Additional Tools (Telnet / SSH)

(Preview Function)

TITLE	Additional Tools (Telnet / SSH)
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CONTENTS

1. INTRODUCTION

The Preview function Additional Tools (Telnet / SSH) offers the possibility to get information from devices (SNMP) via Telnet or SSH with additional commands and to include them in the documentation. For this purpose, so-called command sequences must be created in which the executed commands are defined.

The functionality described above is currently in a preview status. Additional Tools can only be retrieved from systems that have been inventoried as an SNMP device and recognized as a switch (SNMP type 58). This functionality is currently not available for other systems that can be accessed via Telnet or SSH! Therefore, in the further course of the document exclusively switches are spoken of.

The following requirements must be met.

- The switch must have already been inventoried as an SNMP system
- The switch must have been detected as an SNMP type switch
- The switch must be re-inventoried as an SNMP system when reading out the configuration
- Additional Tools (Telnet / SSH) in the options dialog must be activated
- A command sequence must have been defined for the corresponding device

The function described is an "expert function". This allows any commands to be executed on the switches, including those that not only retrieve information, but also change the state of the switch or existing configurations.

The command sequences included in the delivery are for illustration purposes.

2. USE CASE ADDITIONAL TOOLS (TELNET / SSH)

The following chapter describes the retrieval of Additional Tools using a Zyxel GS2200-8 switch with the SNMP name AZY081. This was inventoried in advance via SNMP and is successfully inventoried as a switch in the database. A corresponding command sequence is in the database. This is described in more detail in the following.

The function Additional Tools Telnet/SSH is located in the SNMP dialog. This option must first be activated in the Options dialog.

Options - Inventory - Additional Tools Telnet / SSH (Preview)

