ipSpace

DIGS and ipSpace present:

A LEAN START INTO NETWORK AUTOMATION

Ivan Pepelnjak's Workshop	30.08.2018	Zurich
More info and registration:	www.sig-switzerland.ch/upcoming-events	

Too many networking engineers treat network automation like a visit to the dentist – something painful that's best avoided for as long as possible. This day-long workshop will dispel that myth and show you how to get worthwhile results by investing a day or two of your time.

Whenever you're trying to master a new area of expertise, you should start with a highly relevant (and painful) problem that can be solved with minimal efforts. Speaking with hundreds of enterprise and service provider networking engineers, we've identified three common problems that will be addressed during the workshop.

CONFIGURATION MANAGEMENT

Many large networks periodically collect network device configurations for backup purposes. I sincerely hope you're one of them… if not, you'll learn what tools to use to get that done.

Collecting device configurations is great, but can you generate a history of changes? Can you identify parts that were changed in the last day or week? If you're using modern network management tools, the answer might be YES, if not, you'll see how to use Git to get the job done.

Now for the tricky question: once you've figured out what change likely caused the network outage, can you identify **why** it was made just by looking at the change history? All it takes to get this vital bit of information is a day's worth of planning and documenting your version control workflow… and we'll tell you how to do that with Git and GitLab or GitHub.

CUSTOM REPORTS

Your network management system can generate all the reports you ever needed, right? No? Really? In this workshop, you'll figure out how to:

- Collect data from network devices;
- Parse the collected printouts (in case the devices you use don't have a usable API);
- Generate reports or graphs.

Networking engineers attending the Building Network Automation Solutions online course have been using these principles to generate reports ranging from uptime/availability to documentation of Cisco ACI or VMware NSX setups. Other engineers created amazing graphs, from per-VLAN spanning tree graph to IP Multicast flooding graph.

GENERATE DEVICE CONFIGURATIONS

Did you ever have to deploy a large number of network devices with almost-identical configuration (be it in a campus or WAN network, or within a data center)? How did you create the configurations? Did you use the super-versatile copy-and-paste approach, the awesome Excel Formulas approach, or something smarter?

There has to be a better way, and in this workshop, we'll show you one of them. We'll go through individual steps including:

- Figuring out the data model needed;
- Creating device configuration templates;
- Creating device configurations;
- Using auto-generated device configurations to detect discrepancies (comparing actual configuration to desired configuration);
- Reporting discrepancies to device owners.

TAKEAWAYS

After attending this workshop you'll be able to select open-source tools that you could use to solve simple network automation challenges and start solving them.

AVAILABILITY

A lean start into Network Automation is a 1-day on-site workshop. The workshop can be extended by in-depth technical details or discussions of customer's specific design challenges.

WHO SHOULD ATTEND

This workshop targets network engineers who would like to start exploring network automation, but don't know where to start.