SAMBA AND FREEIPA
An update on Active Directory integration

May 12th, 2016

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Who are we?

ABOUT US

We are Free and Open Source Software developers working on:
Alexander

→ FreeIPA - A free Directory Service implementation
→ Samba - The domain controller and file server

Andreas

→ Samba - The domain controller and file server
→ libssh - The SSH Library
→ cwrap - Client/Server testing made easy
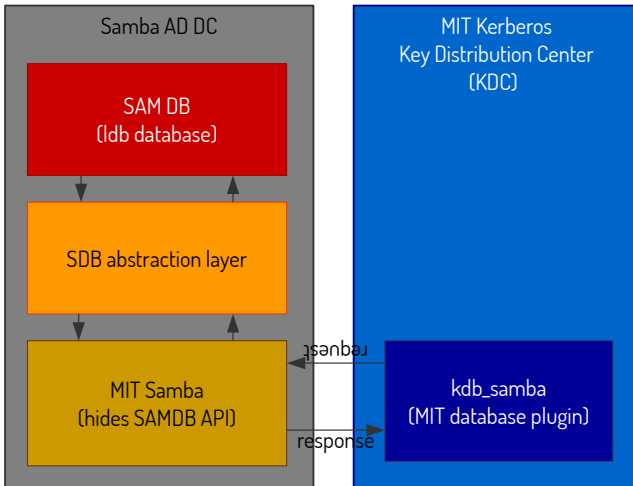→ cmocka - a unit testing framework for C

WHAT IS THIS TALK ABOUT?

SAMBA, FREEIPA AND TRUSTS

→ An update on porting Samba AD DC to MIT Kerberos

→ Talk about cross forest trust between Samba and FreeIPA

→ Demo demo demo demo ...

SAMBA AND IPA DOMAIN CONTROLLERS

SAMBA AD DC

UPDATE SAMBA AD DC WITH MIT KERBEROS

What has been upstreamed?

→ The sdb layer, to convert Samba structures to Heimdal or MIT DB structures.

→ The MIT KDB module

What is this talk about?   Samba and IPA Domain Controllers   Demo and test setup

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UPDATE SAMBA AD DC WITH MIT KERBEROS

What is in the working branch?

- → Code to provision a domain with MIT KDC
- → Code to start and stop the MIT KDC from Samba binaray
- → A lot of fixes in client libraries
- → A lot of tests

What is this talk about?   Samba and IPA Domain Controllers   Demo and test setup

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UPDATE SAMBA AD DC WITH MIT KERBEROS

What is missing to have MIT support?

→ Several KDC related tests (needed to implement features in MIT Kerberos first)

→ S4U2Self and S4U2Proxy

→ Test packages for Fedora:
https://copr.fedoraproject.org/asn/samba_ad_dc

If this is done we can bring everything upstream, but this doesn't mean it is complete.

FREEIPA FOREST TRUST STATE

FreeIPA forest trust support

→ Works against Windows Server 2003 ... Windows Server 2012 R2

→ Stefan Metzemacher added forest trust support to Samba AD as part of Sernet/Red Hat collaboration to allow FreeIPA trust Samba AD

→ External trust to Active Directory domains is scheduled for FreeIPA 4.4

→ Support for UPNs is coming in FreeIPA 4.4 as well

→ FreeIPA forest trust support passes Microsoft test suite (except for non-implemented features like CBAC)

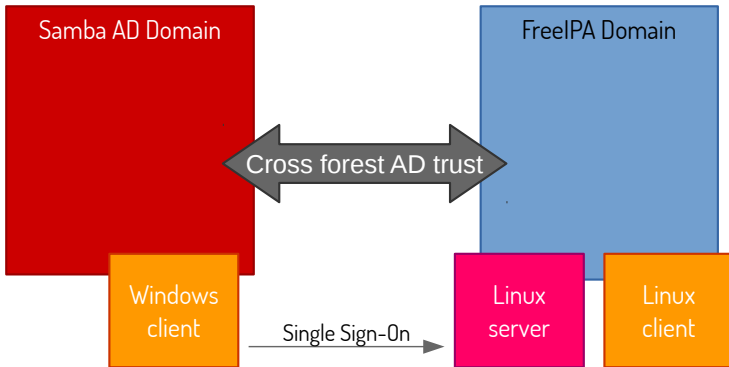There are hundreds of customer deployments against Microsoft Active Directory

FREEIPA DOMAIN CONTROLLER

FreeIPA Domain Controller is unlike Samba AD

→ Windows cannot be joined to FreeIPA

→ No Global Catalog implementation, no way to resolve users and groups against FreeIPA by Windows

→ FreeIPA clients talk to FreeIPA DC when resolving users/groups from trusted forests

→ FreeIPA DC talks to domain controllers from the trusted forests (reduces a load on DCs a lot)

→ Supports Kerberos proxy (MS-KKDCP) and allows to deploy confined setup in DMZ

→ Winbindd and smbd are used to handle RPC traffic, ipasam PASSDB module supports storage of trusted domains information

→ Python bindings to Samba libraries are used on the client/configuration side

DEMO AND TEST SETUP

What is this talk about?   Samba and IPA Domain Controllers   Demo and test setup

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SAMBA AND FREEIPA SETUP

What is this talk about?   Samba and IPA Domain Controllers   Demo and test setup

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LINKS

$\rightarrow$ vagrant lxc smbdc: https://github.com/gladiac/vagrant-boxes

Questions & Answers

If you like this stuff tweet and blog about it!

https://samba.org/
https://freeipa.org/