

EXTREME NETWORKS

# Onboard XOS XIQ-SE workflow

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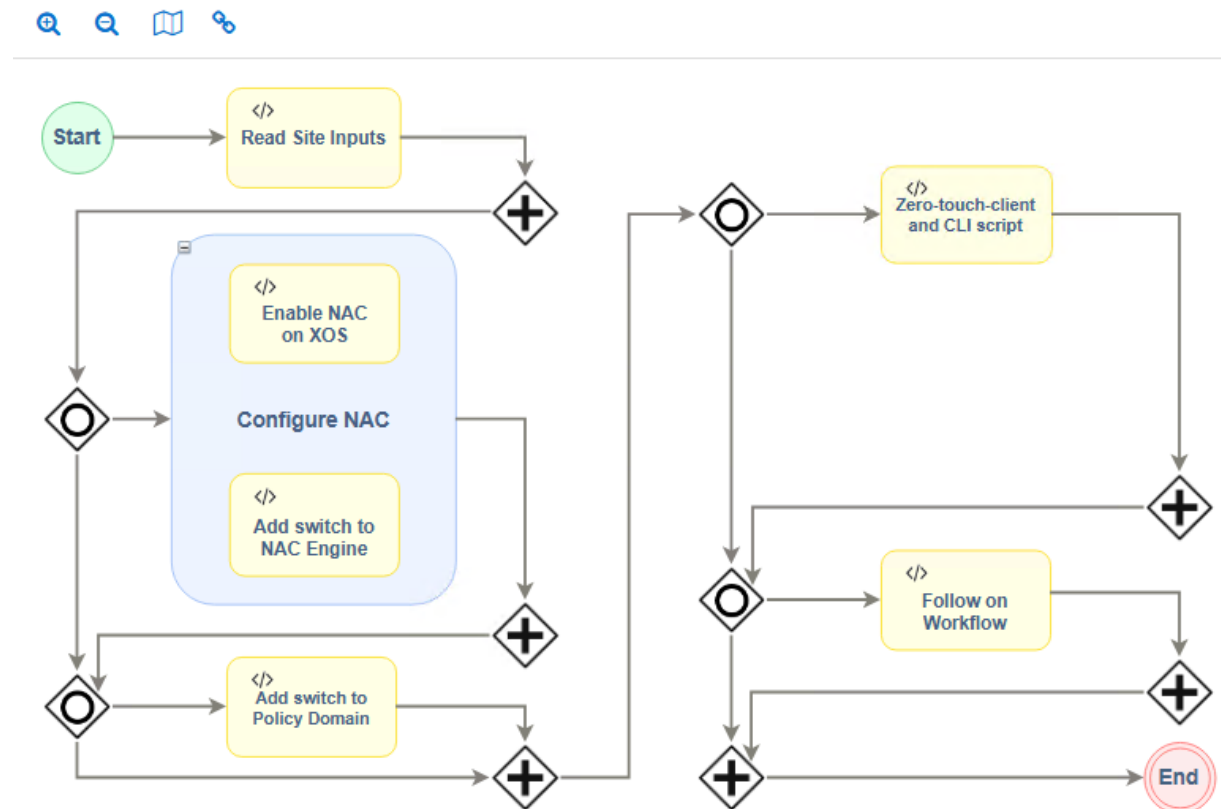
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# Onboard XOS XIQ-SE workflow



- This workflow can do any of the following
- Add switch to XIQ-SE Control + configure RADIUS on switch
- Add switch to Policy domain, including to VLAN Island topology
- Configure Fabric Attach and Zero-Touch-Client for WAPs
- Execute a custom CLI script with variables & logical operators
- Launch another workflow on completion
- All inputs can make use of site variables, csv variables, eval variables and emc\_vars variables

/Workflows/Onboard XOS



# Workflow manual execution



- Workflow can be manually run against 1 or many switches simultaneously

The screenshot displays the 'Devices' tab in the management interface. A table lists several devices, including BAN-A003-10, BAN-C402-10, BAN-B202-10, and BAN-A002-10. A context menu is open over the table, showing various actions. The 'Tasks' menu item is selected, and a sub-menu is displayed with the following options: 'Config', 'Provisioning', 'CLI Commands...', and 'Onboard XOS'. The 'Onboard XOS' option is highlighted with a red box.

