



## Software License Compliance and Management with Binadox Suite

# White Paper

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# Introduction

Binadox software is a lightweight and cost effective software license compliance and assets management system. Binadox provides continuous, automated monitoring and control of organizational software assets and corresponding license terms (i.e. EULA and TOS) to IT, software licensing and legal teams. Binadox differentiates from other products by its ability to capture, analyze and manage specific legal terms of software license agreements.

## Benefits of automated monitoring and managing of EULAs

Organizations and businesses employees agree to End User License Agreements (EULAs) when they install software and to Terms of Services (TOS) when they subscribe to cloud services (SaaS). There are certain benefits in automation when monitoring the accepted EULAs and TOS. Automation:

- Improves completeness of software licensing compliance. Users do not need to delve into the terms of legally binding agreements (such as EULAs or TOS) when installing software or subscribing to cloud services. Users also do not have to manage licenses manually or send them to the software licensing / IT expert or legal counsel (licensing expert) for a review. Binadox does that automatically and in real time.
- Reduces the cost of licensing experts by saving the time for obtaining the corresponding EULA and TOS texts for each existing or new installation or cloud subscription in the organization. Automation eliminates the need to actively detect new installations, including installations without licenses, and cloud subscriptions. Binadox also saves time and efforts if there is a need to visit the vendor's home page or contact vendor's representatives to obtain a license for compliance verification by intercepting EULAs and TOS.
- Reduces the time to actually review license terms. Many software installations occur more than once in the organization, and sometimes in a silent or stealth mode which is often missed by the user. The licensing expert no longer needs to read a license of every new installation when leveraging Binadox, especially if the license agreement has been read and handled before.
- In addition, Binadox eliminates the necessity to review the whole license agreement again, if agreements are not identical and there is some degree of contextual similarity between them (and even more so in case of a license update). The licensing expert can save time and concentrate only on the parts that differ.

The purpose of this document is to shed light on the Binadox solution to understand and evaluate those benefits better.

# The Agent - software and hardware real-time assets collector

To receive extensive information in real time from an end user machine, the Binadox solution features the Binadox Agent.

The Agent can be deployed on any supported Windows-based end user hosts (such as laptops or desktops) as a lightweight service with administrative privileges. The Agent does not have a user interface and does not interfere with the user's work. It runs silently at the background and consumes almost no resources.

The Agent constantly monitors the host for any software installation changes, such as new installations of a single or bundled software product and its license agreement terms, or removal of the existing software. The Agent captures all that information and updates the Binadox Server in real time.

In addition, the Agent running on each device collects specifications of existing software, hardware and operating system environmental assets. Those specifications include CPU, HDD, Memory, MAC addresses, host identification (whether it's a physical machine or a virtual host), IP addresses, users. It also includes currently installed software information such as name, version, vendor, publisher, etc. All that information is reported back to the Binadox Server (which is discussed later).

Many of the existing software installation processes present a dialog with click-through license agreement terms, which the user has to accept. Usually the user accepts the click-through license agreement by selecting a presented checkbox which is required for proceeding with the installation. The Binadox Agent captures the actual license agreement. If the installation process completes successfully, the Binadox Agent sends the license agreement and the newly installed software details to the Binadox Server.

Even if no dialog with a click-through license is presented to the user during installation, the respective software still has a license agreement which should be reviewed. The license agreement can be located either as a physical file inside of the installation folder or on the vendor's site. In those cases, the Binadox Server and the Licenses DB search for the license agreement by cross referencing program names (for more details, see the Binadox Server section).

The Agent constantly sends "keep alive" messages so that the Binadox Server could track when the Agent was last seen. This enables the IT team to monitor host connection problems or the Binadox Agent deactivation and take measures.

