Pfeiffer Report

Autodesk Named User Licensing: Redefining Application Management for the Enterprise

About this Research

This report presents the findings of a market-specific research and technology analysis project conducted by Pfeiffer Consulting for Autodesk. The main aim of the research was **to document the core differences, from a management and administration perspective**, of named user licensing, as implemented by Autodesk, compared to network licensing, which has been used by the company in the past.

The research combined **in-depth technology analysis** of both licensing methods, **secondary research** into the advantages and impact of these licensing methods, as well as **customer interviews**. Please refer to the Methodology section on the last page of this document for more information.

About Named User Licensing

Named user licensing is the default for software-as-a-service providers, and for the customers these providers serve, named user represents **a profound change in the way licenses are managed** and attributed across the enterprise. Network licensing relies on licenses that are stored on one or several license servers across the local network infrastructure. As users need to access a licensed software application, they have to connect to a license server to check out a license. This is not the case with the named user model, which is **built on the basis of individual user profiles** that give users access to the licenses they need based on their identity, and where licenses are managed in the cloud. This **simplifies and secures license management**, for administrators as well as users. Software licenses and services are attributed directly to individual users, and are available to them by simply logging in with **their credentials**. In addition to making the management process more transparent for administrators, **named user licensing provides detailed reporting functionality**, allowing management to gain deep understanding of the actual use of software.

From an IT and security perspective, named user licensing **eliminates the need for locally managed and maintained license servers**. This is particularly important for larger enterprises spread over several sites and locations.

Executive Summary

▷ Named user licensing replaces locally managed license servers and license files **with an identity-based approach** where licenses are hosted and managed on the cloud.

▷ Administrators can **easily attribute licenses to one or many users in a single workflow**. These users can access software with their credentials, the same way they are used to accessing any other tool.

▷ Detailed reporting of software use makes it easier for administrators to see **when and how much applications and services are actually used**, improving visibility for IT and business decision makers.

▷ Since named user licensing is cloud-based, it offers **robust support for remote work**, an aspect that has become increasingly important in view of the COVID-19 pandemic.

Key Aspects of Named User Licensing

## Integrating Users into Software Administration

Named user licensing completely changes the general approach to the licensing and software attribution process in the enterprise. In simple terms, one could say that network licensing is essentially a technology-centric administrative approach, that puts license servers and license management tools at its core, while **named user licensing centers the entire process around actual people and their role in the enterprise**, and thus transforms not only the way software licenses are managed and used, but also how management can deal with software investment, and plan for it.

From Serial Numbers to Individual Users

Named user licensing is centered around individual user profiles managed by the administrator and licenses hosted on the cloud, **eliminating the need for local infrastructure**. The administrator assigns available licenses to individual users. (See sidebar below.) From a management perspective, this approach has several advantages: For the user, it means **that any assigned license is always available** — there is no more need to check licenses out, or to borrow them for off-site use. For the administrator, it is much easier to manage the pool

Major Points

▷ Named user licensing is **built around individual user profiles**, and makes license attribution and management more intuitive than network licensing.

▷ Detailed reporting on software use is an integral part of named user licensing, and **provides granular data** about when and how much licensed software and services are used.

▷ With named user licensing, users do not need to check licenses out and back in, and users do not get locked out of licenses. **Any software that has been attributed to a user will always be available**, even from a remote workstation.
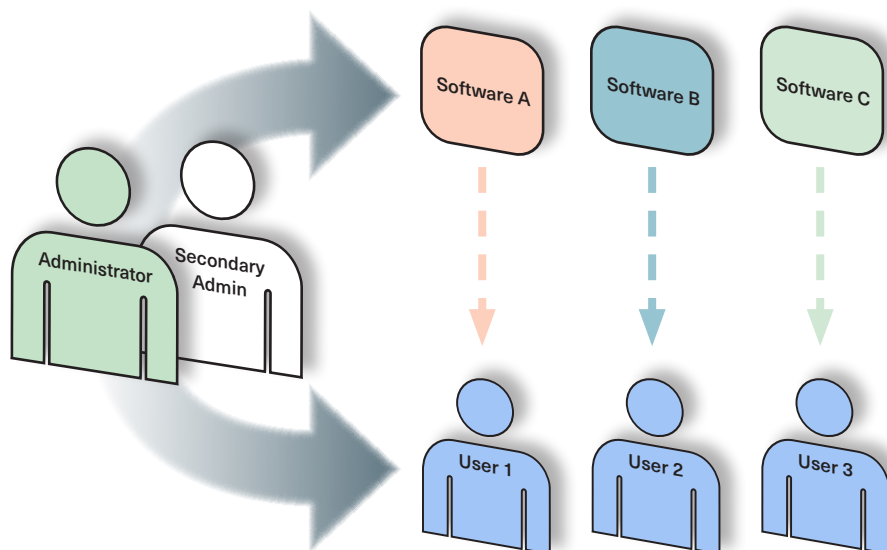