Status	Name	Site	Admin Profile	IP Address	Poll Status	Poll Details	Device Type	Family
●	BAN-A003-10	/World/Branches-A/A003	GSS-Profile	10.2.5.10	Available: 9...	Up: 642 Do...	4220-12P-4X-Switch...	Universal Platform Switch E...
●	BAN-C402-10	-C/C402	GSS-Profile	10.161.133.10	Available: 1...	Up: 277 Do...	4220-12P-4X-Switch...	Universal Platform Switch E...
●	BAN-B202-10	-B/B202	GSS-Profile	10.81.133.10	Available: 9...	Up: 640 Do...	4220-12P-4X-Switch...	Universal Platform Switch E...
●	BAN-A002-10	-A/A002	GSS-Profile	10.1.133.10	Available: 9...	Up: 642 Do...	4220-12P-4X-Switch...	Universal Platform Switch E...

- FlexView
- More Views
- Configure...
- Compass Search...
- Rediscover
- Clear Alarms...
- Upgrade Firmware...
- Add to Device Group...
- More Actions
- Archives
- Tasks
  - Config
  - Provisioning
    - Apply Config Template
    - Onboard Mgmt EXOS
    - Onboard XOS
  - CLI Commands...
- Maps
- Network
- Policy

# Workflow automatic execution during onboarding



- Workflow can be automatically run after ZTP+ onboarding, under XIQ-SE Site Actions
- In this case script will always run against 1 switch only, the onboarding switch

The screenshot displays the 'Actions' configuration page in the XIQ-SE interface. The top navigation bar includes 'Devices', 'World' (selected), 'Site Summary', 'Endpoint Locations', and 'FlexReports'. Below this, a secondary navigation bar lists various configuration areas: 'Discover', 'Actions' (selected), 'VRF/VLAN', 'Fabric Connect', 'Services', 'Port Templates', 'ZTP+ Device Defaults', 'Endpoint Locations', 'Analytics', 'Custom Variables', and 'XIQ Locations'.

The main configuration area contains several settings:

- ☒ Automatically Add Devices: Collection Mode: Historical
- ☒ Add Trap Receiver: Collection Interval (minutes): 10
- ☒ Add Syslog Receiver: Map Name: /World/World
- ☒ Add to Archive
- ☒ Add to Map

Below these settings is the 'Custom Configuration' section, which includes a table for defining workflow tasks.

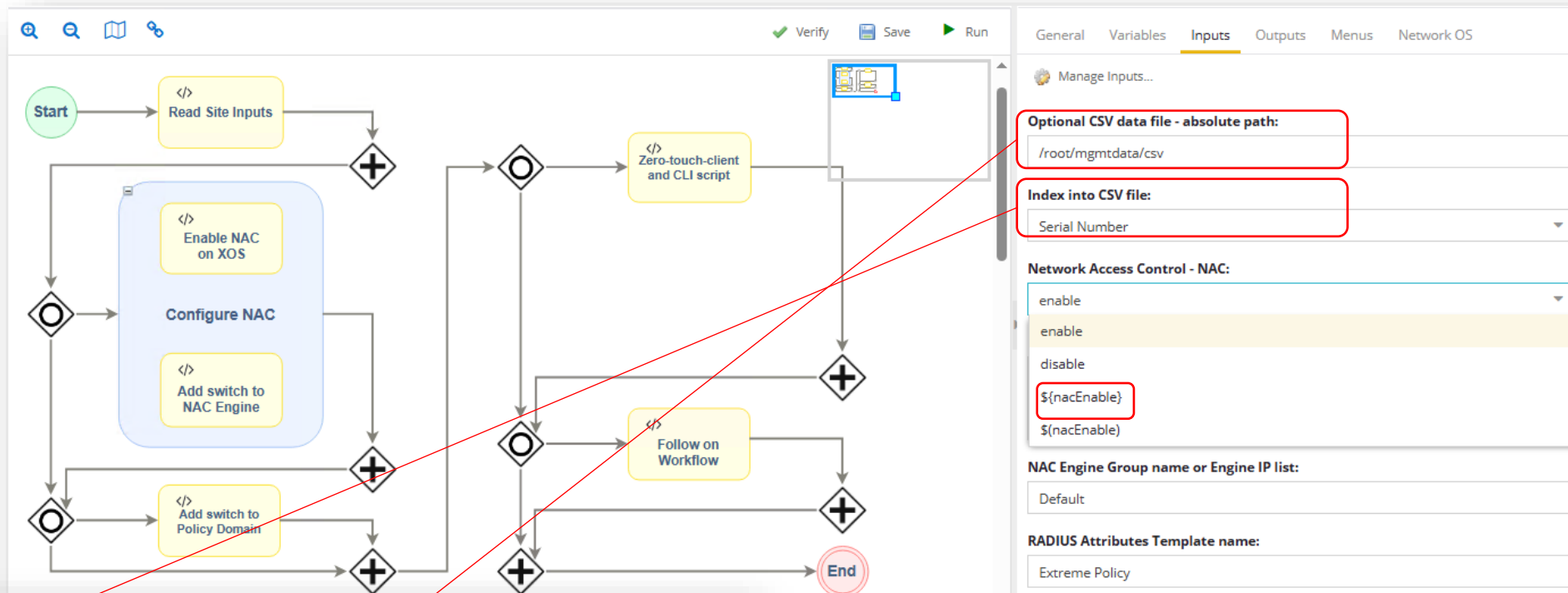
Enabled	Vendor	Family	Topology	Task
<input checked="" type="checkbox"/>	Extreme	Universal Platform S	Any	Provisioning/Onboard Mgmt EXOS