## Updates

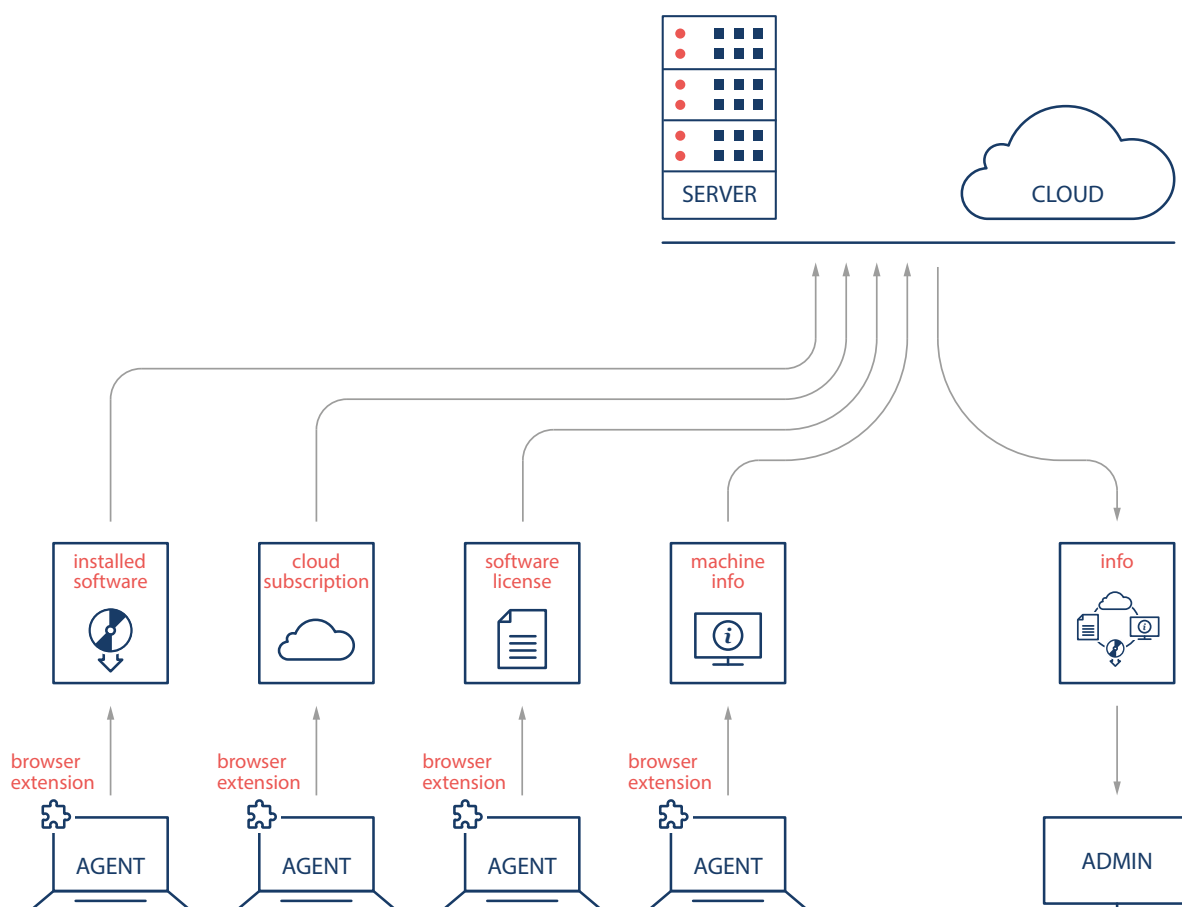
The Agent is auto-updated by the Binadox Server whenever a new version is available. Restart of the agent host is not needed. Your host is always up to date with the newest agent version without the need to stop host critical jobs or interfere with its high availability. (The Binadox Server has to maintain a connection to the Updates Server.)

## Deployment

The Agent is deployed by sending the user an executable file or sharing a URL link to the download page with the user. The user downloads and installs a preconfigured Agent which automatically connects to the Server. It can also be "pushed" as an executive installer by deployment systems such as Microsoft SCCM.

## Benefits

The Binadox Agent is easy to deploy, lightweight and runs barely noticeable at the background. It provides continuous monitoring of software and hardware, as well as license agreements compliance completeness.



The Agent saves users time by automatically capturing license agreements or TOS upon installations or cloud subscriptions, respectively. Users save time required to read the EULA or TOS. Often the user does not even have necessary skills to understand the legal language. There is also no need to manually send the EULA to the IT or legal counsel each time during the installation or subscription process. The Agent sends documents to the Server where they can be processed by the assigned professional.

Binadox also saves IT and legal teams time and resources by eliminating the need to follow up with the vendors of the newly installed programs for the relevant license agreements. The Agent captures the license which is then available from a single point of access from the Server.

### **Binadox SaaS monitoring (agent browser extension)**

The Agent features a browser extension which monitors SaaS subscriptions (sign-ups), usage (log-ins) and captures the corresponding "terms of services" accepted by the user.

