

Oh f\$*k I think I'm running a
software company


Colin Silcock

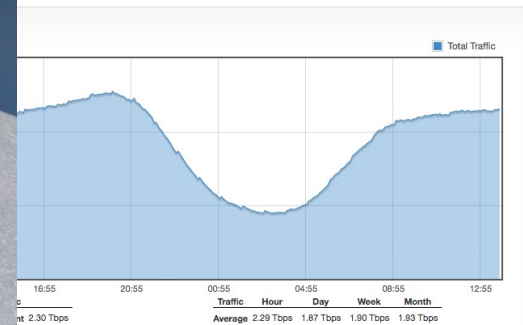
UKNOF35 - September 2016

About Me

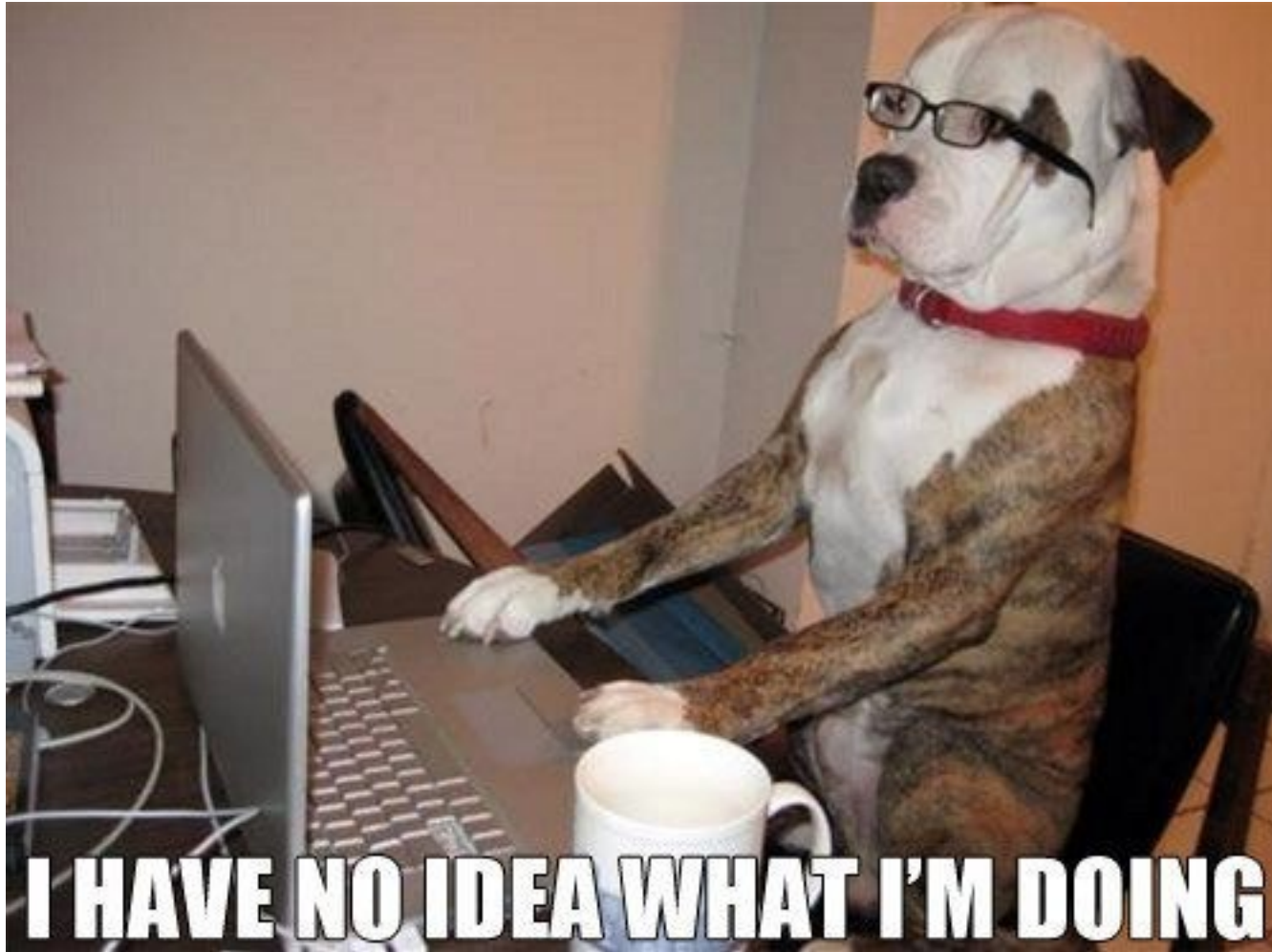
Colin Silcock
Software Engineering Manager



