

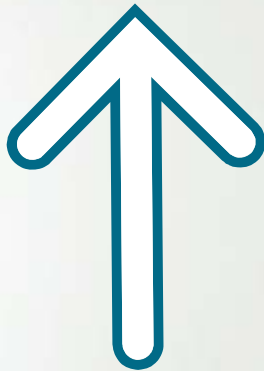
Evolution of DSL access – RIPE 50

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Evolution of the DSL service

Manageable service – Flexible bandwidth
Focus on services



Bit pipe



Service delivery platform



Increase in bandwidth
and bandwidth offerings

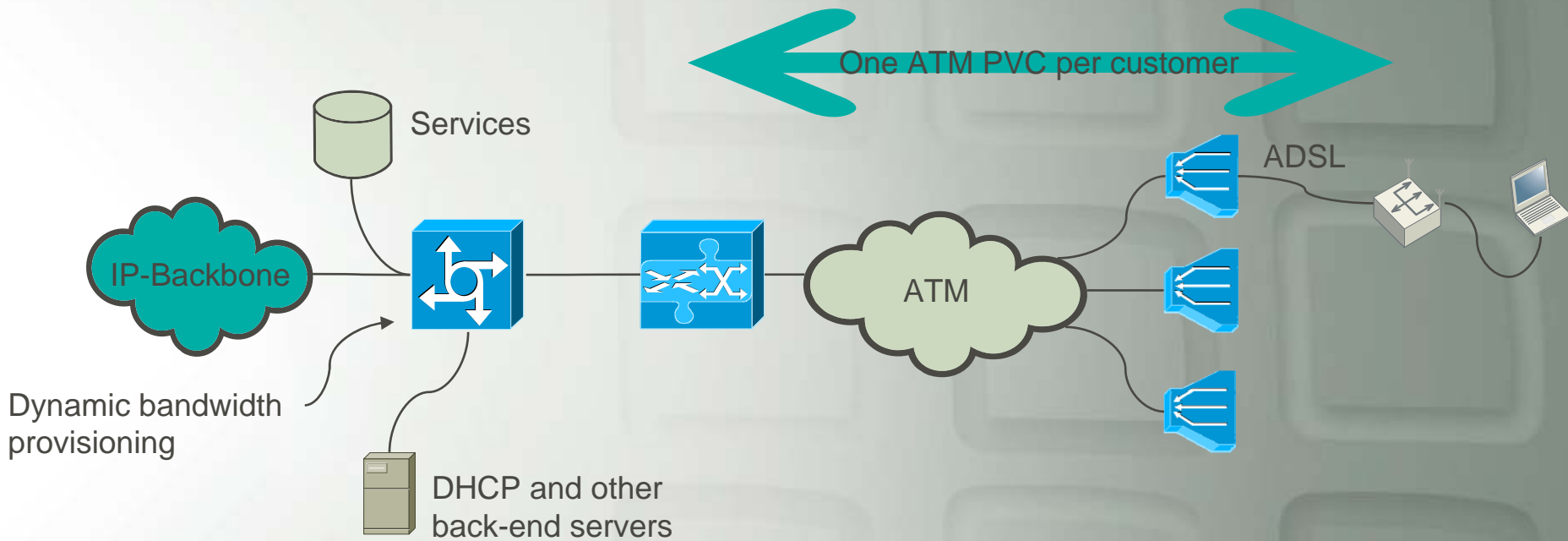
Technical evolution

- Increase in bandwidth
 - New DSL technologies
 - Increase in aggregation network
- ATM to Ethernet
- A move of intelligence further out in the network

The First Stage

- ADSL ~512kbit/s (symmetric)
- ATM based access
- Broadband access server
- Designed to support dynamic bandwidth

