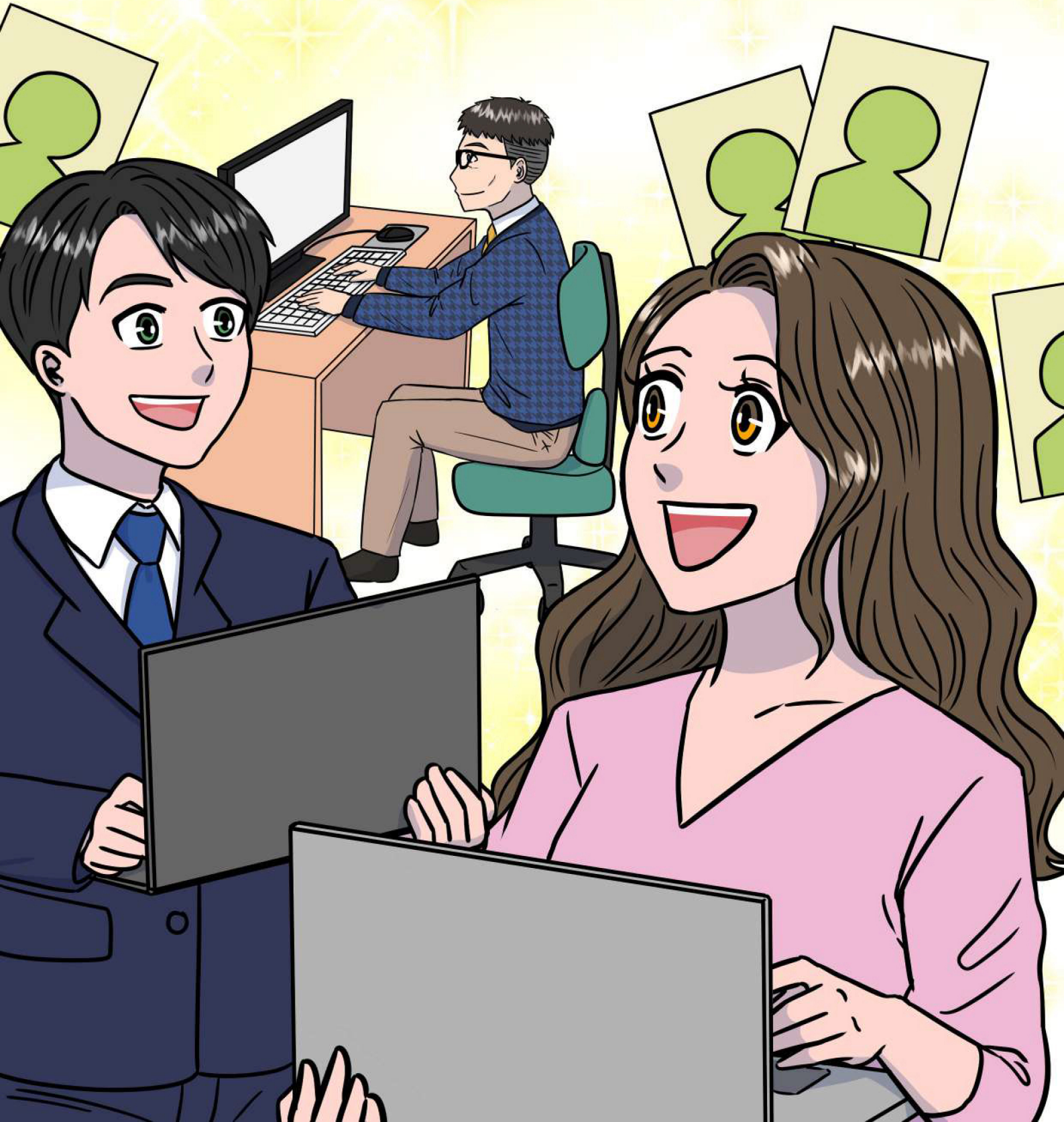
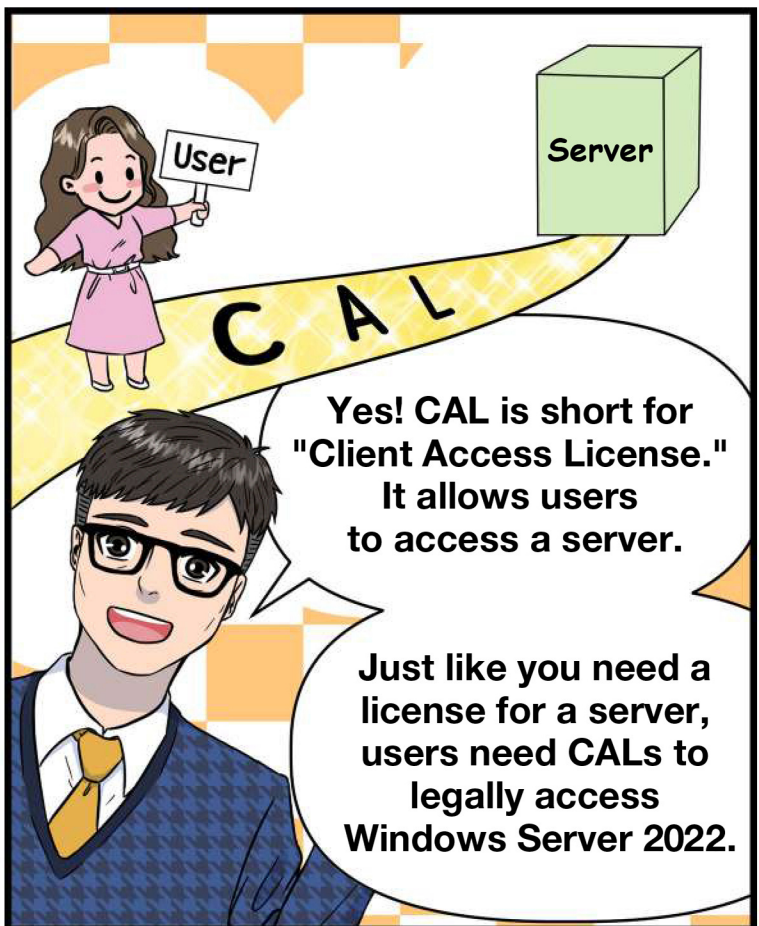
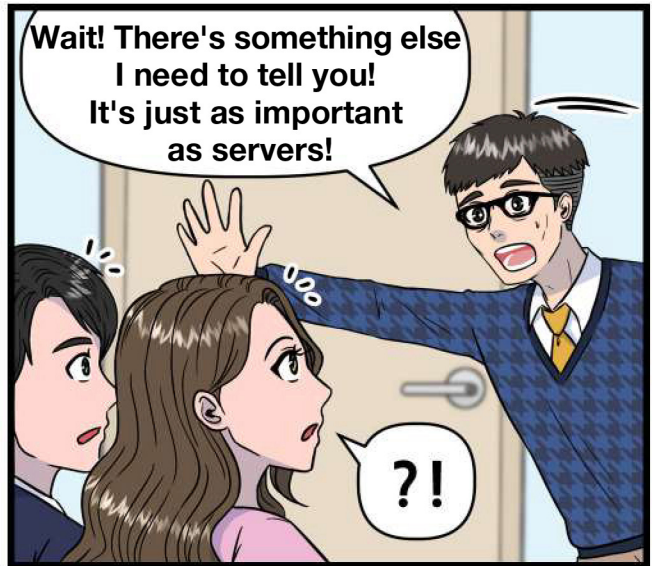


