Why Ansible vs. Salt vs. Nornir is the Wrong Question to be Asking

A practical guide to tool choice

@itdependsnet

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Introduction

Ken Celenza

- Managing Director at Network to Code
- Traditional network engineer by day, coder by night
- Converted full time ***network automator*** in 2016
- 20 years in the industry, primarily supporting enterprises

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- Well… what is the right question to ask?
  - ***What requirements does this solution fulfill?***
  - Better yet: Here are my requirements, how does this solution address them?
  - ** **Disclaimer**… ok, ok, this is still a simplistic question to really get the answers

Technical Evaluation

Ansible

Pros
- Commercial support
- Large adoption and training material
- Simple to get started

Cons
- Complex workflows are difficult
- Speed to run is slow
- Memory & CPU Intensive

Salt

Pros
- Native event bus
- Native API built into core of the product
- Commercial support

Cons
- More difficult to get started
- Smaller community base
- Less (network) training

Nornir

Pros
- Supports complex workflows
- Uses industry standard Python for all capabilities
- Performant

Cons
- Lack of API
- Lack of commercial support
- Less training available

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- Use cases help identify requirements that are not needed
  - Use Case: “We need a workflow to remove configuration”
  - Actual Solution: Deploy configuration declaratively

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Daily Jobs

Examples
- Backup configurations
- Configuration auditing

Cadence
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Time to delivery requirement

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Change Management

Examples
- Firewall rule change
- Load Balancer change

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Actual Drivers

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When evaluating your primary network Automation platform (Salt, Nornir, Ansible, etc..) what is the number one driver in that choice from the following options? (https://twitter.com/itdependsnet/status/1218932237103661058)

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- Speed to connect to devices
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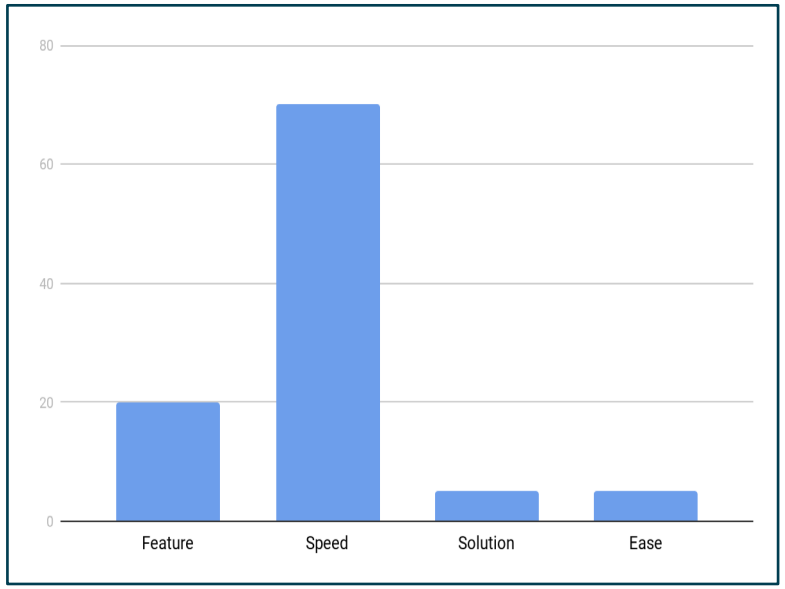

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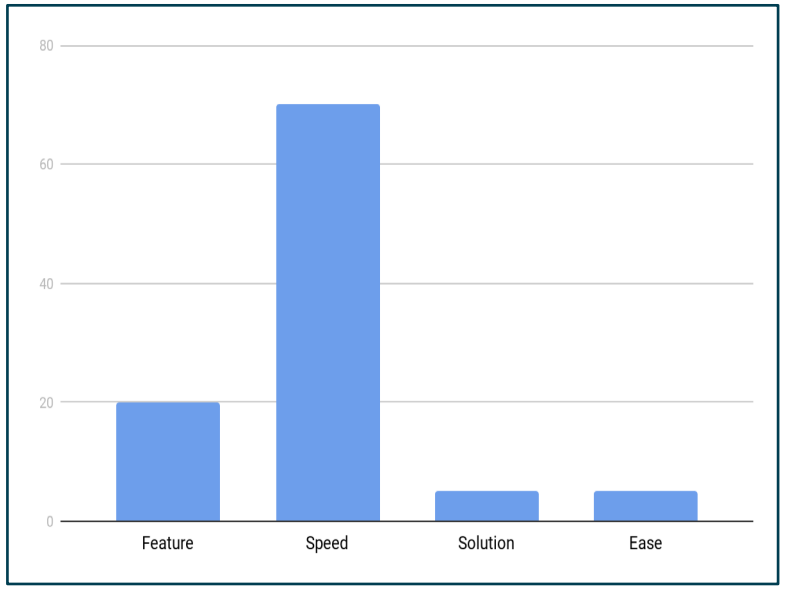

