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# Technical Document

## Configuring Castlerock SNMPc for SNMPv3 communications with NuDesign SNMPv3 Agent Service

**NuDesign Technologies, Inc.**

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## 1. Document History

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<b>Date</b>	<b>Rev.</b>	<b>Remarks</b>	<b>Author</b>
Aug 3, 2010	A01	Created	Shehzad Haq
Sep 20, 2012	A02	Minor edits	NDT
Sep 27, 2017	A03	Minor edits	NDT

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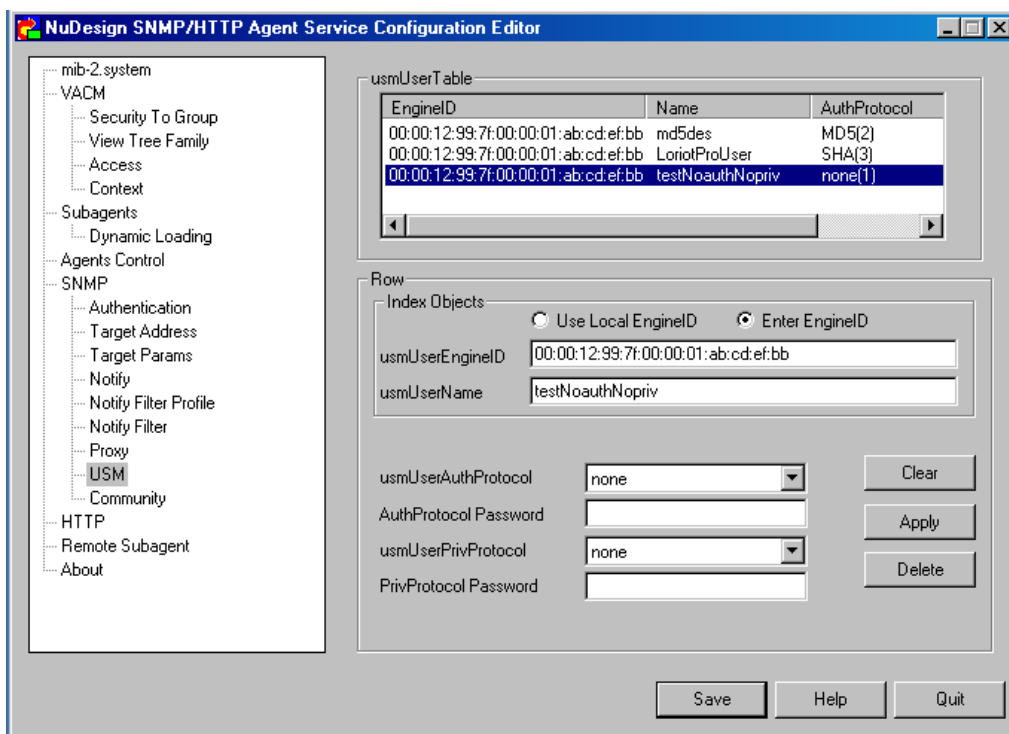
## 2. Introduction

This document shows how to communicate in SNMPv3 using Castlerock SNMPc as the Manager with NuDesign SNMPv3 Agent Service.

## 3. SNMPv3 NoAuth NoPriv

The first step is to establish communication between the agent and the manager in SNMPv3 with no authentication and no privacy.

