

# Creative Cloud for enterprise: The productivity of user management

## Software Deployment 2.0: How Creative Cloud for enterprise redefines managing users and software updates

### About this research

This report presents the findings of a research project conducted by Pfeiffer Consulting for Adobe, focusing on the deployment of Creative Cloud for enterprise. The main aim of the research was **to analyze the complexities of software deployment in the modern enterprise**, and to compare named user deployment (NUD) using single sign-on (SSO) user deployment with methods relying on distribution of software packages activated through serial numbers. The research methodology consisted in customer interviews of enterprises using both methods, or having moved from the deployment of packaged software to named user management. In addition, the research comprised technology analysis and in-depth examination of usage patterns in creative teams.

While the research takes a detailed look at technical and management issues linked to software deployment, **particular attention was given to the analysis of the needs and usage patterns typical for creative professionals**, as compared to usage patterns common for users of office productivity software. Special emphasis was placed not only on the work creatives produce, but also on the role their work plays in the overall competitiveness of the enterprise.

### Structure of the report

This report is structured in three distinct sections: **“The software deployment paradox: Efficiently managing creative users”** on page 2 presents basic considerations on software deployment; **“Creative Cloud for enterprise: Rethinking user management from the ground up”** on page 4 focuses on software deployment with respect to the needs and requirements of different types of users. **“It’s all about the user: How named user deployment works”** on page 6 looks at the benefits of user-based administration of software, and presents customer comments on named user management of Creative Cloud.

### Executive summary

- ▶ Named user deployment **significantly decreases the deployment-related workload** of IT personnel and **reduces compliance efforts**.
- ▶ Cloud-centric software management **significantly changes how enterprises can deploy software** and manage users.
- ▶ Creative Cloud for enterprise **supports named user deployment and self-service software installation**, combined with **single sign-on user management**.
- ▶ This is particularly important in the context of creative teams, **which very often need to access the latest version of applications and add-ons** to remain competitive.
- ▶ **Creative professionals are different from office users**, and perceive **the self-service software distribution model as empowering**.



# The software deployment paradox: Efficiently managing creative users

## Major points

- ▶ Cloud-centric software management **significantly changes how enterprises deploy software** and manage users.
- ▶ Creating and testing software packages for distribution is **one of the key bottlenecks in enterprise software deployment**.
- ▶ Elevated privileges make self-service software installation possible **without requiring users to have admin status**.

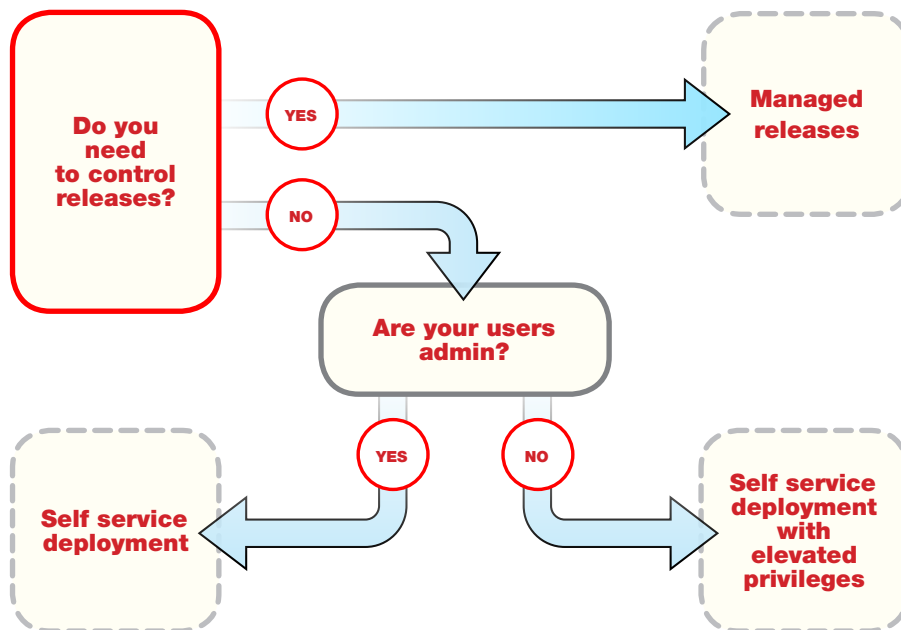
## Software deployment

**Deployment of software is one of the most essential aspects of enterprise computing.** In a way, it is the functional backbone that allows end-users to operate in and create for the digital office. It is also one of the most complex and multi-layered set of processes in IT management.

