



REANNZ

FEB 9, 2015

Faucet:

The REANNZ Software Defined Office
Network

REANNZ SDN Prototypes/Demos

- Cardigan
- CODR
- NFShunt
- Fastlane

What would it take to develop and deploy a
Software Defined Network on a REANNZ
member site or in the network core?

- Robust Software
- Reliable Hardware
- Extensive production testing
- Operators comfortable using it
- Interoperate with our existing tools (e.g. monitoring)

Faucet

- Layer 2 switching with vlans
- Simplest widely practical network application
- Building block for future applications
- Fork of WAND's Valve
- Monitoring - port by port throughput, packet loss
- YAML configs revision control by git
- Working with ONF for ease of deployability

Development

- 2 Months of development by 2 network engineers
- Focus on testability
- Python
- Ryu

<https://github.com/REANNZ/faucet>

OpenFlow Hardware

- Scalable
- Reliable
- Affordable

ARISTA

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NETWORKS

 Allied Telesis [™]

Where can we test it?

Where can we test it?

Test Deployment

- Unproven software
- Pre-beta firmware
- Closely monitored by our engineers



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Issues

- There have been some
- Tony van der Peet at Allied Telesis has been amazing
- Problems at the moment are largely going undetected

Where can we get a second data point?



eResearch NZ 2016

9-11 February 2016 | Rydges Hotel | Queenstown

Interim Results

- Found 1 bug
- May be a port mirroring visualisation at some point