

Cisco MDS Smart Licensing Using Policy

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Cisco® MDS Smart Licensing is a cloud-based licensing solution that enables compliance for hardware and software licenses with no interruption to network operations.

Product overview

Smart Licensing using Policy (SLP) is the new Cisco MDS licensing model which is supported starting with Cisco MDS NX-OS Release 9.2(2) and it will be the only licensing mechanism available from this release and onward. It provides a cloud-based licensing solution that enables a compliance relationship to the account for the hardware and software licenses purchased and used, with no interruption to network operations.

The SLP provides a seamless experience as follows:

- **Purchase:** Licenses are purchased through the existing channels and use the Cisco Smart Software Manager (CSSM) portal to view product instances and licenses.
- **Use:** There are two categories of Cisco MDS switch licenses – software licenses and port activation licenses. For both categories, there is no requirement for license registration. Only for Port activation licenses, an authorization key has to be generated to enable ports. In online mode, generation and installation of authorization code is automatically handled and requires no manual intervention. In offline mode, it requires manual generation and installation of authorization code. License usage is recorded on the switch with timestamps, and the required workflows can be completed at a later time.
- **Report license usage to Cisco Smart Software Manager (CSSM):** There are multiple options available for Cisco MDS license usage reporting to CSSM. An MDS SLP deployment can be configured to either report directly to CSSM through the internet or through mediated access using the Cisco Smart License Utility (CSLU) or Smart Software Manager (SSM) on premises. For air-gapped MDS networks, there is a provision for offline reporting. License usage reports can be manually downloaded from the switch/CSLU/SSM on premises, depending on the deployment model, and uploaded to CSSM. The license usage report is provided in plain XML format.

Features and benefits

Table 1. Primary features and benefits

Feature	Benefit
Seamless day-0 operations	It provides a completely seamless day-0 operation for Cisco MDS licenses. There is no evaluation mode for licenses, and there is no requirement for registration of licenses. For software licenses, a key is not required to be generated before allowing the use of the software. To enable switch ports using port activation license, a licenses authorization key has to be generated on the CSSM and installed on the switch. In online mode, this is automatically taken care of and doesn't require any manual intervention; in offline mode it must be done manually.
Cisco MDS NX-OS	Devices running Cisco MDS NX-OS software have a consistent uniform licensing experience.
Visibility and manageability	Through a Cisco Smart Account, customers can easily view and manage all Cisco Smart Licenses and entitlements across the organization. An administrator can create virtual accounts (sub accounts) to help manage the licenses for departments, areas, or locations within the organization. Licenses can be pooled for virtual accounts as needed. Smart accounts have role-based user access controls, which allows the delegation of authority to account administrators at the Smart Account level or at the Cisco Virtual Account level. A customer can also delegate visibility and management rights to its Virtual or Enterprise level Smart Account to its partners.

Feature	Benefit
Flexible time-series reporting	Easy reporting options are available to remain compliant, whether you are directly or indirectly connected to CSSM or in an air-gapped network.
License portability	Cisco software licenses are no longer node-locked to a switch. Customers can easily pool software license entitlements and move them across devices in the organization as and when needed. This flexibility is not available for port-activation and FCIP upgrade licenses; both these licenses will be tied to a serial number and will be perpetual in nature.

Deployment Modes

New deployment

For greenfield Cisco MDS deployments, new Cisco MDS switch purchases with Cisco MDS NX-OS Release 9.2(2) pre-installed will have their first-time license reporting done at the Cisco factory. Therefore, Cisco MDS switches will not have to send a license report to Cisco for the next 365 days, based on the default reporting policy. If the switch fails to report within the SLP reporting period, the device will be marked out of compliance in the Cisco Smart Account, syslog messages will be generated on the switch depending on the SLP policy, but the features will continue to work in honor mode.

Upgrade from non-SLP release

For existing Cisco MDS deployments, where a Cisco MDS switch having PAK license is upgraded to Cisco MDS NX-OS Release 9.2(2), the software recognizes those PAK licenses and automatically triggers a “device-led license conversion” process to convert the PAK licenses to license entitlements without any user intervention. In air-gapped mode, the conversion must be done manually. Details can be found in the [Cisco MDS Smart Licensing Using Policy Guide](#).

Licensing

Cisco MDS subscription bundles

The Cisco subscription license bundles simplify ordering and maximize savings. This Cisco subscription license model does not offer a-la-carte licenses as they are no longer price attractive. Port activation licenses remain outside subscription bundles.

