Configuration: Do you prove yours?

Infra Management Room
How are the servers doing?
Configuration management is a systems engineering process for establishing and maintaining consistency of a product [...] throughout its life.
How devops can help to understand?

- **Culture**
- **Share**
- **Automation**
- **Measurement**
Why we need Observability in Configuration Management?

Causality
trust and prove configuration states

Perspective
provide insights relevant to different needs

Agency
help teams find the best levers for their job
CONTINUOUS AUDITING & CONFIGURATION
Let's remember: What does configuration management do?

configuration target state  \rightarrow  configuration  \rightarrow  feedback
Let's remember: What does configuration management do?
Observability is a measure of how well internal states of a system can be inferred from knowledge of its external outputs.
Monitoring VS Observability: having a factual & deep insight
Historisation

PARAM
- Id

RULE
- Id
- (Components)

DIRECTIVE
- Id

GROUP
- Id

RUDDER config (global)
- Policy Mode
- Schedule
- ...

NODE
- Properties
- Policy Mode
- Schedule
- ...

Event logs

Change request

Compliance
historised

Environmental context

Configurations: Do you prove yours?
Impactful events category

**Definition**

of the target state

- rules
  - node’s groups
  - configurations
- parameters
  - global
  - per nodes
- environmental context
  - properties
  - policy mode...

**Creation**

of the configuration

- tracing the configuration generation process
- OS specificity
- template
- variables...
- predict configuration state
- anticipation of any change
- used to compare with the execution

**Execution**

of the configuration

- execution feedback
- fine grained comparison with the expectation
- prevent any alteration
Are you sure that I didn’t forget something?

- And on the node itself?

- Observability should be agnostic
  - Protocol normalization

- Beyond 1st level of external output usage
  - Data mining
  - Process mining and AI

Business oriented

- External events and targeted configuration state

- Expected configuration

Execution feedbacks

Technique oriented
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