**Today, software deployment is facing an increasingly complex and volatile technology landscape.** Long gone are the days where operating system and application software updates and bug-fixes were the only things to worry about: **Increasingly, the value of new releases of software is linked to cloud services which require more frequent updates.**

And that's where the situation begins to get complicated, since in many cases, what IT needs to do a good job may be challenged by the strategic requirements of the company. **Which brings us to Creative Cloud...**

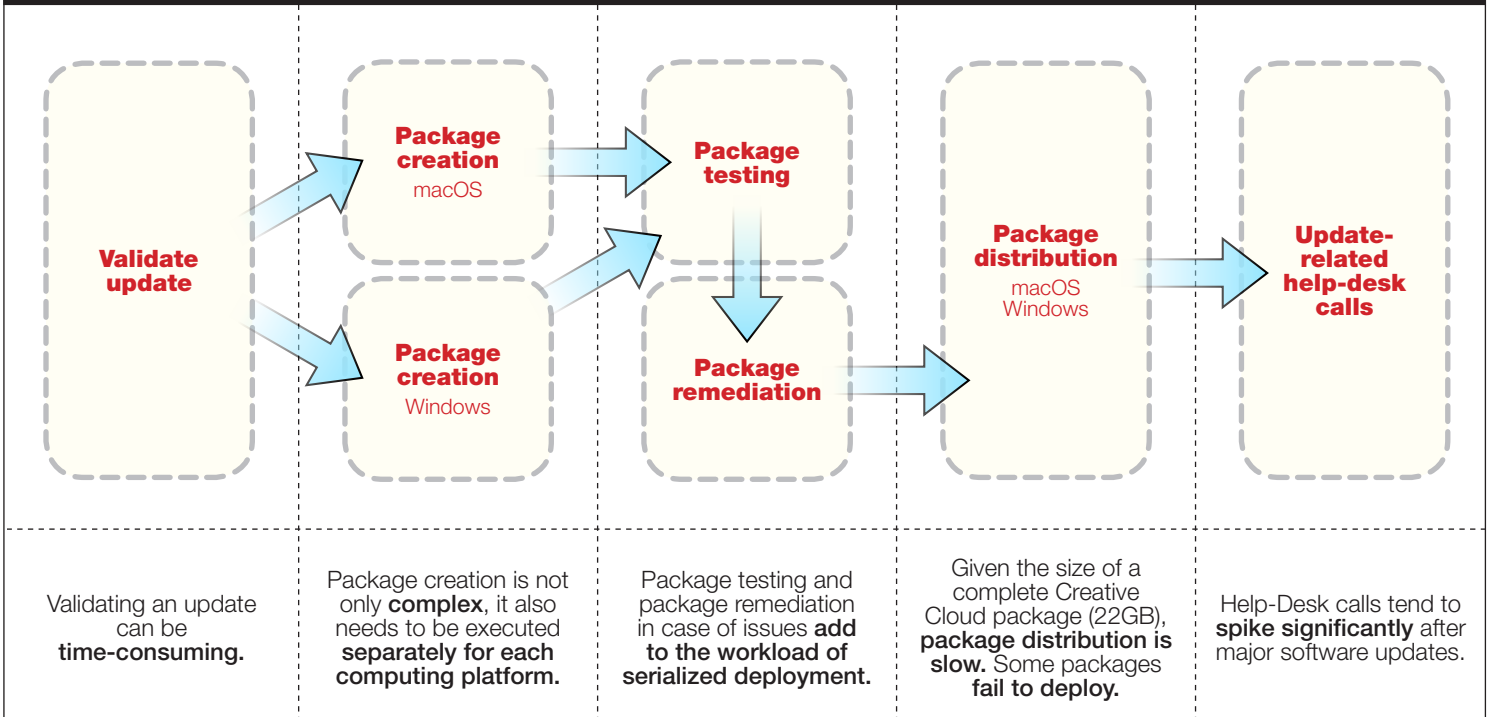
## Elevated privileges: Efficiently managing self-service deployment



