

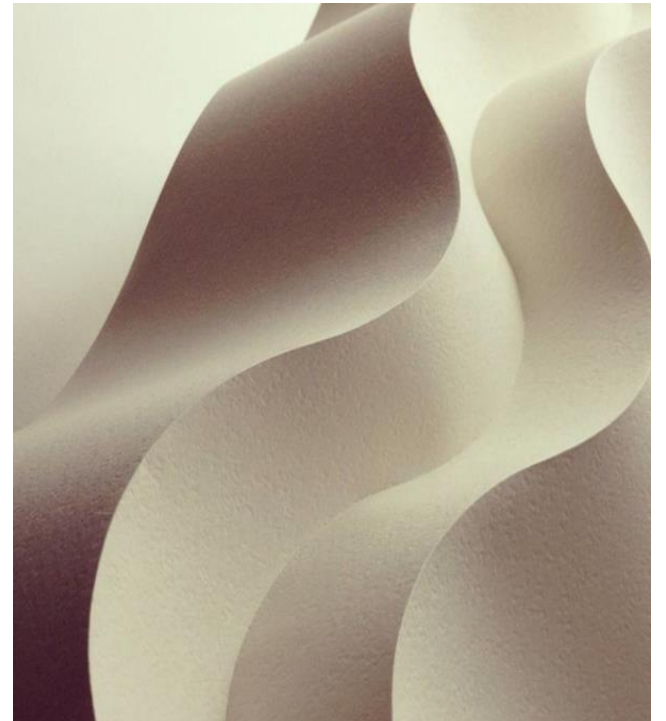


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OUR AUTOMATION

JOURNEY

Paul Ondafe Matock
Technical Lead Automation





AGENDA

- Initial state
- Standardization
- Automation phases
- Automation, what's next?
- Conclusion

