

# Open Source Client-Management-System opsi



For Windows and Linux clients based on Linux servers

## Concept Open Source

Automated and non interactive software installation is in large PC-networks an important tool for standardization, maintainability and cost saving. Using such components in the most cases is accompanied by license fees.

The cost of this system administration may be reduced using an open source tool like opsi. All core components of opsi are open source software (AGPLv3 licensed). Opsi has been open source since the very beginning, more than ten years ago. Additionally, commercial support is available. Based on a long term support experience, uib gmbh as the developer and maintainer of opsi, offers a variety of support models (<https://uib.de/en/support-training/support/>). Additionally free support is available, through an active community of opsi users (<https://forum.opsi.org>).

## Software Deployment

In order to deploy software, you just need the **opsi-client-agent** service to be installed on a client PC (Windows 7 / 8.1 / 10 and Server 2008 R2 – 2016 as well as many Linux-Clients). Even this can be done remotely. After that, the PC is integrated in the **opsi system**, and can be managed from the administrators console resp. each web browser in the local network.

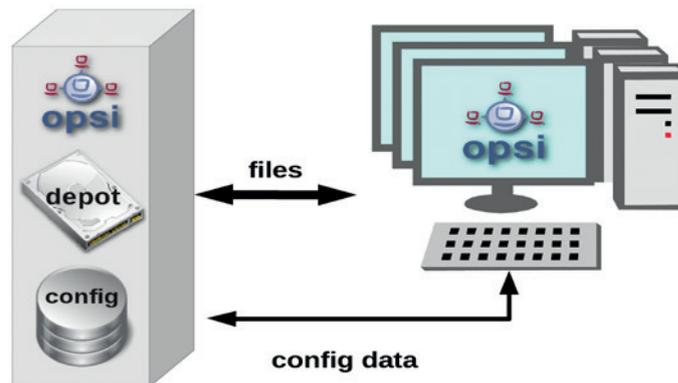


Figure 1: Using the automated software deployment. The opsi-client-agent gets configuration data and software packages from the opsi server.

### Without any user interaction at the local PC it is possible to

- deploy standard software packages,
- adapt them to your organizational needs,
- update installed software packages,
- deliver service packs or security patches.

### The opsi-client-agent

- becomes a part of the Windows login process and starts as a system service,
- connects to a pre-configured SMB share in the network and obtains the configuration data via a web service (encrypted),
- initiates and executes the required installation processes on the workstation,
- documents back any changed configuration data as well as failure reports,

- and finally, when everything is complete, enables the user login.
- Installations may also be ‚pushed‘ by the server while the user is working.

### The opsi-script

If an action request is initiated by the opsi-client-agent, the script driven installation program opsi-script starts.

The required scripts and software packages are stored on a shared resource. During the installation there is no need and no possibility for the user to manipulate the installation process.

The opsi-script program supports different ways of automated software installation:

- „Silent“ or „unattended“ setup: Existing setup programs from the original software manufacturer can be executed within an opsi script in ‚silent‘ or ‚unattended‘ mode.
- Microsoft Installer based setup: (customized) MSI-packages will

be invoked by the installer service.

- Automated installation with the original setup program and prerecorded answers (using for example free tools like AutoIT)
- Completely script based setup: The opsi-script program manages all installation tasks directly via script. Usually that is something similar to file installation on the local file system and patching the registry.
- On Linux systems the management of repositories and installations can also be performed, meaning software and system specific configuration.

## OS Installation

An operating system installation starts with a PXE boot.

A Linux based boot image is loaded via network.

This boot image loads a product specific script and collects client specific information in order to prepare e.g. an unattended operating system installation.

In case that Windows is to be installed on the client, the script prepares the local partitions and copies installation and configuration files to the local disk as required for a local Windows setup.

Furthermore it patches the configuration file, so the Windows setup proceeds unattended. Even the installation of additional driver files is automated, if the required files exist in a prefilled driver repository. As a result, a Windows PC can be installed in a completely automated way.

opsi focuses an unattended setup process for Windows (since this is the easiest way of installations for heterogeneous hardware), but opsi provides as well a netboot product for an image based Windows installation, which may be used to backup special installations for example.

The Linux installation works in a similar way using the distribution specific installer.

## opsi Management Interface

For the daily work there are comfortable tools which reduce the administration work to a few mouse clicks.

The central management interface is the **opsi-configuration-editor**. It exists as a stand alone java app, but also as a webstart app, which can be called from anywhere in the network. It provides:

- a comprehensive centralized client management, even for distributed locations,
- selection of multiple clients and a combined configuration for selected clients,
- free definition of client groups, group membership being one criterion for client selections,
- an easy to use filter mechanism for clients e.g. by installed software version or hardware conditions.

## Transparent, Flexible Data Backends

The opsi-configuration-editor and all other components communicate via HTTPS with the opsi web service.

The web service retrieves data, and writes data back to specified backends. Which backends are used is completely transparent for the other opsi components. The available data backends are property file based or MySQL based.

System administrators acknowledge the completely open architecture of the opsi system: Everything can be boiled down to the most elementary configuration items.

## Hard- and Software Inventory

The opsi management interface comprises a detailed hard- and software inventory for each client. There are opsi products for client data collection to fill the inventories, so they can be used for planning and support tasks. This data may be used also by other products like for example a CMDB.

## opsi Extensions

Beyond the current features, the free opsi components are in a continuous development process, to respond to new challenges of the software installation requirements.

Nevertheless the development of new opsi modules is expensive. So uib created a co-funding process as an instrument to finance the open source development. This means, that particular extensions are only available for those customers who pay a contribution to the development costs. As soon as the costs of development of a co-funding project as well as the maintenance of the free opsi component are refinanced, the component will be part of the free opsi-distribution.

**If you want to test the restricted modules, please contact [info@uib.de](mailto:info@uib.de) and ask for a temporary activation file for evaluation.**

### TESTING OPSI

Download the opsi Virtual Appliance and verify the extreme usefulness of opsi! It's as easy as:

(<https://www.opsi.org/en/download/downloading-opsi>)

1. Get the opsi 'Getting Started' manual and follow the detailed instructions e.g. for updating the VM and create your own test clients.
2. Download the current version of the opsi server as a virtual machine.
3. For questions during the evaluation of opsi you can find help in the community forum (<https://forum.opsi.org>).
4. Enjoy.