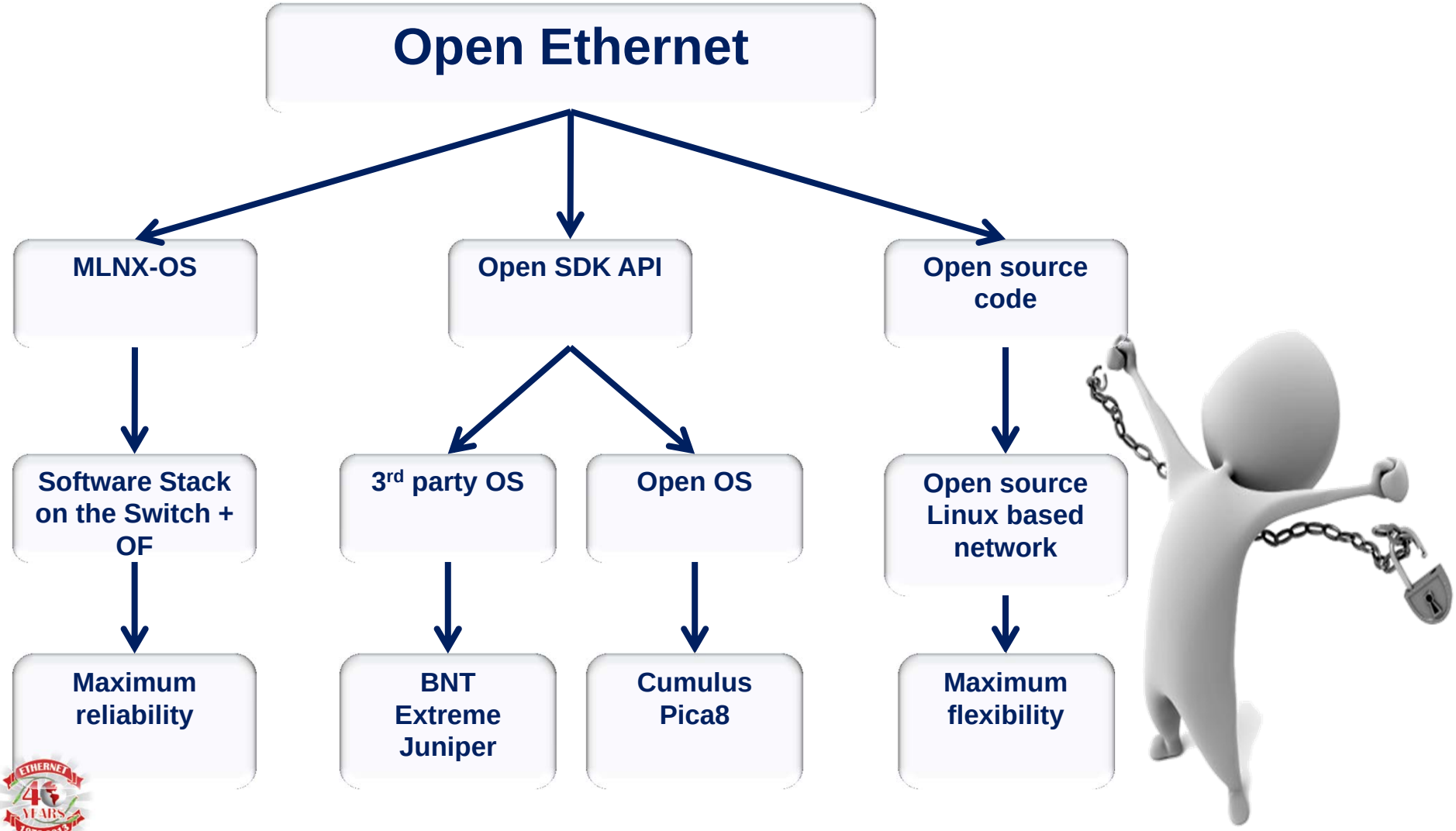
It's a white board sketch…



Open Ethernet Components – The Ability to Choose



Open Ethernet – The Ability to Choose



Open Ethernet

Freedom to Choose and Create Any Software, Any Management

Enables Vendor / User Differentiation, No Limitations

Open Source, Open Ethernet

PROPRIETARY
Management

PROPRIETARY
Software

CLOSED
ETHERNET
Switch

OPEN SOURCE
Management

OPEN SOURCE
Software

OPEN ETHERNET
Switch

Locked Down Vertical Solution

Open Source Above any switch HW

Open Source Enables New Solutions / Trends / Technologies

Default For All

Differentiation, Value, Community

Data Center Evolution

The Digital Universe's data growth is exponential

Network Growth

Complexity

CapEx

