

How do I upgrade a fleet of NetScaler appliances using NITRO API

Administrators are becoming heavily dependent on NITRO API for automating configuration and monitoring and need a way to automate the upgrade of their NetScaler devices via NITRO API. Ability to upgrade their complete fleet of NetScaler appliances in one single go is a much wanted and powerful feature for such administrators.

NetScaler release 11.1 introduced an API called *install*, with which you can automate the upgrade or downgrade of NS devices

Install API Request details:

- Sample URL (method POST) : `http://<NSIP>/nitro/v1/config/install`
Request payload: { "install": { "url": "file:///var/xyz/abc.tgz" } }
- Mandatory parameter in Payload: 'url'
 - The 'url' in payload specifies the location of the tar.gz file of the required build. The following url formats are supported:
 - `http://[user]:[password]@host/path/to/file`
 - `https://[user]:[password]@host/path/to/file`
 - `sftp://[user]:[password]@host/path/to/file`
 - `scp://[user]:[password]@host/path/to/file`
 - `ftp://[user]:[password]@host/path/to/file`
 - `file://path/to/file`
- Optional parameter in payload: 'y' and 'l'
 - The 'y' in payload specifies whether force reboot must be performed on successful loading of kernel
Possible value: true and false (default)
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 - The 'l' in payload specifies whether call home feature must be enabled
Possible value: true and false (default)

Response details:

- If 'y' parameter in request payload is false (default) and execution succeeds - you will get "Response HTTP status: 201: Created"
- If 'y' parameter in request payload is true and execution succeeds - there will be no response on success as the NetScaler will be rebooting
- If execution fails, the NITRO response will list the reason for error. These are some sample errors:
 - Installation failed. [No space on file system. Please check the log file /var/tmp/install]
 - Installation failed. [File transfer failed]
 - Installation failed. [File does not exist]
 - Installation failed. [Failed to copy file to /var/tmp]
 - Installation failed. [Extraction failed, invalid tar archive]

- Installation failed. [Invalid file transfer protocol]
- Installation failed. [Unable to create temporary directory]
- Installation failed. [Please check the log file /var/tmp/install for more information]

Example: Upgrade a fleet of 3 NetScaler appliances

Sample Code:

Sample curl script:

(upgrade.sh)

```
curl -kv -s -i -H "Content-Type: application/json" -u nsroot:nsroot http://$1/nitro/v1/config/install -d '{"install":{"url": "scp://<username>:<password>@<IP>/xyz/abc/pqr/<build_name>.tgz" , "y":true, "l":true }}' &
```

```
curl -kv -s -i -H "Content-Type: application/json" -u nsroot:nsroot http://$2/nitro/v1/config/install -d '{"install":{"url": "scp://<username>:<password>@<IP>/xyz/abc/pqr/<build_name>.tgz" , "y":true, "l":true }}' &
```

```
curl -kv -s -i -H "Content-Type: application/json" -u nsroot:nsroot http://$3/nitro/v1/config/install -d '{"install":{"url": "scp://<username>:<password>@<IP>/xyz/abc/pqr/<build_name>.tgz" , "y":true, "l":true }}' &
```

```
>> sh upgrade.sh <NSIP1> <NSIP2> <NSIP3>
```