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NA Training Partner Conference

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Improving the delivery of OpenShift administration III

How to add value to the DO380 delivery with expert students

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Red Hat

Agenda:

- Facts from a delivery
- Setting expectations
- Adding value

Facts from a delivery

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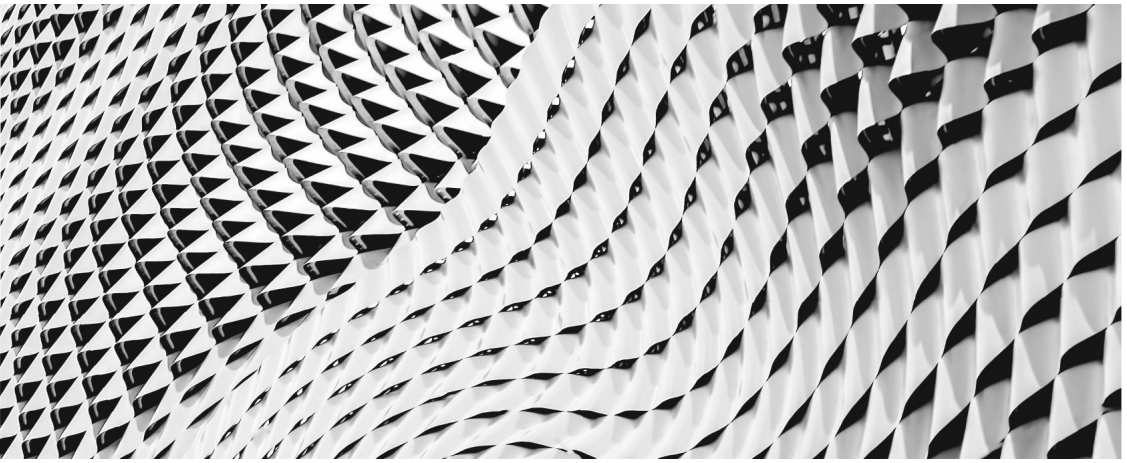
Setting expectations - Part 1



This is a section that addresses important concepts to leverage the use of DevOps practices in a company:

1. Implement GitOps
2. Configure focused on CaaS
3. Learn how to install Operators
4. Create pipelines supporting GitOps

GitOps: Company behind this concept (https://weave.works)

Adding Value - part I

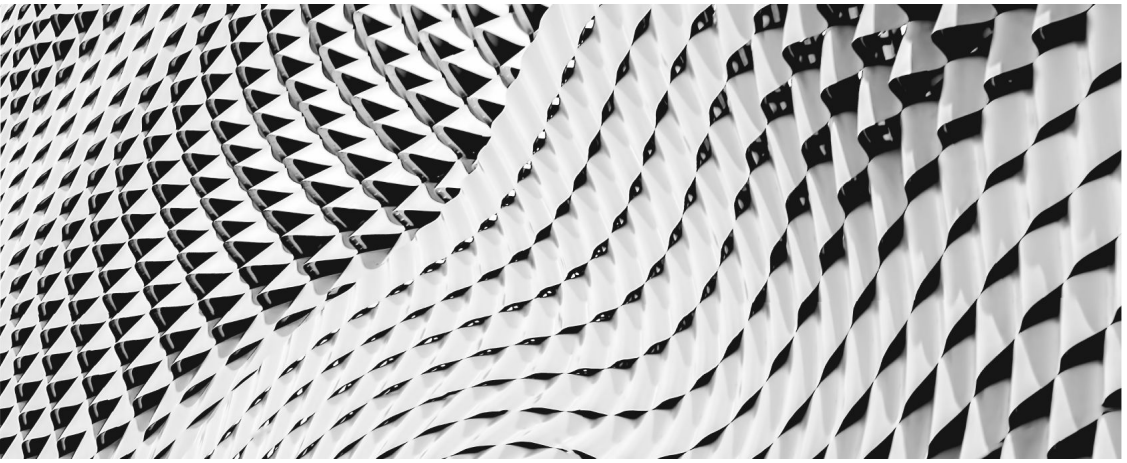
Thy Love YAML and JSON formats as you like your family

Learn how to capture contents using JSONPath and customize YAML files using kustomize.

- Work with JSONPath expressions
- Work with Kustomize to create Overlays.
- Review the DO400 course on Jenkins configuration.

JSONPath: jsonpath.com
Examples of Kustomize: https://github.com/kubernetes-sigs/kustomize/tree/master/examples

Setting expectations - Part 2



This section addresses aspects that are important to leverage Security concerns:

1. Authentication using LDAP
2. Use certificates internally and externally

GitOps: Company behind this concept (https://weave.works)