## What is CAL?

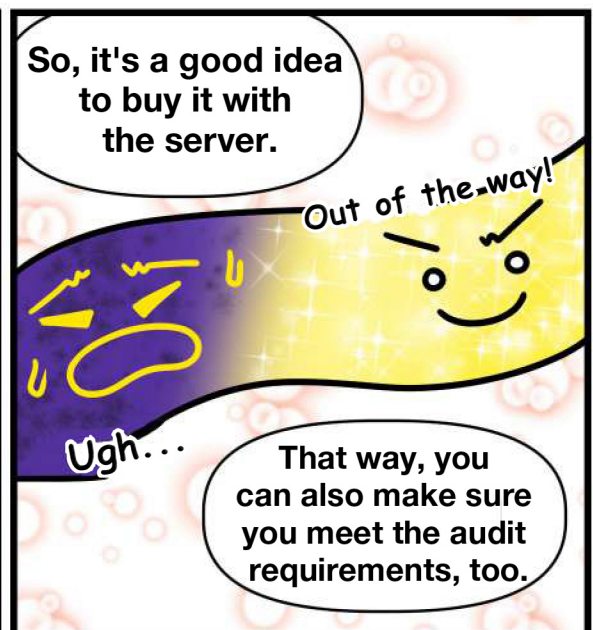
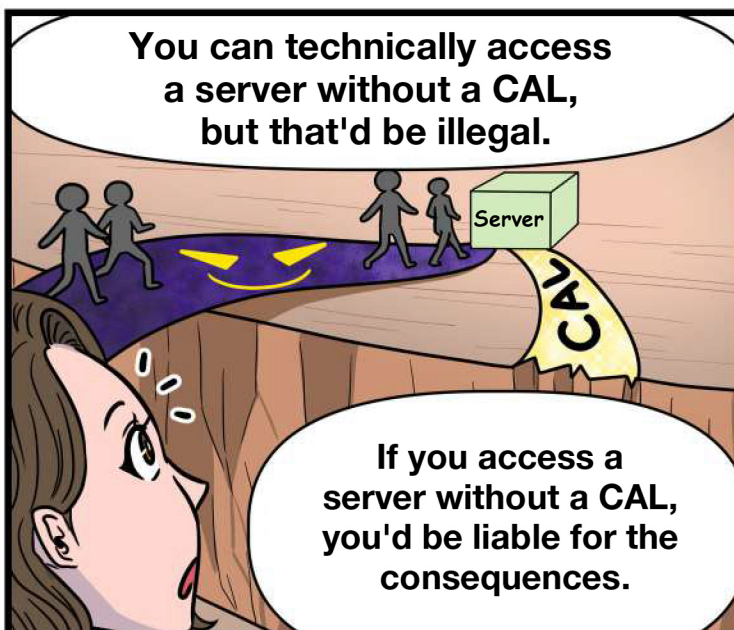
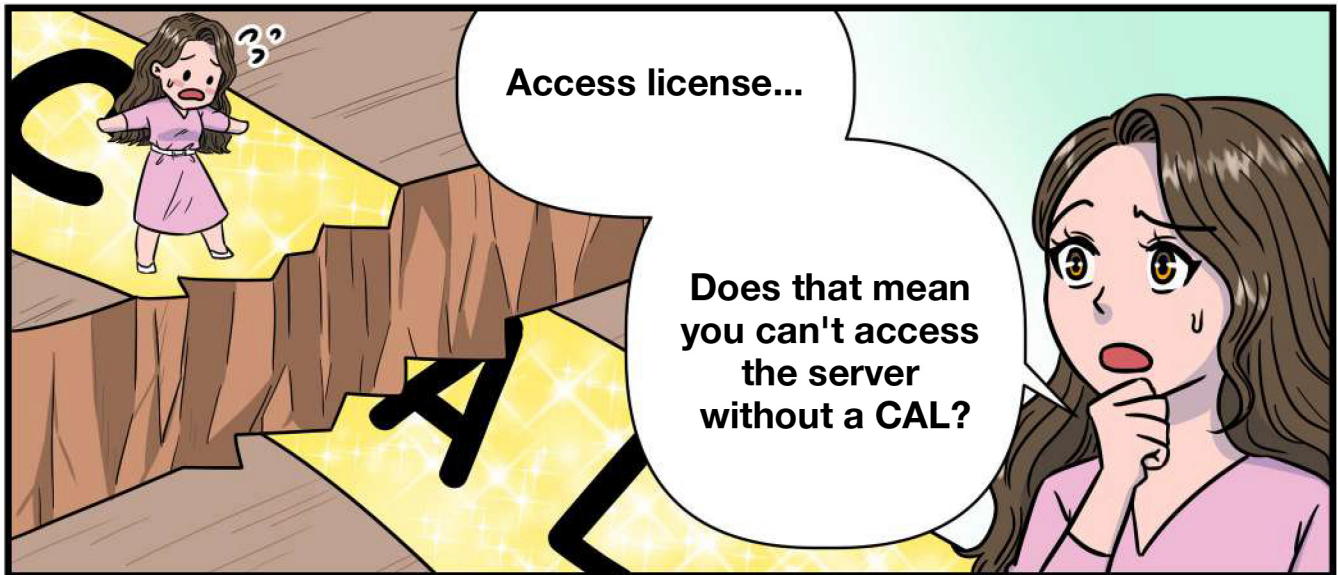
CAL enables many people to safely use the same server at the same time.