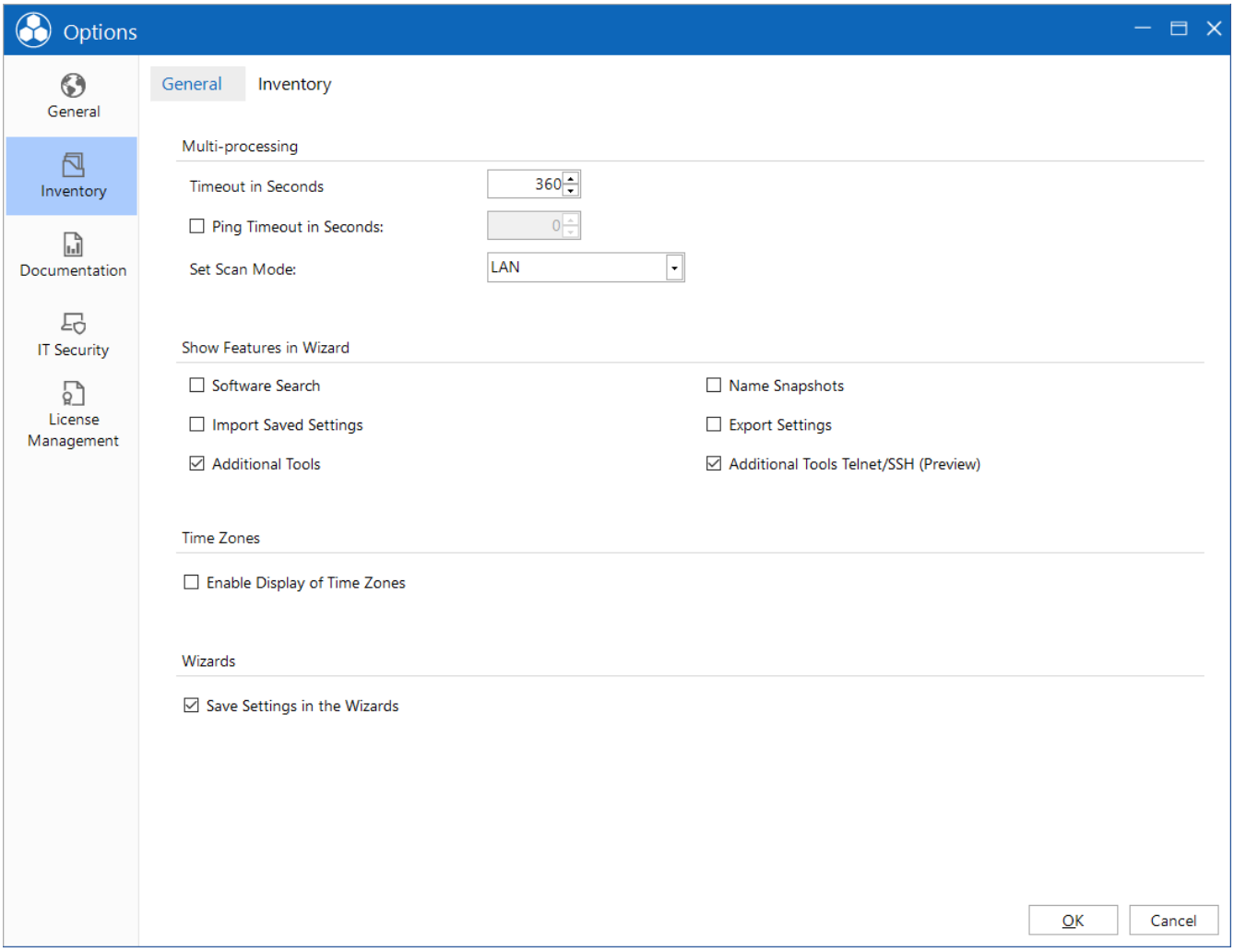

Figure 1 - Options Dialog

Afterwards, a new step Additional Tools Telnet / SSH is available in the SNMP Wizard.

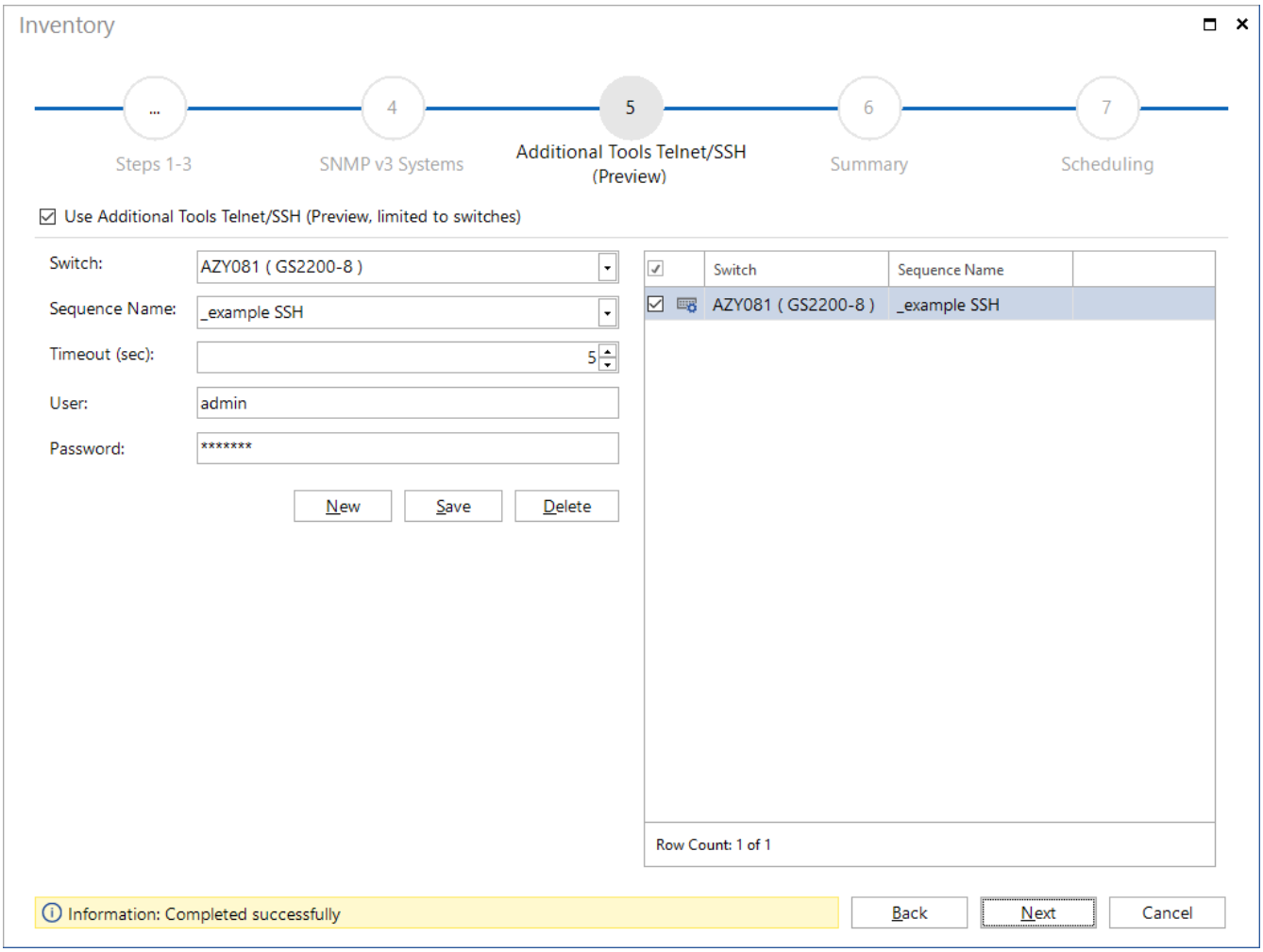

Figure 2 - SNMP Dialog - Additional Tools

The following must be selected in this:

- Switch previously inventoried
- Backup sequence to be used
- Timeout in seconds
- User / password to establish a Telnet / SSH connection

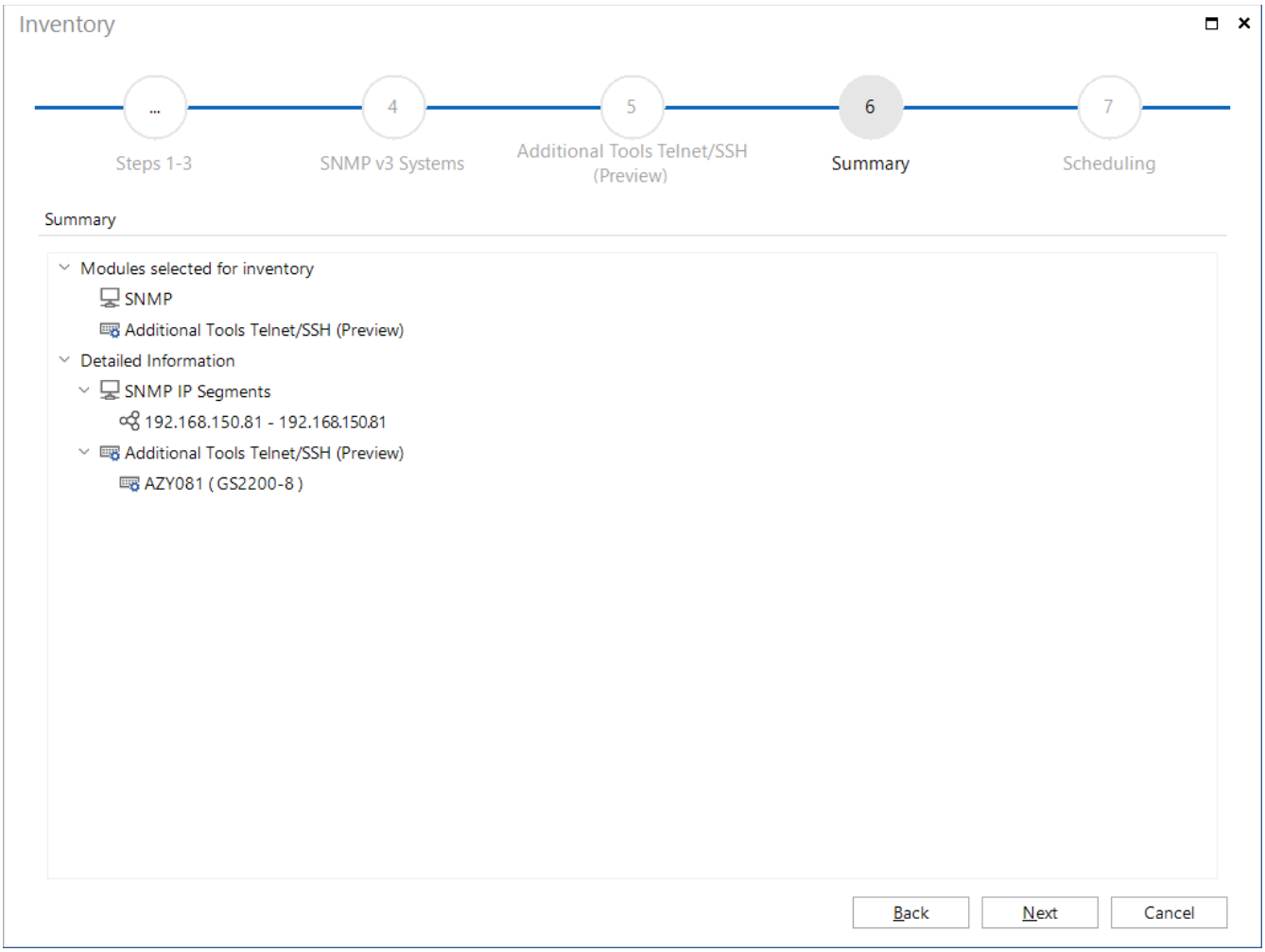

Figure 3 - SNMP Dialog - Summary

After successful inventory, the result of the selected command sequence is in the database and can be called in the hierarchical structure.