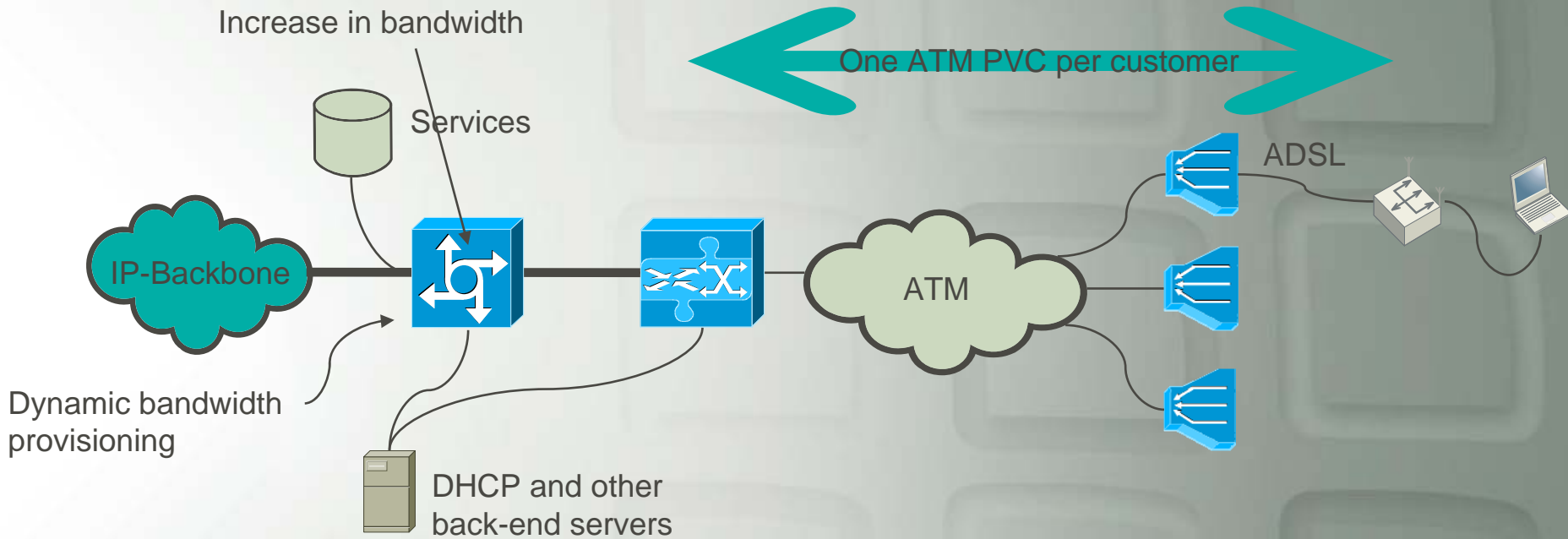
The First Stage



The Second Stage

- Increase in bandwidth on existing platforms 8Mbit/s (asymmetrical)
- Addition of VDSL symmetrical 10Mbit/s
 - Marketing, not widely used