At the bottom of the table, there are 'Add', 'Edit', and 'Delete' icons. Below the table, there are 'Update' and 'Cancel' buttons.

# Onboard XOS XIQ-SE workflow inputs



- Optionally, a CSV file is uploaded to XIQ-SE beforehand
- CSV file has device data which can be device specific
- CSV data is looked up either by device initial (dhcp) IP or Serial Number or MAC Address
- CSV data can be referenced as \${<name>} or \${name} in workflow inputs
- Site variables can still also be referenced but as \${name}
- The CSV variable names are case sensitive



mgmtdata.csv • Saved

	A	B	C	D	E	F	G	H
1	serial number	mgmt vlanid	mgmt isid	mgmt ip	mgmt mask	mgmt gatew	sysname	site name
2	JA092041G-01023	209	2800209	20.0.209.54	255.255.255.0	20.0.209.1	5420-bld1	/World/building1
3	TB062139K-H0210	209	2800209	20.0.209.53	255.255.255.0	20.0.209.1	5320-bld1	/World/building1
4	TB022131K-H0059	209	2800209	20.0.209.52	255.255.255.0	20.0.209.1	5320-bld2	/World/building2
5	JA102040G-00003	209	2800209	20.0.209.55	255.255.255.0	20.0.209.1	5420-bld2	/World/building2

- If your XIQ-SE was installed without “root” access, place the CSV file here instead:  
/usr/local/Extreme\_Networks/NetSight/appdata/logs/scripting/NetSight\_Server

## Optional CSV data file - absolute path:

```
/root/mgmtdata.csv
```

- Available path variables: **%rootDir%, %sitePath%, %siteName%**
  - %rootDir% by default is /root/; can be changed via workflow variable const\_ROOT\_PATH\_VAR
  - %sitePath% and %siteName% are set based on site path of device; e.g. if device is in "/World/CTC-Reading/VSP Sandbox" then %sitePath% = "World/CTC-Reading" and %siteName% = "VSP Sandbox"
- Can use these to have different CSV per site