*Network licensing relies on local license servers and serial numbers. Named user licensing, on the other hand, **uses identity-based user profiles accessing cloud-based licenses**. The administrator can attribute any combination of software and services to individual users. **Once a license is attributed to users, it is available to them at any time - even when working remotely from a different device**, an aspect that has gained considerable importance since the outbreak of the COVID-19 pandemic.*

*In addition, named user licensing **allows for secondary admins** who can help with license attribution, making team administration much easier.*

The Reporting Console

Autodesk named user licensing includes **granular reporting on actual use of software and services**. Administrators can not only see when each individual application was used, and how many users accessed it, but also which versions of a specific application were employed, **making it easier to unify users and teams around a specific version.** This level of granularity is not available in traditional network license reporting tools, which often rely on log files and tie usage back to host machines instead of users; they also come at an additional cost.

User-level reporting is also available. (See sidebar on page 7.)
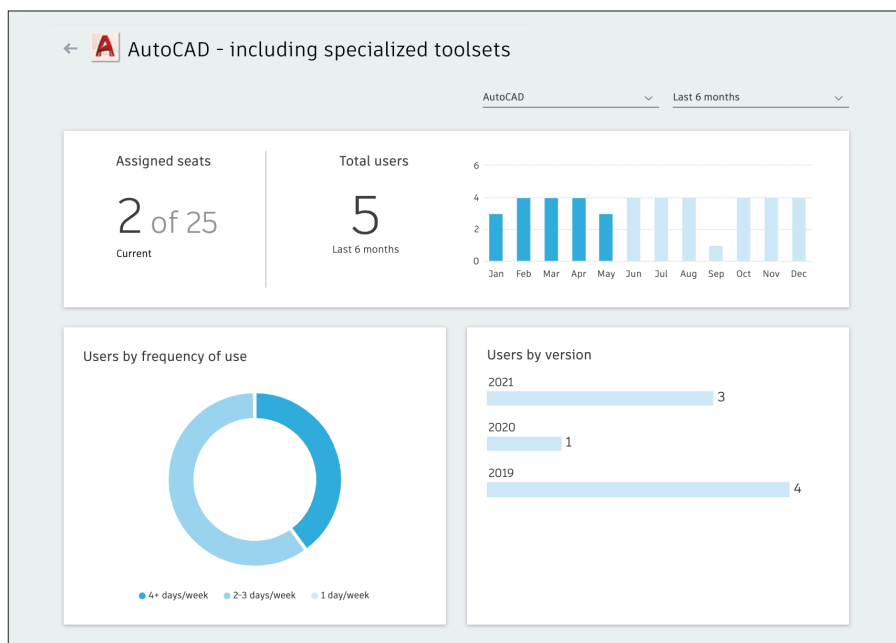
of available licenses in a transparent and centralized way**.** This also has advantages in terms of team management, since the administrator can **attribute licenses to several users at once, not only individually.** Administration is further simplified by the possibility of assigning any number of **secondary admins**, who can assign software and services to their teams, and reduce the workload for the primary administrator.

Another core aspect of named user licensing is reporting. (See sidebar above.) This feature provides administrators and management with granular information how available software is actually used, which is **essential for planning software investment**, particularly in larger enterprises.