The Second Stage

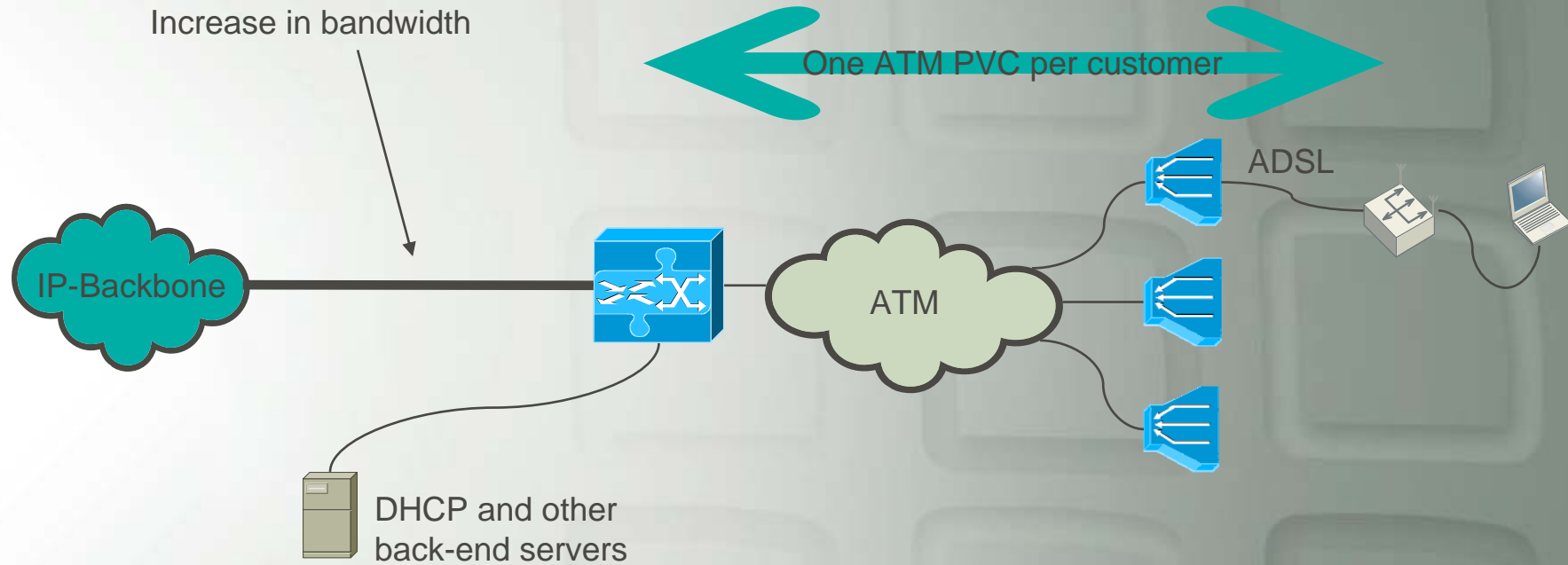


The Third Stage

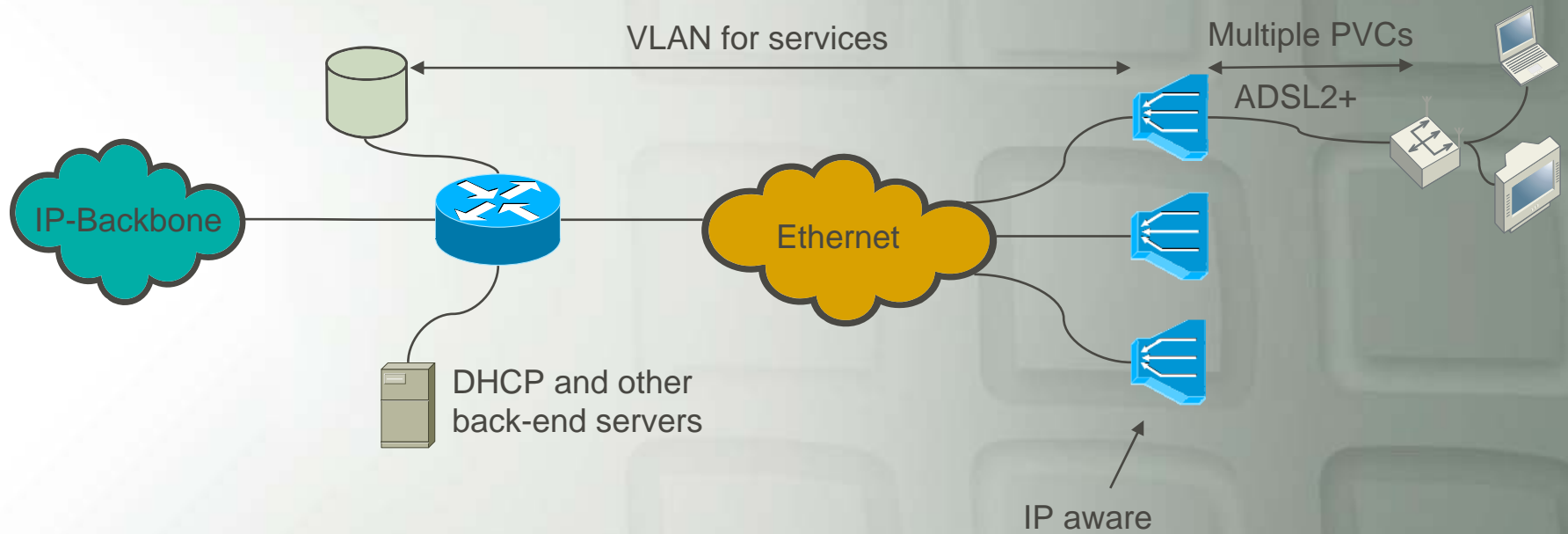
- ADSL2+
- Triple play – Services are back
- QoS
- Ethernet