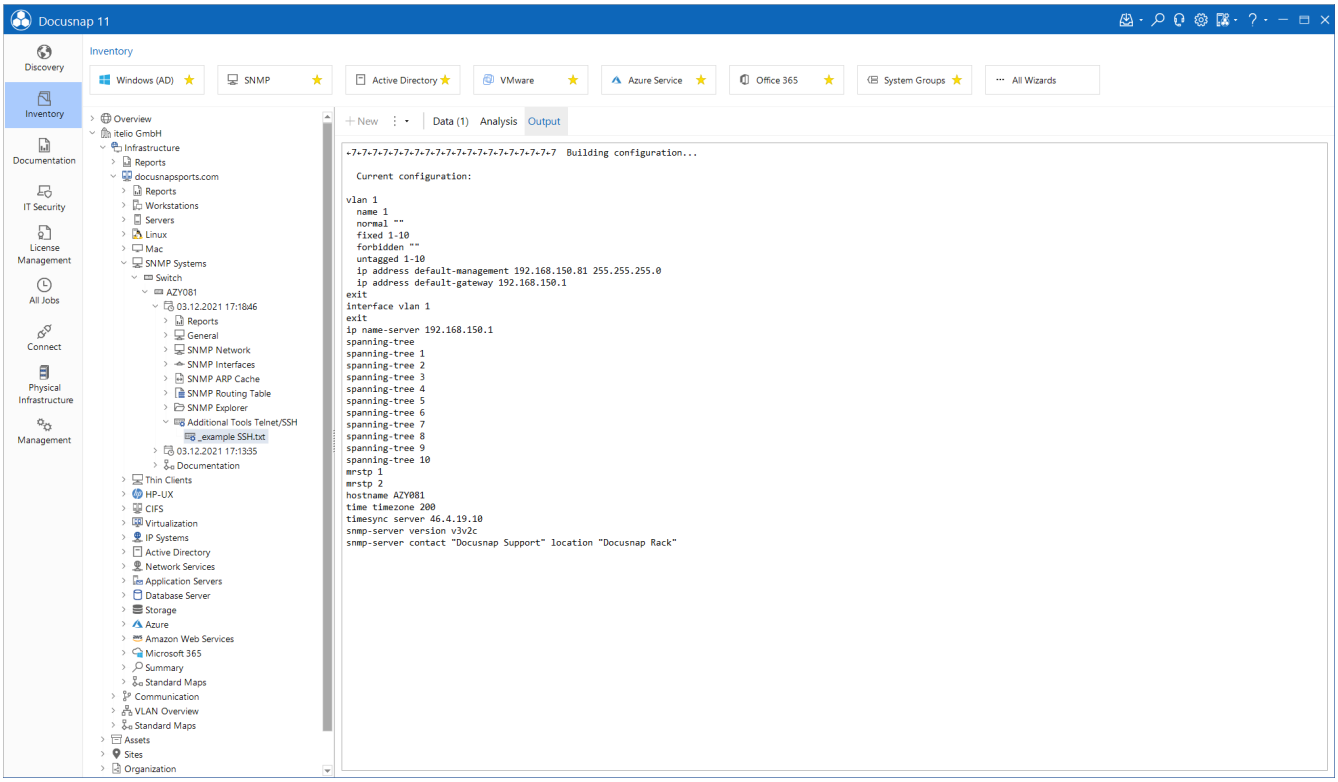

Figure 4 - hierarchical Structure - Additional Tools output

3. COMMAND SEQUENCES

Command sequences describe the commands to be executed via Telnet / SSH. These can be created and edited in Docusnap in the management area.

Docusnap – Management - Additional Tools Telnet / SSH

Docusnap provides two sample command sequences for SSH and Telnet access. These cannot be edited but can be copied and thus used as a template.