The Action Perspective: What Changes for Administrators and User

	Network Licensing	Named User Licensing (NU)	Comments
Administrator Actions			
License attribution	Serial number/license server(s)	Autodesk Account	*With NU, the administrator has complete visibility of available licenses and which users they are attributed to.*
License assignment/permissions	Complex options file	Autodesk Account user management	*NU offers built-in user management capabilities. Assigning any number of secondary admins makes it easier to manage permissions.*
License server management	Required for every individual server	Autodesk cloud	*Cloud-based licenses mean no server management or local infrastructure.*
Server updates	Manual update required for every individual server	No server updates required	*With NU, administrators do not have to go through the complex process of updating license servers on the corporate network.*
User Actions			
Check license availability	Only available to admins through tools on the license server	Autodesk Account	*Connecting to the portal, users have complete visibility of the software and services that have been attributed to them.*
Check out license	Required	Not required	*With NU, users do not have to check out licenses, they just need to connect to the internet once every 30 days.*
Check in license	Required	Not required	*Checking licenses back in is not required with NU. Any license that has been attributed to users will always be available to them.*
Update software	Contact administrator	Autodesk Account	*Depending on corporate policy, users can update their software without having to wait for deployment by the administrator.*

Quantifying
Network Licensing Bottlenecks

Core Principles of Network Licensing

Network licensing is centered around several key components: **license management tools**, one or several **license servers**, as well as a **network license file** provided by Autodesk for each individual application, among others. Once the administrator has set up a license server, obtained the necessary license file and started up the server, users can connect to the server to **check out a license** for their software. **Users can also borrow licenses** for prolonged use when they can't connect to the local license server.

Setting up network licensing requires a **technically competent administrator** familiar with the local network infrastructure, since troubleshooting licensing issues can be complicated. (See sidebar on following page.)

Major Points

▷ **Troubleshooting license servers** when a computer on the network doesn't see the license manager **can be complicated.**

▷ Named user licensing provides **more robust support for remote work.**

▷ **Single sign-on increases security** and allows enterprises to **integrate Autodesk licenses with the existing corporate directory.**

Pain-Points in Network Licensing Administration

	Pain-Point	Comments
License hoarding	Users check out or borrow licenses, even if they are not using them, out of fear that if they return a license, it won't be available when they need it.	*Named user licensing allows the admin to assign licenses to users, and users keep access to those licenses, eliminating the need for users to hoard licenses. These licenses will be available to them even when they work from home.*
Lack of usage visibility	Network licensing provides limited visibility on the actual usage of a licensed software application, and lacks information about individual users.	*While log-files from license servers provide information who checked out a license and at what time, it requires 3rd party tools and is not easy to see how frequently software is actually used, making it difficult to conduct accurate planning.*
Working remotely	Borrowing a license from the network server remotely may not be possible or require VPN access. Sometimes, VPN access can require significant bandwidth and slow down connectivity based on the complexity of most CAD software.	*If borrowing is not an option, it requires requesting a home use license to be installed on the home computer. This can cause downtime if users cannot connect and authenticate with their user name.*
Dealing with licensing errors	Licensing errors can be tough to troubleshoot.	*Resolving licensing errors is time-consuming for administrators, who are usually the only ones to be able to solve the problem. Licensing errors also reduce productivity for users unable to access their software.*
Latest version update	License files need to be updated at least once a year to support new versions. Depending on the year, the license manager itself may also require updating.	*When a user is assigned the latest version, it is immediately available for installation and use with no need to wait for the license manager to be updated.*
Configuring and managing license servers	An IT administrator needs to configure and manage the license server before the end-user can run the software.	*Named user licensing allows admins to easily allocate licenses through Autodesk Account, requiring no on-premise servers or IT staff to configure and maintain those servers.*

Security and Single Sign-On

Named user licensing provides several security features not available with network licensing. One important aspect is the optional use of **two-factor authentication**, which sends a confirmation code to the user's smartphone at a log-in attempt, which makes the log-in operation more secure.

Single sign-on is also supported, integrating authentication for Autodesk products with the existing corporate directory of an enterprise.

