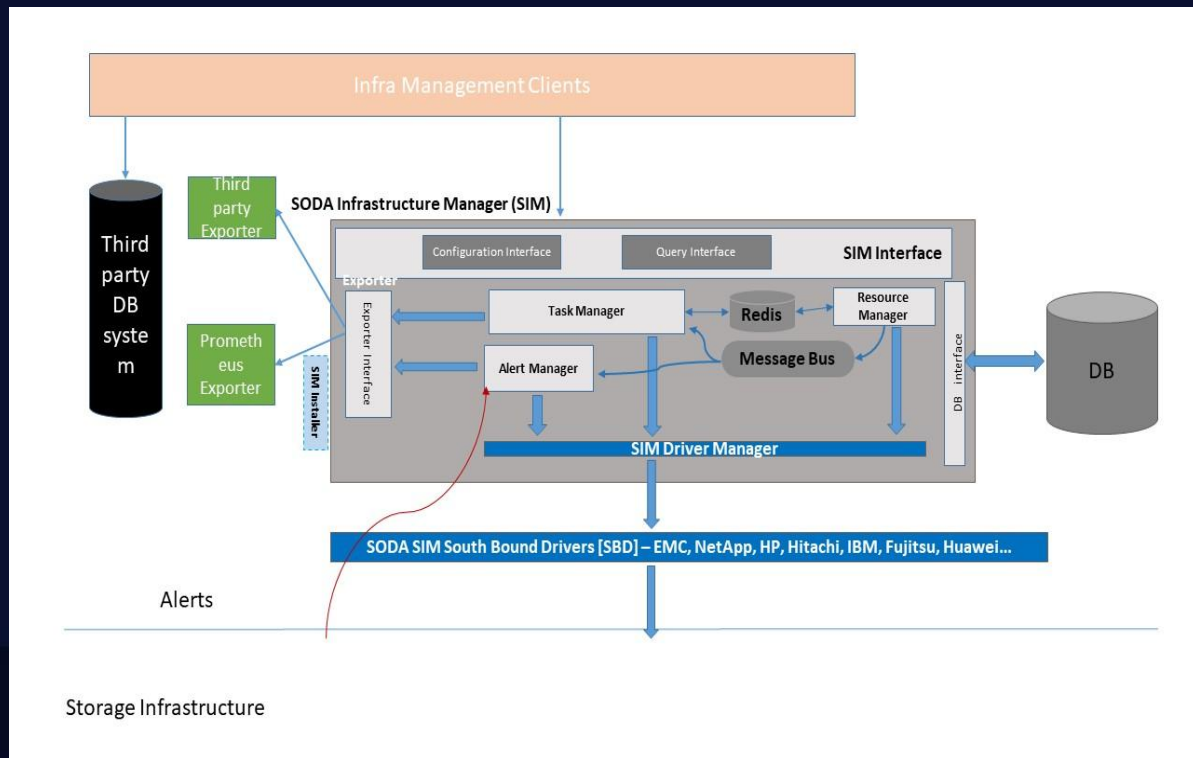


SODA Greenland Demo....