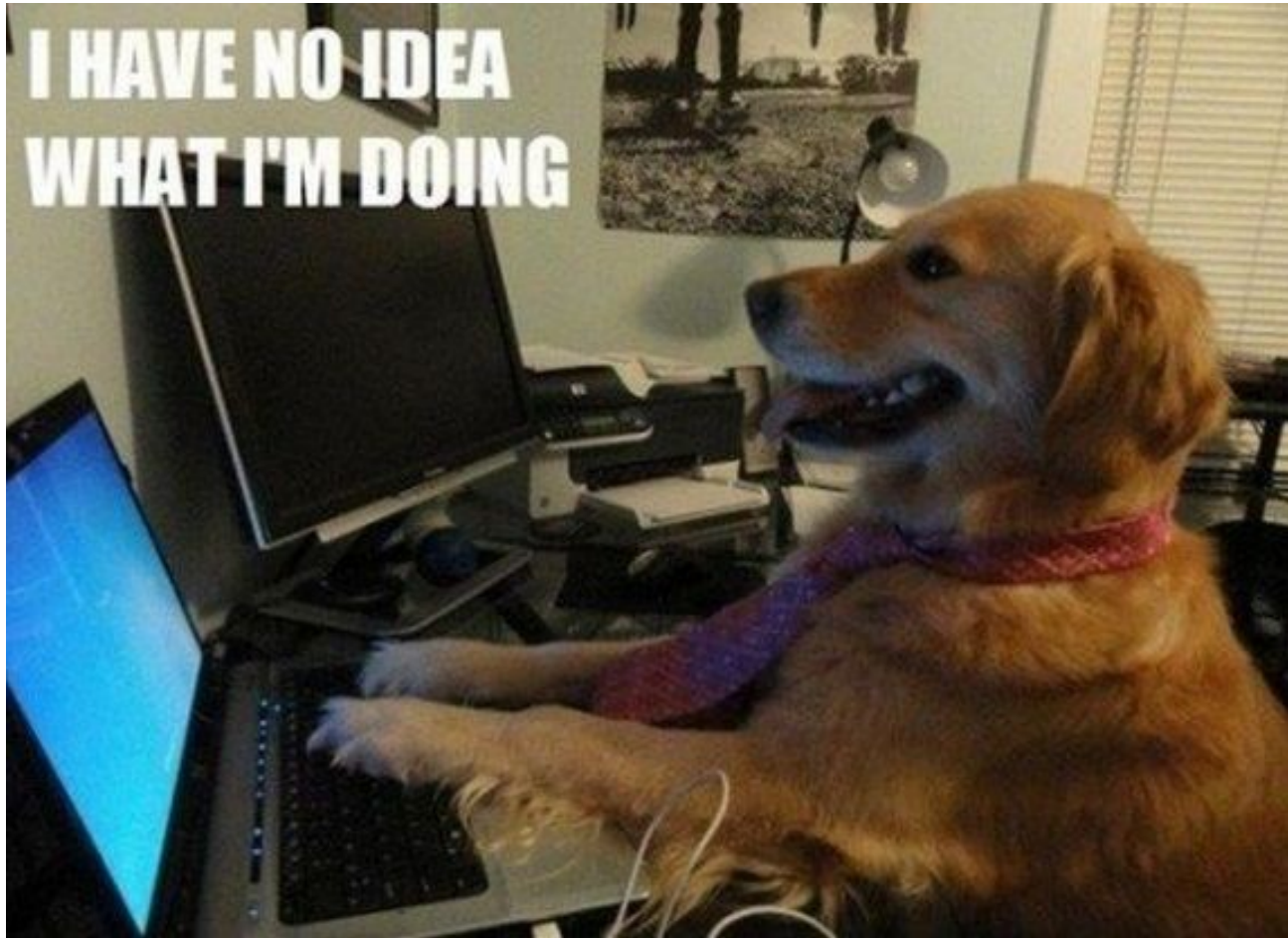
 @colinsilcock
@linxsoftware



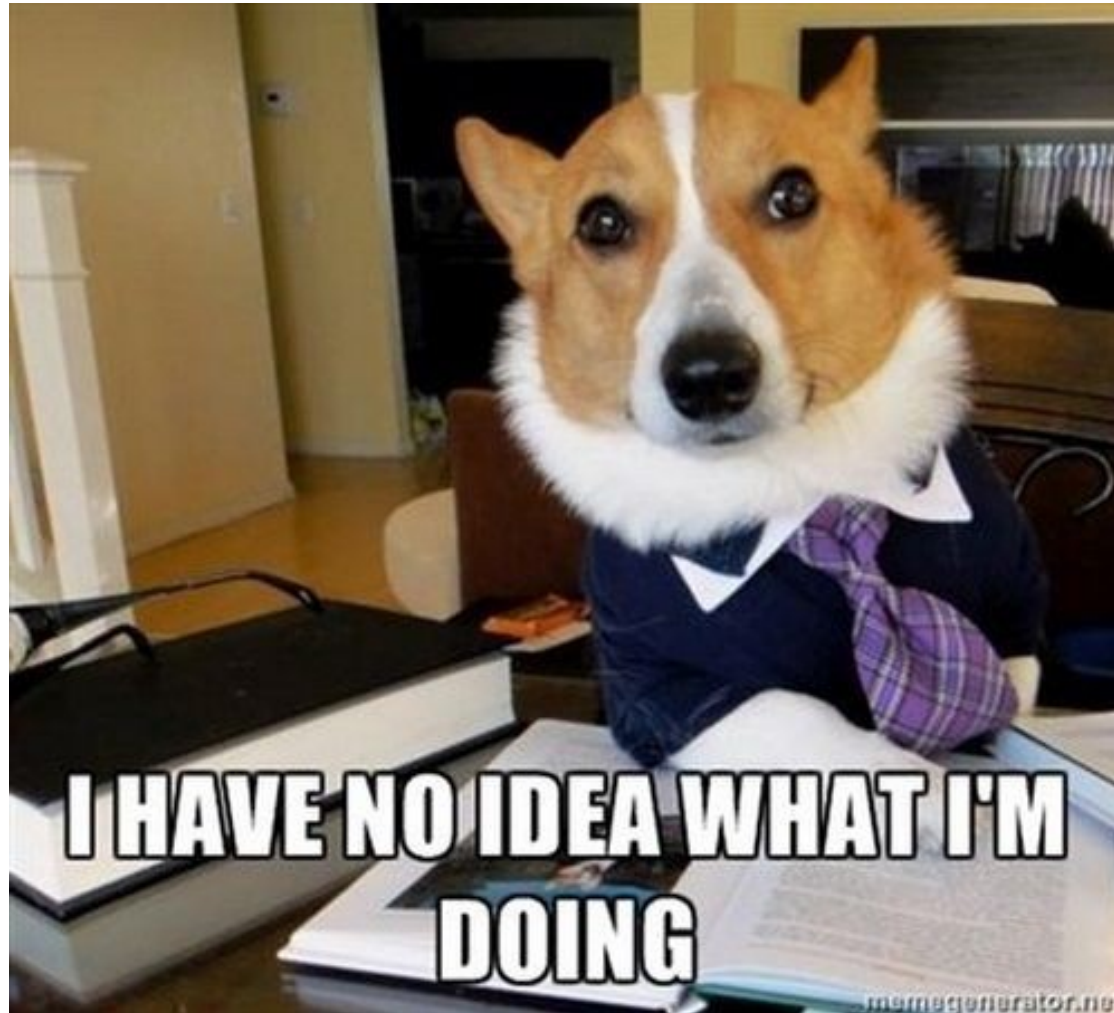
Imposter Syndrome



Imposter Syndrome



Imposter Syndrome



Building Software: Why do I care?

'Software is Eating the World' – Marc Andreesson, 2011

- Customer/Service Databases
- Network Config Backups
- Monitoring configuration generation
- Bash/perl/python/ruby scripts
- Network Configuration Automation
- Network Monitoring Scripts (nagios plugins!)
- Reporting Tools