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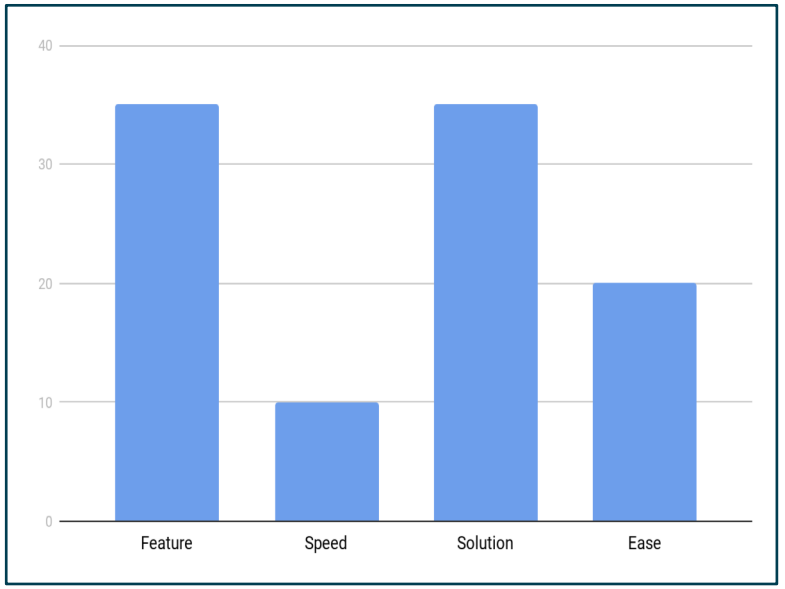

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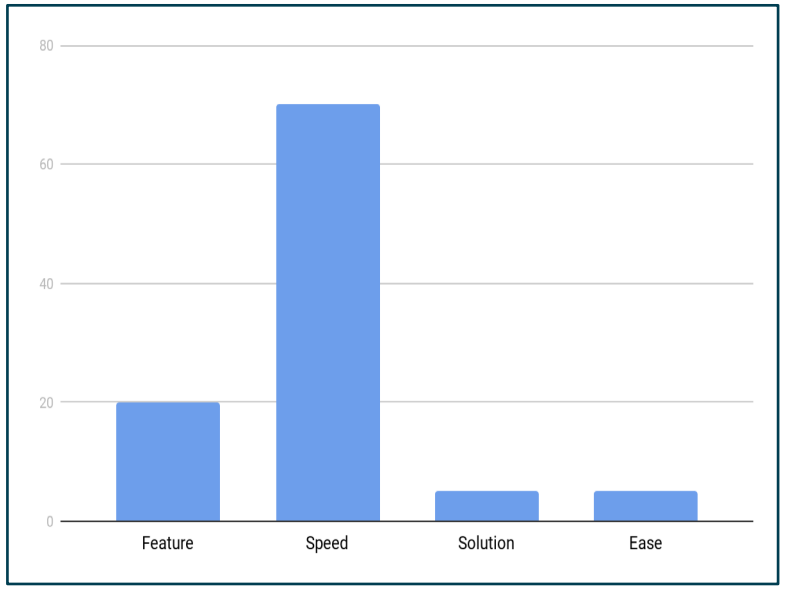