OpEx

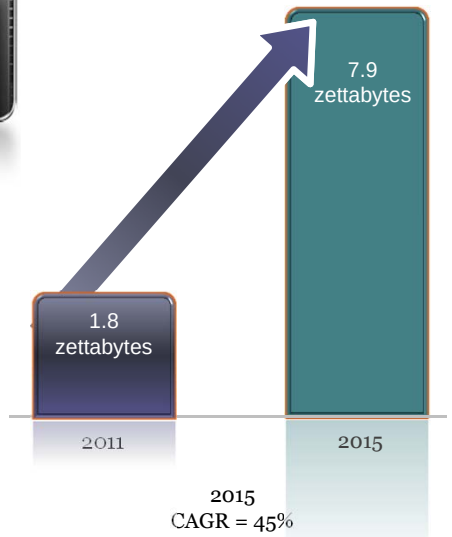
DB/Enterprise

HPC

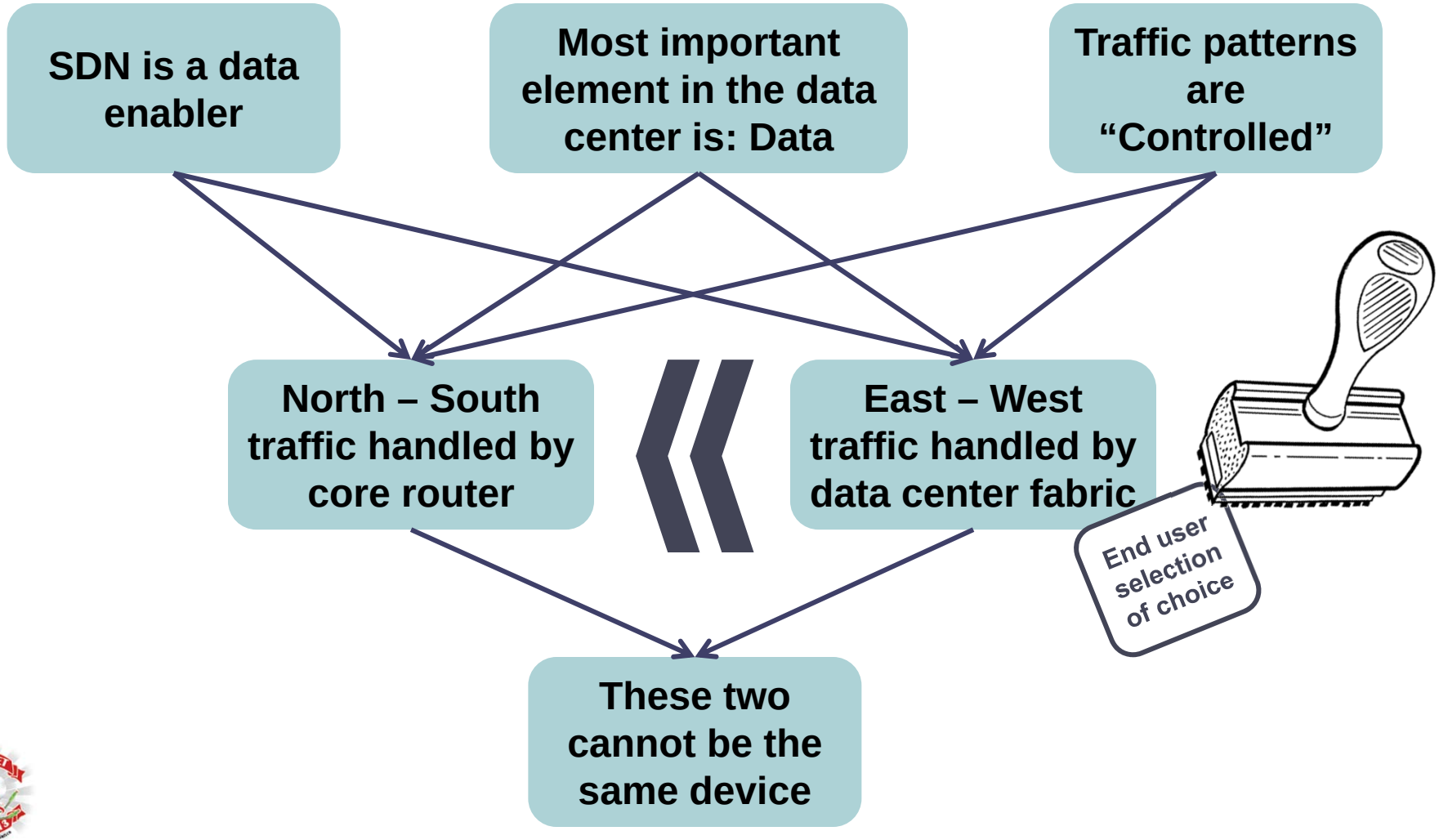
Cloud

Storage

Web 2.0

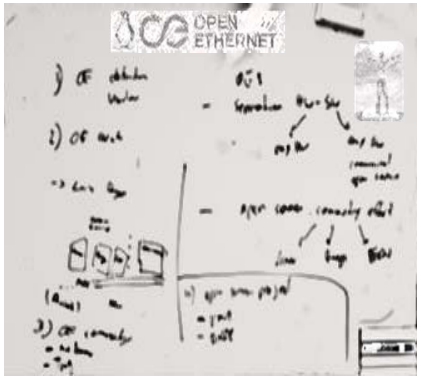


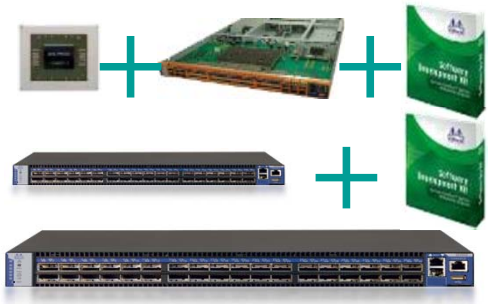
Advantages of Open Ethernet for the Data Center



Summary

- SDN is an Ethernet evolution for what data centers need
- Enabler of Data to meet the latest technological requirements
- Open Ethernet is an expression of SDN
  - Management tools
  - Separated control plane
  - Strongest data fabric
  - Proven concept ➔ technology implementation to follow
- Open Ethernet
  - From inception to production





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Thank You

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