

Intro

Hi, my name is Martin Hechenberger
and Elrond.

The title of this talk "Samba TNG - We are still alive" was a working title and somewhat a little provocation.

A provocation for some people, that tend to tell us, that we should do this or that or otherwise, we'll die.

Yes, sometime our mailinglists are quite quiet, but this either means, that some of our discussions are happening in private or just there isn't much to discuss.

History

Samba TNG started out as a branch in the normal samba tree, on which mostly Luke Kenneth Casson Leighton worked. As an Example, Winbind was developed in this branch and later on ported to Samba.

At the beginning of 2000, I came to work on TNG more of an accident. I just debugged away some of the nasty memory management issues in TNG which stopped TNG from working on my site.

Due to technical and personal conflicts TNG was stopped completely in the middle of 2000.

The personal factor was quite dominating, I don't want to bore you with the details and on the other side, you will hear quite different stories depending on whom you listen to.

So we finally decided to give up on TNG, there seemed no point in continuing. It seemed, that noone listened to our ideas, etc.

People nevertheless asked us to continue and offered resources for hosting a new project, etc. After some discussions, we decided to try this and thus the fork happened.

Status

- Officially beta.
- Yet used in production in many important places.

Goals

- A lot nicer and more modular code
Peter's buffer overflow fix
- Using more external code, so others need to maintain it.
 - + libtool, cygwin (shipped)
 - + openldap, glib (not shipped)No need to reinvent the wheel

- Nice and standard conforming ldap integration

Feelings

We (I) sometimes feel like the unsupported research labs of the other place.
That is, we research things (like the Privileges in usrmgr), then the other place is getting our results and reimplements the whole code (since they can't trust any external code).
And we don't get anything back.
Of course, we can look at their code, but there's a man power problem: We're about two people working on TNG in our spare time, not getting paid for anything in this area.

Plans for the future

- Full PDC/BDC is somewhere on my list.
- Short time goal is to get a whole load of things committed out of my local trees, which I have kept back to make 0.3 possible. ;)
- Maybe get opendce used somewhat.

Problems

- Sponsors: Mostly "hosting"
 - No one working full time (see printing stuff)
 - My personal hardware
- > Cooperation/the other place

Cooperation / the other place

- As with the last security thingy.
- "We do not care"
- We had the impression, that none of the normal maintainers tried to listen to our ideas.
Some of our ideas are quite drastic. And might not be clever in a performance point of view somewhat, but usually we try these ideas in points, that are not performance relevant.
Some of our ideas even got us into some security issues. But we learned a lot about this stuff by this.
Most of our ideas give us a lot cleaner code.
Some of our ideas mean, that we have to think a lot more about how to solve other problems.
Partly problems that a much simpler design would solve easily. But in most cases, we consider those simple solutions quite ugly.

Integrating samba classic and Samba TNG

1) Merging from the other place

Some people ask us, why we can't "just" get the fileserving or printing code copied over from the other place.

This is mostly a time/work problem.

Just as an example: Just for the fun of it, I tried to merge over the 2.2.x msdfs code from the other place. I used 2.2.x, since that code still is nearer and more compatible to our code than the 3.x code.

This effort took about one full day. Reviewing most changes (I did not even review all the really new code, which I really should have done, to make sure it does not contain any new buffer overflows...). Doing this for something as complex as the printing stuff, would just take up all of our precious time. Time that we're not getting paid, time that eats our spare time.

- 2) Making TNG as an extension to the other place
Some people suggest, that we try to make TNG into extension modules for samba classic.

First I have to note, that in a short time frame in 2000, this was possible. The normal cvs branch of samba classic had hooks in it to allow it to talk to the Samba TNG msrpc daemons. I have never tried it, but I assume, it worked somewhat.

This code was later ripped off for some reason.

So much for the real world attempts in this direction.

Andrew Bartlet and I talked about this at thias and the last samba xp some time and about two months ago on irc. We mainly got to the following conclusions:

- + This is probably only a setup for developers, because it's too hard to really get installed by end users.
- + We currently have quite different module boundaries. Probably everybody says, that their module boundaries are better than the other ones. The main problem persists, that these boundaries are quite different. We have some boundaries in places, that are alike to the boundaries in the other place, but either they're not much used by "real modules", instead they're used by the default hooks (vfs), or we're the only ones to provide modules for this alike boundary (passdb/pdb/samdb).
- + Providing glue modules for the other place, so they can talk to our modules. Well, this was suggested many times. And from the first glance, this seems to be a nice idea.
But the problems are in the second glance:
Let's say, we provide the spoolssd and let the other place's smbd use it for the spoolss pipe (NT Printing). For NT clients this would work quite nicely. But if any win95 client prints against this setup, it will use the printing inside smbd, and thus will use the other place's printing facilities.
Users/authentication have an alike problem, it mainly means: If you have one of the user/auth daemons of TNG plugged in, you should plug in all of them.
- + Solving these problems (printing as noted above as an example) means, that we need to agree on some interoperation APIs.
From our current point of view this looks like we have to stick to the APIs, that the other place might kindly provide to use, no matter if we like

them or not. And since those APIs tend to change in the other place between major releases (I assume, 2.x and 3.x have different vfs APIs), we have the problem of a moving target.

3) Dualing

Dualing means, that you install Samba TNG as a PDC only (and the netlogon share), and use classic samba for the normal fileserving and printing, by making it a domain member.

This is the only way, that we currently know of and that we recommend, if you want the good sides of both places.

There are two ways of doing it:

- + Either run both on different boxes and let them talk over the normal network. In most cases, you either will use some method (ldap/nis) so both boxes have the same notion of unix users.
Or if you have a box, that winbind supports, you might use winbind to let the fileserving box automagically create the needed unix users for the windows users it sees from the PDC
- + Or run them on the same box.
You use two IPs and two different (netbios) names for this setup.
In this case you don't have the unix user problem. We haven't yet had the time or resources to actually test this, but from most reports the major only problem seems to be nmbd, where it seems that you can't run both (the classic and the tng one) at the same time, since it wants to bind to 0.0.0.0.