Like I mentioned before...

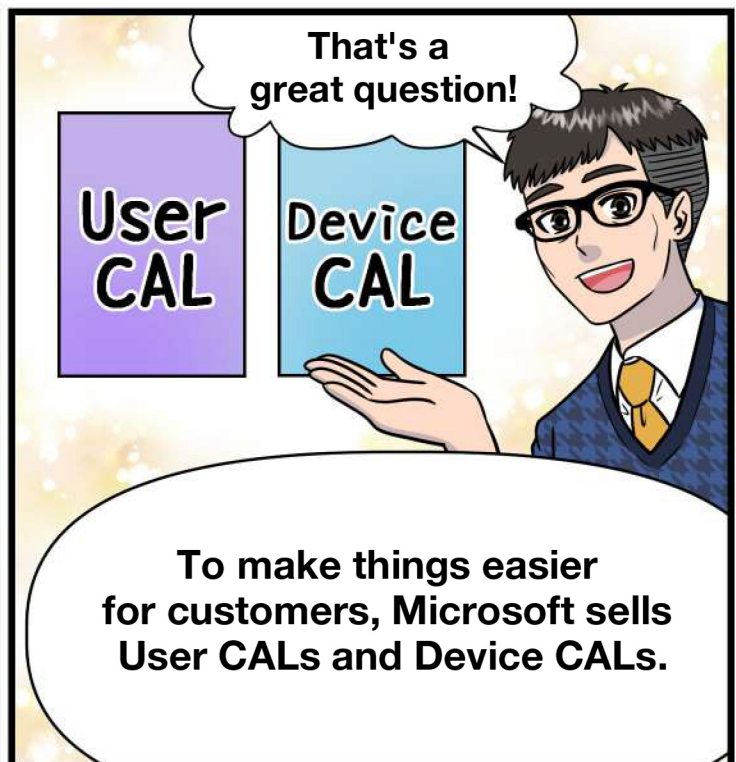
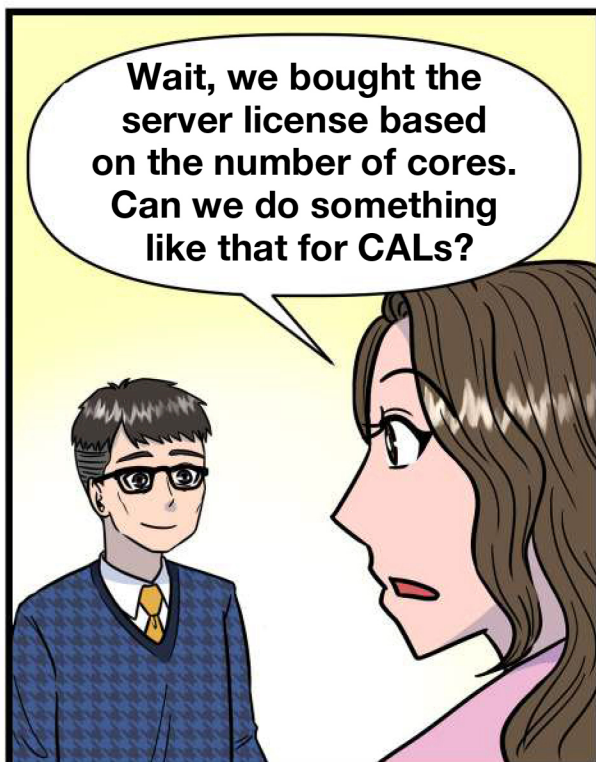
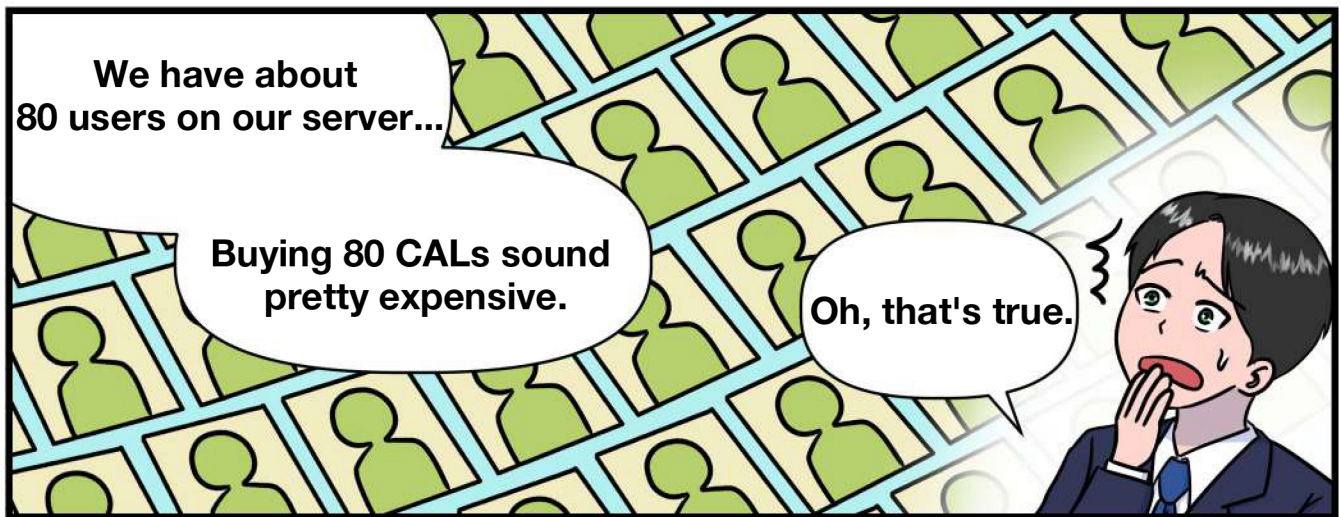