*In most companies, users do not have admin privileges. The concept of elevated privileges is key to software deployment in Creative Cloud for enterprise, since it allows for users to perform certain operations in the software installation process without having to grant them administrative rights. For the IT department, self-service deployment also has the added benefit of not having to spend time trying to figure out which combination of software applications to include in packages.*

*The key to self-service deployment is the Creative Cloud desktop application, a hub application used by creative users for managing Creative Cloud applications and services. Using the CC desktop app, users may install current and legend versions of applications, view collaboration activities, install Typekit fonts and sync and share files. While non-admin users cannot themselves install the CC app necessary for self-service software installation, the CC app is self-updating and only needs to be packaged and deployed once for each workstation.*

## Management painpoints: Key Bottlenecks in enterprise software deployment



### Serialized vs. named user deployment

One of the major changes that Creative Cloud brings for enterprises is the move from **serialized to named user deployment**. In the first case, a serial number gets embedded when software is packaged for end-users; this package is then distributed to individual users, but it's the serial number that activates the software.

Named user deployment, by contrast, allows the IT department to **give users direct access to the software and services they require**. Software is activated by the user log-in and is immediately accessible. This method also makes it easier to manage licenses and to maintain compliance.

In addition, **only named user deployment provides access to Creative Cloud Services**, such as Typekit fonts, Creative Cloud Libraries, or Adobe Stock for Enterprise

**Few areas of technology have evolved as much and as rapidly as digital media.** In order to communicate and market efficiently, an enterprise today needs to master a mind-boggling diversity of media and social platforms, which all have very specific—and very rapidly evolving—technical requirements. **There's a reason why Adobe moved from updating its core software packages every 18 to 24 months to a cloud-based model.** Major updates of applications happen throughout the year, while supporting technologies can be updated whenever it is required. In fact, **doing it this way is the only way the tools can stay current—and its users remain at the forefront of what can be achieved using them.** Common procedure in software deployment is to extensively test new solutions, then to package them, and roll them out to every user in an orderly, automated fashion. While IT desires a long-term stable platform to reduce costs, **that approach does not meet the needs of the business for digital media creation, because of constant changes in browsers and platforms.**

The way creative tools function, and the way creative professionals use them, is totally different from the relatively linear, predictable fashion that characterizes the use of office software. We have come a long way from the time when all the creative department needed was a relatively recent version of Photoshop, Illustrator and InDesign. Just a quick look at what used to be bundled in Adobe's Master Collection not so long ago, and the array of application and services that are included with Creative Cloud today shows us that we are living in a different world today: Master Collection had 16 tools; today, Creative Cloud offers over 56 apps and services. **These tools exist because they are needed—and the enterprise has a strategic need to exploit them to the fullest.**

Creative professionals instinctively understand the need to regularly retool because their job is about delivering excellence. They know that they have to constantly evolve, and to do so, they need access to the most recent tools. **And they would be happy to manage applications and updates on their own...**

# Creative Cloud for enterprise: Rethinking user management from the ground up

## Major points

- ▶ **Creative professionals have profoundly different software needs and usage patterns** than users of office software.
- ▶ Named user deployment and self-service software installation make creative professionals more efficient, **which can have a direct impact on the competitiveness of an enterprise.**
- ▶ Named user deployment **can reduce compliance efforts significantly.**

## Creative users are different

In an enterprise environment that relies on a relatively limited number of software applications, such as key office productivity software, Information Technology (IT) actively controls the versions and releases available to user. In general office computing, it is indeed essential that all users of a word-processor or spreadsheet use the same application and version, to avoid incompatibilities. This in turn means that updating these applications needs to be done in a standardized, automated way. On the other hand, deploying all of Creative Cloud (at latest count no less than 22GB of data) to every workstation that might need access only to a small subset of applications, is not only inefficient, **it also results in unnecessary labor and costs that could be avoided.**

