



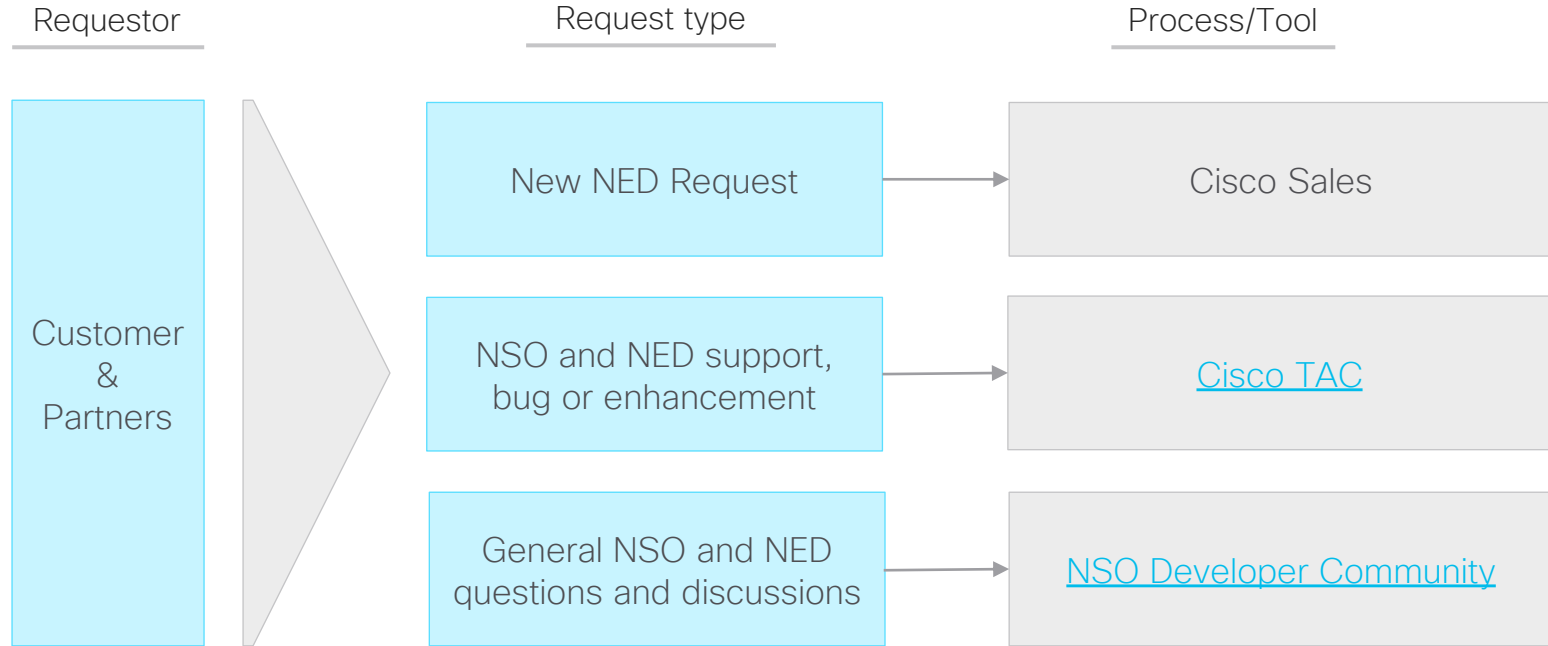
The bridge to possible

Support process for NSO and NED

How to request NSO and NED enhancements and filing bugs

April 20, 2021

NSO and NED support



New NED request



Purpose

- In order to for Cisco NED team to create a new NED, a number of input requirements must be met. The requirements are essential for developing a NED, hence mandatory and must be available during the entire project.
- A new NED request is initiated by contacting your Cisco Sales Team

Disclaimer

- The NED development can't start until all input requirements are met. In case of changes to the requirements during the development, the expected NED delivery will risk being delayed and might impact the greater project.

Expected outcome

- After receiving input requirements, the NED team will estimate the work to be done and put it on the new NED priority list. The requester will receive the NED development plan and expected start and delivery date.