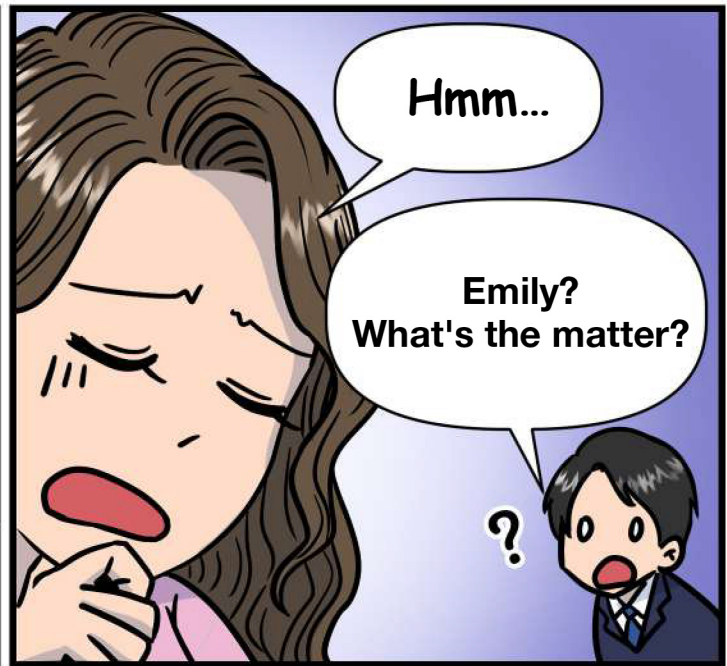
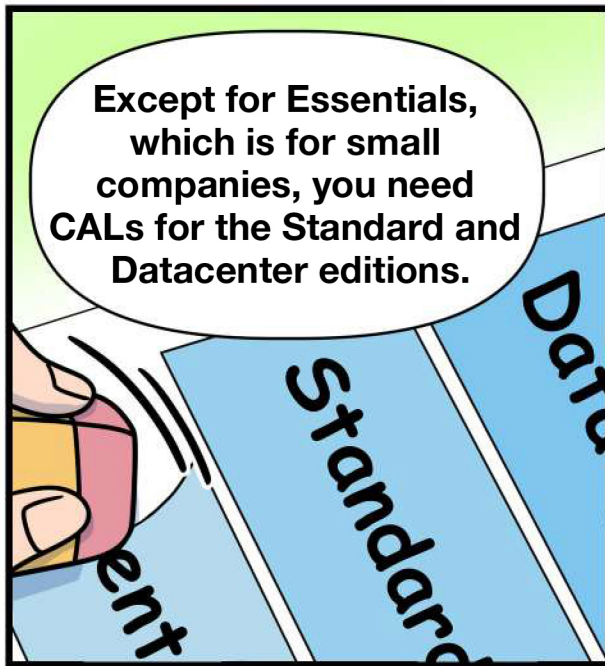
### Windows Server 2022 Edition