This is important for many larger enterprises: *"Having single sign-on is a massive benefit. We don't have to set up new user access. Users don't have to remember new passwords."* (Donogh McGrath, Director of Information Security & Vendor Management, RPS Group)

Complexities of Network Licensing

While network licensing is **built on a technical base** that has been used for decades, it is **a system with many individual components** that need to be understood and managed. Administrators need to be familiar with structure, features and syntax of license files, log-files, as well as option files, and know how to deal with licensing errors that can occur.

To check license utilization, an administrator uses the log-file provided by the license management tool. Interpreting this ASCII text file, however, **is not easy, unless one has proper knowledge of the log-file structure,** attributes and codes. Log-files also provide limited visibility of software use, since they only track when and how long a license was checked out, but not if the software was actually used.

Another example of **inherent complexities** of network licensing is **license control and attribution**, which is achieved through the creation of an options file. This process can not be automated, since it is specific to the exact network set-up. It also requires a precise syntax, which **makes creating an options-file error-prone**, and can be time-consuming even for experienced administrators. Finally, administrators struggle to manage the appropriate cascading of licenses for different products hosted on a license server.

Support for Remote Work

In the light of the COVID-19 crisis, supporting remote work has become a high priority for many, if not most, enterprises. Network licensing supports remote work to some extent — users can borrow a license for a pre-set amount of time. **This process is not ideal in a situation where working from home becomes a common occurrence**, since it may require connecting to the enterprise network via VPN. It may also necessitate acquiring another license for use on a home or personal device. By comparison, **named user licensing provides access to software (allowing a new software installation if necessary) from any device connected to the Internet**, thus providing a much more robust framework for remote work.

The Competence Bottleneck: Streamlining Licensing Administration

	Network Licensing	Named User Licensing (NU)	Impact
	Required Knowledge/Competence		
Administrator	▶ License server setup ▶ Installation of license file ▶ Creation of options file ▶ Log-file parsing ▶ License server updates ▶ Handling of additional licenses ▶ License error parsing ▶ Resolution of license and server errors ▶ ...	▶ Knowledge of Autodesk Account features ▶ Software attribution reporting in Autodesk Account ▶ User management in Autodesk Account	*In terms of required competence and knowledge, network licensing requires the solid knowledge and experience of a technical administrator. By comparison, managing users and their software attribution does not require any technical knowledge, and completely eliminates many time-consuming operations, making administrators more productive.*
User	▶ Basic knowledge of license retrieval ▶ Knowledge of name and location of license server ▶ Basic understanding of license error messages ▶ Contacting the administrator when license lock-out occurs ▶ ...	▶ Knowledge of Autodesk Account functionality for users ▶ Sign-in process to authenticate software use	*Even for users, network licensing requires them to have some familiarity with the way license servers and license distribution works: They need to know which license server to connect to, and they can be confronted with opaque license-related error messages, and need to reach out to the help desk to resolve them, thus reducing the productivity of the user.*

