Velero Kubernetes backup

CONCEPTS

Velero stores backups as object-store tarballs; the CLI just creates Backup, Restore and Schedule objects the in-cluster server acts on.

velero CLI creates CRs
↓ Backup CR
Velero server deployment in velero ns
↓ upload
Object store BackupStorageLocation
↓ snapshot
Volumes VolumeSnapshotLocation

Backups are namespaced to the velero namespace; use -n <ns> if you installed elsewhere.

A restore never overwrites existing objects by default; they are skipped with a warning.

INSTALL

velero install --provider *<provider>* **--bucket** *<bucket>* **--secret-file** *<file>* **--plugins** *<image>*
Install server components

velero install --no-secret
Install using workload identity

velero install --use-node-agent
Enable file system backup

velero install --default-volumes-to-fs-backup
Use fs backup for all volumes

velero install --dry-run -o yaml
Render install manifests only

velero uninstall
Remove what install created

velero version
Show client and server version

BACKUPS

velero backup create *<name>*
Back up all namespaces

BACKUPS (cont.)

velero backup create *<name>* **--include-namespaces** *<ns>*
Back up chosen namespaces

velero backup create *<name>* **--exclude-namespaces** *<ns>*
Skip namespaces

velero backup create *<name>* **--selector** *<k>*=*<v>*
Back up by label

velero backup create *<name>* **--ttl** *<duration>*
Set retention (default 720h)

velero backup create *<name>* **--wait**
Block until finished

velero backup create *<name>* **--snapshot-volumes=false**
Skip volume snapshots

velero backup create *<name>* **--default-volumes-to-fs-backup**
Copy volume data with fs backup

velero backup create --from-schedule *<schedule>*
Run a schedule's backup now

velero backup create *<name>* **--storage-location** *<bsl>*
Pick a storage location

velero backup get
List backups and status

velero backup describe *<name>* **--details**
Show contents and volume results

velero backup logs *<name>*
Show backup log

velero backup delete *<name>*
Delete backup and its data

RESTORES

velero restore create --from-backup *<name>*
Restore a backup

velero restore create --from-schedule *<schedule>*
Restore latest scheduled backup

velero restore create *<name>* **--from-backup** *<backup>*
Restore with a chosen name

RESTORES (cont.)

velero restore create --from-backup *<name>* **--include-namespaces** *<ns>*
Restore only some namespaces

velero restore create --from-backup *<name>* **--include-resources** *<res>*
Restore only some kinds

velero restore create --from-backup *<name>* **--namespace-mappings** *<old>*:*<new>*
Restore into another namespace

velero restore get
List restores

velero restore describe *<name>* **--details**
Show warnings and errors

velero restore logs *<name>*
Show restore log

SCHEDULES

velero schedule create *<name>* **--schedule="***<cron>***"**
Create a recurring backup

velero schedule create *<name>* **--schedule="@every 6h" --ttl** *<duration>*
Schedule with retention

velero schedule get
List schedules

STORAGE LOCATIONS

velero backup-location get
List locations and phase

HOOKS AND VOLUMES

backup.velero.io/backup-volumes=*<vol1>*,*<vol2>*
Opt a pod's volumes into fs backup

TROUBLESHOOTING

kubectl logs deployment/velero -n velero
Read server logs