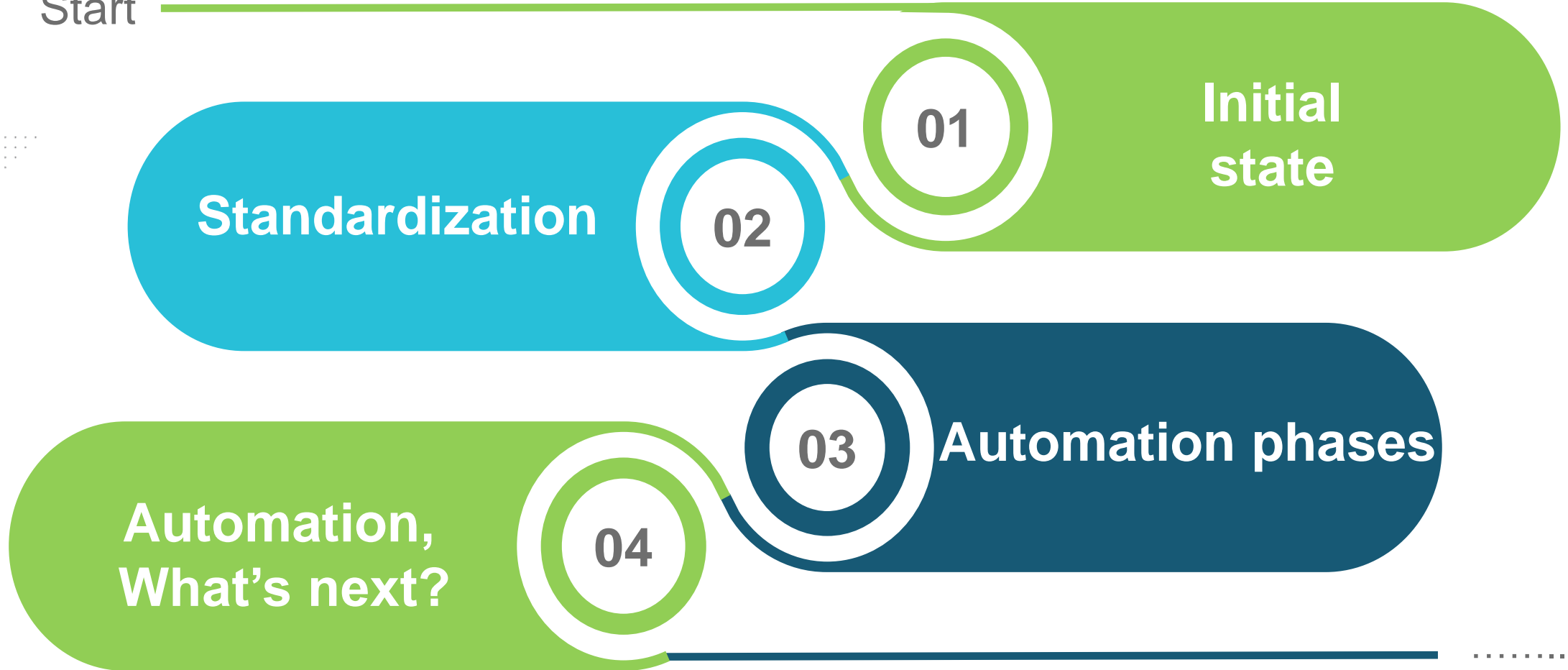


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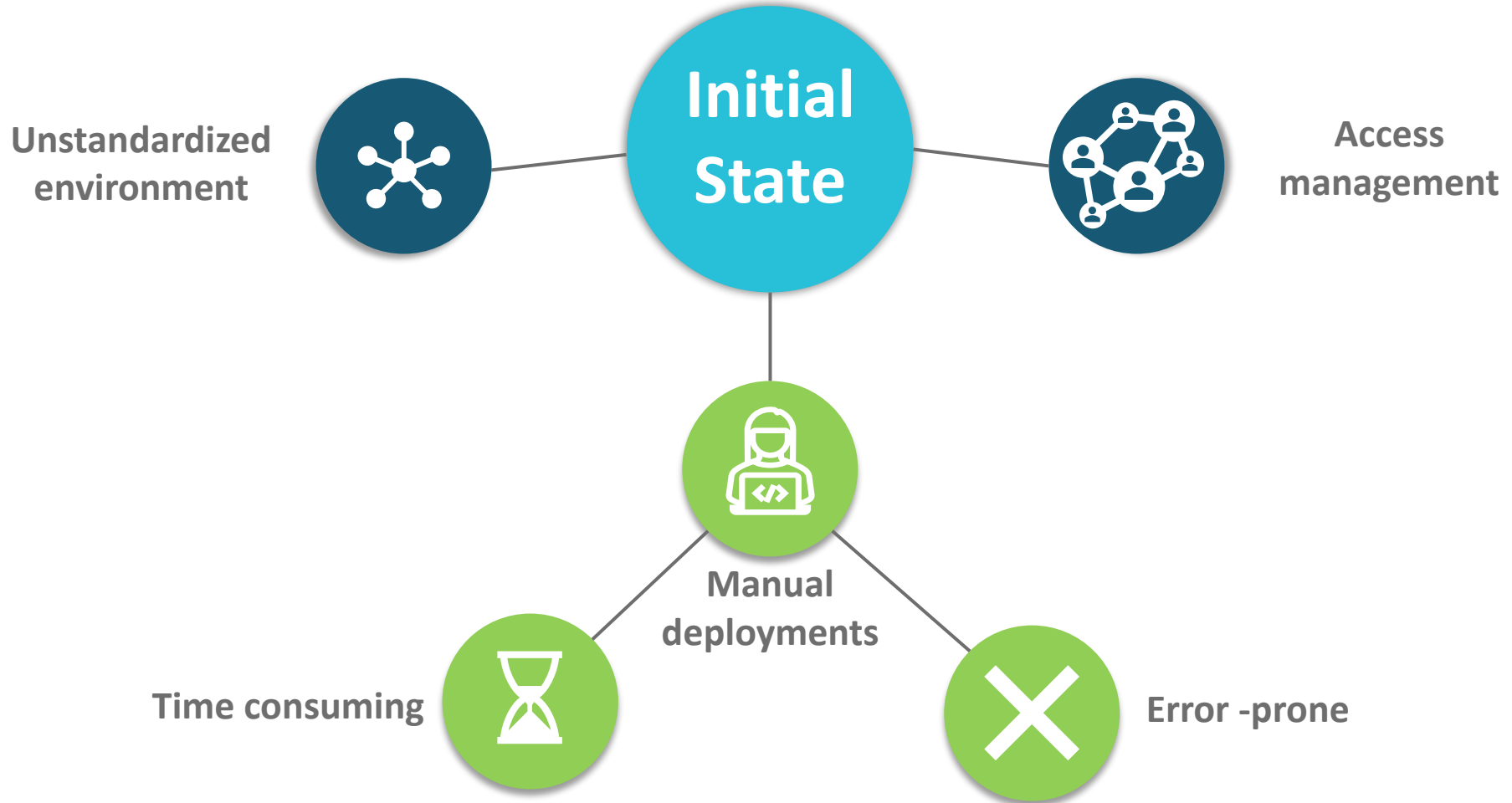
Start



AUTOMATION JOURNEY – INITIAL STATE



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AUTOMATION JOURNEY - STANDARDIZATION



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Provide a standardized operating system

Hosting an equally standardized application platform

Standardization

01

Provisioning

Reduce the cost and time taken to deploy virtual machine.

