Cisco ISE Licenses:

The Cisco ISE can be deployed on both physical Cisco's SNS Server and virtual environments like VMware, KVM and Hyper-V. Cisco ISE architecture supports both standalone and distributed also known as high-availability or Redundant deployments where one machine assumes the primary role and another backup machine assumes the secondary role. The Cisco Secure Network Server is based on the Cisco UCS C220 Rack Server and is configured specifically to support the Cisco Identity Services Engine (ISE) security application.

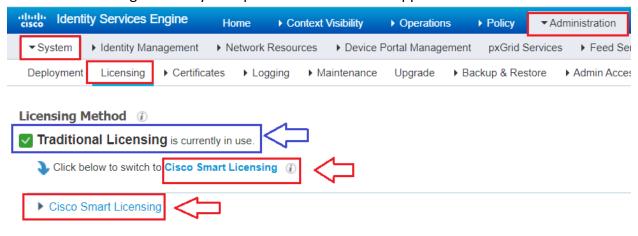


Smart Licensing:

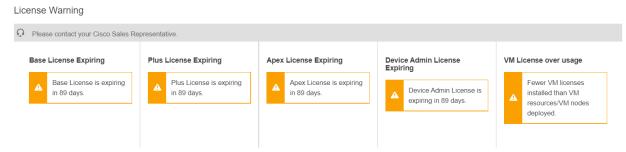
Monitor ISE software licenses and endpoint license consumption easily and efficiently with a single token registration. The licenses that you have purchased are maintained in a centralized database called the Cisco Smart Software Manager (CSSM). Smart Licensing is where you manage a Cisco account that contains all the information about the license you purchased for deployment. Smart licensing is where you manage a cisco account that holds all the information on the license purchased for your deployment.

Traditional Licensing:

Purchase and import individual licenses based on your needs and manage the application features and access, such as the number of concurrent endpoints that can use Cisco ISE network resources. Traditional Licenses involves the user importing a license into the device. Licenses are counted as simultaneous active sessions. An active session is one for which a RADIUS count start has been received, but a RADIUS count stop has not yet been received. Traditional licensing is where you import a license onto the appliance

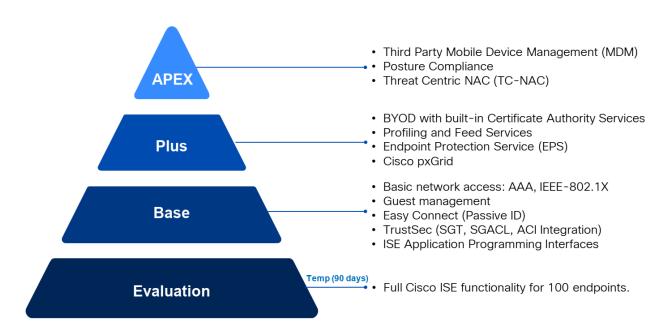


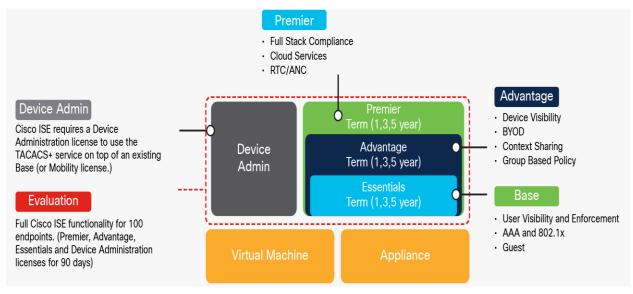
ISE licenses can generally be broken down into two high level ISE node licenses and ISE endpoints licenses. Node licenses have their quantity determined based on the number of ISE servers/nodes, while the license type endpoint licenses have their quantity determined based on the number of endpoints (concurrently) connecting to your ISE controlled access networks.



The appliance license only applies if you are deployment Cisco ISE on virtual machines. If you have purchased the Cisco Secure Network Server hardware ISE appliance, you can omit this license type as it is not needed. This license comes in three size flavors; small (12CPU + 16GB RAM), medium (16CPU + 64GB RAM), or large (16CPU + 256GB RAM).