# Workflow execution



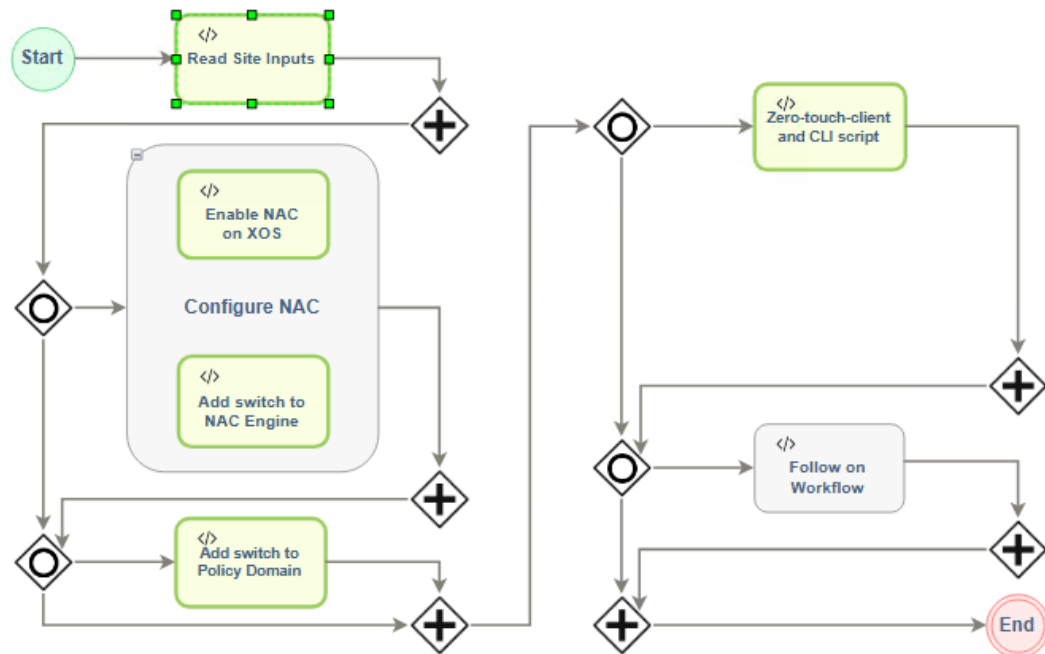
## Summary

Status	Start Date/Time	Name	Version	Source	# Devices	Started By	End Date/Time	Message	Path
✓	8/28/2025 12:56:07...	Onboard XOS	30	Northbound Interfa...	1	NetSight Server	8/28/2025 12:57:10...	Applied zero-touch-client config to device 10.161.133.10	/Workflows/Onboard XOS

Graph View Table View



Stop Workflow Show Output Show Variables



## Devices Grid

Show Output

Status	Device IP	Output Path	Start Date/Time	End Date/Time	Message
SUCCESS	10.161.133.10		8/28/2025 12:...	8/28/2025 12:...	Validated i...

## Output - 10.161.133.10

```
{defaultIsland=false, name=A003}, {defaultIsland=false, name=C402}]
- Network Access Control (NAC) = enable
- NAC Engine Group name = Default
- NAC Load Balancer enabled = 0
- NAC Load Balancer IP list = []
- NAC Engine IP list = [u'10.255.254.2']
- RADIUS Server ordered IP list = [u'10.255.254.2']
- RADIUS Client unordered IP list = [u'10.255.254.2']
- RADIUS Attributes template name = Extreme Policy
- RADIUS Shared Secret = radius
- Create RADIUS Server for = netlogin
- Location Group name =
- Do not enable Netlogin on FA ports = FA Server & FA Client WAP
- Add to Policy = enable
- Policy Domain = GSS-Domain
- Policy VLAN Island Topology = /World/Branches-C/C402
- Policy VLAN Island Topology - retained = C402
- Advertize FA Mgmt VLAN on access ports = 0
- Zero Touch Client WAP-Type1 I-SID = 4020007
- Zero Touch Client WAP-Type1 platform VLAN-id = 7
- System Name to configure =
- Workflow to execute after completion =
- Additional CLI commands before processing:
```

Close

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# Additional CLI commands input / sample →



## Additional CLI commands:

```
#No need to start with enable, config term; commented lines are ignored
#clock time-zone US Eastern
#snmp-server location ${location}
#snmp-server contact "Master of Disaster!"
```

```
#No need to start with enable, config term; commented lines are ignored
#configure timezone name BST 1 autodst
#configure snmp sysLocation ${location}
#configure snmp sysContact "Master of Disaster!"
#configure ssl certificate privkeylen 4096 country GB organization Extreme common-name EXOS
#enable web https
##if ("5520-24" in ${deviceType} or "5420-24" in ${deviceType})
#       configure slpp guard ports 1-24 recovery-timeout none
##elseif("5520-48" in ${deviceType} or "5520-48" in ${deviceType})
#       configure slpp guard ports 1-48 recovery-timeout none
##end
```

- The additional CLI commands input can make use of the following variables:
  - Site variables **\${var}**: Useful to apply same values to all devices in same XIQ-SE Site. Or to apply same values to all devices in same sub-Sites
  - **Emc\_vars** \${deviceIP}: Useful to feed some of these values into the same space as Site variables
  - CSV variables **\$<var>**: Useful to provide device specific values
  - Eval variables **\${var}**: Useful to compute new values within the template file and be able to store and re-use these values via a variable
- The additional CLI commands input can make use of the following pragmas
  - **#if/#elseif/#else/#end, #error fail|stop|continue, #eval / #eval <varname>=(), #sleep, #last**
  - but not: **#block start|execute**
- Please refer to documentation of the Apply Config Template workflow here:
  - [https://github.com/extremenetworks/ExtremeScripting/blob/master/XMC\\_XIQ-SE/oneview\\_workflows/xwf/Apply\\_Config\\_Template\\_Workflow.pdf](https://github.com/extremenetworks/ExtremeScripting/blob/master/XMC_XIQ-SE/oneview_workflows/xwf/Apply_Config_Template_Workflow.pdf)