The Binadox Agent browser extension automatically captures the domain name, login information and the actual terms of services whenever the employee subscribes to a cloud service, and then updates the Server through the Agent. Thus, the browser extension eliminates the need to read the terms of services or send them to the legal department.

The agent extension currently supports Google Chrome and Mozilla Firefox 48 and higher.

# Binadox Server - a core of the Binadox system

Every Binadox Agent connects to the Binadox Server (the Server). The Server accumulates all the organizational IT assets information and presents it in a web-based UI.

The Server can be deployed on supported Windows or Linux platforms, or any other environment which runs Java Virtual Machine (JVM). The deployment can be performed in the Binadox cloud (as SaaS through the Binadox Web-site: <https://www.binadox.com/>), on premises on your server of choice, or in cloud services of such providers as Azure or AWS.

The Server's web UI is a centralized access point for compliance verification and decision making, as well as monitoring and management of the assets: software installations, hardware, operating system environments, installation licenses and cloud subscriptions terms of services.

## Assets management: projections and filters

The Server UI provides a bird's eye view of the organizational assets. It also enables to zoom-in on a specific segment like installations, software, hosts, environments when it is necessary to make policy based decisions regarding a software installation or a SaaS subscription by use of projections and filters. Each projection provides information about a specific segment of the assets. The Binadox projections and filters are described in more detail below.

### Projections

The asset management section of the Server UI contains several "projections", the main projection is the Installation projection which shows all the installations in the system, including a software name, version, date of installation, host on which it is installed and a current status (Approved / Rejected / Unset).

A licensing expert (IT / Legal) can handle all the "Unset" installations and decide whether to approve or reject them based on the organizational policy and the corresponding license which they can review using the UI. Ideally, the system should contain only "Approved" installations, so that there is no liability threat of apparent authority. (The software or SaaS vendor might understand that an employee has enough authority to accept a license agreement and bind the employee's organization to the license terms. It may happen since the employee is given enough permission from the organization to install a piece of software or subscribe to a cloud service.)

Whenever an installation is marked as "Rejected", it is a "red flag" and signal that there is a liability threat, which the stakeholders should address and decide what to do with non-compliant installations. Possible measures can include removal of the software by the user who installed it or procurement of an appropriate license. Whenever the installation is removed, its record in the system is deleted as well, together with the rejected state.

Additional projections include:

- Software - an aggregation of installations under the same name and version
- Hosts - computer hardware specifications (machine type (real or virtual machine), CPU, HDD, MAC addresses, etc.)
- Users - names and roles of users
- Licenses - license agreements of installations or SaaS subscriptions
- Environments - specifications of operating systems on agent hosts (OS name, Owner, etc.)
- SaaS - an aggregation of SaaS subscriptions under the same domain
- SaaS subscriptions - specific registrations in or logins into a cloud service of a particular user

## Filters

Organizational installations data could be bulky. To ease navigation and focus on specifics, the user can select the desired records in each projection - either by direct selection or by chosen criteria (e.g., all the "Unset" installations, or a specific name) and filter out all the rest of the information. All the information in the projections is correlated. Installation of specific software takes place on a specific host, in a specific environment, has a specific license and is performed by a specific user. Hence filtering only that installation will filter out all the non-related information in other projections, and can show, for instance, only Microsoft Word installations which were installed on virtual machines.

## Rules and automation

Usually when a new installation is detected, information about it is received on the Server together with the corresponding license agreement, which the licensing professional can review and approve or reject.

Same software can be installed multiple times in an organization, and there is no need to review the same license for the same software over and over again. The Rules automation mechanism allows just that. You can create a rule to automatically reject or approve any new or existing installation. A rule applies to installations meeting the criteria you set. These criteria are based on assets parameters, such as a license type, software name, type of virtual machine, etc. (So, for instance, you can create a rule that all the installations of Acme software version 3.0 are rejected, or all installations on virtual machines are approved.)

Different rules can have contradicting criteria, due to that, the rules are priority based, which means whenever a certain installation triggers a certain rule, no lower priority rules are applied.

Rules can be deactivated so that they are no longer triggered, and then reactivated and reapplied to verify whether these rules have been applied to the existing installations. You can reapply rules to a set of installations configured using filters (described above in "Assets management: projections and filters").