The Third Stage



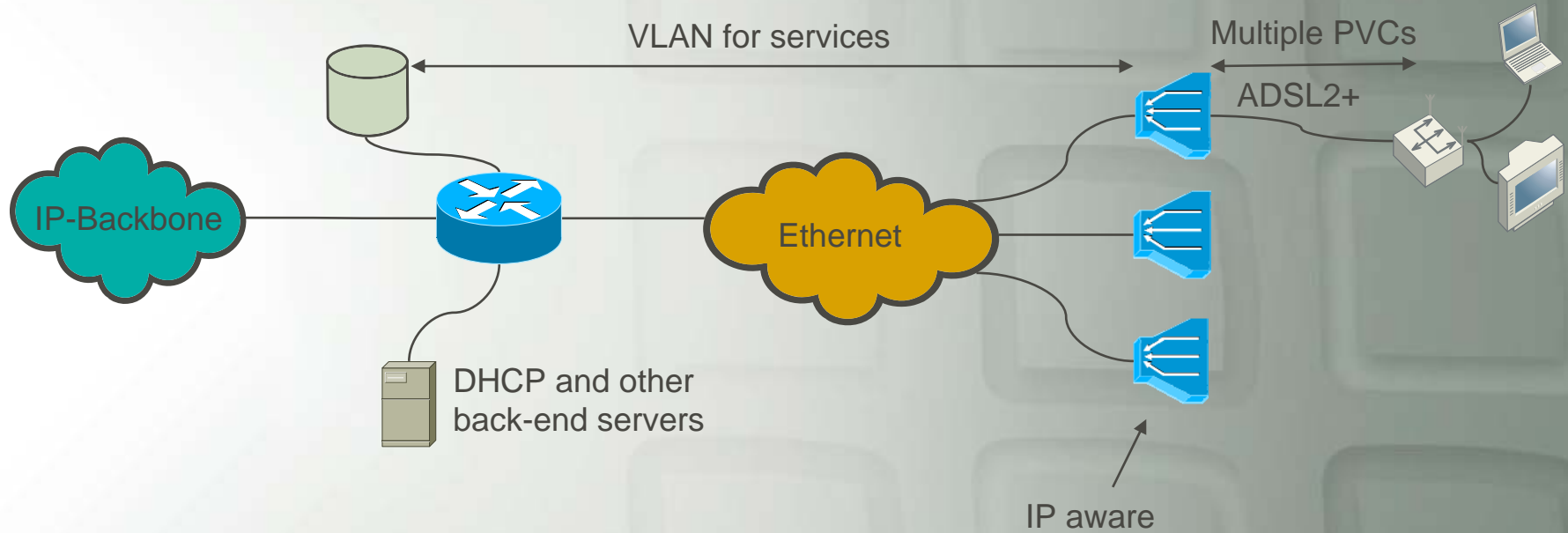
The Third Stage



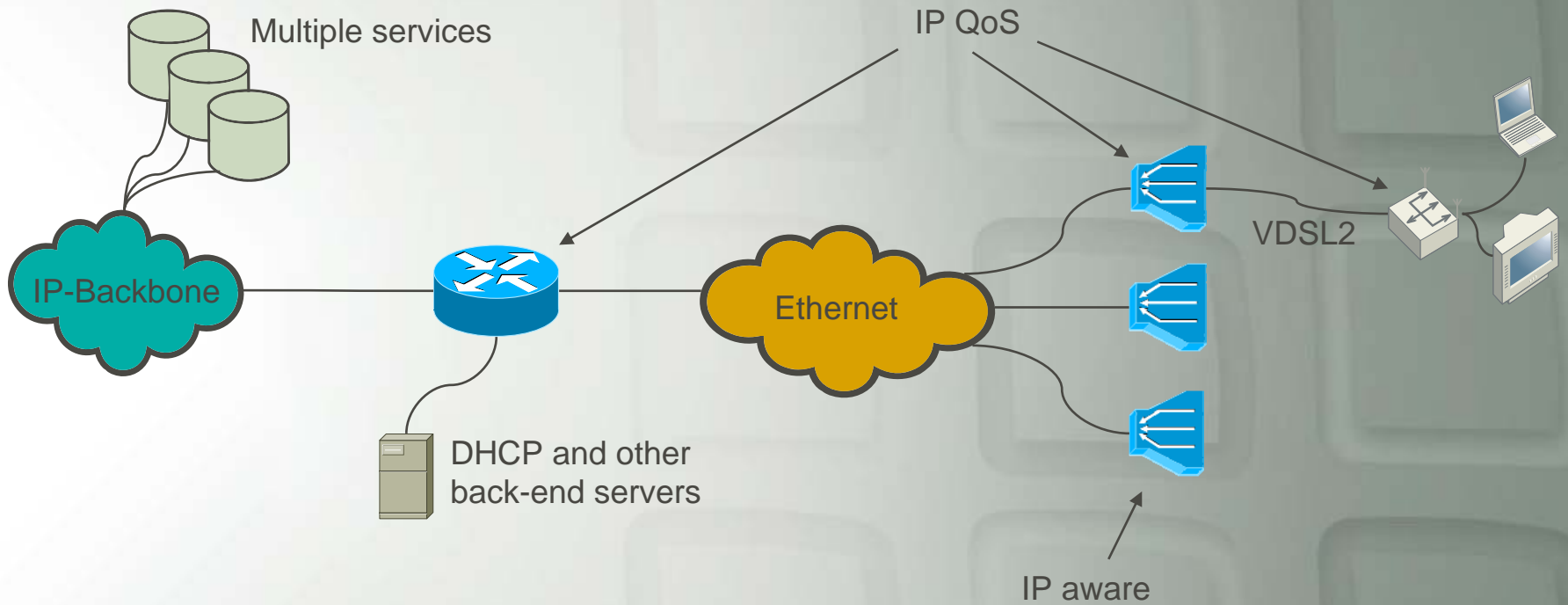
The Forth Stage – The future

- VDSL2
- Multi play services
- QoS at the customer premises
- Ethernet all the way
- IP based end-to-end
- IPv6