02

Management

Provide a domain devoted to Linux virtual machine.

03

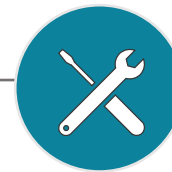
Environment

Create a known, expected and supportable environment.

04

Bus factor

Reduce the risk associated with provisioning knowledge being held by only few individuals.



Tools

Satellite, IdM, Ansible Automation Platform and GitLab.

AUTOMATION JOURNEY – STANDARDIZATION OUTCOMES



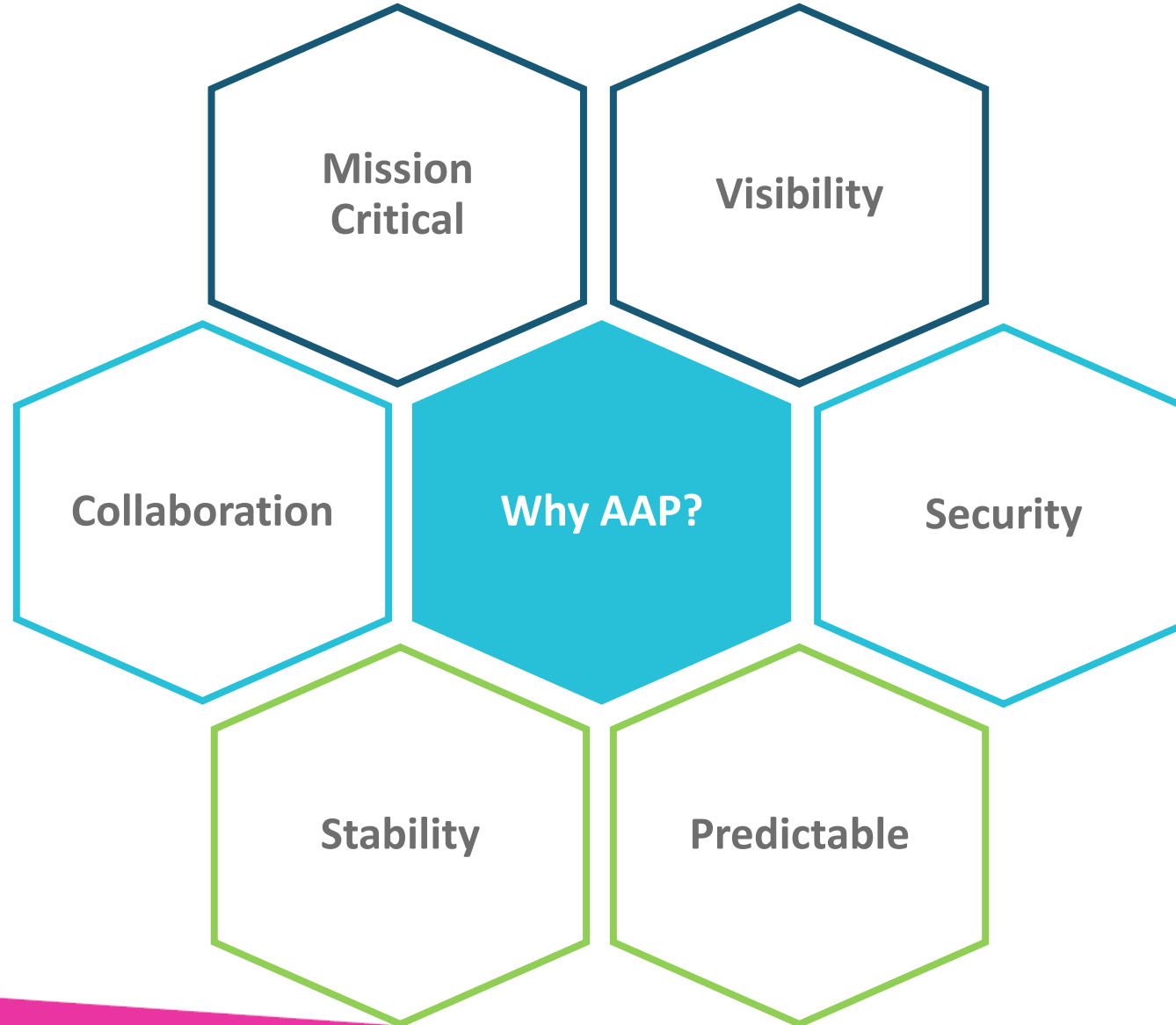
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AUTOMATION JOURNEY – WHY ANSIBLE AUTOMATION PLATFORM ?