Enterprise technology that supports companies of all sizes

Windows Server 2022 Essentials Edition (Available in ROK and OEM only)	Windows Server 2022 Standard Edition	Windows Server 2022 Datacenter Edition
The first server is cloud-based, and it can be accessed by up to 25 users and 50 devices. Server CALs not required	Suitable for low-density or non-virtualized environments. Unlimited (Varies according to CALs)	Ideal for advanced virtualized software-defined datacenter environments. Unlimited (Varies according to CALs)
1 physical or virtual server	2 VM	Unlimited VMs
Must be configured in the root domain	2 Hyper-V Containers	Unlimited Hyper-V Containers
	Unlimited Windows Server Containers	
	Storage function included: Storage replication and direct storage space	
	New King stack	
	VM and host protection services	

There are 3 Windows Server packages for meeting customer needs: Essentials, Standard, and Datacenter.





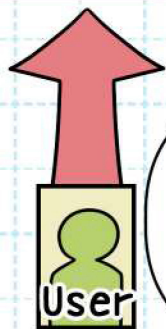


There's a big difference between 100 users who use 1 device and 1 user who uses 100 devices, right?

That's why Microsoft provides services based on the user type.



**Unlimited Devices**



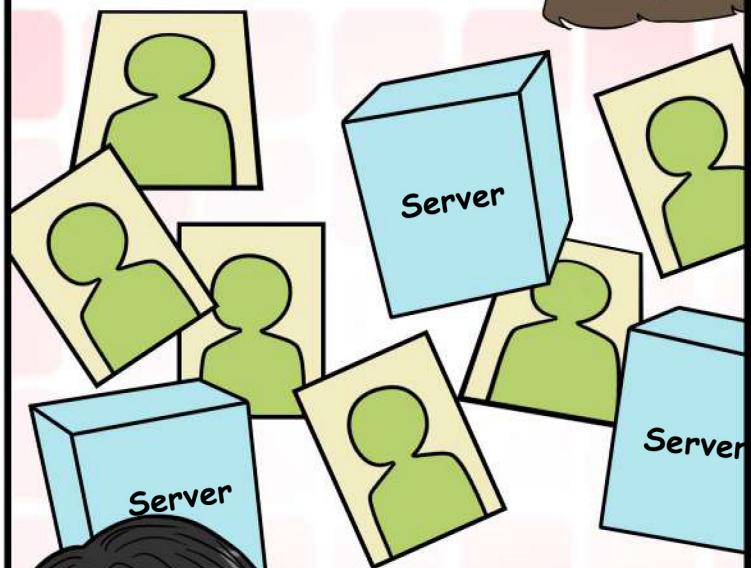
User CALs allow 1 user to access unlimited devices.

Device CALS allow unlimited users to access 1 device.