Transforming Enterprise Application Management

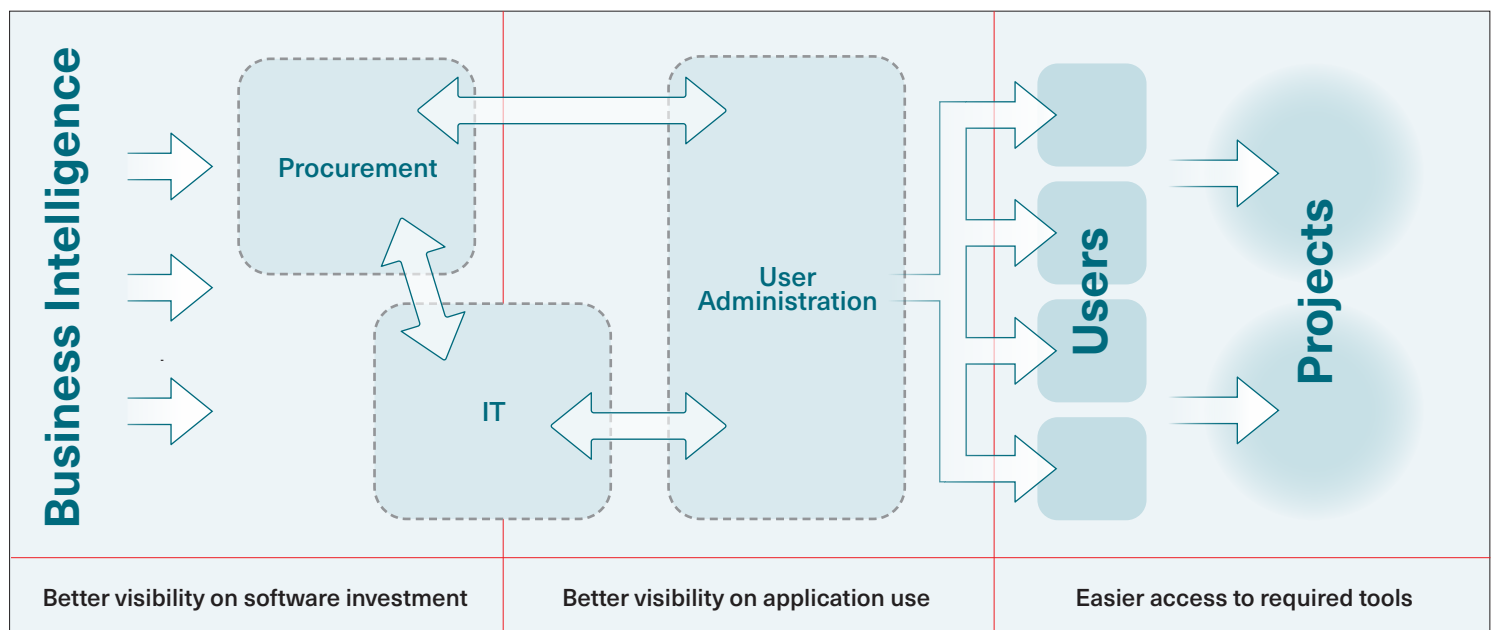## The Management Impact of Named User Licensing

On an enterprise-level, introducing the concept of users into management processes has the potential **to transform not only the nitty-gritty of licensing administration** and to make users and administrators **more productive**, but also to empower **a new kind of team- and organization-dynamics.**

In other words, there are **significant indirect benefits** to named user licensing that may not be immediately obvious, ranging from empowering users and teams **to make better use of their tools**, allowing **easier access to new software solutions**, and **freeing up time for IT and administrators** to deal with the challenges of the ever-evolving technology landscape.

Major Points

▷ Named user licensing makes administrators and users **more efficient**, and has the potential to empower **a new kind of organization dynamics.**

▷ Greater visibility of actual software use allows **better management decisions** and **more cost-effective software planning.**

How Greater Visibility Drives Better Business Decisions

Business Intelligence		
Procurement	User Administration	Users → Projects
IT		

| Better visibility on software investment | Better visibility on application use | Easier access to required tools |

Reporting is one of the core aspects of named user licensing, and can improve efficiency and decision making on every level of an organization. This means that management can make more informed investment decisions, administrators have detailed visibility of actual software use — and users know exactly which are the tools at their disposal.