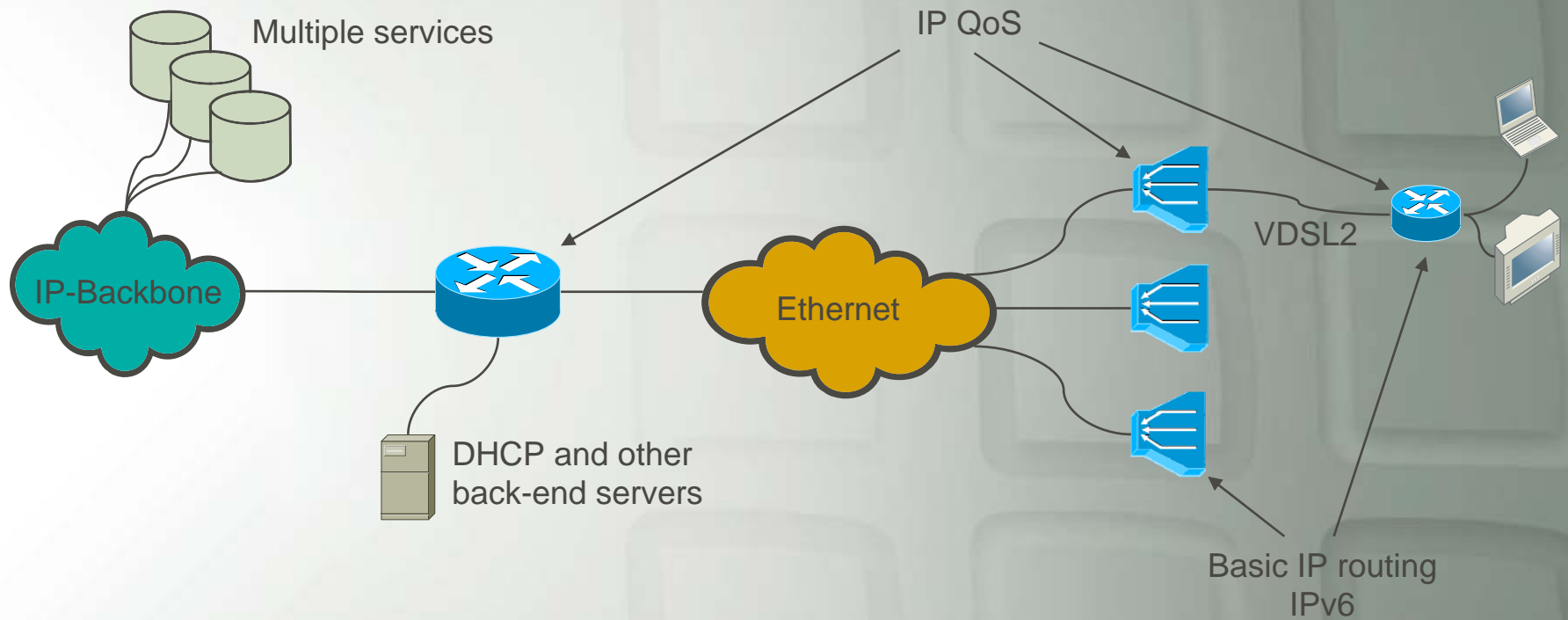
The Forth Stage – The Future

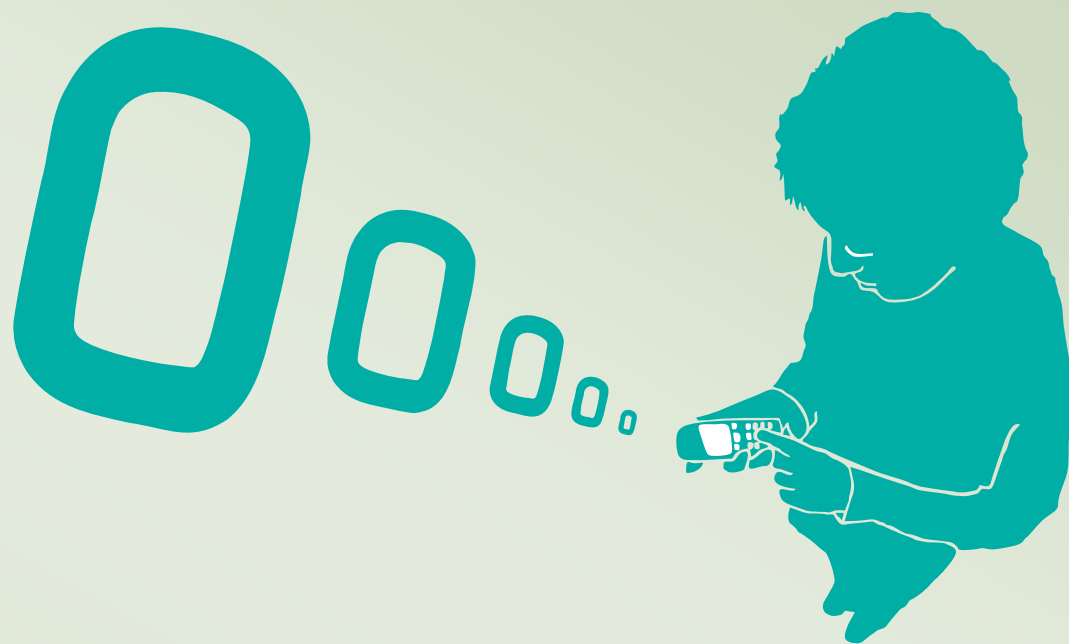


The Forth Stage – The Future



The Forth Stage – The Future





Questions?

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