SINK update - Does it still float?
sambaXP 2023

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Questions!
History

recap

**2020**
- First half:
  - Project prototype started as private projects/repos:
    - samba-operator
    - samba-container
  - sambaXP: introduction of the projects (Michael)
- Second half:
  - John joins
  - sambacc project started
  - SINK org created on github and repos moved there

- First half:
  - Niels joins
  - sambaXP: project update (John and Michael)
  - First external contributions
- Second Half:
  - Sachin joins
  - Anoop joins

- First half:
  - sambaXP: project update (John)
  - First release of container, sambacc, and operator
- Second half:
  - Shachar joins
What happened since sambaXP 2022?

Project update highlights

Maturing the projects:

- Build a community: Attracting more external contributions.
- Code quality and test automation improvements
- New features
- Got rid of technical debt
- Created a release
Maturing the projects - growing a community

Attracting external contributors

Additional external contributions:

- Dec 2022: more external contributions to operator
- Jan 2023: dmulder contributes to sambacc
- Sambacc gets added to opensuse
- Feb/April 2023: container: opensuse based container builds by dmulder.
- Opensuse publishes samba-container images
- A fair number of issues (bugs and feature requests) have been filed from people outside our immediate team
samba-container

- Opensuse as an optional base image
- Explicit choices of Fedora and CentOS as base image (OS_NAME= ...)
- Fedora base now at version 37
- New image: toolbox
- automation/tests/ci:
  - Mergify
  - Gitlint (commit messages)
  - Release v0.2: June 2, 2022
  - WIP: building images for Arm64 architecture.
sambacc

- Code quality: python type annotations
- Build script now supports different base distros
- Config validation with JSON Schema (http://json-schema.org/)
- Added TOML and YAML config file formats
- automation/test/ci:
  - Mergify
  - Gitlint
- Release: v0.2. May 25, 2022
- Continuously built and published RPMs in a COPR
samba-operator

- automation/test/ci
  - Mergify
  - Gitlint
- release v0.2. June 08, 2022
- Grouped shares
- Clustered shares with ctdb
- Improved support for openshift
- Documentation for our Custom Resources (CRs)
Off to new shores...
Introducing SIT - Samba Integration Tests

Introduced at sambaXP 2020/21: https://github.com/gluster/samba-integration

- Build nightly samba rpms for Fedora and centos from Samba master and release branches.
- Stand up a virtual test environment with gluster, samba, and ctdb
- Run select smbtorture tests against the env
- Using gluster’s centosci resources
- Rpms from these builds initially used in SINK samba-container images

Recently:

- Brought the branches as new repos to the SINK org as SIT.
- Using the (new!) sama’s centosci resources
- [WIP] Ceph instead of Gluster as storage backend of the test env.
- Using the rpms from these builds in samba-container(s)
SIT Project Repositories

- [https://github.com/samba-in-kubernetes/samba-build](https://github.com/samba-in-kubernetes/samba-build)
- [https://github.com/samba-in-kubernetes/sit-test-cases](https://github.com/samba-in-kubernetes/sit-test-cases)
Questions?
Demo time!

Time for some Demos
Our demos

With a focus is on using the Samba containers without Kubernetes

Kubernetes may be in the organization name – But we’re more than just that

**Demo 1**
- Showing a file server running under podman with systemd for service management
- This is a basic configuration that makes use of one running container and the most minimal sort of orchestration
- For a little spice - we’ll be using CephFS VFS module for our backing storage
- For full notes, links, feedback, and questions - Go To: TODO[URL]

**Demo 2**
- Showing both an AD Domain Controller and file server running on the same node
- All isolation between the DC and file server happen at the container level
- Using docker-compose for minimal orchestration
- For full notes, links, feedback, and questions - Go To: TODO[URL]
Running a Single Samba Server container instance
* Under podman
* Using systemd
* Exporting a CephFS sub-volume

The current setup:
A previously configured 3 node Ceph cluster (managed with cephadm).

A Fedora VM preinstalled with podman (and quadlet).
I've also preinstalled smbclient locally for quick testing and enabled the firewall to permit smb traffic.
Running an AD DC and A Member File Server on the same host (without dedicated virtual machines)
Using Docker and Docker Compose

Docker Compose will provide a simple "orchestration" system.
We're hosting the containers on a single node running Debian "Bookworm".
Already configured / installed:
  - Packages "docker.io" and "docker-compose"
  - Passwordless sudo access for our demo user
What's Next?

Outlook
What's next?

Short Term Plans

In the next three or so months

- Fully implement ARM64 builds for samba-operator and samba-container
- Create a v0.3 release
- Continue improving our technical and process documentation
- Add continuous testing on OpenShift
- Add custom Samba configuration options support to samba-operator
Longer Term Plans
The rest of 2023 and beyond

- Continue taking feedback from the community and implementing operator, container, and other features
- Including the sambacc package in distribution repositories (Fedora, CentOS, ...)
- Take advantage of Samba features such as:
  - Offline Domain Join (oft planned but always slips away)
  - Configurable xattr for NT ACLs
  - smbconf API
- Continue exploring opportunities for container platform support and integration
- Widen the base of platform integration testing in SIT
- And - we hope - much, much, more...
What's next?

Continued Benefits to the Samba Community

- Testing with unreleased Samba versions:
  - SIT and “nightly” are exercising Samba master and unreleased branches
  - Found and fixed an AD provisioning regression (MR #2991)
How Can this Benefit Samba’s Community?

- Integration into the “Cloud Native” Ecosystem
  - Possibly new users and contributors!
- Easier deployment & declarative configuration
  - New kind of users
- OS distribution agnostic deployments
- Chance for code cleanup and component segregation
Questions!
Questions?
Thank you very much!

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