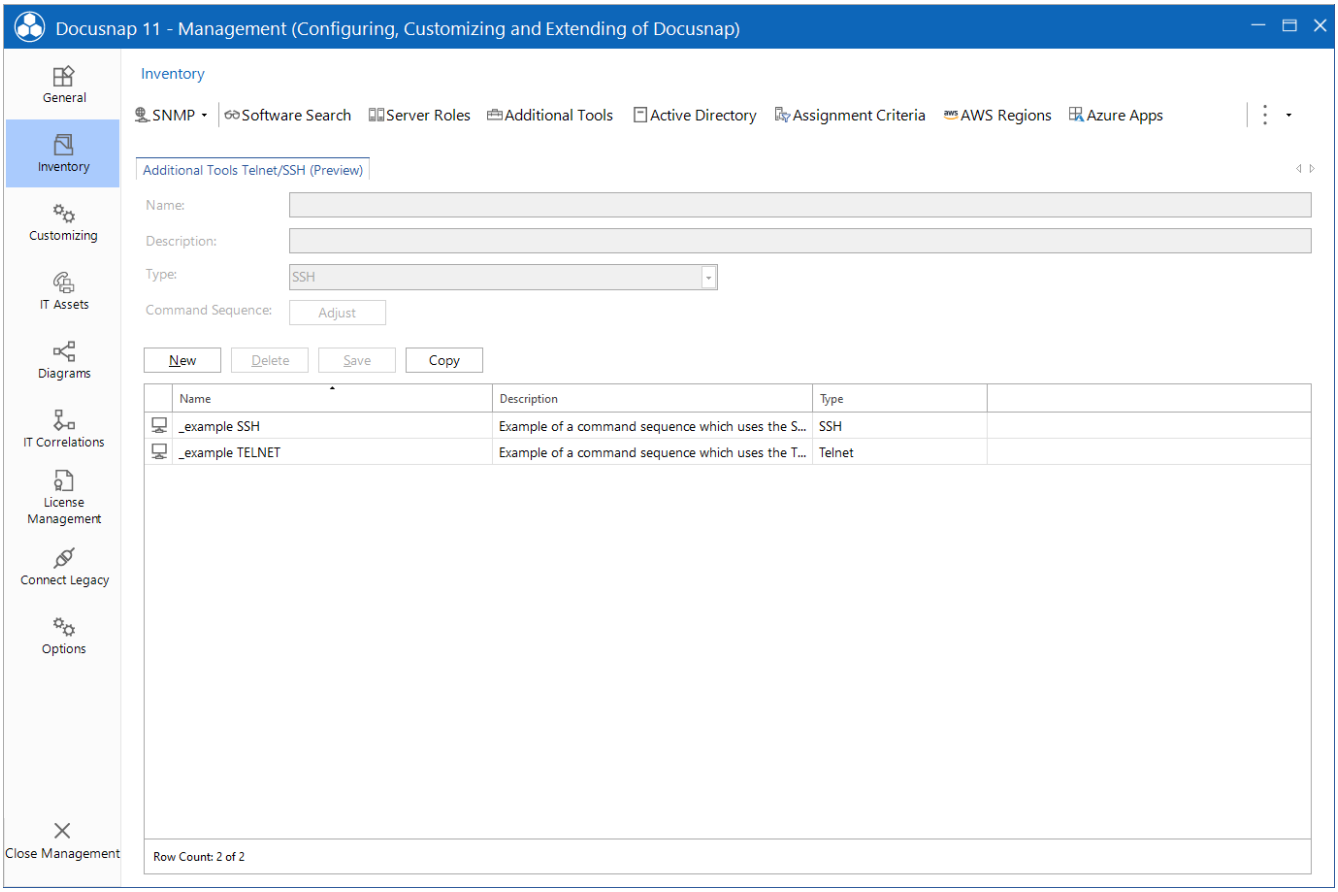

Figure 5 - Management - Additional Tools Telnet/SSH

3.1 CREATE COMMAND SEQUENCES

To describe the creation of a command sequence, the existing _example SSH sequence was duplicated. The following figure shows the copy of the _example SSH command sequence.

