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# Licensing ArcGIS Desktop in Cloud Environments

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# ArcGIS Desktop License Types and the Cloud

## Executive Summary

1. Named User (aka Identity) licensing via [ArcGIS Online](#) is ideal for using ArcGIS Pro in cloud environments.
2. Single Use ArcGIS Desktop licenses should not be used in cloud environments.
3. Concurrent Use ArcGIS Desktop licenses can be used in cloud environments; the ArcGIS License Manager should not be installed on a virtual machine the cloud environment, but rather installed on a physical machine or supported virtualized machine.
4. Named User licensing via [ArcGIS Enterprise](#) uses the ArcGIS License Manager which should be installed on a physical machine or supported virtualized machine.

ArcGIS Desktop's license enablement technology for Single Use and Concurrent Use utilize Flexera's technology to create a unique machine identifier (UMN) based on a variable set of physical hardware identifiers (e.g. boot disk serial number, primary ethernet MAC address). The UMN is used as an anchor to the single machine on which the Single Use license or Concurrent Use License Manager is enabled. While these machine identifiers are static, and unique to each physical device, they are dynamic and variable on virtual devices. This means that Single Use and Concurrent Use licenses, when used on virtual machines in the cloud, are not reliable due to the volatile nature of the hardware identifiers in cloud environments.

Since the License Technology cannot validate the consistency of the virtual machine, authorizing Single Use or Concurrent Use licenses in cloud environments is not supported use by Esri.

## Named User Enablement via ArcGIS Online

The ArcGIS Online Named User license enablement is based on unique user identity, not on unique machine identifiers. The Name User Identity license enablement and management capabilities are built into ArcGIS Online. This is a key benefit of ArcGIS Online as a cloud-based system. Named Users can login into ArcGIS Online anytime, anywhere, from any supported device.

ArcGIS Pro has also been designed to leverage the Named User license enablement capabilities of ArcGIS Online. Customers can link ArcGIS Pro licenses to ArcGIS Online Named Users. This gives Named Users the same flexible, convenient access, anytime, anywhere, to ArcGIS Pro that has been installed on a supported device.

Note that ArcMap does not support the Named User enablement model.

## ArcGIS Pro in a Cloud Environment License enabled by Named User in ArcGIS Online

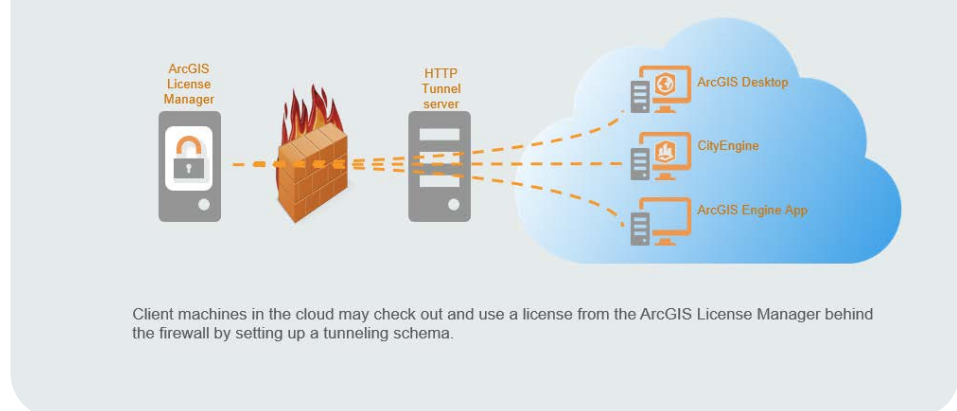


### Concurrent Use Licenses in the Cloud

Authorizing Concurrent Use licenses to a License Manager in the cloud is not supported.\* However, it is possible to use Concurrent Use licenses while using ArcGIS Desktop clients that are installed in the cloud environment.

ArcGIS License Manager must be installed outside the cloud environment which eliminates any issues binding the licenses to the (static) machine identifiers. This setup requires the extra step of tunneling from the cloud to your network through your firewall where the ArcGIS License Manager resides. If you are not the network system administrator for your organization, you should consult with them about the best approach for creating such a tunnel to ensure security is maintained.

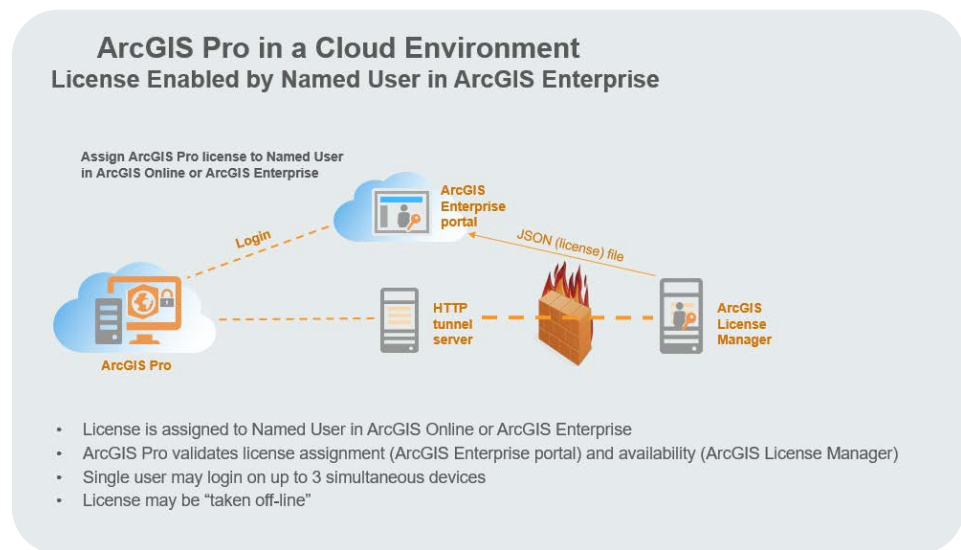
## ArcGIS Desktop in a Cloud Environment License enabled by Concurrent Use in the ArcGIS License Manager



\*ArcGIS License Manager may be installed to run Concurrent Use licenses on supported virtual machines (not in the cloud). See the system requirements in the product documentation for details on supported VMs.

### Named User Enablement via ArcGIS Enterprise

Using ArcGIS Enterprise to manage ArcGIS Pro licenses requires you to setup the ArcGIS License Manager outside the cloud environment, just as it is when using Concurrent Use licenses, but with the added benefits of the identity model. As with ArcGIS Online, this option works well for ArcGIS Pro, but not ArcMap which does not utilize Named User licensing. However, since you must setup the License Manager with tunneling through your firewall, you could also use the same ArcGIS License Manager for Concurrent Use licenses for ArcMap.





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