Configure XCP

XCP 1.6.2

NetApp
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Configure XCP

Configure the INI file for XCP NFS

Follow these steps to configure the INI file for XCP NFS.

Steps

1. Add the catalog location for the XCP server in the host configuration file using the `vi` editor.

Catalog location should be exported before modifying the details in the `xcp.ini` XCP configuration file. Catalog location (NFSv3) should be mountable by the XCP Linux host but not necessarily be mounted.

```
[root@localhost /]# vi /opt/NetApp/xFiles/xcp/xcp.ini
```

2. Verify that the XCP Linux client host configuration file entries for the catalog were modified.

```
[root@localhost /]# cat /opt/NetApp/xFiles/xcp/xcp.ini
# Sample xcp config
[xcp]
catalog = 10.61.82.210:/vol/xcpvol/
```

Performance tuning (NFS only)

For the optimal performance and reliability, NetApp recommends setting the following Linux kernel TCP performance parameters in `/etc/sysctl.conf` on the XCP Linux client host. Run `sysctl -p` or the reboot command to commit the changes:

```
net.core.rmem_default = 1342177
37Tnet.core.rmem_max = 16777216
37Tnet.core.rmem_max = 16777216
37Tnet.core.wmem_default = 1342177
37Tnet.core.wmem_max = 16777216
37Tnet.ipv4.tcp_rmem = 4096 1342177 16777216
37Tnet.ipv4.tcp_wmem = 4096 1342177 16777216
37Tnet.core.netdev_max_backlog = 300000
37Tnet.ipv4.tcp_fin_timeout = 10
```

Environment variable (NFS only)

The environment variable XCP_CONFIG_DIR overrides the default location, `/opt/NetApp/xFiles/xcp`. If set, the value should be an OS filesystem path, possibly to a mounted NFS directory. When a custom configuration directory is set, the log file is named `xcp.hostname.log` instead of the default, `xcp.log`.

```
[root@localhost /]# export XCP_CONFIG_DIR ='/tmp/xcp_config_dir_path'
```

The environment variable XCP_LOG_DIR overrides the default location that stores the XCP log in the configuration directory. If set, the value should be an OS filesystem path, possibly to a mounted NFS directory. When a custom log directory is set, the log file is named `xcp.hostname.log` instead of the default, `xcp.log`.

```
[root@localhost /]# export XCP_LOG_DIR='/tmp/xcp_log_dir_path'
```

The environment variable XCP_CATALOG_PATH overrides the setting in xcp.ini. If set, the value should be in the xcp path format, `server:export[:subdirectory]`.

```
[root@localhost /]# export XCP_CATALOG_PATH='10.61.82.210:/vol/xcpvol/'
```

Logging for NFS and SMB (optional)

XCP supports configuring multiple optional features by using the `xcpLogConfig.json` JSON configuration file. To enable only specific features, manually create the `xcpLogConfig.json` configuration file,
You can use the `xcpLogConfig.json` configuration file to enable:

- event log messages
- syslog client for XCP
- custom XCP logging

Event log messages and the syslog client are disabled in the default configuration. Configuration is common for both NFS and SMB.

Config JSON file location	**NFS**	**SMB**
Config file default location	/opt/NetApp/xFiles/xcp/	C:\NetApp\XCP\ConfigFile
Custom location requires the `XCP_CONFIG_DIR` environment variable	**Error! Reference source not found.**	NA

The JSON configuration file options are case sensitive. These options are the same for XCP NFS and XCP

SMB.

Sub Options Name	JSON Data Type	Default	Description
logConfig			Option to customize XCP logging.
“level”	String	INFO	Log message severity filter level. XCP log messages support five severity levels in order of decreasing severity: CRITICAL, ERROR, WARNING, INFO, DEBUG (NetApp strongly recommends using INFO or DEBUG)
“maxBytes”	Integer	52428800	Size of each rotating log file. Max supported rotation files are 10.
“name”	String	xcp.log	Option to set custom log file name.
eventlog			Option to configure event log message.
“isEnabled”	Boolean	false	This boolean option is used to enable event messaging. Setting it false will not generate any event messages and no event logs will be published to event log file.
“level”	String	INFO	Event message severity filter level. Event messaging support five severity levels in order of decreasing severity: CRITICAL, ERROR, WARNING, INFO, DEBUG

Sub Options Name	JSON Data Type	Default	Description
syslog			Option to configure syslog messaging.
“isEnabled”	Boolean	false	This boolean option is used to enable syslog client in XCP.
“level”	String	INFO	Message severity filter level. XCP event log messages support five severity levels in order of decreasing severity: CRITICAL, ERROR, WARNING, INFO, DEBUG
“serverIp”	String	None	Remote syslog server IP addresses or hostname.
“port”	Integer	514	Remote syslog receiver port. Syslog receivers accepting syslog datagrams on a different port can be configured with port option UDP port 514 but you can also configure to the desired port.

Sub Options Name	JSON Data Type	Default	Description
“sanitize”	Boolean	false	A common option for XCP support; setting its value to true will hide sensitive information (IP and username) in the messages going to support (logging, events, syslog, etc.) For example, with the sanitize option as false • 2020-07-17 03:10:23,779 - INFO - 12806 xcp xcp Paths: ['10.234.104.251:/cat_vol'] • 2020-07-17 03:10:23,778 - INFO - 12806 xcp xcp User Name: root With the sanitize option as true • 2020-07-17 03:13:51,596 - INFO - 12859 xcp xcp Paths: ['IP: XX.XX.XX.XX:/cat_vol'] • 2020-07-17 03:13:51,595 - INFO - 12859 xcp xcp User Name:

Create the JSON configuration file

If you want to enable event log messages, the syslog client, or customer logging, complete the following steps.

Steps

1. Open any text editor, such as notepad or vi.
2. Create a new file with the following JSON template.

```
{
  "logConfig": {
    "level": "INFO",
    "maxBytes": 52428800,
    "name": "xcp.log"
  },
  "eventlog": {
    "isEnabled": false,
    "level": "INFO"
  },
  "syslog": {
    "isEnabled": false,
    "level": "INFO",
    "serverIp": "10.234.219.87",
    "port": 514
  },
  "sanitize": false
}
```

3. For any features you want to enable, change the `isEnabled` value to `true`.
4. Name the file `xcpLogConfig.json` and sae it to the file location mentioned in **Error! Reference source not found.**

Default configuration	Example json configuration file

<pre>{
  "logConfig": {
    "level": "INFO",
    "maxBytes": 52428800,
    "name": "xcp.log"
  },
  "sanitize": false
}</pre>
	<pre>{
	  "logConfig": {
	    "level": "INFO",
	    "maxBytes": 52428800,
	    "name": "xcp.log"
	  },
	  "eventlog": {
	    "isEnabled": false,
	    "level": "INFO"
	  },
	  "syslog": {
	    "isEnabled": false,
	    "level": "INFO",
	    "serverIp": "10.234.219.87",
	    "port": 514
	  },
	  "sanitize": false
	}</pre>

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