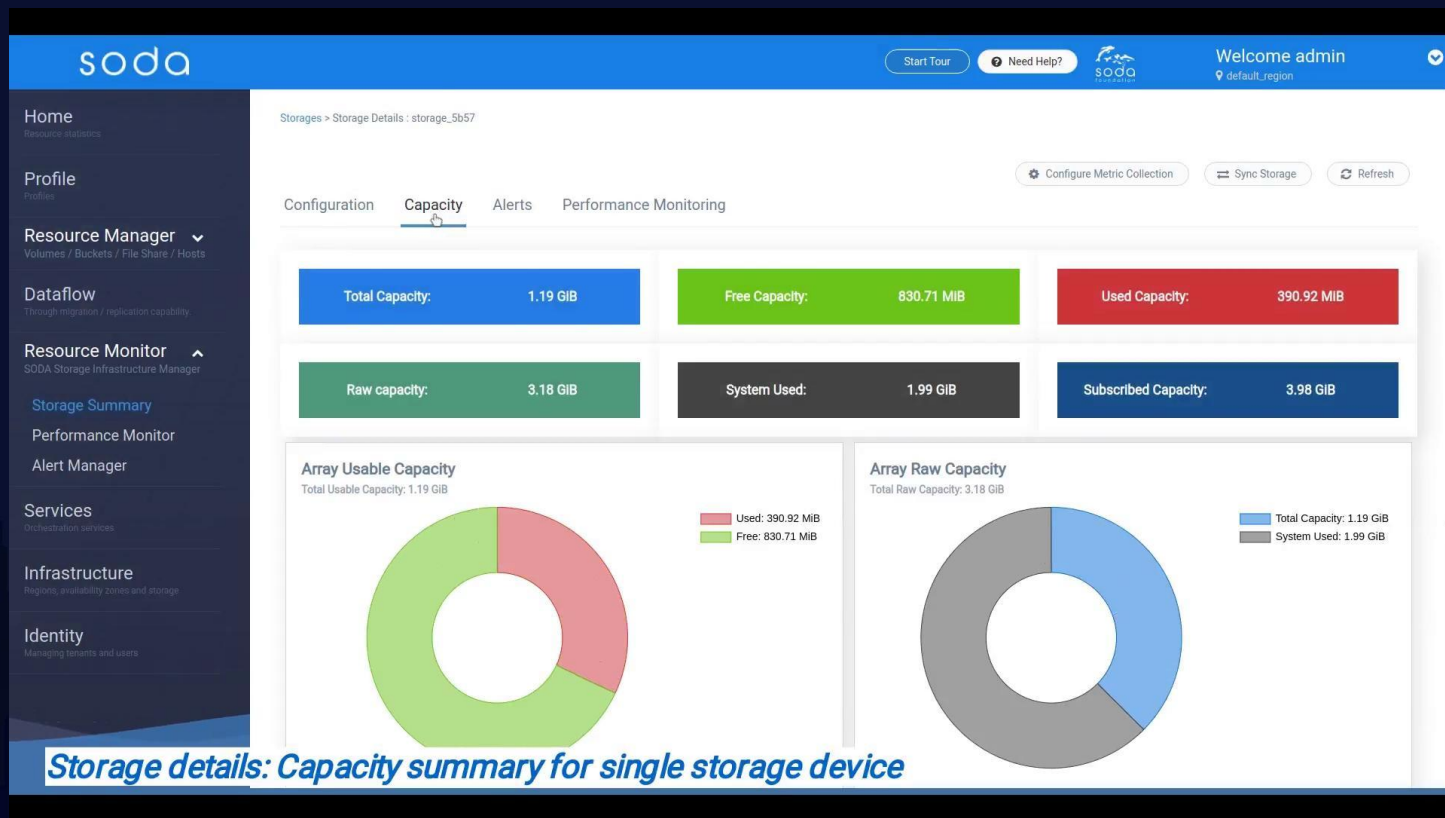
Sushantha Kumar
Mohammad Asif Siddiqui

Heterogeneous Storage Monitoring(Delfin)

- SODA foundation project for unified heterogeneous resource and performance monitoring and alerting
- Drivers to collect data
- Exporters to push data
- A scalable architecture to add drivers and exporters.



Heterogeneous Storage Monitoring



SODA Multicloud: Use Cases

- Freedom to choose most efficient data location
- Enable Policy based Data mobility in-cloud or Cross cloud
- Hybrid Cloud Data Management
- Unified API for multi-cloud

[DEMO] SODA Multicloud

The screenshot displays the SODA Multicloud web interface. The top navigation bar is blue with the 'soda' logo on the left, and 'Start Tour', 'Need Help?', and 'Welcome admin' on the right. A sidebar on the left contains navigation links: Home, Profile, Resource Manager, Buckets, Volumes, Volume Group, File Share, Hosts, Dataflow, Resource Monitor, Services, Infrastructure, and Identity. The main content area has tabs for Bucket, Volume, Volume Group, File Share, and Hosts. A 'Create Bucket' dialog box is open in the center, featuring a 'Name' input field, a 'Default Backend' dropdown, and checkboxes for 'Enable Encryption?' and 'Encryption Type'. The dialog box has 'OK' and 'Cancel' buttons at the bottom.

soda

Start Tour Need Help? Welcome admin default_region

Home
Resource Statistics

Profile
Profiles

Resource Manager
Volumes / Buckets / File Share / Hosts

Buckets

Volumes

Volume Group

File Share

Hosts

Dataflow
Through migration / replication capability

Resource Monitor
SODA Storage Infrastructure Manager

Services
Configuration services

Infrastructure
Regions, availability zones and storage

Identity

Bucket Volume Volume Group File Share Hosts

View and manage Buckets

Create

Name

search

Operation

Create Bucket

* Name :

Default Backend
Objects will be stored by default to the specified backend.

* type : Please select

* Backend : Please select

Enable Encryption? : No

Encryption Type : Please select

OK Cancel

SODA Plugin: Kubernetes CSI

```
root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block#
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block# kubectl get pods
NAME                                READY    STATUS    RESTARTS   AGE
csi-attacher-opensdsplugin-block-0  3/3      Running   0           85s
csi-attacher-opensdsplugin-file-0   3/3      Running   0           85s
csi-nodeplugin-opensdsplugin-block-566zl  2/2      Running   0           85s
csi-nodeplugin-opensdsplugin-file-29s2v  2/2      Running   0           85s
csi-provisioner-opensdsplugin-block-0    2/2      Running   0           85s
csi-provisioner-opensdsplugin-file-0     2/2      Running   0           85s
csi-snapshotter-opensdsplugin-block-0    2/2      Running   0           85s
csi-snapshotter-opensdsplugin-file-0     2/2      Running   0           85s
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block# osdsctl profile list
+-----+-----+-----+-----+
| Id | Name | Description | StorageType |
+-----+-----+-----+-----+
| c6ba12d7-a487-4258-8d92-2555bd37fcde | default_block | default policy | block |
+-----+-----+-----+-----+
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block# ls
CreateVolumeFromSnapshot nginx.yaml pod-with-block-volume.yaml
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block# vi nginx.yaml
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block#
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block# kubectl create -f nginx.yaml
storageclass.storage.k8s.io/csi-sc-opensdsplugin-block created
persistentvolumeclaim/csi-pvc-opensdsplugin-block created
pod/nginx-block created
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block# kubectl get pods
NAME                                READY    STATUS    RESTARTS   AGE
csi-attacher-opensdsplugin-block-0  3/3      Running   0           86s
csi-attacher-opensdsplugin-file-0   3/3      Running   0           86s
csi-nodeplugin-opensdsplugin-block-566zl  2/2      Running   0           86s
csi-nodeplugin-opensdsplugin-file-29s2v  2/2      Running   0           86s
csi-provisioner-opensdsplugin-block-0    2/2      Running   0           86s
csi-provisioner-opensdsplugin-file-0     2/2      Running   0           86s
csi-snapshotter-opensdsplugin-block-0    2/2      Running   0           86s
csi-snapshotter-opensdsplugin-file-0     2/2      Running   0           86s
nginx-block                           0/1      ContainerCreating   0           10s
(project_defln) root@root123-VirtualBox: /opt/opensds-sushi-linux-and64/csi/examples/kubernetes/block#
```