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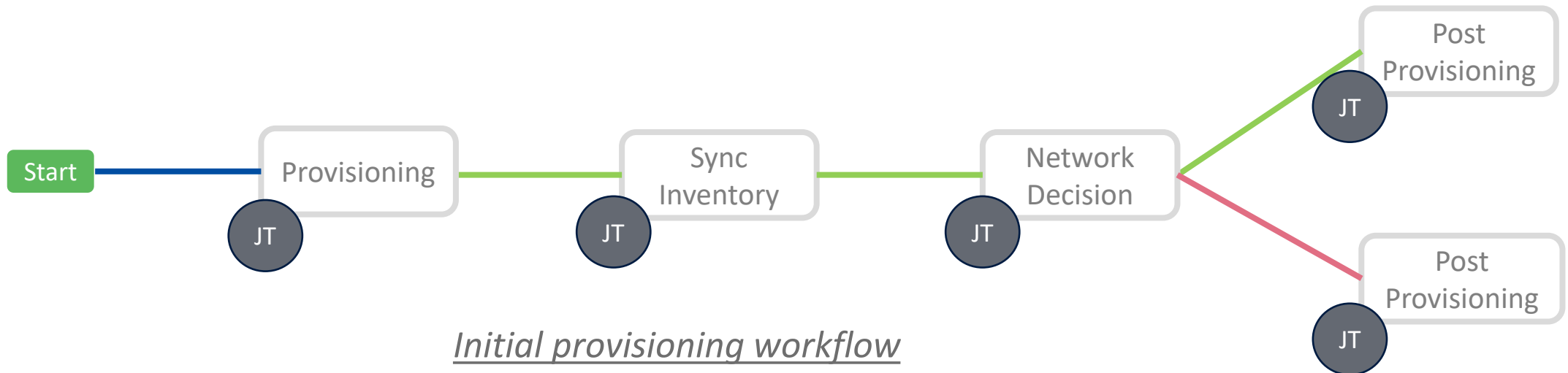


AUTOMATION JOURNEY – PHASES



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- Automate as much as possible in the setup:
 - Provisioning
 - Updates and upgrades (security included)
 - Decommissioning RHEL systems managed



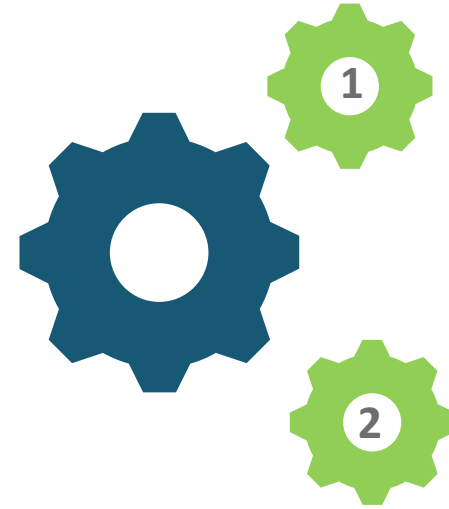
AUTOMATION JOURNEY – PHASES



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- Adding new features to the provisioning workflow:
 - Monitoring integration
 - Access management integration



