

SDN Delivering?

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Alternative Networks

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AGENDA



- Why SDN?
- How does SDN fulfil the promises?
- Involving the User Applications and Clients
- Making the Move
- Summary

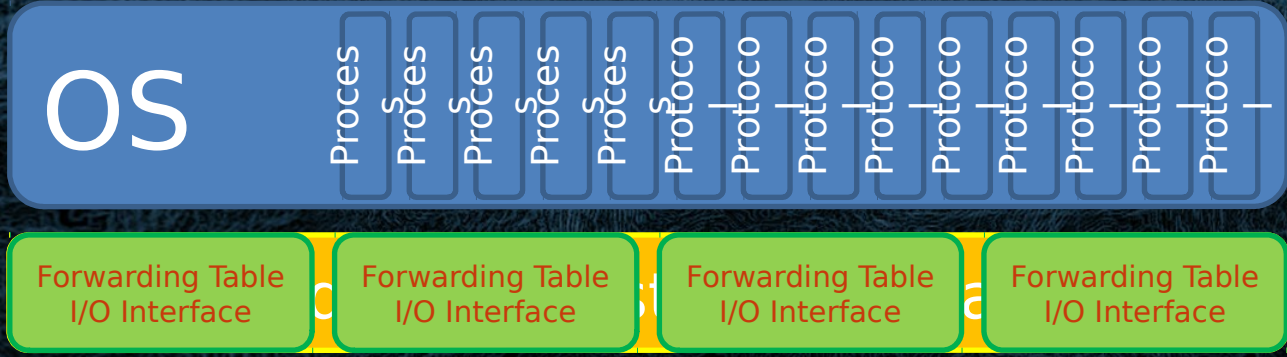
What is SDN all about?



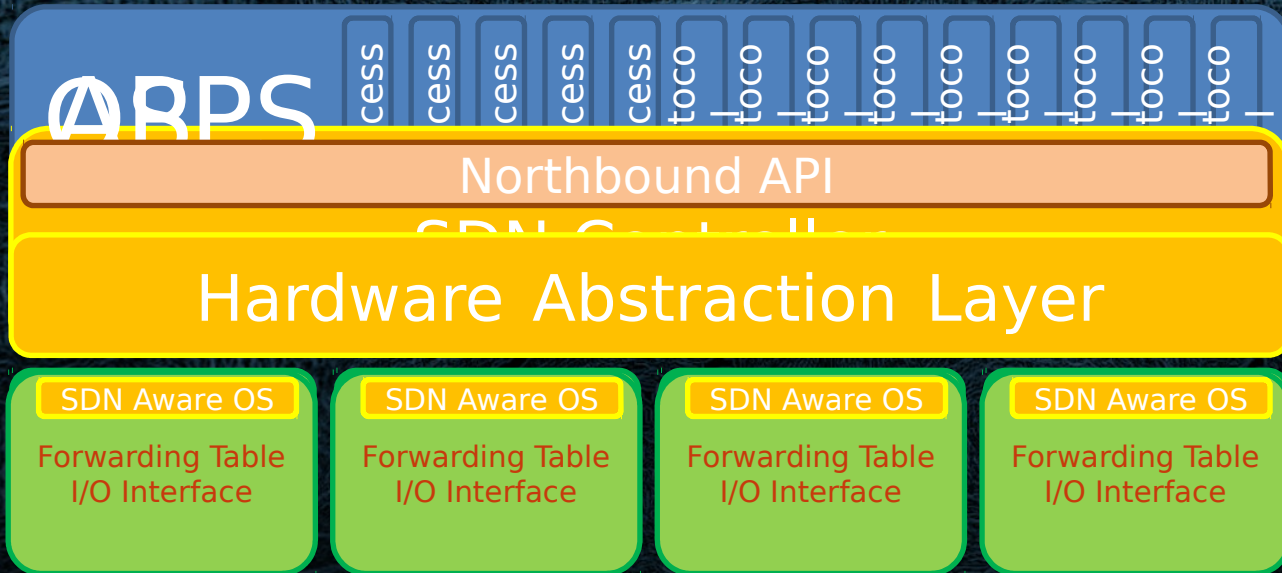
~~Separation of the control plane from the forwarding plane~~

- Making your network easier to manage
- Utilising your network more efficiently - adding intelligence into the path choice process
- Virtualising the network on the fly
- Earning you revenue from differentiated services - on a per flow basis
- Reducing Vendor Lock-in - Cheaper dumber hardware