Management Impact of User-Level Reporting

Advanced user-level reporting is one of the key aspects of named user licensing. User-level reporting allows administrators **to see in a detailed way how much and when individual users access their software.** From a management perspective, this helps administrators **attribute licenses in a more efficient and cost-effective way**. It also provides the **necessary data for planning software investment** that makes the best use of available tools, and avoids the risk of paying for unused tools. Administrators also can pin-point power users and **encourage knowledge sharing among different teams** to improve workflows and efficiency.
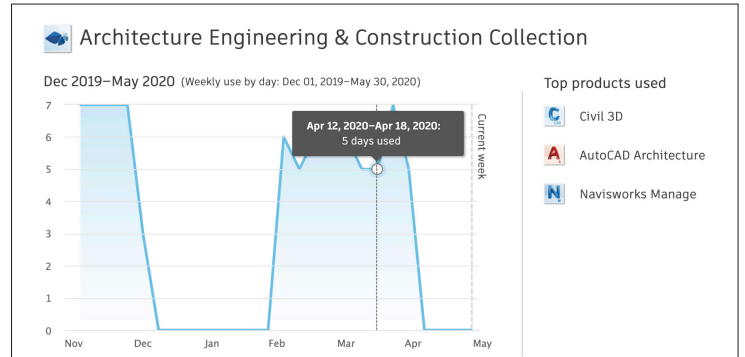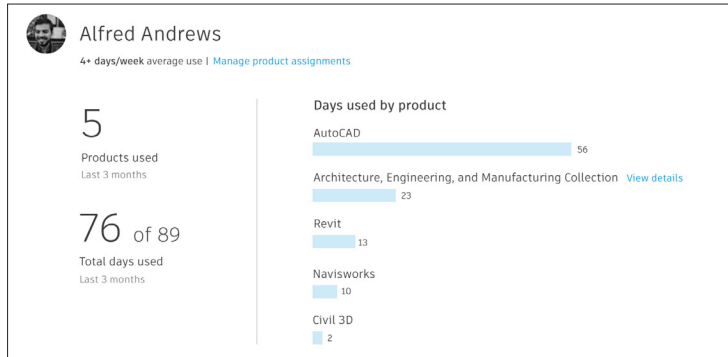
In other words, just looking at named user licensing as a more intuitive way of managing software would miss the most crucial aspect, namely **the management and business impact of greater visibility and more informed administration.**

Being successful as a company means making the best use of the best available tools to produce the best product. And that, in turn, means **putting the user first.** By strengthening the connection between users, administrators, and tools, **named user licensing can become the backbone of a more efficient enterprise.**

Direct and Indirect Benefits of Named User Licensing

	Direct Benefits	Indirect Benefits
Named User - Standard Plan		
License/user management	Managing users makes it much easier to attribute licenses based on users' needs.	Users have a clear perspective on the software that they have access to.
Sophisticated administration	Software and services can be attributed in a detailed and selective way.	More sophisticated administrator roles allow for greater flexibility in managing software attribution.
Greater visibility	Managing users and the software they have access to allows for better management decisions.	Greater visibility makes team management easier, empowers users and makes them more productive.
Reporting	The reporting feature of the admin portal provides detailed information on actual software usage.	Visibility of actual software usage improves planning for licensing and reduces the risk of unused or unnecessary software licenses.
Short-term licenses	1-month licenses for additional software or temporary users provide greater flexibility to adjust licensing to short-term software requirements.	The possibility of short-term licenses keeps team-productivity going by reducing wait-time for lengthy procurement procedures.
2-Factor authentication	2-factor authentication significantly increases the security of the log-in process.	Through 2-factor authentication, software access is directly linked to the actual person, which standard log-in methods do not provide.
Named User - Premium Plan		
User-level reporting	Advanced reporting provides granular analysis of exact software usage for each user and each individual application. (See sidebar above.)	Combining advanced reporting and short-term licenses lays the groundwork for project-based license planning and reduces overhead.
Single Sign-On (SSO)	Single sign-on support allows enterprises to integrate authentication for Autodesk products with their existing corporate directory.	SSO increases security since Autodesk access meets the same corporate standards applied for all other software, and user access is automatically removed when a person leaves the company.

Methodology

This research project was commissioned by Autodesk and independently executed by Pfeiffer Consulting.

The aim of this research was to analyze the impact of named user licensing that combines user profiles with software license attribution, compared to network licensing, which relies on one or several license servers on the corporate network to distribute serial-number-based license keys to users.

The research combined in-depth technology analysis of both licensing methods as well as secondary research into the advantages and impact of these licensing methods on administrator and user productivity, business and procurement strategies and team dynamics.

In addition we relied on in-depth customer interviews conducted with IT administrators who have deep and granular knowledge and experience with both licensing methods.

About Pfeiffer Consulting

Pfeiffer Consulting is an independent technology research and benchmarking operation focused on the needs of publishing, digital content production, and new media professionals.

For more information, please contact
research@pfeifferreport.com

Pfeiffer Report