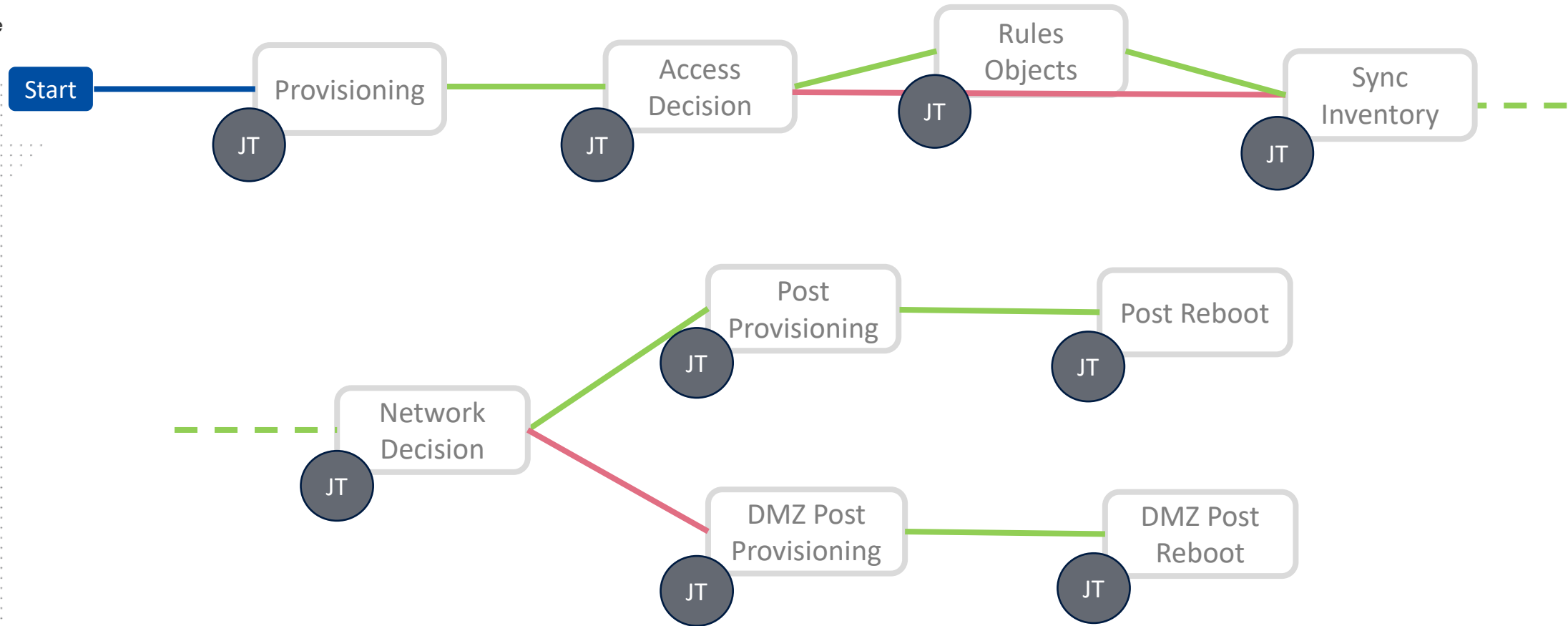
Automate SOE
components

**Improving
provisioning
workflow**

AUTOMATION JOURNEY – PHASES



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Advanced provisioning workflow


AUTOMATION JOURNEY – PHASES



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- ServiceNow integration

Request New LINUX VM ♥
Request a fixed predefined standard LINUX VM

 Delivers Virtual Machines with a Red Hat Enterprise Linux Operating system according to the standards of FPS Finance. (UNIX)

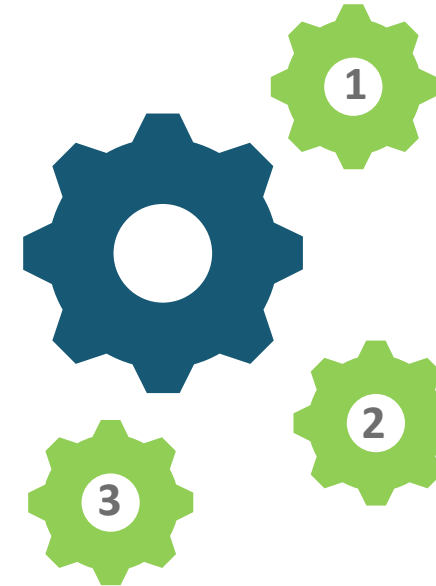
* Indicates required

* Request
Request new LINUX VM

* SM - Service Manager

VM's details

* Business Service ?	* OS
	RHEL9
* Business Service Project (4 alphanumeric characters) ?	* Size ?
	-- None --
* Environment	* Zone
-- None --	Intranet
* ## (Input of 2 digits of VM's hostname)	* Site
	MinFin



