# **SD-WAN Show Configuration Details Playbook Documentation**

## **Overview**

The SD-WAN Show Configuration Details playbook (sdwan\_show\_config.yml) is an Ansible automation script designed to display and capture configuration details from Cisco SD-WAN environments. This playbook uses the Sastre tool to extract configuration information from the vManage controller and saves the output to organized text files.

## **File Information**

* **Filename:** sdwan\_show\_config.yml
* **Use Case:** #5 - Show configuration details
* **Compatible vManage Version:** 20.15
* **Tool Used:** Sastre show command

## **Prerequisites**

* Ansible installed on the execution host
* Sastre tool installed and accessible in PATH
* Network connectivity to vManage controller
* Valid vManage credentials with appropriate permissions
* Environment variables configured for authentication

## **Required Environment Variables**

The playbook requires the following environment variables to be set:

* VMANAGE\_HOST - vManage controller hostname/IP
* VMANAGE\_USERNAME - Username for vManage authentication
* VMANAGE\_PASSWORD - Password for vManage authentication

Optional environment variables:

* VMANAGE\_PORT - Defaults to 443 if not specified

## **Directory Structure**

The playbook creates a simple directory structure under the generated folder:

* + generated/
  + └── show\_config/
  + ├── device\_templates\_config.txt
  + ├── feature\_templates\_config.txt
  + ├── policy\_definitions\_config.txt
  + ├── policy\_lists\_config.txt
  + └── config\_groups\_config.txt

## **Detailed Task Analysis**

### **Task 1: Environment Variable Validation**

**Purpose:** Ensures all required credentials are available before proceeding

**What it does:**

* Checks that vmanage\_host, vmanage\_username, vmanage\_password, and vmanage\_port are set
* Fails the playbook immediately if any critical environment variables are missing
* Prevents failed execution attempts due to missing credentials

### **Task 2: Connection Information Display**

**Purpose:** Provides visibility into connection parameters while protecting sensitive data

**Generated output:**

* Shows connection details (host, username, port)
* Displays the output directory path
* Masks the password for security

### **Task 3: Directory Structure Creation**

**Purpose:** Creates the directory hierarchy needed for output storage

**Generated folders:**

* {{ generated\_dir }} - Base generated folder
* {{ show\_config\_dir }} - Configuration details output folder

### **Task 4: vManage Connectivity Testing**

**Purpose:** Verifies the vManage controller is accessible before attempting operations

**What it does:**

* Makes a REST API call to /dataservice/system/device/controllers
* Uses basic authentication with provided credentials
* Sets 60-second timeout
* Ignores SSL certificate validation for internal certificates
* Stores results in connectivity\_test variable

### **Task 5: Connectivity Results Display**

**Purpose:** Shows connection test results for troubleshooting

**Generated output:**

* Connection status (SUCCESS/FAILED)
* HTTP status code
* Response time in seconds

### **Task 6: Connectivity Failure Handling**

**Purpose:** Stops execution if connectivity test fails

**What it does:** Prevents unnecessary operations when vManage is unreachable

### **Tasks 7-11: Sastre Show Commands**

**Purpose:** Executes Sastre show commands for different configuration types

**Configuration types processed:**

1. **Device Templates** - Shows device template configurations
2. **Feature Templates** - Shows feature template configurations
3. **Policy Definitions** - Shows policy definition configurations
4. **Policy Lists** - Shows policy list configurations
5. **Configuration Groups** - Shows configuration group details

**Sastre parameters used:**

* --address: vManage host
* --port: HTTPS port (443)
* --user/--password: Authentication credentials
* --verbose: Detailed output
* --timeout 300: 5-minute timeout
* show: Sastre show command
* --workdir: Target directory for any temporary files

### **Tasks 12-16: Output File Creation**

**Purpose:** Saves Sastre command outputs to individual text files

**Generated files:**

* device\_templates\_config.txt - Device template configuration details
* feature\_templates\_config.txt - Feature template configuration details
* policy\_definitions\_config.txt - Policy definition configuration details
* policy\_lists\_config.txt - Policy list configuration details
* config\_groups\_config.txt - Configuration group details

**File format:** Each file contains:

* Header with configuration type
* Execution timestamp
* vManage host information
* Complete Sastre command output (stdout and stderr)

### **Task 17: File Verification**

**Purpose:** Counts and verifies generated output files

**What it does:** Scans the output directory to confirm file creation

### **Task 18: Execution Results Display**

**Purpose:** Shows completion status and summary

**Generated output:**

* Execution completion confirmation
* Output directory path
* Number of files generated
* Success/failure status for each configuration type