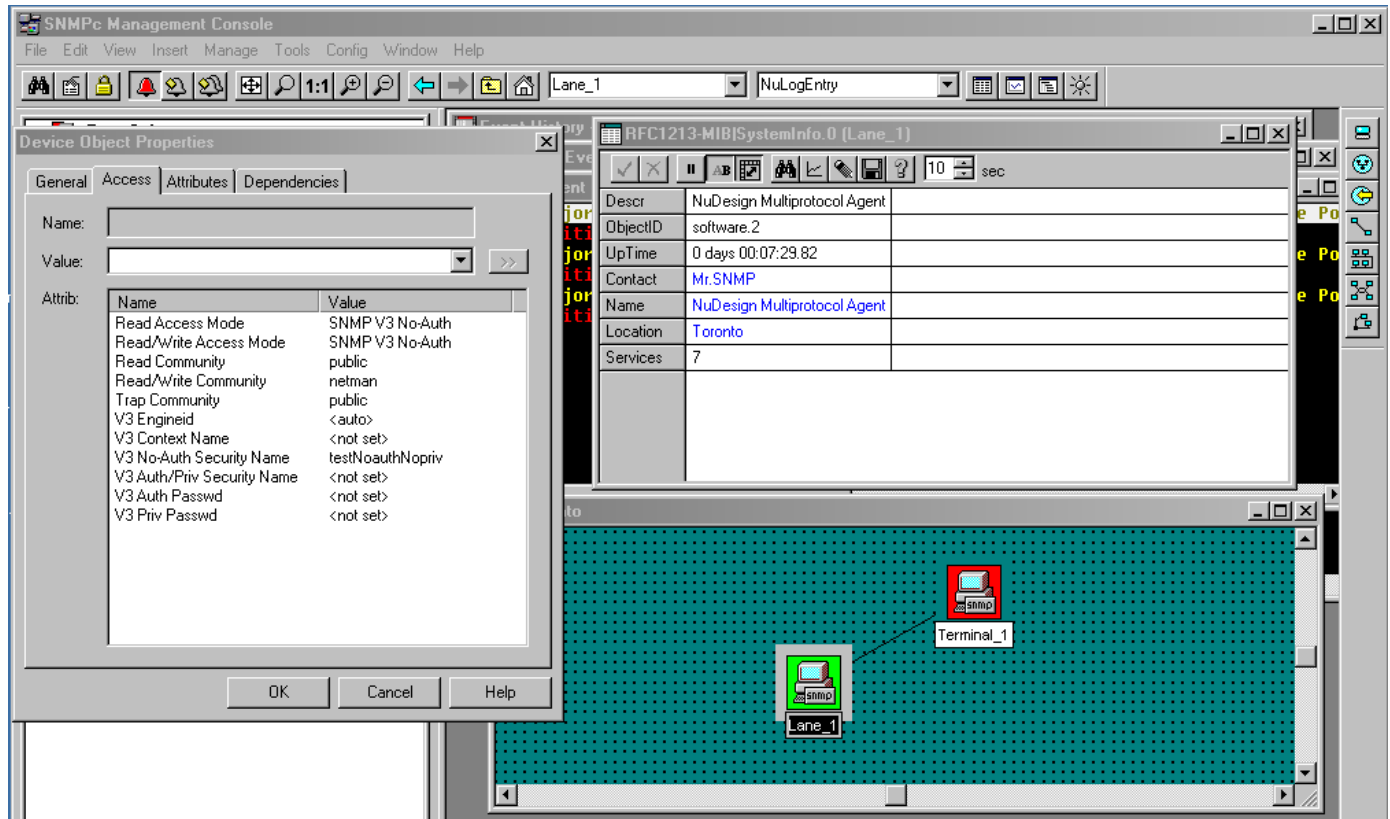
Using the NuDesign SNMPv3 Agent Service's Configuration Applet configure the Agent for SNMPv3 communications. A user will need to be set up in the USM table for No Auth No Priv.



In this case, a user called 'testNoauthNopriv' is set up.

On SNMPc, a node is created and then on its properties, we set up the Read Access Mode & Write Access Modes to SNMPv3 No-Auth. “V3 No-Auth Security Name” should match the user that was set up in the agent. It is ‘testNoauthNopriv’.