LINX's Story



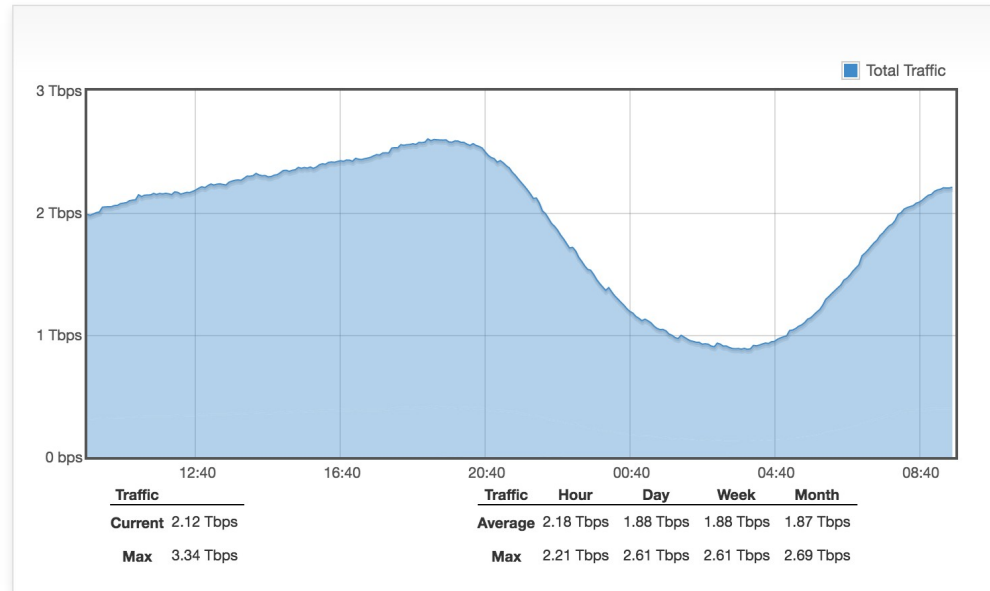
Total LINX traffic flow

This graph shows the aggregated traffic across all LINX Peering LANs.

For more fine grained statistics along with separate views for the aggregated traffic flow per LAN you can visit the "Graph analysis" page available from the following link.

LINX offers a private interconnect (PI) service in London for large bilateral flows between members. This is on a passive infrastructure, with no direct measurement by LINX, but our members provide us with data on traffic flows on a voluntary basis. This indicates that more traffic is carried by the PI infrastructure (in Telehouse and Telecity docklands sites) than is on the multilateral peering LAN in London, and that it is growing at a faster rate. We will be providing connections statistics about this service in a later iteration of this site.

[Graph analysis](#)



LINX's Story

- **25+** products
- **50+** codebases
- **350,000+** lines of code
- **80+** servers we deploy to



8 Things I wish I knew
before starting a software
team

Things I learned #1 - Hiring



“This is more precise than objectively reviewing resumes.”

