Benefits of Network Licensing

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Abstract

Network licensing is a powerful concept used by a number of workstation-based software products. The purpose of this white paper is to show how network licensing software can help you get the most from your software budget.

Type	Usage	Flexibility	Usage Tracking	Control
Stand-alone License	One license installed on one computer	One license for each computer; license borrowing for remote use	No	By individual
Network License	Multiple licenses tied to a central server and dynamically allocated to multiple client computers	One license for many computers; dynamic license pool; license borrowing for remote use	Yes	By deployment

Network licensing helps ensure that your users have access to the right software at the right time and enables you to control the use of your software licenses easily and efficiently. Effective use of network licensing software requires investment in planning, implementation, and maintenance. But, used properly, it can generate significant benefits for you and your organization.

The benefits of network licensing fall into four main categories:

1. **Flexible and Efficient Use of Licenses**: This is the most basic benefit of network licensing. Alchemy Software Development uses two types of software licensing: "Stand-Alone" (single installations) and "Network" license.

   The Stand-Alone License type is most commonly used, and it binds the software to a specific workstation. This type of installation is most effective when there is little or no need to share the license, or move it from one workstation to another.

   The second type, which is the subject of this paper, is the Network License. This license type requires communication between the client software (the application installed on the user's PC) and network license management software installed on a central license server. When an Alchemy CATALYST installation runs, it acquires a license from the server, returning that license when it is shut down. Licenses can thus be "floated" over an entire corporate network, transferring from one workstation to the next as required.

2. **Usage Tracking**: Because a central license server manages all licenses, an administrator can keep track of how licenses are being used. This is useful data for day-to-day administration of licenses as well as input for the budgeting and forecasting process for future software investments.

3. **Control**: Network licensing gives an administrator control over an individual user's or group's ability to access software. Licenses can be moved from one group to another without having to install or uninstall software. Individual users can be guaranteed access or denied access to licenses. Specific network license features (such as the ability to borrow a license from the network) can be enabled or disabled as required.

4. **Standardization**: The Network License Manager in Alchemy CATALYST 6.0 is based on FLEXlm® technology from Macrovision Corporation, the de facto standard for network licensing. Use of FLEXlm enables you to get the latest in network licensing technology as it is developed. More than 2,500 software vendors use FLEXlm, so it is possible that someone in your organization has already implemented FLEXlm technology.

The next sections of this white paper look at each of these benefits in more detail and give examples of specific Network License Manager tools that make your network licensing more effective.

FLEXIBLE AND EFFICIENT USE OF LICENSES

This section covers some of the basics of network license management and how you can use it to efficiently deploy licenses over a network. The use of network licensing assumes that you need to move licenses from workstation to workstation. If you have a small number of users who use individual workstations with their Alchemy CATALYST software, then the time and effort to set up a network license server is probably not justified. If you have groups or projects that require use of Alchemy CATALYST for limited periods of time, or if you have individuals who need intermittent access to Alchemy CATALYST, or if you need to track and control your software usage over a network, then network licensing is the right tool.

Setting up a basic license server is a straightforward process. The hardware requirements for a license server are modest. Connections between workstations and a reliable, always-available license server are essential as users cannot run their applications when the license server is not available.

When you register and activate your network license(s), you receive a license file. This file defines how many licenses of each product for which you've purchased licenses can be run from your license server. The license file is tied to the server Network Interface Card (NIC) MAC address, so the server software is locked to an individual server. Because the license server controls activation centrally, you don't need to activate individual workstations, and licenses are obtained silently from the server. In day-to-day operations, your users typically will not be aware that they are acquiring a license over the network.

Another feature of network licensing is the ability to "borrow" a license from the license server. License borrowing enables users to "check out" a network license from the license server for a limited time and then "check in" the license when they no longer need it. When a license is borrowed from the server pool, the total number of licenses available is temporarily decremented, until the license is returned. A borrowed license on a workstation (or laptop) means that there is no longer a need to be connected to the license server for the application to run. If the borrowed license on the workstation/laptop expires before the user reconnects to the network the license expires on the workstation, and it is automatically returned to the pool on the license server. At this point, the user can log on to the network to borrow another license – this can be done remotely, and does not require a direct connection to the LAN, but does require a secure connection. The most common use for license borrowing is to place an Alchemy CATALYST license onto a laptop that can then be taken on a trip.

