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Transforming IT Operations:

# Discover the power of Desired State Monitoring and Resource Utilization



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# Agenda

- Desired state configuration demo

- Solution architecture

- Why** did we build this?

- How** did we build this?

- Q&A



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Desired state configuration

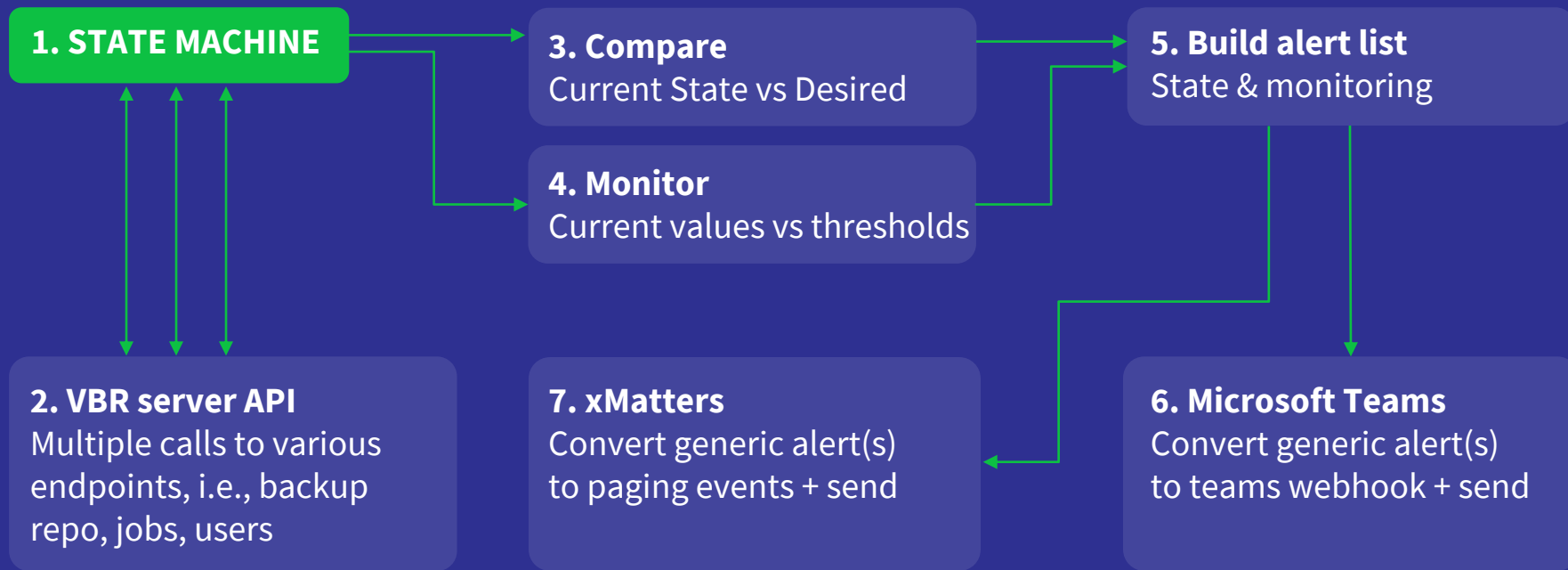
Demo

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# Solution architecture

# Architecture





# Potential improvements?



- ✓ **Automated remediation.**
- ✓ **More coverage:**
  - Build out desired state for all/more properties.
  - Monitor advanced scenarios, i.e., conditional based on multiple states.
  - Expand to other products, backup for Microsoft 365, etc.
- ✓ **Nice to have's:**
  - Environment profiles, different states/monitoring for edge vs. data center.
  - Web interface for management.
  - Store history in database, allow reporting.
  - Generic webhook configuration/plugin interface.
  - Additional out of the box integrations, i.e., slack, service now.
  - More collaborators (you!?).



**Why** did we  
build this?



# Benefits of DSC

**We are doing it already... think Terraform, Ansible. Why not with Veeam®?**

- **Consistency:** infrastructure is configured in a consistent manner.
- **Security:** you are secure and compliant with your organization's security policies.
- **Validation:** continually validate that your infrastructure is configured correctly and free from "configuration drift".
- **Reusability:** define once, re-use across multiple environments, making it easier to maintain consistency, increased security posture, easier to support.
- **Reporting:** monitor and track changes to your environment over time.





# Why monitor? Proactive vs. reactive

**Isn't it better to fix something on your timetable vs. 2 a.m. on a Saturday?**

## **Reactive monitoring:**

- Reacting to incidents.
  - Example: database runs out of disk space.
- If the system is working, leave it alone!

## **Proactive monitoring:**

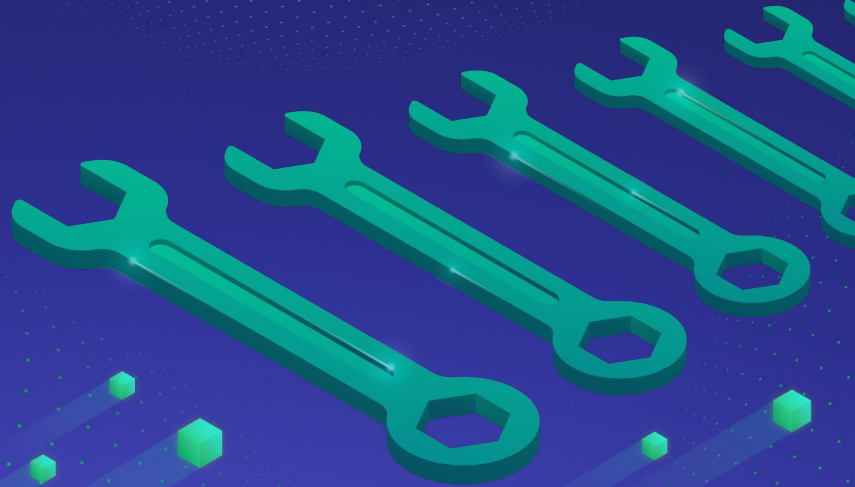
- Preventing incidents from occurring.
  - Example: database has less than 15% of disk space, so additional storage is added.
- Builds on top of reactive monitoring lessons learned.
- Active interrogation of monitored system to understand how the system is behaving.



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**How** did we  
build this?



# Working with APIs: tricks of the trade



**Veeam Help Center  
Documentation**



**Swagger UI**

Built-in to Veeam and enables easy testing of Veeam APIs including some documentation.



**Postman**

Tool used to test/build complex integrations with REST APIs. Import Veeam APIs directly into Postman!

# Reference links

## Download the code

[github.com/benyoungnz/vbr-state-machine-console](https://github.com/benyoungnz/vbr-state-machine-console)

- Contribute.
- Download source or docker image.



## On the Twitter-sphere

@benyoungnz or @chris\_arceneaux

## Veeam VBR API Reference

[helpcenter.veeam.com/docs/backup/vbr\\_rest/rest\\_api\\_reference.html?ver=120](https://helpcenter.veeam.com/docs/backup/vbr_rest/rest_api_reference.html?ver=120)

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Questions?







Thank you!

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