Understanding and supporting the actual needs of individual users is essential, because the efficiency of the creative team is directly contributing to the

## Follow the money: Key cost-factors of serialized deployment

	Before NUD	After NUD	Comments
<b>Package creation</b>	3 hours quarterly	Create elevated privileges installer once	For self-service elevated privilege workflows, IT must create either a self-updating, one time installer package for Windows CC app or Mac CC app. They can be created by building packages on the Admin Console.
<b>Package testing and validation</b>	5 hours quarterly	Usually not required	<b>Named user deployment does not require package creation or validation,</b> software is directly downloaded to the target workstation from Adobe servers.
<b>Package distribution (Scripting, etc.)</b>	4 hours quarterly	Not required	Self Service software installation only requires packaging the CC app. This is a one-time effort, since the CC app is self-updating.
<b>Package remediation</b>	4 hours quarterly	Not required	<b>No remediation is required,</b> since all software is prepared by Adobe for download.
<b>Compliance efforts and audits</b>	20 hours quarterly	Minimal	License tracking and audit efforts <b>are significantly reduced with named user deployment.</b>
<b>Help-desk requests</b>	10 per 100 users weekly	Significantly reduced	Help-desk requests linked to updates <b>are significantly reduced.</b>

*Traditional desktop deployment where software release cycles are measured in years, is a dinosaur. More frequent updates are needed and traditional deployment methods are costly and do not scale. Instead, organizations need to enable users wherever possible to make these decisions on their own.*

## Two entirely different sets of needs: Comparing office users and creative pros

	Office users	Creative pros	Comments
<b>General attitude to computer</b>	Uninvolved	Conscious of computer and operating system capabilities	Creative pros usually have a high level of computer expertise, since they consider it a <b>requirement for their professional skill-set</b> and vital to get the job done on time, which means they are <b>more apt to be more involved in management issues</b> .
<b>End user training</b>	Infrequently supplied	Specially trained expert user	Creative pros usually have undergone lengthy training to achieve excellence in their specialty. This also means that <b>they are aware that they need to evolve to keep pace with technology trends</b> , and are used to keep informed about issues.
<b>Desire to choose or manage tools</b>	Low	High	Creative pros are aware that their competitiveness depends on having access to the right tools, and they tend to <b>perceive being able to manage their tools as empowering</b> .
<b>Interoperability changes (file format support)</b>	Low	High	Creative pros in many cases <b>need access to the latest version and add-ons in order to keep up with the evolution of platforms and output channels</b> .
<b>Evolution of needs in terms of functionality</b>	Slow	Very fast	Because of the frantic pace of evolution in media-related technology, <b>creative pros very often require rapid access to the latest versions of software and add-ons</b> to get their work done and stay competitive.
<b>Level of assistance from peers and co-workers</b>	Average	High	There is usually a <b>strong team-spirit in creative departments</b> , and users help each other out when facing technology-related issues.
<b>Help-desk requirements</b>	High	Low	Creative pros tend to <b>make much fewer help-desk calls than office workers</b> , since most of the issues they face usually require expertise that exceeds the help-desk's competence.

### The thorny question of compliance

For larger enterprises, **software license compliance can be a thorny issue**, that not only implies painstaking management of installs and deployments, but also requires audits and client desktop scans to make sure that the software installed on workstations correspond precisely to available licenses.

Many compliance issues are linked to problems with serialized deployment, since the license of the software that is installed is linked to physical hardware, and not to the user. Even when deployment of software packages is rigorously managed, it is quite easy to lose track of the number of applications actually installed and used, and it is crucial to make sure a software package is immediately removed when it is not required any more.

**Named user deployment eliminates these issues:** a software license is linked to an individual, not to a machine; when a user is removed, his software immediately stops working, no matter where it is installed. This allows IT to immediately redeploy licenses as needed.

competitiveness of the marketing and sales operations. **Creative work drives revenue, and to allow creative teams to use their proficiency to the fullest is essential in terms of corporate development.**

Named user deployment is the way in which Creative Cloud for enterprise **can be fine-tuned to meet every users' specific needs, in terms of software availability, but also with respect to Creative Cloud Services such as Typekit fonts**, which are not available in serialized deployment.