Things I learned #2 - Culture

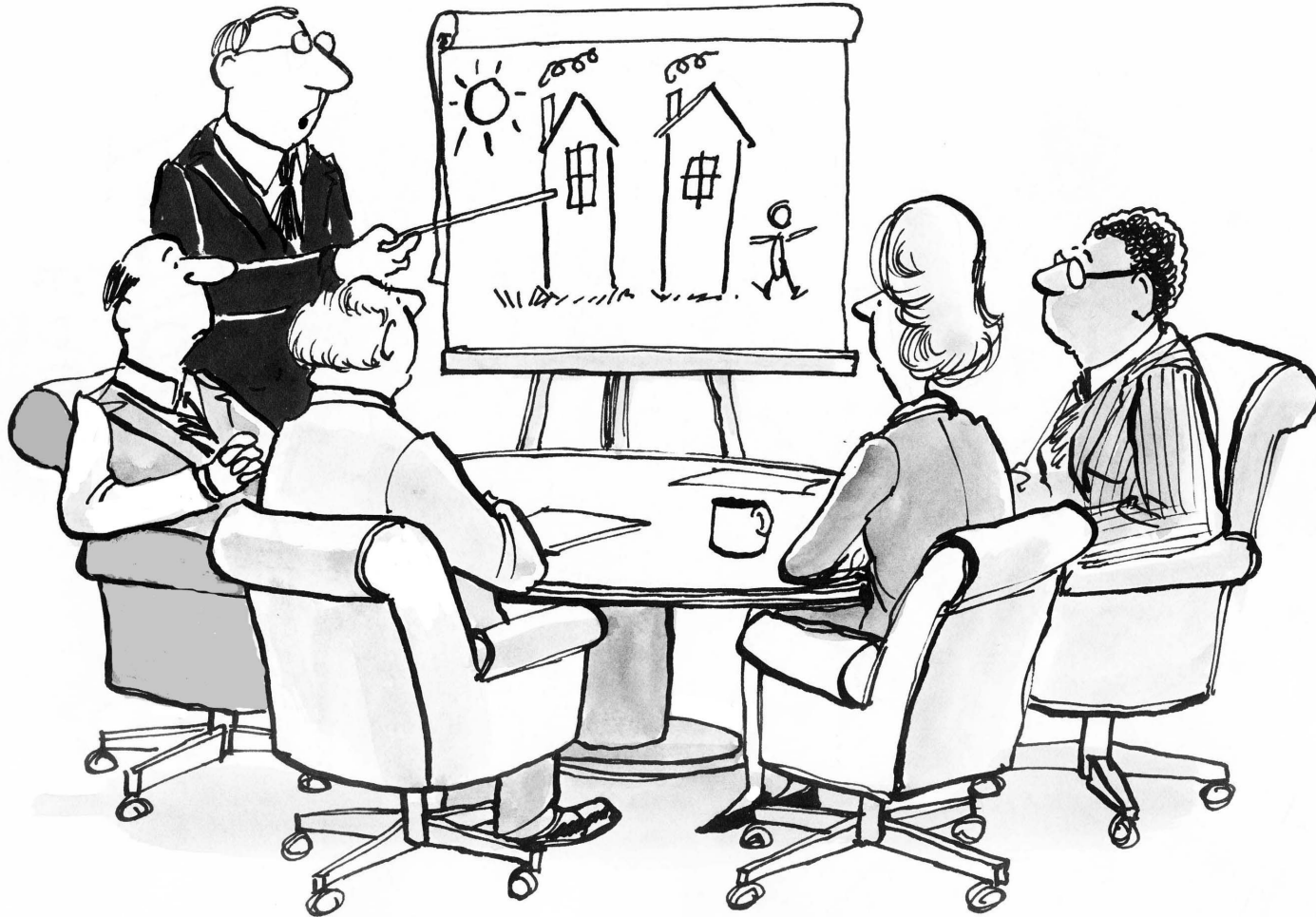


Things I learned #3 - Becoming Agile

AGILE