**Devices**

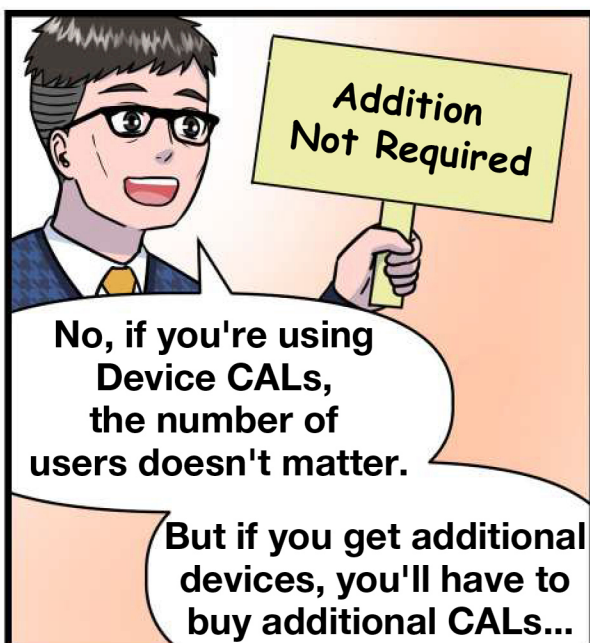
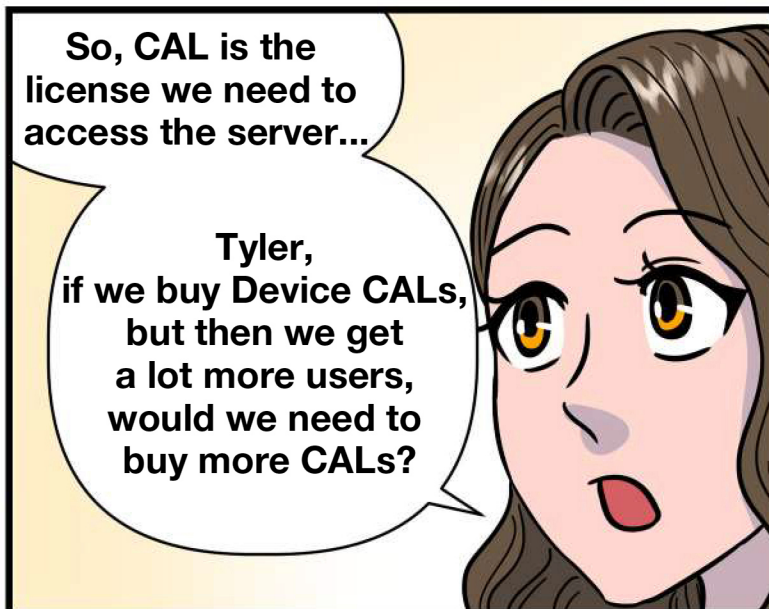
Howard,  
how is our server  
structured?



We have 80 users  
on 5 devices.







**Windows Server 2022 CALs**

EX:  
User accesses RDS and RMS:  
1 Windows Server 2019 Default CAL (Standard or Datacenter Edition)  
\* 1 Windows Server Remote Desktop Services CAL  
\* 1 Active Directory Rights Management Services (RMS) CAL

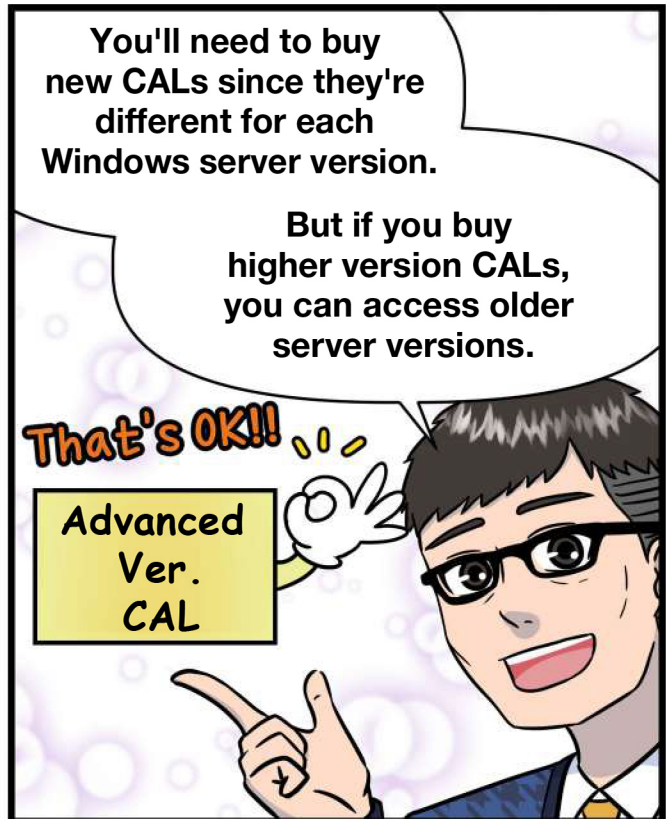
Server	Feature	Default	Addition
Windows Server 2022 Basic CAL	Windows Server Remote Desktop Services (RDS) CAL		Addition
Windows Server 2019 Datacenter		Default	Addition
Windows Server 2019 Standard		Default	Addition
Windows Server 2019 Essentials		Not Applicable	Not Applicable

**RDS**

**RMS**

You can also add advanced features like RDS/RMS, depending on your company's environment.