The following examples show how an organization could implement individual license servers.

Example 1: *A survey in your company reveals that about 20 users share 10 copies of Alchemy CATALYST software. An additional 20 users need Alchemy CATALYST only occasionally (average anticipated use is about eight hours per week). Your 20 "core users" indicate that they use the*

software about 20 hours a week, although some stated that they used it full time for specific projects, usually lasting three to four weeks. These users are in a single geographic area (your localization engineering office) with reliable access to your corporate network. One solution would be to purchase 40 copies of Alchemy CATALYST software, one for every user, but your budget does not allow you to do so. Rough calculations indicate that you need 4 full-time licenses, 16 half-time licenses, and 20 eight-hour licenses. This gives 4 + (16 x .5) + (20 x .2), or 16 licenses (on average). You purchase 6 new licenses, upgrade your existing 10 licenses to Alchemy CATALYST 6.0, and then install Alchemy CATALYST 6.0 on all the systems in your group. You then enable access to the license server for the users covered by your original survey. If you have missed anyone (or if your users' needs change), you can easily enable them to access the license server from your desktop. You then monitor Alchemy CATALYST usage as you roll out the new software to see how closely your estimates match actual use.

Example 2: *You have surveyed your users and found a strong split in their patterns of usage. You have a core group of 10 users who need Alchemy CATALYST software on average for 20 hours a week. But this actually means that they use it intensively when they are working on a project and very little at other times. They also need to take their software with them on a laptop when they are called to a remote project site. It is essential that these users have access to a license when they need it. You have another group of 50 users who use Alchemy CATALYST for a few hours a week, usually for viewing and light editing. They appreciate access to an Alchemy CATALYST license but do not want to expend budget for their own desktop copy. They are flexible in receiving access to licenses and will try again later if no licenses are available.*

In this scenario, the best setup would be a single license server, with 10 licenses "reserved" for the high-availability users through the use of an options file. The high-availability users want licenses on 15 computers, 10 for their workstations and 5 for their project site pool of laptops. This would have meant purchasing 10 stand-alone licenses and then manually moving them from the workstations to the laptops when required. With your new network license server, you configure their licenses with the ability to borrow five of them. As a result, they will always have a license available, since they can only work on either a laptop or a workstation at one time. You set up a separate server for the more casual users that has an additional five licenses on it. You then monitor the levels of usage and license denial to make sure that these casual users are at the agreed-upon level of service.

CONTROL

Another important benefit of network licensing is the control that it gives you over each software license, enabling you to maintain the level of service that you and your users have agreed upon. It also helps you to get the maximum value from each software license.

There are two primary tools available for control of network licenses: the license server configuration and the options file—which is a text file that enables you to configure how the licenses on the license server are used.

License Server Configurations

License servers can be configured in three ways:

- Single license server
- Distributed license server
- Redundant license server

Each configuration has advantages and disadvantages that will be explored in the following sections.

Single License Server

This is the simplest license server configuration and is the one that most companies start with. As stated earlier, the hardware and software requirements for a license server are fairly modest. Memory and CPU usage is small (although it is affected by the number of clients using the server), and the only disk space requirements are for the FLEXlm utilities and the log files (which can get quite large). The main requirement is that every client workstation that needs access to an Alchemy CATALYST license should be able to access the license server with low latency (low delay) and high availability.

If communications between the server and client are disrupted, the Alchemy CATALYST license will time out after a period and Alchemy CATALYST will revert to evaluation mode. The licensing software is designed to compensate for brief periods of downtime (typically less than 15 minutes), but if communications are not restored in time, then Alchemy CATALYST warns the user that it has lost contact with the license server.

If you do not want to share licenses between groups of users, then you can set up multiple Single License Servers for each group. The main disadvantage with this method is that you cannot share licenses between servers. Even if the licenses on server A are not being used, users on server B cannot access them (which may be acceptable, especially if the groups of users are on separate budgets). An advantage to this setup is that the failure of one server will not affect licenses on the other servers. If you want to share licenses between servers, then your best

option is the next configuration: Distributed License Servers.