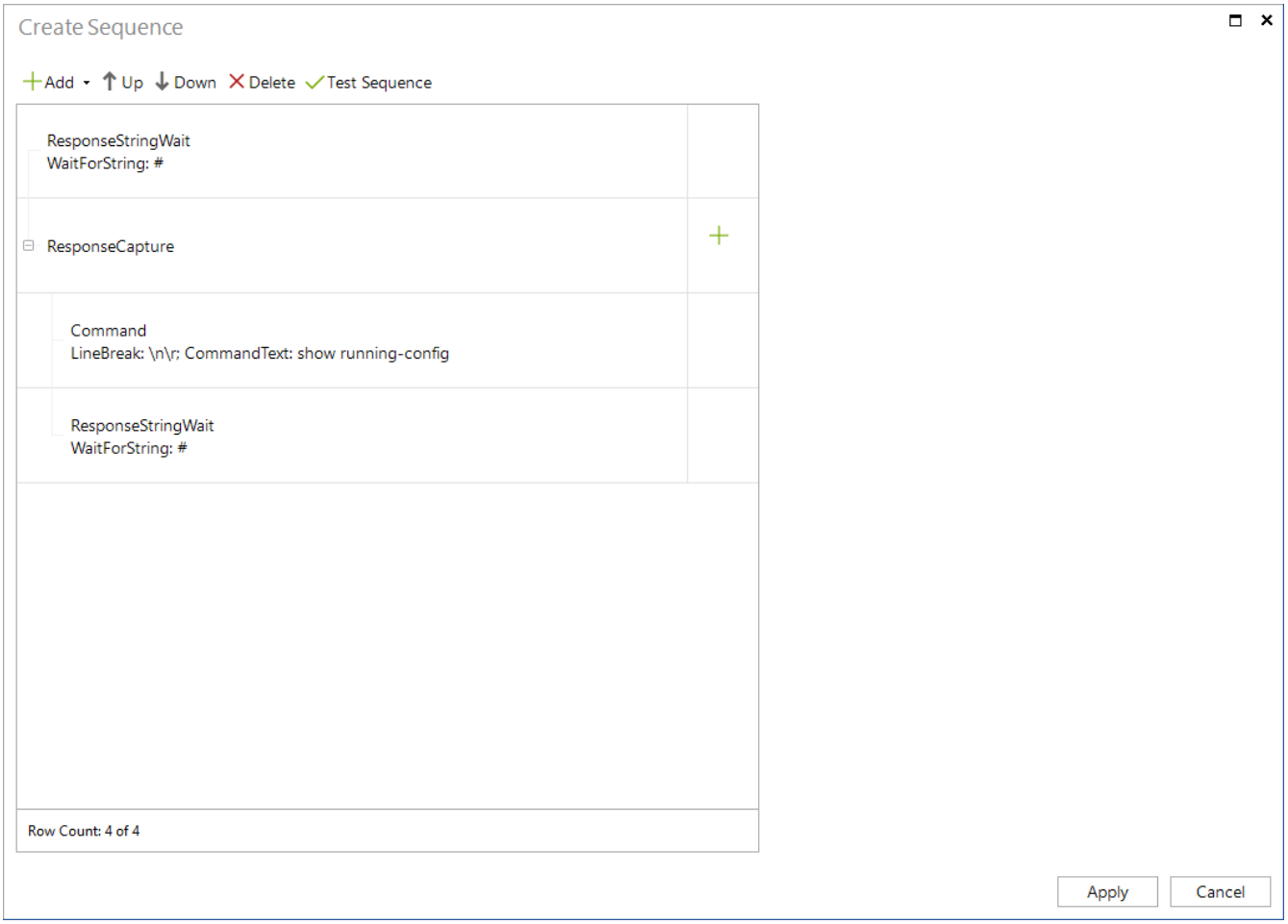

Figure 6 - Create Sequence

The exemplary command sequence consists of the following elements. These will be explained in more detail later.

- ResponseStringWait
- Response Capture
    - Command
    - ResponseStringWait

To describe the sequence, an SSH connection was established in parallel in the CMD.

- ResponseStringWait – WaitForString #
  This step is fulfilled if a # appears in the console output. Since the string AZY081# appears in the console, this condition is done, and we go to the second step.

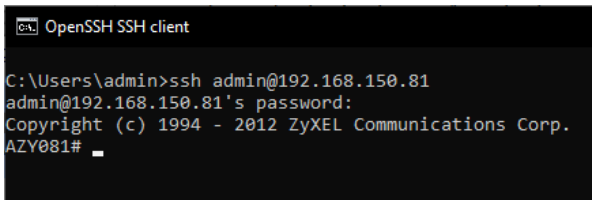

Figure 7 - WaitForString #

- ResponseCapture
  This will start the console capture. All console output within ResponseCapture will be displayed later under Additional Information. Commands within ResponseCapture are added via the associated +.