Mandatory input requirement

Project contact and name

- An assigned project/account manager and a project name that can be associated to the NED request. The project must be funded before the project NED engagement starts

NED target delivery date

- For the NED team to understand how urgent the request is and how that aligns with the NED development time plan.

NSO version

- Intended NSO version for the project. This is for the NED team to have an initial release to support. Future releases of NSO (major/minor) will also be supported.

Device model/OS-version

- Detailed information about the device model and OS-version to be covered by the NED, i.e. show version from CLI or equivalent (Cisco IOS is not enough). This is used for compliancy tracking

Sample configuration for project use-cases/services

- The configurations should be equivalent to what is expected to be supported by the NED. These samples will be added to the test system as a part of the regression tests. Preferred the NED team should get the exact command sequence to be expected for all different use cases. If a *Show running-config* or equivalent from a reference system is delivered it will require more iterations with the project and hence require a longer delivery time.

Technical contact

- This person should be able to provide answers around the management of the device.

Remote access to a target device

- The target device should cover all configuration to be supported by the NED. The NED developer must be able to connect to the target device from his/her local machine. VPN/Tunneling is accepted. **WebEx session or other remote desktop is not acceptable due to the development environment and test system.**

API user guide

- For the developer to get knowledge of the commands to be implemented.

NED Support/Bug/Enhancement

Purpose

- In order for the Cisco NSO NED team to give support and maintenance to NEDs, a number of input requirements must be met. The requirements are essential for the team's ability to fix or enhance a NED. All requests for support and enhancement are initiated by contacting [Cisco TAC](#).

Disclaimer

- Due to technical constraints, some times the expected NSO version can not be supported by the NED. In these cases the customer/project must upgrade NSO.
- The NSO NED lab effort is to cover as much as possible of the features to be covered by a specific device. In some cases this is not feasible and remote access is necessary. In these cases, the NED developer must be able to have access connect to the target device from his/her local machine. The device should cover all configuration to be supported by the NED. VPN/Tunneling is accepted. **WebEx session or other remote desktop is not acceptable due to the development environment and test system.**

Expected outcome

- After receiving the mandatory input requirement, the bug/enhancement is added to the NED backlog. All communication with the customer will be via the ticket.

Mandatory input requirement

Project contact and name

- An assigned Project/Account manager and a project that can be associated to the NED request. The project must be funded before the engagement starts.

Target delivery date

- For the NED team to understand how urgent the request is and how that aligns with the NED development time plan.

NED & NSO Info

- Intended NED and NSO release for the project. This is for the NED team to have an initial release to support. Future releases of NSO (major/minor) will also be supported.

Device model/OS-version

- Detailed information about the device model and OS-version to be covered by the NED, i.e. show version from CLI or equivalent (Cisco IOS is not enough). This is used for compliancy tracking.

Technical contact

- This person should be able to provide answers around the management of the device.

API user guide

- For the developer to get knowledge of the commands to be implemented

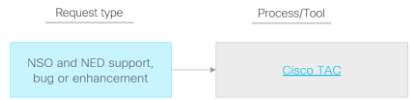
Special input requirement

Enhancement – Short description of missing config and Sample configuration with the missing config set

- The configurations should be equivalent to what is expected to be supported by the NED. These samples will be added to the test system as a part of the regression tests. Preferred the NED team should get the exact command sequence to be expected for all different use cases. If a *Show running-config* or equivalent from a reference system is delivered it will require more iterations with the project and hence require a longer delivery time.

Defect – Debug trace and successful example

- A NED trace that shows the issue in question. Preferably all log files, without changes, from the system



NSO Support/Bug/Enhancement

- For information about what needs to be included in a NSO Support/Bug/Enhancement request – please see the [NSO Troubleshooting guideline](#)

No need for customer to create or enhance NEDs

In theory customers can create or enhance NEDs since NED source (YANG, etc.) and developer guide comes with the system.

In practice there should be no need for a customer to do so.

If a customer chose to create or enhance a NED this will mean that

- The NED can't be supported by TAC
- The upgrade path to official NED versions will break.

The only time customer development of NEDs should be considered is:

- In case of emergency
- For one-off device/systems

However, it is always advised to use a qualified partner to create or enhance a NED.