Automate SOE components

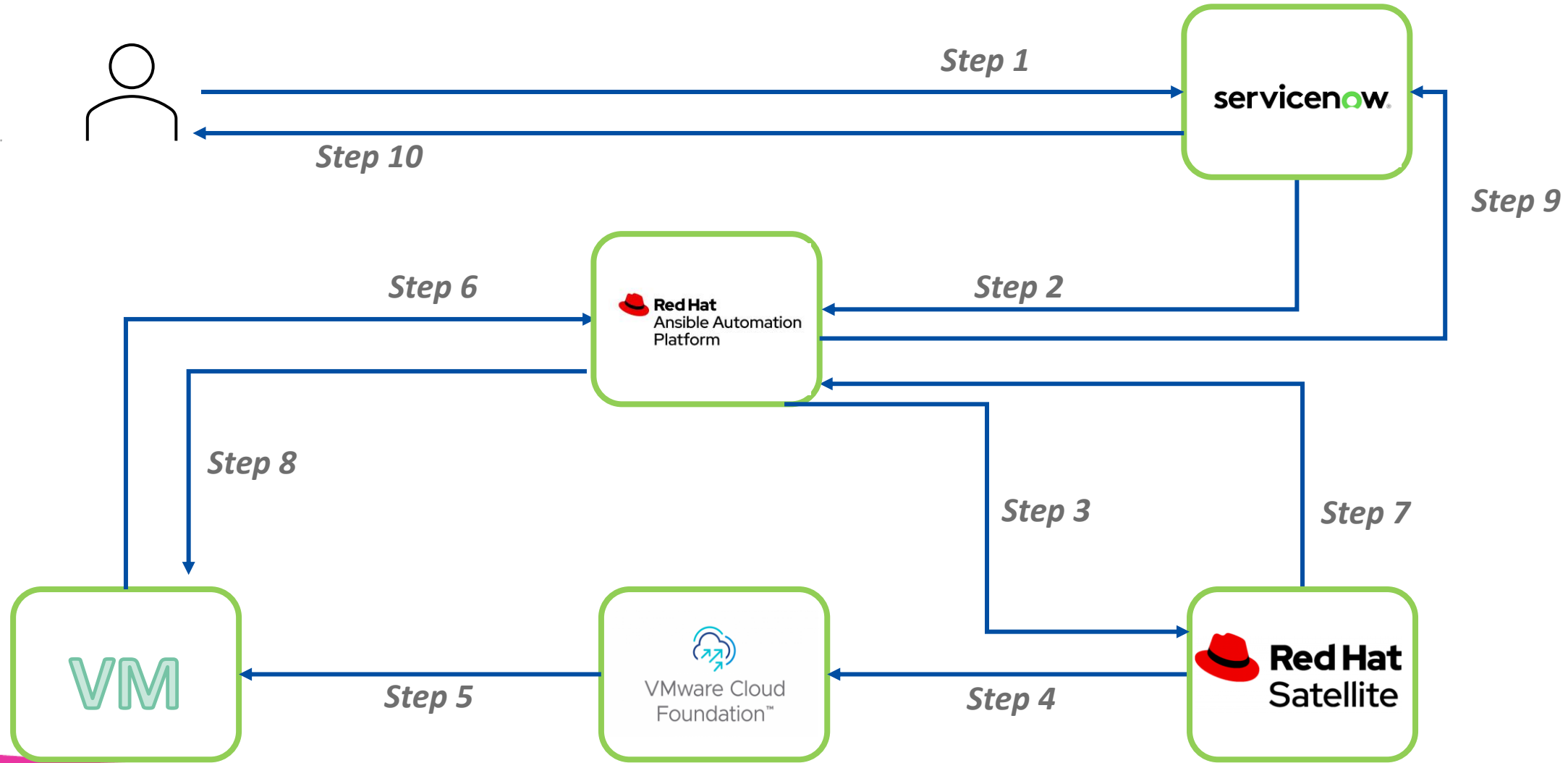
Improving provisioning workflow

Self-service provisioning

OVERALL VIEW OF FLOWS BETWEEN COMPONENTS



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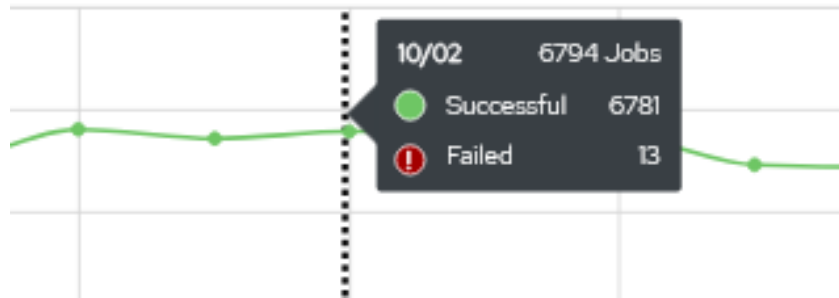