- Command
  The *show running-config* command is now executed on the switch

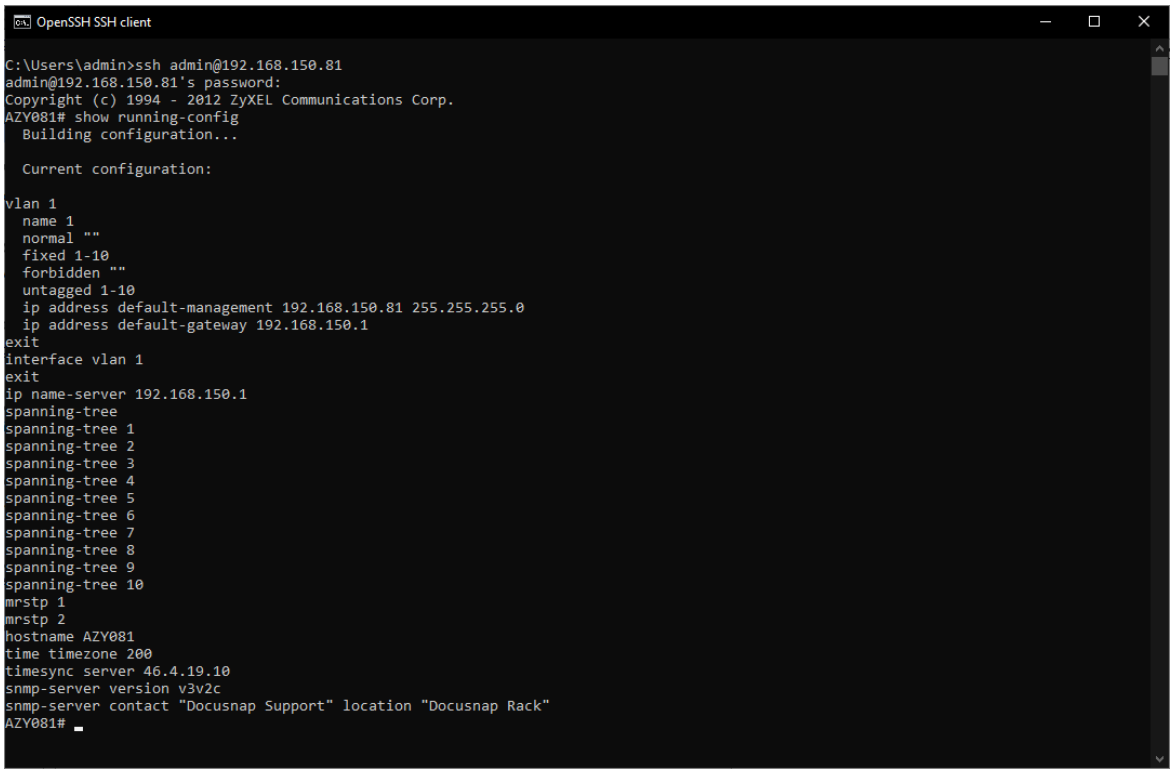

Figure 8 - Command - show running-config

- ResponseStringWait- WaitForString #
  Following this, we again wait for a # in the console output.

3.2 GENERAL COMMAND STATEMENTS

The following commands are available for the creation of a sequence

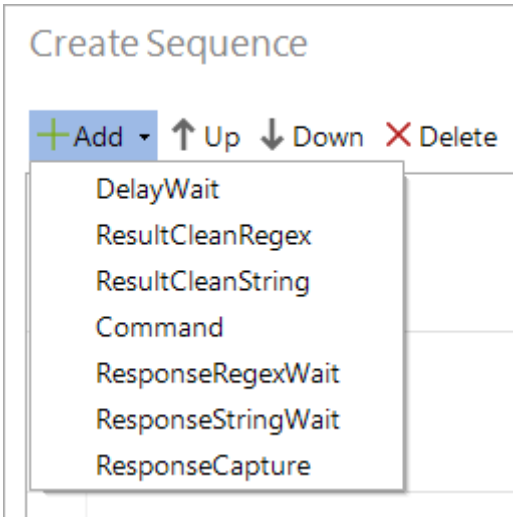

Figure 9 - Add Commands

- DelayWait
  Creates a delay to delay the execution of the next step if needed. This delay is specified in milliseconds.

- ResponseRegexWait
  Waits until the defined parameter is displayed in the console. The parameter for expecting a # is defined in a regular expression as follows:
  WaitForPattern:.*#\s$

- ResponseStringWait
  Waits until the defined parameter is displayed in the console. The parameter for expecting a # is defined as follows:
  WaitForString:.#

- Command
  This executes a command on the target system such as *show running-config*. However, commands are not only executed that return information, but also implement a required input. If, for example, an "any key" must be passed in the console, this can be done with this. Therefore, the commands should be tested in the console before.

- ResponseCapture
  The command starts recording the console output. The previously created commands are not present in the Docusnap output. The subsequent commands must be created as a subsequence using the +. As a final command it is recommended to check for a console prompt.

The following commands must be executed within a **ResponseCapture**.