Packages	Perpetual/Subscription	ISE Functionality Covered	
Base	Perpetual	Basic network access: AAA, IEEE-802.1X	
		Guest management	
		Link encryption (MACSec)	
		TrustSec	
		ISE Application Programming Interfaces	
Plus	Subscription	Bring Your Own Device (BYOD).	
	(1, 3, or 5 years)	Profiling and Feed Services	
		Endpoint Protection Service (EPS) Cisco pxGrid	
		MSE integration for location services	
Apex	Subscription	Third Party Mobile Device Management (MDM)	
	(1, 3, or 5 years)	Posture Compliance	
Mobility	Subscription	Combination of Base, Plus, and Apex for	
	(1, 3, or 5 years)	wireless and VPN endpoints	
Mobility	Subscription	Provides wired support to Mobility license	
Upgrade	(1, 3, or 5 years)		
Device	Perpetual	TACACS+	
Administration			
Evaluation	Temporary (90 days)	Full Cisco ISE functionality is provided for 100 endpoints.	





Base	Plus	Арех	Device Admin	VM
AAA	Profiling	Posture	TACACS+	Per Node*
TrustSec	BYOD w/ Cert	MDM	Per Node*	
802.1x	pxGrid	TC-NAC		
Guest Services	ANC	AnyConnect		
	MSE			

License Activation:

Licenses are uploaded to the Primary Policy Administration Node and propagated to the other Cisco ISE nodes in the cluster. Licenses are centrally managed by the Administration node; the other nodes do not require separate licenses. If you have two Administration nodes deployed in a high-availability pair, you must ensure that each of them have the same license capabilities. Generate license with both the UDIs of the Primary and the Secondary Policy Administration Nodes and then add the license to the Primary Policy Administration Node. The PAN then centrally manages all the licenses that are registered for your deployment. When a node is deregistered from the PAN, it becomes a standalone node and its license is reset to Evaluation.

From the Cisco ISE Administration portal, choose Administration> System>Licensing. Make a note of the node information in the Licensing Details section: Product Identifier (PID), Version Identifier (VID), and Serial Number (SN).



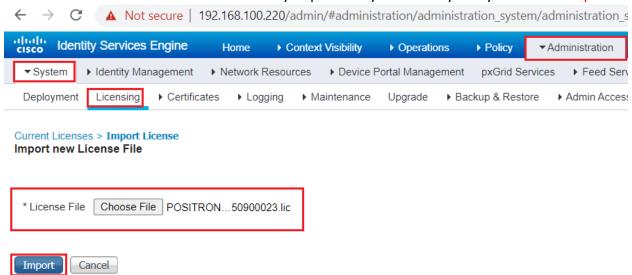
Go to www.cisco.com/go/licensing, and where prompted, enter the PAK of the license you received, the node information, and some details about your company. After one day, Cisco sends you the license file. Save this license file to a known location on your system.



From the Cisco ISE Administration portal, choose Administration > System > Licensing. In the License Files section, click the Import License button.



Click Choose File and select the license file you previously stored on your system. Click Import.

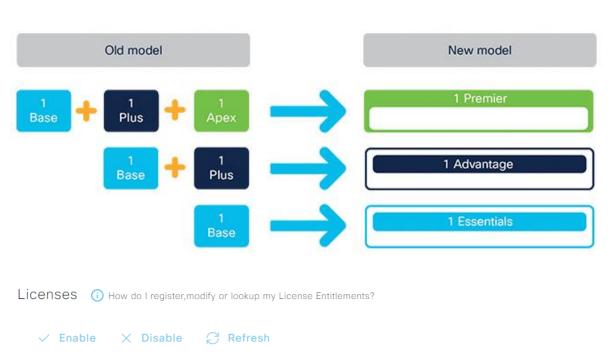


The base license has been imported successfully same way other license can be imported.