Table 2. Cisco MDS subscription bundles

Subscription	Description
Premier	<ul style="list-style-type: none"> Enterprise and Cisco Nexus® Dashboard Fabric Controller (NDFC; formerly DCNM), SAN Analytics 1-, 3-, 5-, and 7-year options Available with Cisco MDS NX-OS Release 9.2.2 or higher
Advantage	<ul style="list-style-type: none"> Enterprise and Cisco Nexus® Dashboard Fabric Controller (NDFC; formerly DCNM) 1-, 3-, 5-, and 7-year options Available with Cisco MDS NX-OS Release 9.2.2 or higher
FICON	<ul style="list-style-type: none"> FICON subscriptions will be available when a Cisco Smart Licensing enabled NX-OS release is FICON certified.
Port Expansion Licensing (fixed switches only)	<ul style="list-style-type: none"> Requires Auth-code with Smart Licensing using Policy (SLP) Treated like hardware, it will be perpetual and will decommission with the switch. Available with Cisco MDS NX-OS Release 9.2.2 or higher

Subscription	Description
FCIP Upgrade Licensing (MDS 9220i only)	<ul style="list-style-type: none"> • Requires Auth-code with Cisco Smart Licensing using Policy (SLP) • Enables all FC and FCIP ports • Treated like hardware, it will be perpetual and will decommission with the switch. • Available with Cisco MDS NX-OS Release 9.2.2 or higher

License ordering information

A license can be ordered from Cisco Commerce just like any other Cisco® product. The Smart Account of the end customer or the Smart holding account of the partner must be indicated when placing the order for the licenses. Once the order is placed and successfully processed, the licenses are digitally credited to the Smart Account or the Smart holding account.

Spare subscription license ordering

To order a spare subscription license, you have to create a Cisco Commerce estimate for MDS-M9K-ADD-T; then pick “Select option” and pick one of the available licenses.

Ordering information

Cisco MDS Switch License PIDs

Table 3. Cisco MDS 9132T License PIDs

License PID	Description
M91XK9-A-1Y	MDS9100 Advantage Subscription License bundle for 1 year
M91XK9-A-3Y	MDS9100 Advantage Subscription License bundle for 3 years
M91XK9-A-5Y	MDS9100 Advantage Subscription License bundle for 5 years
M91XK9-A-7Y	MDS9100 Advantage Subscription License bundle for 7 years
M91XK9-P-1Y	MDS9100 Premier Subscription License bundle for 1 year
M91XK9-P-3Y	MDS9100 Premier Subscription License bundle for 3 years
M91XK9-P-5Y	MDS9100 Premier Subscription License bundle for 5 years
M91XK9-P-7Y	MDS9100 Premier Subscription License bundle for 7 years
M9132T-PL8	MDS 9132T 8-Port Upgrade License
M9132T-PL8-SL=	MDS 9132T 8-Port Upgrade Smart License, Spare

Table 4. Cisco MDS 9148T License PIDs

License PID	Description
M91XK9-A-1Y	MDS9100 Advantage Subscription License bundle for 1 year
M91XK9-A-3Y	MDS9100 Advantage Subscription License bundle for 3 years
M91XK9-A-5Y	MDS9100 Advantage Subscription License bundle for 5 years
M91XK9-A-7Y	MDS9100 Advantage Subscription License bundle for 7 years
M91XK9-P-1Y	MDS9100 Premier Subscription License bundle for 1 year
M91XK9-P-3Y	MDS9100 Premier Subscription License bundle for 3 years
M91XK9-P-5Y	MDS9100 Premier Subscription License bundle for 5 years
M91XK9-P-7Y	MDS9100 Premier Subscription License bundle for 7 years
M9148T-PL8	MDS 9148T 8-port Upgrade license
M9148T-PL8-SL=	MDS 9148T 8-port Upgrade Smart license, Spare

Table 5. Cisco MDS 9396T License PIDs

License PID	Description
M93XK9-A-1Y	MDS9300 Advantage Subscription License bundle for 1 year
M93XK9-A-3Y	MDS9300 Advantage Subscription License bundle for 3 years
M93XK9-A-5Y	MDS9300 Advantage Subscription License bundle for 5 years
M93XK9-A-7Y	MDS9300 Advantage Subscription License bundle for 7 years
M93XK9-P-1Y	MDS9300 Premier Subscription License bundle for 1 year
M93XK9-P-3Y	MDS9300 Premier Subscription License bundle for 3 years
M93XK9-P-5Y	MDS9300 Premier Subscription License bundle for 5 years
M93XK9-P-7Y	MDS9300 Premier Subscription License bundle for 7 years
M9396T-PL16	MDS 9396T 16-Port Upgrade License
M9396T-PL16-SL=	MDS 9396T 16-Port Upgrade Smart License, Spare

