Migrating 515 AD servers to Samba

In a galaxy NOT far far away!

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* All StarWars images are sourced at www.StarWars.com
Regions
Digital Transformation

Ankara
İstanbul
Sofya
Doha
Starting Project
April 2013
Analysing and design

R&D Phase
June 2013 - February 2014
Developing required OS modules and some device drivers which is required for production

First Flight
February 2014
Release Candidate version has been installed on two tax office

Production Release
January 2015
Production release has been published and mass installation started to country wide

Central Information System
March 2015
CIS go live to keep tracks of every installed Gibux release

Fully Operational
January 2018
Finished deployments in country wide
Project Requirements

Forest Structure
Need to support hybrid structure with Microsoft AD, work as a part of forest.

ACL Support
Every user must have his/her private and public directory to keep files safe and share if necessary.

Local DNS Support
Every site must have a local DNS infrastructure to use local resources.

DHCP & TFTP Support
Every Samba server must support DHCP and TFTP to handle Gibux machines and PXE installation.

Easy Management
Site technicians must take care of local user requirements.

Automated Migration
Current data on Microsoft AD must be easily migrated by local technicians.

“Do or do not, there is no try.”
Master Yoda
Manage SLA

1. Need local web based management services like Samba, BindDNS, TFTP, SaltStack

2. Central Management for all servers

Central Management for all servers

Max 15 min

Every server must complete the replication in 15 minutes. NTDS management must be managed centrally.

SLA

Max 15 min.

In working hours there is no tolerance of failure. If any problem occurs you have to respond in 15 minutes. Transactions must continue and problem has to be solved in 1 hour.

“Never tell me the odds.” - Han Solo
Migration Steps

"In my experience there is no such thing as luck." – Obi-Wan Kenobi

**Prepare base**
SUSE installed HW

**Go to location and install** new hardware

**Install Rsync** on Windows,
Export DHCP configuration to IIS dir

**TAX OFFICE**

**AVERAGE INSTALL CYCLE**
03:00
AVG. TIME HOURS

**AVG. TIME**
02:00
AVG. TIME HOURS

**DHCP**
Download exported DHCP records and import it to isc-dhcpd

**DNS**
Preparing local DNS servers with Bind according to site data

**TFTP**
Getting TFTP and configure local settings

**Join DC**
Join AD and replicate initial data.

- Samba 4.10.6
- Do not update NS (required patch)

**ACL**
Set Private and Public share ACLs
What if a **problem** occurs or **replication** breaks

“Your eyes can deceive you. Don’t trust them.” – Obi-Wan Kenobi

**What happens if local DC did not respond?**

Local DC can have some replication problems because of several issues. In that case DNS logon servers points back to other alive server and everything continues to work.
What is **check-list** before join

“Somebody has to save our skins.” – Leia Organa

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**Network**

**Check latency on WAN**

If you will open your network on WAN, latency is very important. You need to arrange kernel parameters and NTDS.

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**DNS**

**Old DNS records are pain**

DNS is very important part of Directory Server. Old datas, removed zones cause resolution problems which also triggers replication problems.

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**Metadata**

**Old objects, huge problems**

Uncleaned metadata objects cause replication problems. If you need to use an IP which used by demoted server you must clean metadata.
SambaBOX
Web Based inspired from Gibux
Build for ALL all you need for DS + samba, dns, ntp, dhcp, saltstack
Community version is on the way
### SambaBOX

Web Based inspired from Gibux
Build for ALL

all you need for DS +
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Community version is on the way

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<thead>
<tr>
<th>ZONE</th>
<th>HOST</th>
<th>TTL</th>
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SambaBOX

Web Based inspired from Gibux
Build for ALL
all you need for DS + samba, dns, ntp, dhcp, saltstack
Community version is on the way
“Time exists in order that everything doesn’t happen all at once... and space exists so that it doesn’t all happen to you.”

Susan Sontag

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<tr>
<td><strong>Read wiki:</strong> wiki.samba.org</td>
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<td><strong>Mail Lists</strong></td>
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<td><strong>samba.org/samba/docs</strong></td>
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<td><strong>bugzilla.samba.org</strong></td>
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<td><strong>gitlab.com/samba-team/samba/</strong></td>
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HUGE thank you! to SAMBA TEAM

May the force be with you!

https://www.samba.org/samba/team/
Question

Thank you

SambaXP 2020

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