# Client Access Licenses (CALs)

When a customer buys Windows Server 2022, they receive a server license that allows them to be installed on the OS on one computer. A server license by itself does not provide the legal right to allow others to connect to that computer, whether they work for the company or not. Instead, each employee or employee's device requires a Client Access License (CAL) to connect to Windows Server 2022 Standard or Datacenter editions.



## User CAL

Single user with **unlimited devices**

Ideal for companies with employees who need to have roaming access to the corporate network using multiple devices, as well as from unknown devices.



## Device CALs

Single device with **unlimited users**

Ideal for companies with multiple users for one device, such as shift workers.



## RDS CALs

Required for **remote desktop access**

Ideal for companies with users that need to access programs or the full desktop remotely.

## Windows Server 2022 CALs

Example:

User with RDS and RMS access requires:

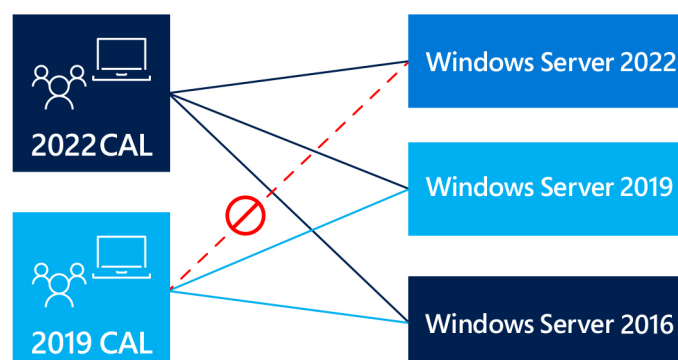
1 Windows Server 2022 base CAL (Standard or Datacenter)  
+ 1 Windows Server Remote Desktop Services CAL  
+ 1 Active Directory Rights Management Services CAL

	Functionality		
Server	Windows Server 기본 CAL	Windows Server Remote Desktop Services(RDS) CAL	Active Directory Rights Management Services(RMS) CAL
Windows Server 2022 Datacenter	Base	Additive	Additive
Windows Server 2022 Standard	Base	Additive	Additive
Windows Server 2022 Essentials	N/A	N/A	Additive

## CALs are version-specific

CALs are required to access any instance of Windows Server and must be purchased separately.

- Windows Server 2016 CALs provide access to Windows Server 2016 or any previous version.
- CALs from any previous Windows Server version, only work for that version or any previous version.





# Windows Server 2022 licensing FAQ

## Are CALs required for access to Windows Server 2022 Standard and Datacenter editions?

Yes. Each user or device must have a Client Access License (CAL). Each server accessed by external users must have an External Connector (EC) license.

## Which access licenses do I use to access Windows Server 2022?

Internal users or devices require CALs (one per user). External users or devices need ECs (one per server). Advanced functionality access requires additive CALs or ECs.

## Are there any exceptions to the CAL and EC requirements?

Yes. No CAL or EC is required for access by another licensed server when accessing web or high performance computing (HPC) workloads.

## What are the differences between base and additive licenses?

Base licenses provide access to standard functionality in Standard and Datacenter editions. Additive licenses provide access to advanced server functionality like Windows Server RDS and Windows Server Active Directory RMS.

## Do I need a separate CAL to access advanced server functionality?

Yes. Advanced functionality such as Windows Server RMS and Windows Server Active Directory Management Services require additive licenses.

## Are premium services CALs the same as Additive CALs?

Yes. Additive CALs are sometimes referred to as "premium" or "premium services" CALs. The terminology was updated to be more descriptive and reduce confusion with online services.

## Do I need more than one Additive CAL per user or device to access the same functionality running on more than one server?

No. Only one user or device Additive CAL is needed to use the services on any number of your licensed servers. For example, a Remote Desktop Services User CAL permits one user to access Remote Desktop Services functionality on any of your licensed Windows Server operating systems.

## Are all CALs licensed in the same way?

Please consult the Microsoft Product Terms to find full information about the different Microsoft Client Access Licenses usage rights.

## Can a single-server product have multiple Additive CALs?

Yes. A single-server product can have multiple Additive CALs. An example of this is Windows Server, which has Windows Active Directory Rights Management Services as well as Remote Desktop Services, each of which requires separate device and/or user CALs if used by a customer.