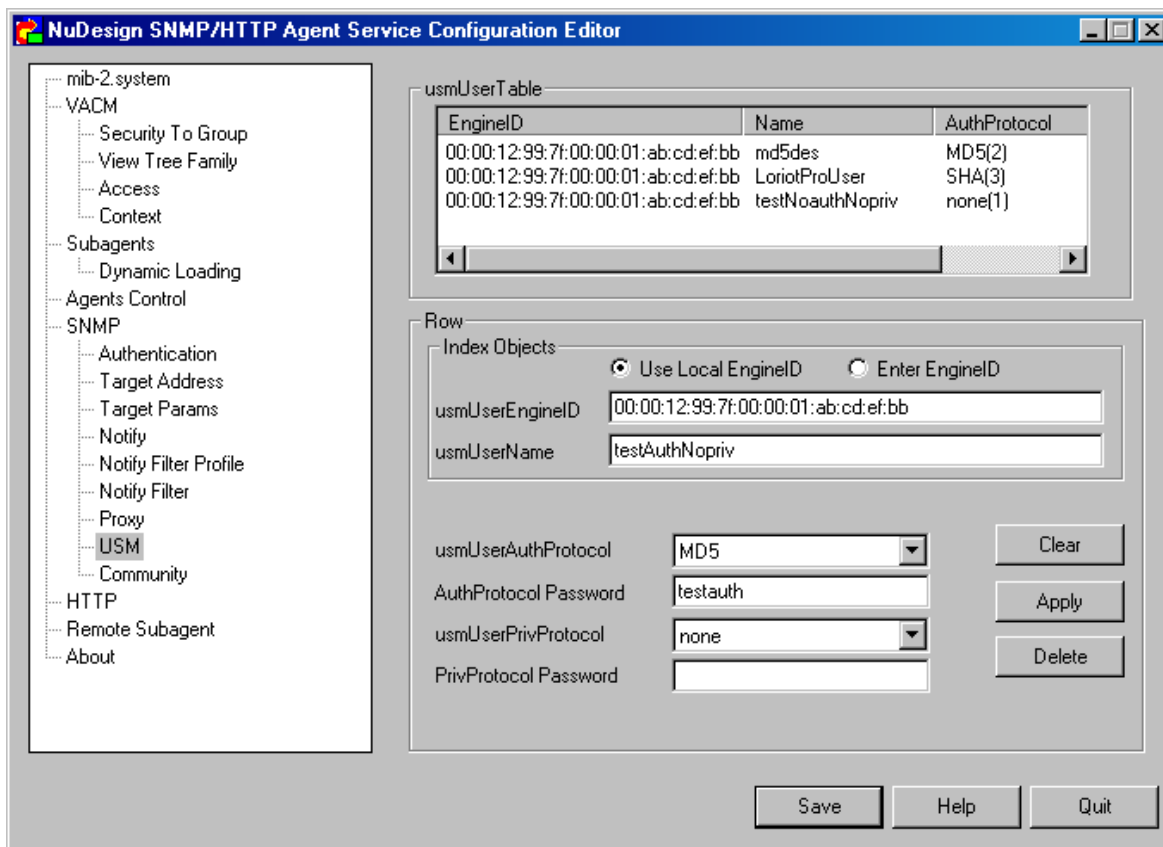
After this is done, right click on the node and get the SystemInfo which is just the System group. You should see data similar to the picture below.



#### 4. SNMPv3 Auth NoPriv

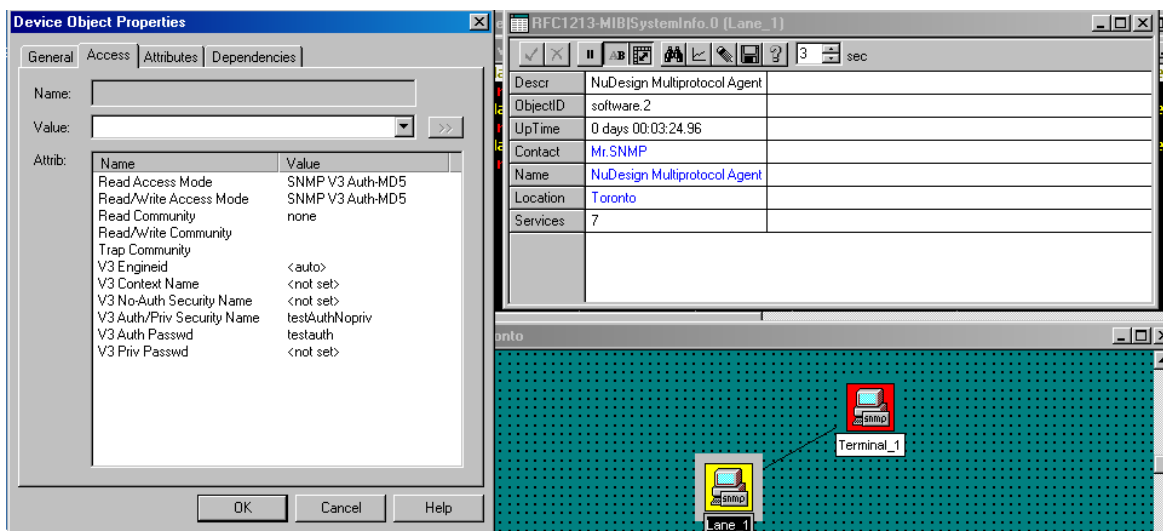
The SystemInfo dialog should be closed as this point. We will now try to establish communication using SNMPv3 Auth No Priv credentials using MD5.

