

A single computer network for the 21 OPAEF offices with Zentyal

In 2009, the Provincial Agency for Economic and Fiscal Assistance in the County Council of Seville (OPAEF) set the goal of unifying the network management of its 21 different offices. The deployment of Zentyal's server architecture achieved that objective, reducing the amount of time required to manage the network and removing all the software license costs altogether.

The challenge

In 2009 the OPAEF, with 21 offices throughout the Seville province, decided to seek a solution that would allow them to manage computer networks and users of all the different offices in a unified and easy way, at lower license costs, with higher quality of service and without having to invest in new computer equipment.

After a comprehensive market study and evaluating several options, OPAEF opted to implement a solution based on Zentyal - Linux server specially developed to manage SMB and similar corporate networks - that met all the needs of the Agency.

The solution

The deployment architecture was based on a masterslave model, that was included in Zentyal since the version 1.3. Initially, Zentyal was installed on a virtual machine in the data center of the County Council of Seville. This server was configured in master mode. The master server was configured with the module to manage users and groups to configure the LDAP directory and the basic system modules for configuring the network and the firewall.

In the next phase, Zentyal was installed in each of the 21 geographically dispersed offices of OPAEF on common hardware in slave mode. In addition, the computers working in slave mode were configured with a Samba-based file sharing module and another, printer sharing module.

These modules allow Zentyal to work as a primary domain controller (PDC) and file server. Thus, client machines of each office can authenticate against Zentyal and

access the shared directories. Furthermore, logon script was added, allowing to establish corporate policies on client desktops, such as configuration of desktop background or proxy settings or to define user groups that can connect USB drives to the computers. The system also includes a feature that enables the use of roaming profiles in Windows client machines. Roaming profile allows a user with a computer to log on to any computer on the same network, maintaining his/her desktop and configuration. Additionally, configuration of shared resources, including creation of users and groups and definition of their access permissions, can be done through the Zentyal user interface.

The master-slave architecture used allows centralized management of the user and group directory from the master server. The master server directory is replicated to all slave machines using OpenLDAP synchronization protocol.

This type of configuration makes the directory service fault tolerant, meaning that in case of loss of connectivity between the offices and the central server, the slave machines will continue functioning normally as they have a replica of the master server. In this way, the client machines can continue authenticating against the primary domain controller and once the connection is recovered, the slaves are synchronized if there are changes in the master directory.

The solution

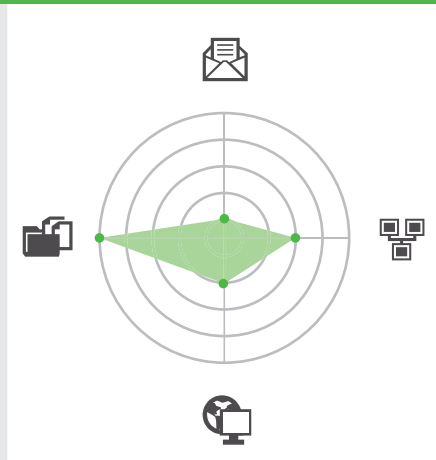
Currently the solution chosen by the OPAEF allows to connect the 21 offices at different geographic locations to a single computer network where the network administrators carry out centralized management of users (based on LDAP,

" This solution has allowed OPAEF to reduce significantly the time and costs required to manage network services of their offices. As the chosen technology solution is open source, we have removed all the software licensing costs. "

Juan José Domínguez Calvo

System Analyst, INPRO, County Council of Seville

Technical specifications



Communication server



Office server



Network



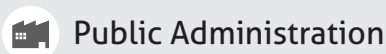
Gateway & UTM



Servers in the system



Sector



Technical support level



master-slave), data backups and printers, all due to Zentyal acting as PDC in the Windows network.

Likewise, each network user has their roaming profile, that allows them to log on with their user name and password to any computer on the same network, always maintaining their own local information and configuration. This implementation has not only allowed OPAEF to significantly reduce the time and costs to manage network services of their offices, but they have also completely cut out the software licensing costs as the chosen technology solution is open source, meaning they don't have to purchase any licenses.

Moreover, quality of the service delivered to the end users has improved significantly and OPAEF is less dependent of the service provider as INPRO, the entity created by the County Council of Seville to provide IT services to the Provincial and City Councils, is free to manage the solution.

It is worth noting that as the developer of Zentyal is Spanish, OPAEF could have manufacturer's direct support throughout the implementation process and later, receive certified training and maintenance support.

About OPAEF

The purpose of the Provincial Agency for Economic and Fiscal Assistance in the County Council of Seville (Organismo Provincial de Asistencia Económica y Fiscal, OPAEF, de la Diputación de Sevilla) is to manage, inspect and collect public funds on behalf of Local Entities that have delegated OPAEF such powers and to collect public funds entrusted by the Autonomous Community of Andalusia.

About Zentyal

Zentyal designs and develops IT solutions for small and medium businesses since 2004. The company provides SMBs and their local IT providers all-in-one IT solutions that are easy to use, from the server to the cloud. Zentyal-based solutions allow to reduce and rationalize IT investments, improve the security and minimize system downtime.

