

# Automating Administration



**The modern IT industry is developing at breakneck speed. While there were decades between Konrad Zuse's Z1 and the introduction of the first usable PCs, innovations are now occurring on an almost monthly basis. As the performance and diversity of systems increases, so too do the system administration requirements – and IT department resources are struggling to keep pace.**

Without tools to support them, IT administrators would find the ever increasing innovation cycles almost insurmountable. Client management solutions support the automation of routine jobs, provide greater transparency, save time and allow IT departments to remain in control of the systems in their company's network.

## **Client Management: Distributing Operating Systems & Software**

Instead of going through a manual setup process or running a script, operating systems can now be installed on new PCs at the touch of mouse. Hard drive formatting and partitioning, and selection of the required drivers are all completed automatically.

Intelligent solutions use the native installation method of the OS manufacturer, ensuring that they are covered by the full warranty. Thanks to wake-on LAN and the automated detection of new PCs, it is even possible for PCs to be installed overnight.

Software can also be distributed automatically. This is usually done by defining a standard configuration for a profile and transferring this to the applicable target system(s) by mouse click, with all the necessary reboot activities also completed automatically. Use of the original setup method also ensures a higher installation quality. At any time, the administrator may receive messages regarding the installation status and any errors that have occurred.

## **Intelligent Automation: Scheduling & Self-Service**

Specific administration jobs can be scheduled in a targeted manner on individual PCs and groups of PCs at specific times; for example, within the maintenance windows agreed with different departments. The management software uses integrated licence management to install the licence keys for new client software automatically and issues a warning if a predefined threshold of available licences is not met.

A convenient option for administrators and users is the provision of ready-to-install jobs at a self-service kiosk. This allows standard requests, such as the installation of Firefox for example, to be installed quickly and easily on an on demand basis. Support requirements are also reduced because the jobs run automatically when accessed.

## **Up To Date At All Times: Automating Updates & Backups, Protecting Data**

To ensure a high level of security, the various applications used in a company have to be kept up to date with all the latest patches. Operating system patches also require swift installation. Manually checking and importing this many updates would be virtually impossible. The automation solution is a big help here: by listing the available patches, the administrator can then choose to distribute these to the required systems automatically or interactively.

However, the role of IT administration is also to back up data and ensure its security. Automated backups are therefore essential. These allow data and user settings, including the Word dictionary and desktop icons, to be restored at the touch of a button, if required.

## **Keeping Track: Inventory Management & Licence Cost Optimisation**

Automated inventory maintenance provides a swift and precise way to keep track of all the hardware and software that is currently in use at a company. In addition to providing an up-to-date record for the purposes of management reporting, it also enables the detection of potentially unwanted applications, which can then be uninstalled via the central administration solution.

While an inventory provides a current snapshot of the software that is present, the automation software is also able to keep track of usage by logging each time the application is launched on the client. The benefit of this is that it is able to identify which applications have never been used on certain PCs within a particular period, which helps to save on licence costs.

## **Protecting Privacy: Compliance With Data Protection Requirements**

Since client management systems have access to a wide range of user data that would potentially allow for user behaviour to be monitored, strict adherence to data protection regulations – either through stringent permissions management or the aggregated presentation and saving of data – is essential.

Ideally, data privacy should be integral to the design of the solution. Companies based in the United States additionally have to comply with the requirements of the Patriot Act and may have to grant the US authorities access to their systems and data.

## **Keeping Pace With New Developments: Migration Automation**

Migrations present a major challenge that, given Microsoft's rapid release strategy, companies will have to face with increasing regularity. For example, the end of support for Windows XP is imminent with no further security patches provided for this widespread operating system from April 2014.

Client management solutions help to support a smooth migration to new systems: the hardware and software inventory is used by the administrator to identify future compatibility issues and take action accordingly. An automatic backup of data and settings is then performed and the new version is rolled out. Finally, the required applications are installed and the user settings restored.

## **Employees On The Go: Managing Mobile Devices**

Smartphones and tablets have become accepted tools in the workplace. These devices also require successful administration. Unfortunately, administration solutions for PCs are not able to manage the operating systems of mobile devices.

There are a great many different devices and OS versions on the market. Companies are also seeing an increase in the number of private devices being used on work premises (bring your own device). Moreover, the risk of losing one of these small mobile devices, together with all the company information and permissions stored on it, is significantly higher than with laptops.

With automated mobile device management (MDM), it is possible to perform an inventory of the hardware and software used and to distribute apps, settings and profiles to the different devices. For example, the user may be forced to use password protection on the device, jailbreaks and roots would be detected and a compliance check would show which devices were compliant with the company policies and which were not.

Automated countermeasures could also be taken as part of this – from withdrawing access to the company network to completely deleting a device remotely.

MDM solutions are available as standalone software or an integrated component of client management suites. The former tend to offer a broader range of services, although integrated solutions are more future proof as they support all prevalent form factors and adapt more readily to the increasing number of device classes.

## **Selecting An Automation Solution**

Selecting a client management solution is a strategic decision. All the solutions under consideration should be subjected to a period of thorough testing prior to making the final decision.

In addition to the features, the following questions should be addressed during the test period: Is the product an integrated whole – or a group of OEM solutions that do not even access the same database? What support services does the manufacturer offer? Does the manufacturer offer any assurances in respect of further developments of the solution? Are there any user references? How long will it take to roll out the solution? The purpose of automation is to reduce workload, not increase it.



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