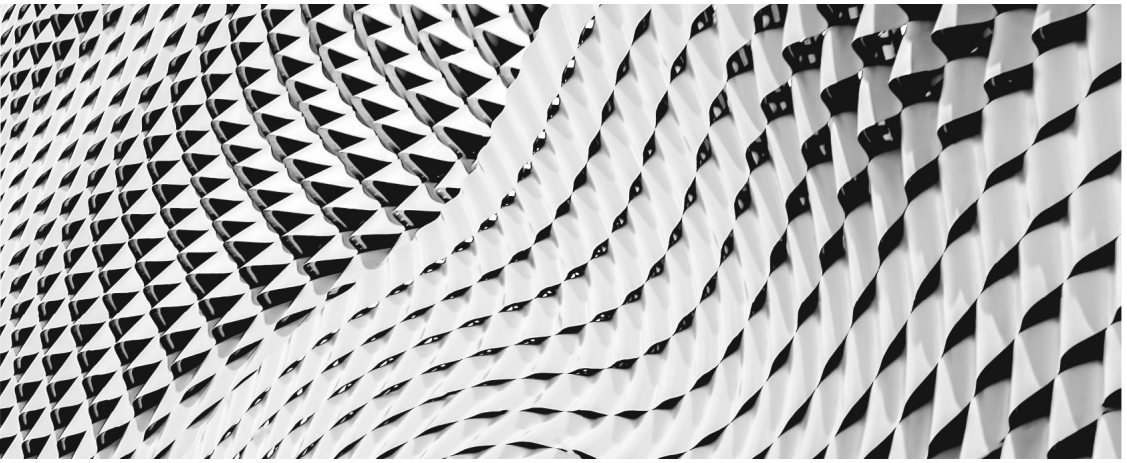
Adding value - part II

Thy be careful with your certificates before committing anything into OpenShift

Students are eager to mess up with the certificates!

- Update their cluster from the utility machine to fix any major issue.
- Worst case scenario: Reset student's environment

Setting expectations - Part 3



This section addresses aspects that are important to leverage infrastructure concerns:

1. Create new worker nodes
2. Customize nodes by using Machine Config Pools
3. Storage concepts

GitOps: Company behind this concept (https://weave.works)

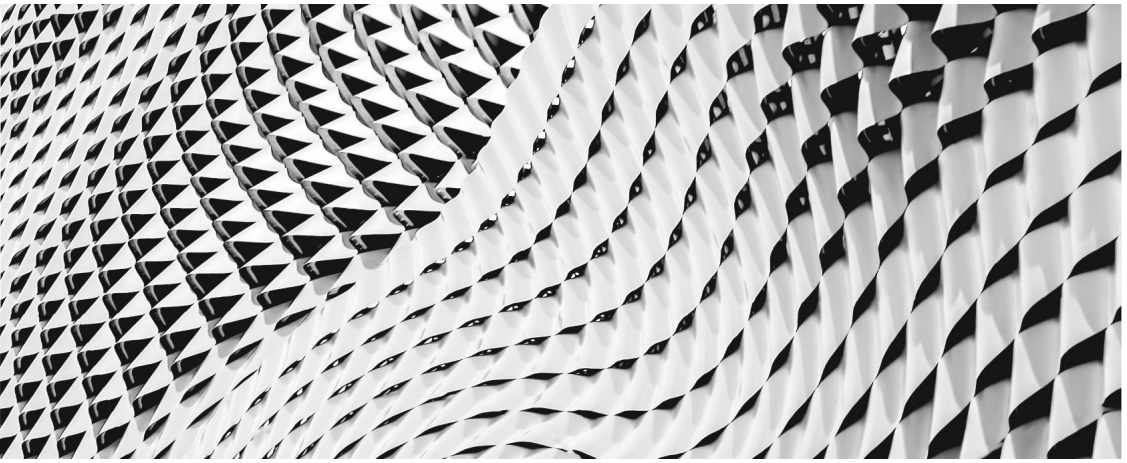
Adding Value - part III

Thy configure your storage using Hardware based storages (such as NetGate)

If you haven't installed OpenShift, go ahead and look at DO326!

- It explains the configuration used in the PXE boot
- NFS storage is already configured and accessible (before starting the GEs, mount it from the workstation)
- Local storage: access the existing worker node using the SSH keys from the utility machine. Run blkid to show the devices.
- Other kinds of storage usually provide their own operators to install them on OpenShift

Setting expectations - Part 4



This section addresses aspects that are important to monitor and identify problems:

1. Configure Prometheus and Grafana
2. Configure ElasticSearch/Fluentd/Kibana

Examples of OpenShift useful metrics: https://github.com/openshift/origin/tree/master/examples/prometheus

Adding Value - part IV

Thy accept that other tools are available

Customers would like to use other tools to monitor and capture logs.

- OpenShift supports multiple operators to support integration with third party tools
- Prometheus architecture can be used to capture metrics and send them over to other tools (Zabbix)
- Logging stack can be customized to support EFK , ELK, and other logging tools)

Adding Value - part IV (addendum)

Thy accept students might not have a clue on the concepts of these tools

Customers are attending DO380 as part of a DO700 delivery

- They are opened to use Prometheus but have no clue on how to use that.
- They want to customize the board in Kibana.

Thank you!

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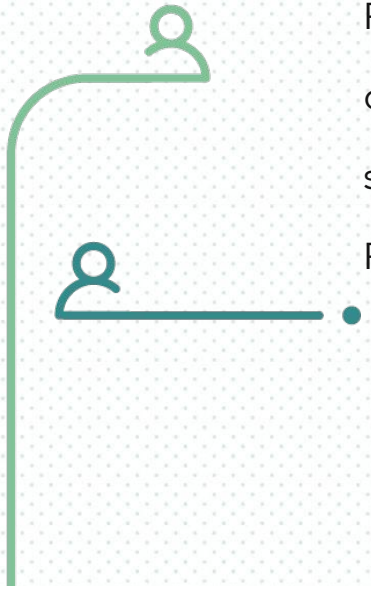

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