- ResultCleanRegex
  The command identifies a string using a regular expression and replaces it. For example, if you want to replace all characters after the string password with ******* you must use the following expression
  RegexPattern: Password\s.*
  ReplaceWith: ********

- ResultCleanString
  The command identifies a string and replaces it. The following parameters must be passed to replace the string "Community Secret#2021" with "Community ******", for example.
  Find: Community Secret#2021
  Replace: Community *********

3.3 TEST SEQUENCES

To facilitate the creation of a command sequence, it can be tested directly. Thus, a new inventory does not have to be performed every time the sequence is changed to test it.

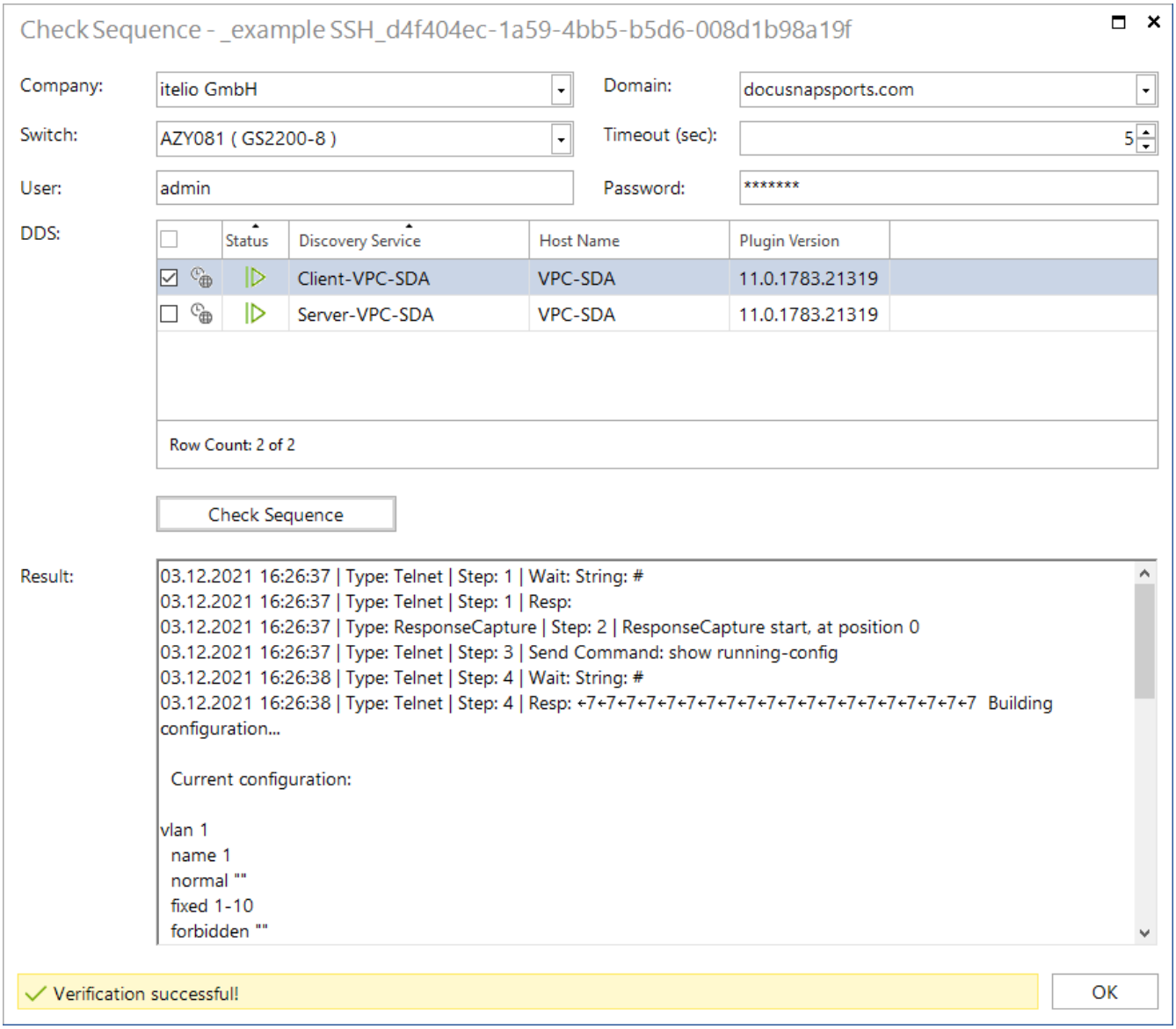

Figure 10 - Check Sequence

LIST OF FIGURES