**For the IT department, user-centric software deployment can mean significant cost-savings**, since packaging, verification and remediation of faulty package is greatly reduced. Managing the licenses simply means attributing access rights to specific software and services for individual users or groups, using the Admin Console. Since the software is downloaded from Adobe Servers, the load on local storage and networking resources is reduced, and patches are available directly. **Finally, compliance efforts are significantly reduced in this scenario.**

#### But what about the user?

For creative professionals, self-service management of software and updates is not perceived as burdensome: **Creative teams are delighted to be able to manage their toolbox themselves.** And as far as services such as Typekit fonts and Creative Cloud Libraries are concerned, they are in the best position to judge the usefulness of these additions to the feature set of Creative Cloud.

To sum things up, while approaching software deployment from a user-centric perspective may seem counter-intuitive compared to standard IT procedures, it is clear that **with regards to creative departments, named user deployment is a considerable improvement.**



# It's all about the user: How named user deployment works

## Major points

- ▶ Named user deployment and self-service software distribution provide **significant productivity gains and reduced support tickets for the IT staff.**
- ▶ Creative professionals feel **empowered by self-service software distribution** and appreciate being able to choose themselves what applications to install.
- ▶ In creative workflows, being able to install multiple versions of the same software make it possible **to always have the right version for each project**, and **avoid limiting users to the compatibility constraints of specific projects.**

## It's a question of priority

Managing software, and particularly creative software, is complex, made significantly more difficult when using serialized deployment. There are two reasons for this: first, creative users are particularly individualistic in their work habits, and second, **the requirements for completing a creative project with the necessary level of excellence are in constant flux**, not only over time, due to evolutions in technology, but between different client projects. Take one example: a custom publishing house has to manage 175 licenses of InDesign; ten of these seats require an older version of the application. How do you manage this in the framework of serialized deployment? How do you keep track of who uses what? How do you manage the associated serial numbers?

## Before and after named user deployment

In serialized deployment, the software is installed on a workstation, not linked to a user account. This means that when a user changes workstation or department, the licensed applications need to be removed from the previous

## In their own words: What NUD users are saying

**Game Developer (1000 seats):** The person interviewed for this research is responsible for managing around 1000 workstations, which previously used CS6 versions of Adobe tools. *"The process of pushing packages to users workstations was cumbersome. **Since switching to NUD with Single Sign-On, providing the requested software to a user requires minutes rather than days.**"*

The fact that NUD is platform-agnostic is also perceived as a considerable benefit: *"**I love not having to worry about Mac or Windows versions of packages any more.**"*

**Finally, the fact that multiple versions of the same software can be used is also very important:** *"Creatives working on several projects need the version of software used for a specific project. Before Creative Cloud for enterprise, allowing that could be complicated."*

**Advertising Agency (600 seats):** The person participating in the research manages 600 workstations, with 60% of them equipped with Creative Cloud. Named User deployment has been used for approximately one year. *"**NUD makes life much easier. Before implementing this, we used to create several different packages of Creative Suite apps, which needed to be pushed to users workstations.**"* One recurring issue with this method is that **in at least 10% of the cases, software could not be deployed because the workstation was switched off** at the time of deployment, and IT needed to solve the problem through manual intervention, increasing the workload. *"Now we use the self-service model, and **users are delighted, because they have access to the latest versions and services such as Typekit.**"* In addition, not having to worry about different operating systems is perceived as a clear benefit.