AUTOMATION JOURNEY – PHASES



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- More and more jobs running in AAP



- Involving many teams and organizations as Middleware applications team, Network, Windows,...

**Onboarding
Teams for
collaboration**



Automate SOE
components

Improving
provisioning workflow

Self-service
provisioning

AUTOMATION JOURNEY – PHASES



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```
1 ---
2 # Compute informations about the host : rhel_vm_host01
3 vm_cpu:
4   num_cpu : 4
5   num_cores_per_socket: 1
6   cpu_hot_add_enabled: "True"
7   cpu_hot_remove_enabled: "False"
8
9 vm_ram:
10  memory_gb: 4.0
11  memory_hot_add_enabled: "True"
12  memory_reservation_locked_to_max: "False"
13
14 vm_disk:
15  - name: "Hard disk 1"
16    capacity_in_gb : 30.0
17    type : "thin"
18    controller_type: "lsilogic"
19    controller_bus_number: 0
20    unit_number: 0
21    disk_mode: "persistent"
22    position: "sda"
23
24  - name: "Hard disk 2"
25    capacity_in_gb : 10.0
26    type : "thin"
27    controller_type: "lsilogic"
28    controller_bus_number: 0
29    unit_number: 1
30    disk_mode: "persistent"
31    position: "sdb"
```

GitOps for
resources
management

Onboarding Teams
for collaboration



Automate SOE
components

Self-service
provisioning

Improving
provisioning workflow

AUTOMATION WHAT'S NEXT ?



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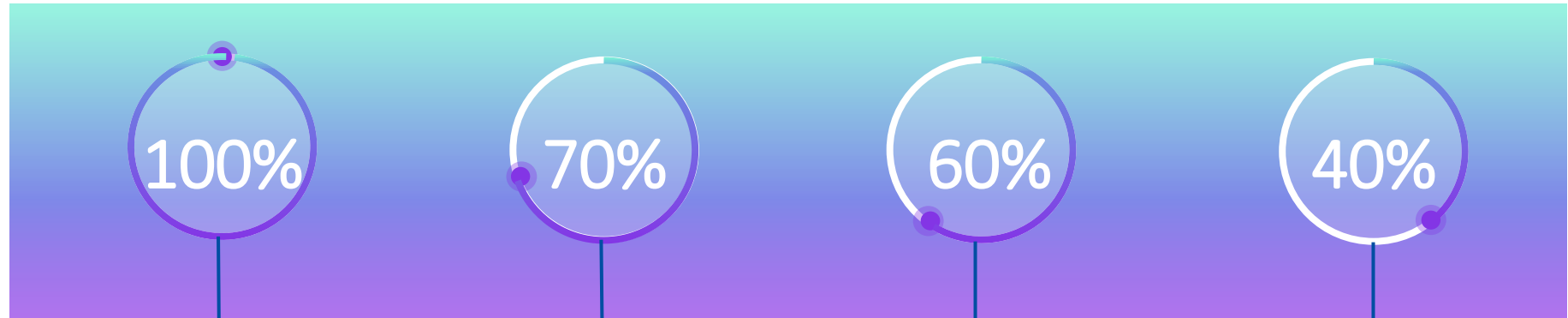


- Enhance automation with Event-Driven Ansible:
 - Monitoring
 - ELK and Instana use cases
 - Security
 - Remediation plan
 - System management
 - Response to system resource changes
- Migrate Ansible Automation Platform to OpenShift Container Platform
- Advocate for automation best practices
- Onboard more process (Active Directory management, etc.)

CONCLUSION



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100% of newly provisioned virtual machines are integrated into a fully automated process.

70% of RHEL system management tasks are automated.

60% of the Service Operations department teams are present on AAP.

40% of our infrastructure is managed using the GitOps way/method.



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THANK YOU

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