



CephSMB

Opening Windows to the Ceph world

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IBM



- The team
 - IBM / Red Hat
 - Ceph team - SMB service
 - <https://github.com/samba-in-kubernetes>
 - Samba containers
 - Sambacc
 - Samba-build
 - Samba Integration testing



- Ceph
 - Software defined storage platform
 - CephFS - Clustered file system built on Ceph



- SMB
 - Network file sharing protocol primarily used by Microsoft Windows and Mac OS X. Linux client also available.
 - SMB v3.11 is the latest version
 - Samba - open source SMB file server
 - <https://www.samba.org/>



- Ceph SMB manager module
 - Adds new “ceph smb ...” command
 - Calls ceph orchestration to deploy the service



- Orchestration
 - SMB service spec
 - Spins up containers
 - Init containers - runs checks, configuration
 - Sidecar containers
 - smbd - fileserver
 - CTDB - Clustering
 - winbind - id mapping
 - prometheus - Metrics



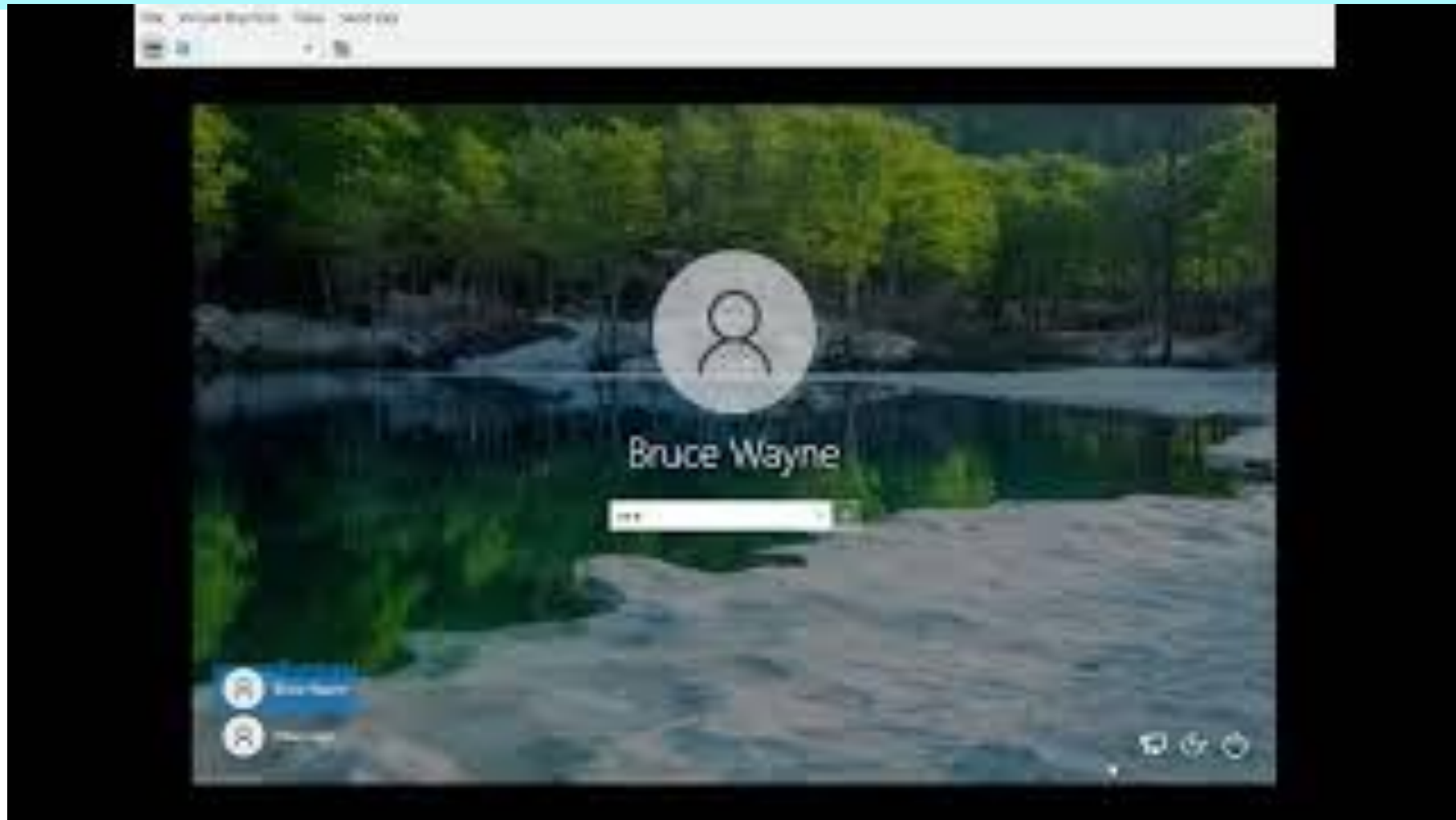
- Available on Tentacle
- Supports User/Group based access control
- Supports Active Directory integration
- Clustering support
- Custom Samba share options
- <https://docs.ceph.com/en/latest/mgr/smb/>



- Imperative commands to create a service
 - `ceph smb cluster create ...`
 - `ceph smb share create ...`
 - `ceph smb share rm ...`



- Declarative resource definitions
 - `ceph smb apply -i definitions.yml`
- Resources
 - cluster
 - share
 - join auth
 - users and groups



<https://youtu.be/fOjGOPsnVXY>

CephFS Features



- Case Sensitivity - Better performance when disabled
- Snapshots

Future plans



- Multiprotocol support - NFS & SMB exports of the same share
- Offline Domain Join

Thank you



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