# Benchmarking user administration: Benefits of named user deployment

	Without NUD (Minimum number of necessary steps)	With NUD (Admin Console)	ROI Impact
<b>Package and install four Adobe applications</b>	<ol style="list-style-type: none"> <li>1 Download Creative Cloud Packager</li> <li>2 Open Firewall and Proxy ports if necessary to allow for packaging and license checking</li> <li>3 Choose applications to package</li> <li>4 Build package and download apps (can take a long time)</li> <li>5 Create package script, test in deployment environment</li> <li>6 Script must log off user to avoid conflicts</li> </ol>	<ol style="list-style-type: none"> <li>1 Download a pre-built Creative Cloud app installer from the Adobe Admin Console.</li> <li>2 Create package script and test</li> <li>3 Deploy software</li> </ol>	<p>NUD: Only minimal package creation required for elevated privileges</p> <p><b>Impact:</b> Significantly decreased workload for IT staff</p>
<b>Install an additional app for a user</b>	<ol style="list-style-type: none"> <li>1 Download Creative Cloud Packager</li> <li>2 Open Firewall and Proxy ports if necessary to allow for packaging and license checking</li> <li>3 Choose applications to package</li> <li>4 Build package and download apps (can take a long time)</li> <li>5 Create package script, test in deployment environment</li> <li>6 Script must log off user to avoid conflicts</li> </ol>	<p><b>No work.</b> User installs needed software.</p>	<p>NUD: It is usually sufficient to add the app to the user profile</p> <p><b>Impact:</b> Significantly decreased workload for IT staff, reduced support tickets</p>
<b>Update five user applications</b>	<ol style="list-style-type: none"> <li>1 Open Creative Cloud Packager</li> <li>2 Select Applications, ensuring that the base version matches what is installed on end user workstations</li> <li>3 Build package</li> <li>4 Create package script and test in deployment environment</li> <li>5 Script must log off user to avoid conflicts</li> </ol>	<p><b>No work.</b> User updates needed software.</p>	<p>NUD: Users can simply download the app from the Creative Cloud app</p> <p><b>Impact:</b> Significantly decreased workload for IT staff, reduced support tickets</p>
<b>Update five application to a new version</b>	<ol style="list-style-type: none"> <li>1 Choose the five applications to package</li> <li>2 Build package and download apps (can take a long time)</li> <li>3 Create Package Script and test in deployment environment</li> <li>4 Script must log off user to avoid conflicts</li> </ol>	<p><b>No work.</b> User installs new versions as needed, optionally maintaining older versions for compatibility.</p>	<p>NUD: Users can simply download the updates from the Creative Cloud app</p> <p><b>Impact:</b> Significantly decreased workload for IT staff, reduced support tickets</p>

## The Benefit of multiple versions

Creative Cloud is unique in that **it allows, even wholeheartedly supports multiple versions of an application on the same workstation.** While this may seem strange or even counterproductive in the context of office software, it is often required for creative workflows.

**This is particularly important in the context of named user deployment.** Generally, the IT department tends to wait until all components and plug-ins are compatible with the latest version before rolling out an update. This, however, can be a problem: in an ad-agency, for instance, one client project may require a specific plug-in that is not yet compatible with the latest version of, say, Premiere Pro. For another project, however, the creative team needs to use a feature which has been introduced with the latest release. In fact, IT often holds back all users even if a very small contingent must stay on an older version.

Supporting multiple versions of applications on the same workstation solves this problem, and **gives creative professionals the ability to access the most recent feature set, while remaining compatible with earlier production pipelines if required.**

workstation before it is equipped with the applications for the next user. **In larger organizations, it can be very hard to keep track of which software is installed where,** and to make sure that license compliance is respected. Using NUD, on the other hand, this is not a problem at all. The license is linked to an identified user, wherever he or she may be in an organization. There is no need to uninstall the software either since it is not usable. **Likewise, if somebody leaves the company, the User Sync Tool provided by Adobe will automatically sync changes from the enterprise directory to the CC User list.** (Even in the case where another user takes over the same workstation, all that's required is that his profile allows him or her to use the software that's already installed on the workstation.) All this **not only results in significant time-savings for the IT department, it also speeds up the process for users.** At one company interviewed for this research, a games-developer with around 1000 seats of Creative Cloud, prior to NUD, the time that passed between a request for a specific software package, and the moment it was actually available on that workstation could take up to a week. **Using the Admin Console, it takes a few minutes to process the request** once it is received by the IT department.

### The platform question

And, last but not least, there is the question of platforms. Most organizations employ a mix of macOS and Windows computers. Using serialized deployment, this means that every package needs to be created separately for both operating systems. In the case of named user deployment, this only needs to happen once, namely the first time the CC app is deployed on a workstation. (The CC app is auto-updating, so this operation needs to be completed only once for each workstation using elevated privileges.)



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