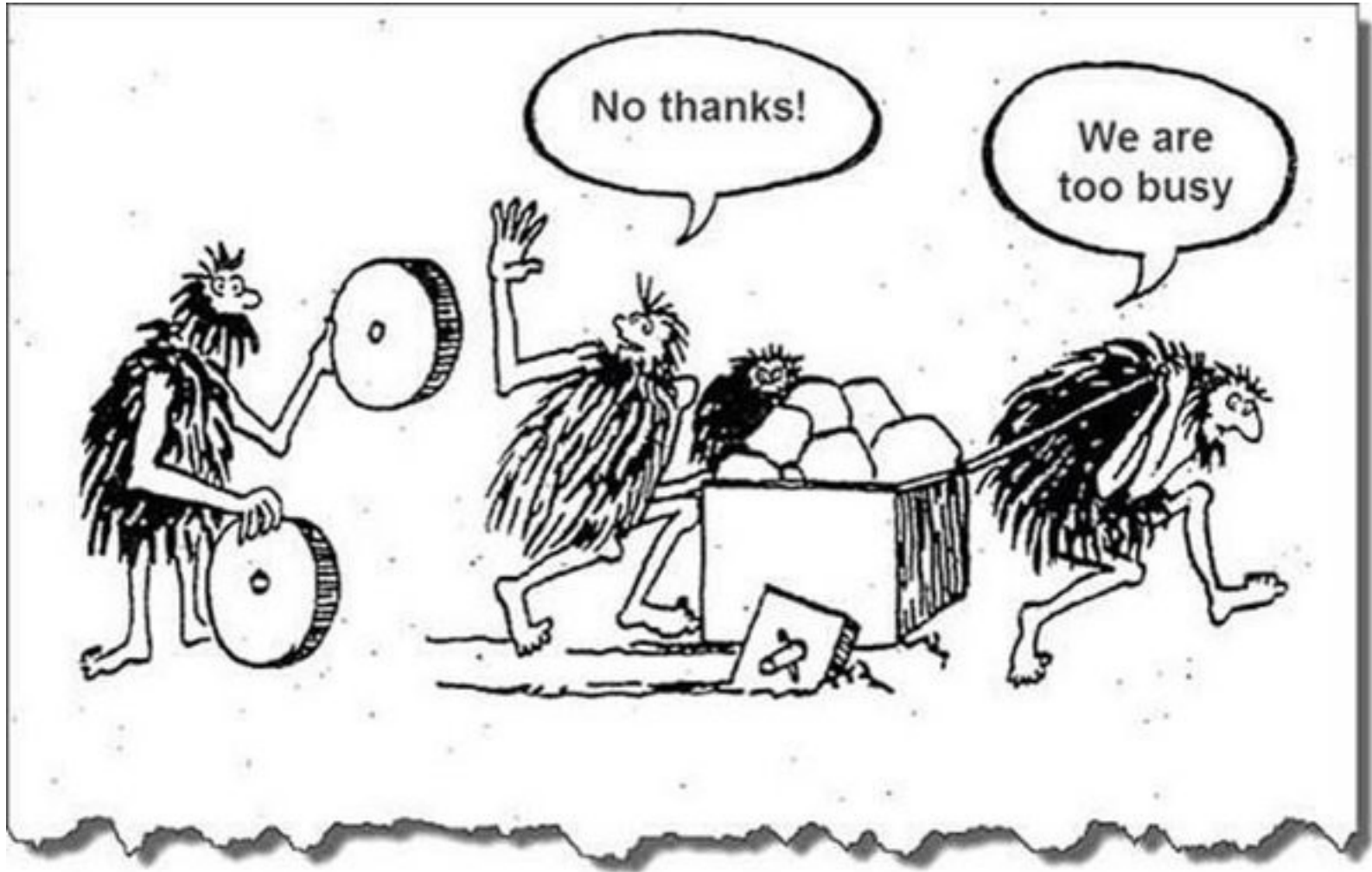


Things I learned #4 - Managing Expectations



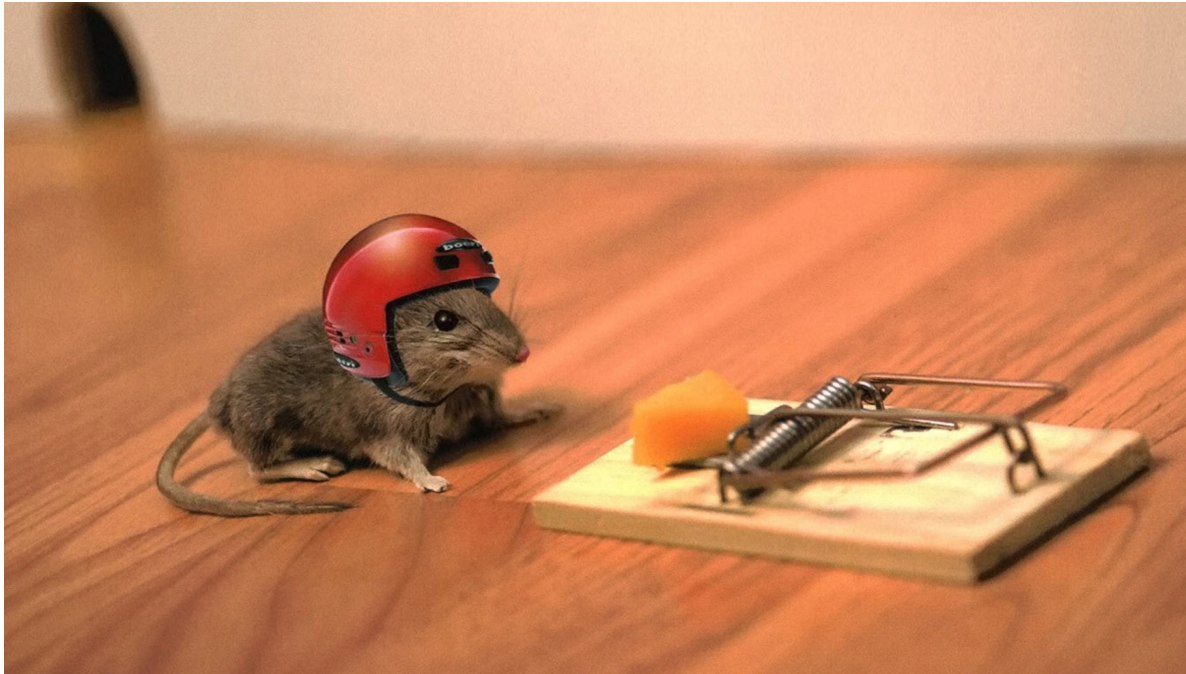
“Phase One is fairly basic.”