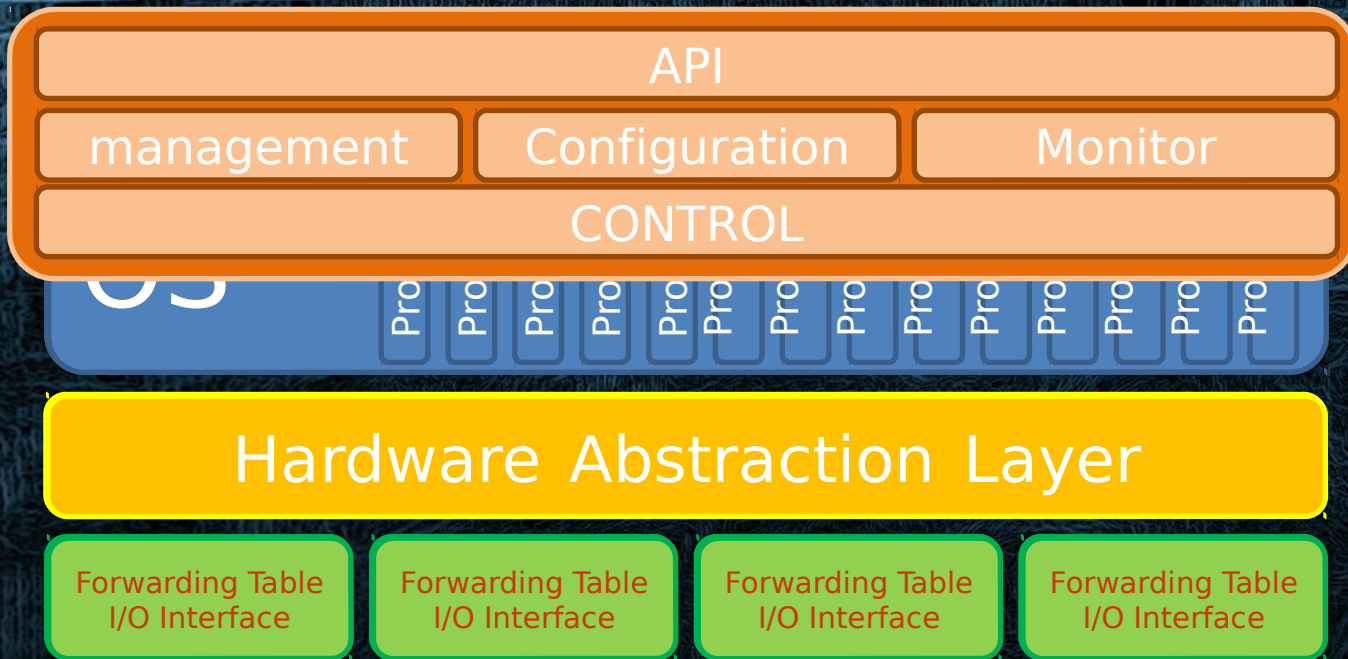
Current Hardware Architecture



SDN Network Architecture



Have we forgotten
something?



Involve the Application and Client



- Extend API into User Applications and User Clients
- Applications can request network services and specify the network requirements
- SPs can charge for these requests
- At the network boundary passing service requirements between operators may prove interesting
- How do you bill between providers for guaranteed latency and bandwidth per flow?
- What when multiple operators are involved end-to-end
- What when an intermediate operator is non-SDN compliant?

Making the Move to SDN



- Choose your flavour of SDN
 - Limited to particular vendors to get the one that looks best for you?
- Choose your Apps - What does the network need to do?
 - Limited to the Apps available to your flavour of SDN?
 - Limited to particular vendors through App requirements?
 - Is your peering traditional point and shoot or an SDN peering - compatibility?
- Choose your SDN Controller
 - Must talk your flavour of Southbound SDN
 - Must talk your chosen flavour of Northbound API
 - Limited to particular vendors through App / SDN flavour requirements

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Doom and Gloom?



- Not Doom and Gloom
- A number of networks are going forward with SDN architectures already
 - Notably Google with Facebook coming on soon also, XXXXXXXX
- Probably the bigger providers will delve first
 - Have money to spend to see if they can save money
- Will the future be SDN based?
 - Yes – Probably unavoidable now
 - When SDN stabilises
 - When interoperability increases

Seemed like a good idea
at the time

alternative