Distributed License Servers

This configuration allows you to distribute your licenses over a number of servers. When a workstation attempts to retrieve a license, it can poll all of the servers until it is able to obtain an Alchemy CATALYST license. Each user's workstation has the paths to all (or some, at your discretion) of the license servers available, as defined during installation and product activation. If a user is denied a license on the first server on the list, then the software automatically tries the second server on the list, and so on.

Example 4: *Your Company has an engineering office in Chicago, with international offices in Dublin, Paris, and London. A single license server in each office serves licenses on a high-speed LAN. Each office is connected to the headquarters and to each other via high-speed connections. The interoffice connection (WAN) is generally less reliable than the LAN in each office. To get the most from your company's software licenses, you would like to combine all licenses into a single pool at headquarters, but are concerned that communications problems would prevent Alchemy CATALYST software from being used in local offices when connections are not available. Your solution is to configure a number of license servers as a distributed license pool. When communications are working between the offices, then each office has access to the entire pool of licenses. If one of the office connections fails, then that local office at least has access to licenses on the local server. Even if the server at headquarters fails, licenses from each international office are available to the other offices (if you so designate).*

Redundant License Servers

This server configuration is for situations that require extremely high availability. It is also the most demanding configuration to manage, and it is always better to choose a Distributed system if at all possible. A redundant configuration shares a single pool of licenses over three servers (it has to be exactly three) that are in constant communication with each other. As a result, if a server fails or is shut down for maintenance, the remaining servers support the whole license pool, with no negative effect on license availability. This configuration requires that all three servers reside on the same subnet and have consistent network communications (unlike distributed servers, which can work together over a wide-area network). Unlike distributed servers, this configuration offers no protection for network failures and has a number of other aspects which make them difficult to manage.

Options File

The options file is a file that you can edit, and is the key to administrative control for a license server. You edit it to set up groups of users, enable the creation of log files, and to set other options. The following sections review the license borrowing

and time-out features available in Alchemy CATALYST through the use of the options file.

License Borrowing

This is a feature that enables users to "check out" a network license from the license server for a predetermined period of time and then "check in" the license back to the server pool when they are finished with it. The borrowed license is locked to the user's computer and does not require any communication with the license server during the borrowing period. The user borrows a license by selecting "Borrow License" from the Tools menu within their running session of Alchemy CATALYST.

The options file gives the administrator control over how many licenses can be borrowed and who is allowed to borrow them. There is also a menu selection that allows a user return the license early (if, for instance, the user's business trip concludes earlier than anticipated).

Example 5: *You have 10 licenses on a server and want to allow 5 of them to be borrowed. You also want to restrict the maximum borrowing period to no more than two weeks, and you want to limit borrowing to a specific group of users. There are specific options file and system variables that control each of these actions.*

CONCLUSION

Network licensing is a powerful tool for managing your licenses. It is important to determine what type of licensing is most appropriate for your users. You can keep a majority of your seats as stand-alone users, while you run a pilot project with network licensing, or you can move most of your licenses to a license server, keeping a few essential stand-alone licenses for key users. Most companies that implement network licensing also have some stand-alone licenses for special cases.

The combination of flexibility, tracking, and control provided by the Alchemy Network License Manager delivers benefits from the moment you set up your license management system. You will see payoffs as you control costs, as well as improved levels of service that you can deliver to your Alchemy CATALYST users.

ABOUT ALCHEMY SOFTWARE DEVELOPMENT LIMITED

Alchemy Software Development is a company formed by the original developers and designers of Corel CATALYST™, an integrated translation environment and a pioneer in visual translation and engineering solutions.

Alchemy' technology is designed to boost the efficiency and quality of globalizing software products and is used by software development and globalization companies worldwide. With over 8,000 licenses installed worldwide, Alchemy CATALYST is used by translators, software engineers, quality assurance specialists and project managers and is referred to as the Gold Standard in Localization. Corel Corporation Limited holds a 24.9% stake in Alchemy Software Development Ltd.

Alchemy Software Development has offices and facilities in Canada, Europe, Asia-Pacific and the United States.

For more information on the company and its products, please refer to www.AlchemySoftware.ie .