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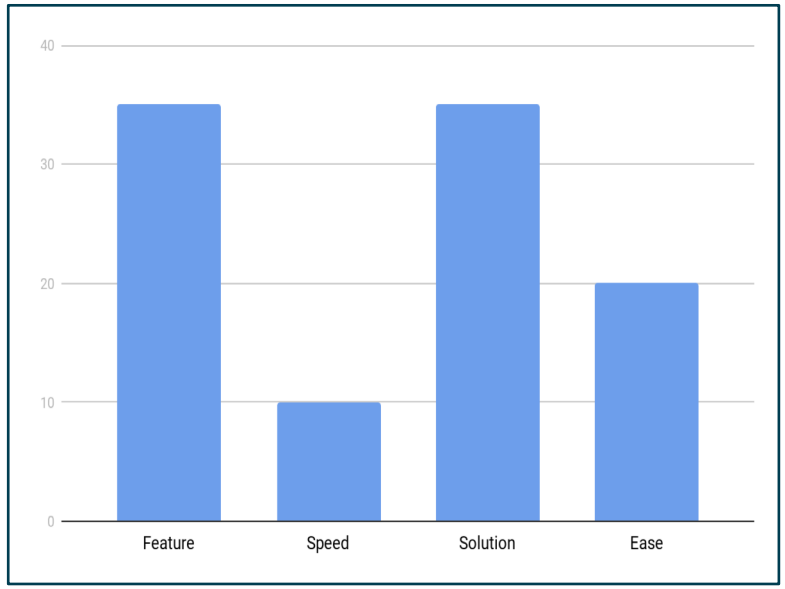

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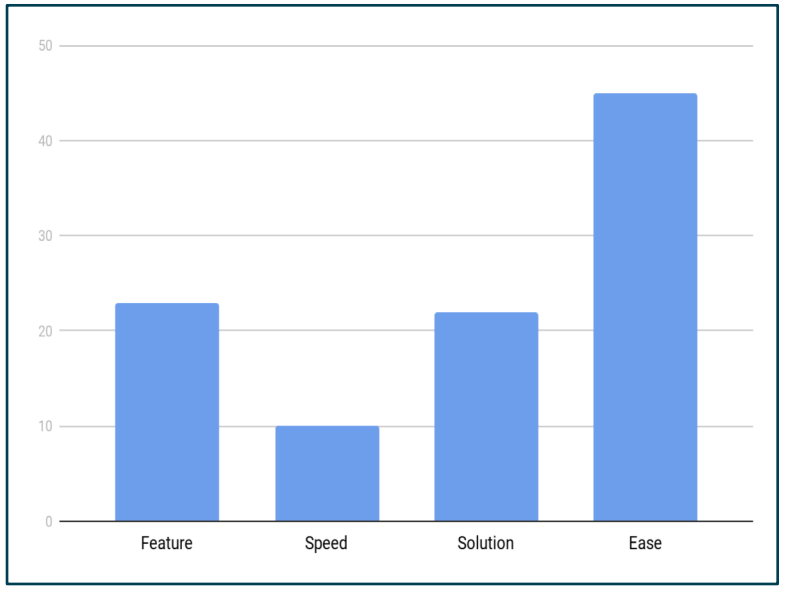

Score Sheet

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Functionality	Priority	<tool #1>	<tool #2>	<tool #3>
Accessibility (for beginner)	5	✓✓✓	✓✓✓	✓✓✓
API	7	✗	✓✓✓	✗
Authentication	7	✗	✓✓✓	✗
Complex Workflow	8	✓✓	✓✓	✓✓✓
Commercial Support	5	✓✓	✗	✓✓
Credential Management	6	✗	✗	✓✓✓
Extensibility	9	✗	✗	✓✓
High Availability	10	✓✓✓	✓✓	✓✓✓
Job Isolation	4	✓	✓✓	✓✓
Logging	7	✓✓✓	✓✓	✓
Network Device Support	8	✓✓✓	✓	✗
Non-network support	9	✓	✓	✗
RBAC	4	✓✓✓	✓✓	✓
Scheduler	10	✓	✓✓✓	✓✓
Scalability	6	✗	✓✓✓	✓✓
Speed	7	✓✓	✗	✓✓✓
Traceability	8	✓✓	✓✓✓	✗
User Interface	4	✓	✓✓✓	✓✓
Workflow	3	✓✓✓	✓	✓

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What requirements does this solution fulfill?

End