Table 6. Cisco MDS 9148V License PIDs

License PID	Description
M91VXK9-A-1Y	MDS M9100V Advantage Subscription License bundle for 1 year
M91VXK9-A-3Y	MDS M9100V Advantage Subscription License bundle for 3 years
M91VXK9-A-5Y	MDS M9100V Advantage Subscription License bundle for 5 years
M91VXK9-A-7Y	MDS M9100V Advantage Subscription License bundle for 7 years
M91VXK9-P-1Y	MDS M9100V Premier Subscription License bundle for 1 year
M91VXK9-P-3Y	MDS M9100V Premier Subscription License bundle for 3 years
M91VXK9-P-5Y	MDS M9100V Premier Subscription License bundle for 5 years
M91VXK9-P-7Y	MDS M9100V Premier Subscription License bundle for 7 years
M9148V-PL8	MDS 9148V 64G FC switch 8-port upgrade license
M9148V-PL8=	MDS 9148V 64G FC switch 8-port upgrade license, Spare

Table 7. Cisco MDS 9124V License PIDs

License PID	Description
M91VXK9-A-1Y	MDS M9100V Advantage Subscription License bundle for 1 year
M91VXK9-A-3Y	MDS M9100V Advantage Subscription License bundle for 3 years
M91VXK9-A-5Y	MDS M9100V Advantage Subscription License bundle for 5 years
M91VXK9-A-7Y	MDS M9100V Advantage Subscription License bundle for 7 years
M91VXK9-P-1Y	MDS M9100V Premier Subscription License bundle for 1 year
M91VXK9-P-3Y	MDS M9100V Premier Subscription License bundle for 3 years
M91VXK9-P-5Y	MDS M9100V Premier Subscription License bundle for 5 years
M91VXK9-P-7Y	MDS M9100V Premier Subscription License bundle for 7 years
M9124V-PL8	MDS 9124V 64G FC switch 8-port upgrade license
M9124V-PL8=	MDS 9124V 64G FC switch 8-port upgrade license, Spare

Table 8. Cisco MDS 9250i License PIDs

License PID	Description
M92XK9-A-1Y	MDS9200 Advantage Subscription License bundle for 1 year
M92XK9-A-3Y	MDS9200 Advantage Subscription License bundle for 3 years
M92XK9-A-5Y	MDS 9200 Advantage Subscription License bundle for 5 years
M92XK9-A-7Y	MDS 9200 Advantage Subscription License bundle for 7 years
M9250IP20-16G-SL=	MDS 9250i 20-port FC Upgrade Smart License, Spare

Table 9. Cisco MDS 9220i License PIDs

License PID	Description
M92XK9-A-1Y	MDS9200 Advantage Subscription License bundle for 1 year
M92XK9-A-3Y	MDS9200 Advantage Subscription License bundle for 3 years
M92XK9-A-5Y	MDS9200 Advantage Subscription License bundle for 5 years
M92XK9-A-7Y	MDS9200 Advantage Subscription License bundle for 7 years
M9220I-UPGK9-SL=	MDS 9220I Upgrade Smart license to enable all ports, Spare

Table 10. Cisco MDS 9700 License PIDs

License PID	Description
M97XK9-A-1Y	MDS9700 Advantage Subscription License bundle for 1 year
M97XK9-A-3Y	MDS9700 Advantage Subscription License bundle for 3 years
M97XK9-A-5Y	MDS9700 Advantage Subscription License bundle for 5 years
M97XK9-A-7Y	MDS9700 Advantage Subscription License bundle for 7 years
M97XK9-P-1Y	MDS9700 Premier Subscription License bundle for 1 year
M97XK9-P-3Y	MDS9700 Premier Subscription License bundle for 3 years
M97XK9-P-5Y	MDS9700 Premier Subscription License bundle for 5 years
M97XK9-P-7Y	MDS9700 Premier Subscription License bundle for 7 years

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Learn more

For more information about the Cisco MDS Smart Licensing using Policy, visit [Smart Licensing Using Policy Guide](#) or contact your local Cisco account representative.

Document history

New or revised topic	Described in	Date
-	-	-
-	-	-

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