Things I learned #5 - Technical Debt



Things I learned #6 - Take Risks But...

*Experience is the name everyone gives to
their mistakes*
- Oscar Wilde



Things I learned #7 - Hypothesis Driven Development



Things I learned #8 - Do the DevOps



Network Automation

Network Automation – Our requirements

- Cross Platform
 - Juniper, Extreme and Edgework
- Allow manual engineer intervention
- Able to approach the solution iteratively

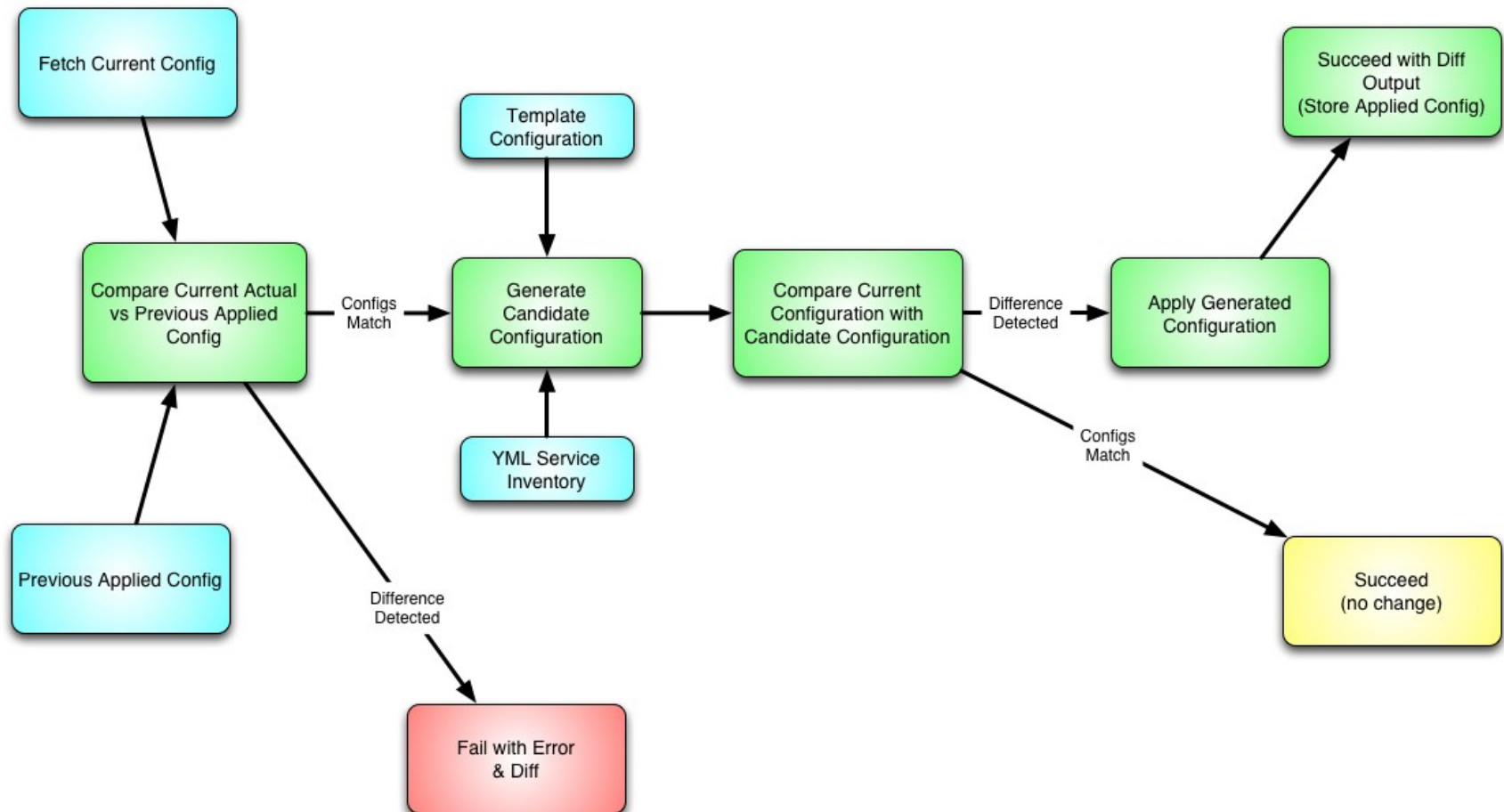
Network Automation - Our Approach

NAPALM

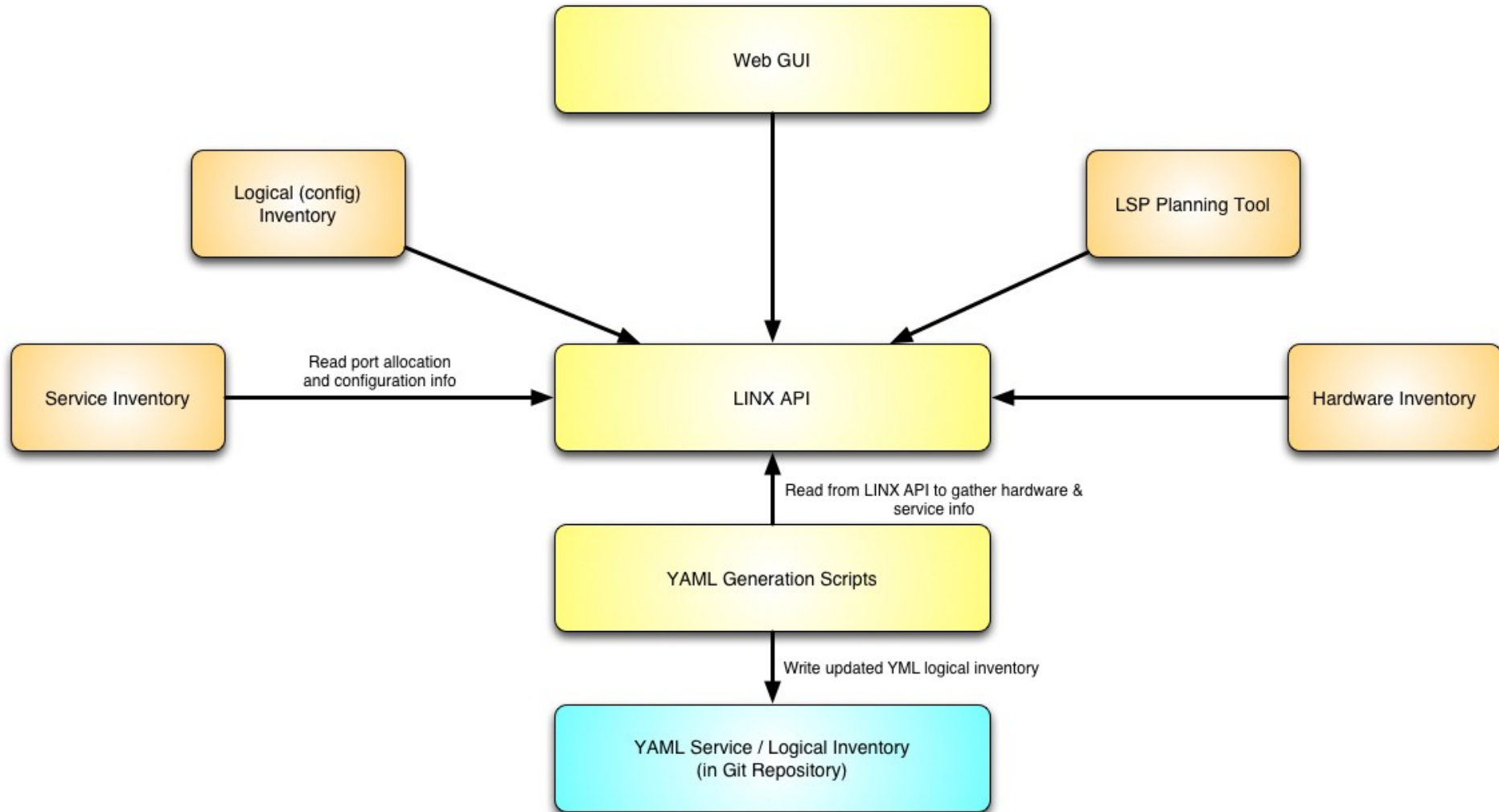


Network Automation - Our Approach

Ansible NAPALM & Config Generation Process Flow



Network Automation - Our Approach



Network Automation – Conclusion & Future

- Automated Config Validation
 - Syntax
 - Reachability
 - Capacity
- Continuous Deployment
- More and more templated
 - More power in web frontends

This Page Intentionally Left Blank