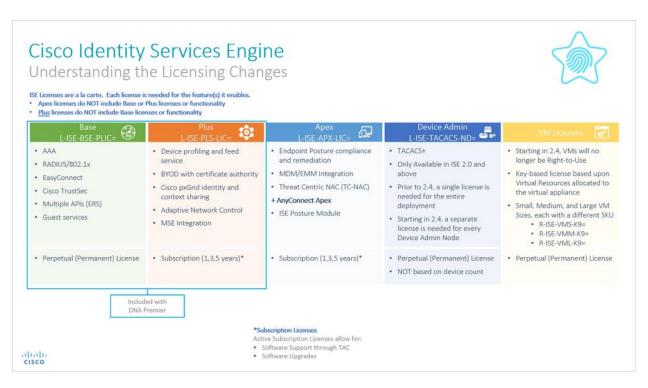


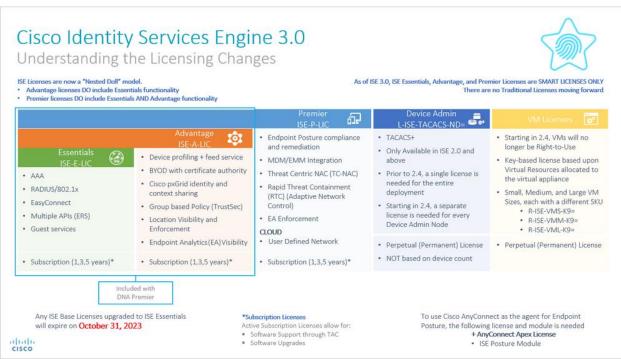
Cisco ISE V3 License:

Starting with the ISE 3.0 release, ISE Licenses Are Smart Licenses only. If you're on any prior release, the licenses can be used as either traditional Product Authorization Key based or as Smart Licenses. In the former case, the license file is imported into the deployment. About Cisco ISE license changes, when converting existing licenses to the new scheme, the licenses will be migrated using the following rules. While functionality will be retained across licenses, notice that the license count might be different to what the Base/Plus/Apex license count is, and that all licenses will have an expiry date:



	License	Status	Compliance	Consumption Count*				
✓ Tie	∨ Tier							
	Essential	Enabled	Evaluation	<u>0</u>				
	Advantage	Enabled	Evaluation	<u>0</u>				
	Premier	Enabled	Evaluation	<u>0</u>				
	Device Admin	Enabled	Evaluation	0				





Base Licenses:

In Identity Services Engine deployment without base licenses is like a car without wheels. In Cisco Identity Services Engine (ISE) Base Licenses are mandatory and Compulsory. You need one of these for every endpoint that is connected to your network regardless of how it's accessing your network. Endpoint only uses base-only license if they are connecting using EasyConnect, 802.1x, BYOD without ISE CA, and Guest Access. Again, these are concurrently connected and these licenses are perpetual means they don't expire. These are the list of all most notable functionality, while using base licenses. Wired, Wireless, VPN Access Control, Basic RADIUS Authentication/Authorization (802.1X and MAC Authentication Bypass), Web Authentication (e.g. for guests), Guest Portal and Sponsor Services, Security/Scalable Group Tagging and PassiveID.

Plus Licenses:

ISE Plus licenses can be looked at as building on top of the functionality provided by base licenses in that plus licenses do NOT include the functionality provided by base licenses. Plus, licensing uses a subscription model because it is providing a feature-set device profiling, BYOD, etc tied to an ever changing landscape. To combat ever-changing landscape, Cisco maintains a profiler feed service that your ISE deployment will use to stay up-to-date. List of the most notable functionality you are entitled to when using Plus licenses. Device Profiling, Access to the Profiler Feed Service from Cisco, Device Registration and On-Boarding (BYOD), pxGrid Context Sharing, Location-based Access Control integration with Cisco CMX or MSE, Rapid Threat Containment and PassiveID for non-Cisco switches.

Apex Licenses:

ISE Apex licenses can be looked at as building on top of the functionality provided by base licenses in the same way that plus licenses do. Apex licenses do NOT include any functionality provided by base or plus license types. Like Plus licenses, Apex licensing uses a subscription model. This license is consumed when you use posturing, MDM integration, or mitigate with Threat-Centric NAC. List of the most notable functionality you are entitled to when using Apex licenses. Device Posturing, Mobile Device Management (MDM) Integration (compliance checks on mobile devices) and Rapid Threat Containment.

Device Admin:

This is a perpetual license. Think of this as your TACACS+ features from ACS on ISE. One thing to note is this: It's a single license per ISE cube, not a license per managed network device and it's not tied to any other licenses. The only exception where you have to buy an additional license is if you are purchasing ISE for nothing but device administration. If you do need to purchase at least 100 Base licenses but that's only because ISE needs at least 100 Base licenses to run - it's not tied to the managed network device count.