It is a very powerful and flexible tool to automate installation processing and save time. So basically each type of installation is not required to be handled more than once.



## Document review, similarity and compare

### Binadox Viewer

Whenever a new installation event with the corresponding license arrives to the Server, the licensing professional can review the license by using the viewer. The viewer formats the license text, creates paragraphs and displays it in a presentable form. In addition, a navigation panel is displayed which shows the table of contents to ease the navigation across the document. The viewer also displays a summarization of each paragraph to allow skimming and scanning of the text.

Additional tools which save time reviewing the license agreements are the similarity and compare tools.

### Binadox Similarity

Binadox Similarity allows finding contextually similar agreements, sorted by similarity rank. This way the licensing professional can relate the new license agreement to the previously reviewed, similar agreement. Binadox Similarity implements natural language programming and machine learning algorithms which analyze the content of each document.

### Binadox Compare

Once the most relevant and similar agreement document is found, the licensing professional can compare the content of these two documents. The compare tool displays which paragraphs of the two documents are related contextually, either by the name of the paragraph or by the paragraph content (using machine learning techniques). This allows comparing the relevant content side by side. Such practice eases the navigation and compare process and saves valuable time.

## Document Browser

All the license agreements which arrive from the Agent or from the Licenses Database (described below in "Updates Server and Licenses Database") are stored in the Binadox repository, "Document Browser". This section of the Server UI provides an easy access to the documents. They are presented in a familiar Windows explorer based style, where hierarchical folders and files are presented. Document Browser allows accessing common actions through a right click context menu, such as move, copy, move to trash, restore from trash, and add to favorites. In addition, it allows easy sharing of the documents by email, link or Dropbox integration. Document Browser also allows manual uploading of new license agreements to the system which can also benefit from all the other document related features, such as the viewer, similarity and compare tools. The user can upload either a single file or a compressed ZIP file which can contain multiple files and a hierarchical directory structure which is then extracted automatically into the destination directory.

## Licenses DB and Updates Server

Whenever a server is deployed in the cloud (either through Binadox cloud hosting or other), the server maintains a connection to the "Updates Server". The Updates Server contains a "Licenses Database" and fetches license agreements from it for software which has been installed without a corresponding license agreement. For example, if an agent is installed on a host with previously installed software, which license agreement was not captured during the installation, or software which doesn't display license agreements upon installation. The Updates Server links software names to the corresponding license agreements, and whenever a software without a license agreement is detected, the Binadox Server requests a license agreement matching the installation, and the Updates Server provides the Binadox Server with the corresponding license agreement.

Additionally the Updates Server is to supply new versions of agents, whenever a new version of an agent is build, the Updates Server pushes the updates version to the Binadox Servers, which in their turn update the deployed agents.

In case of the on-premises deployment, where such a connection between the Binadox Server and the Updates Server is not possible, there is an option for manual updates for the corresponding license agreements (for currently installed software) and manual agent updates. A request for an update should be submitted to Binadox and a corresponding file will be sent for deployment.

# Conclusion

Binadox is a software license compliance and software assets management solution. Binadox software allows the IT, legal and licensing professionals to make the right decisions regarding each software installation and cloud subscription by using a powerful set of Binadox tools. Binadox enables the smart license agreement review to keep organization compliant and also save the time and costs.

These capabilities are achieved through the Binadox Agents deployment. The agents collect software and hardware specifications and automatically obtain presented license agreements terms, and Terms Of Services for cloud subscriptions throughout the organization. Binadox Server stores the asset information for all hosts and provides a web based UI.

For more information about how Binadox suite can help your organization to achieve software license compliance, save time and avoid unexpected costly expenditures, visit our website at [www.binadox.com](http://www.binadox.com) or contact us at [info@binadox.com](mailto:info@binadox.com).

You can also try the Binadox suite in your organization for free here [www.binadox.com/signup](http://www.binadox.com/signup).

# About the company

Binadox provides a software license compliance solution for IT and legal departments, helps preventing a legal liability by real-time capturing, analyzing and managing software license agreements (EULA, SLA, TOS etc.) and assets.

Binadox, Inc. is a private corporation with headquarters in Seattle, Washington, USA

For more information about Binadox, Inc. or its products, please contact us:

Email: [info@binadox.com](mailto:info@binadox.com)

Web site: [www.binadox.com](http://www.binadox.com)

Phone: 1.206.420.6610