The steps are similar to the above section. First we need to setup a SNMPv3 AuthNoPriv user. We call it 'testAuthNopriv'. The AuthProtocol password used is 'testauth'.



On SNMPc, a node is created and then on its properties, we set up the Read Access Mode & Write Access Modes to SNMPv3 Auth-MD5. "V3 Auth/Priv Security Name" should match the user that was set up in the agent. It is 'testAuthNopriv'.

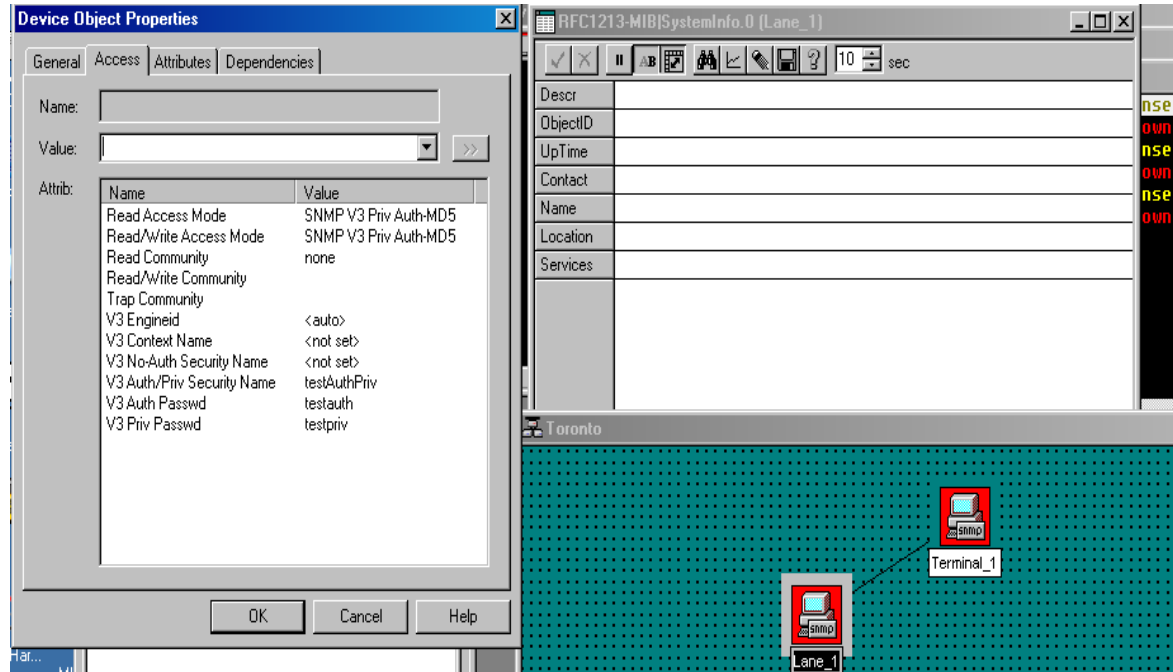
Again, we should see data in the SystemInfo dialog box.



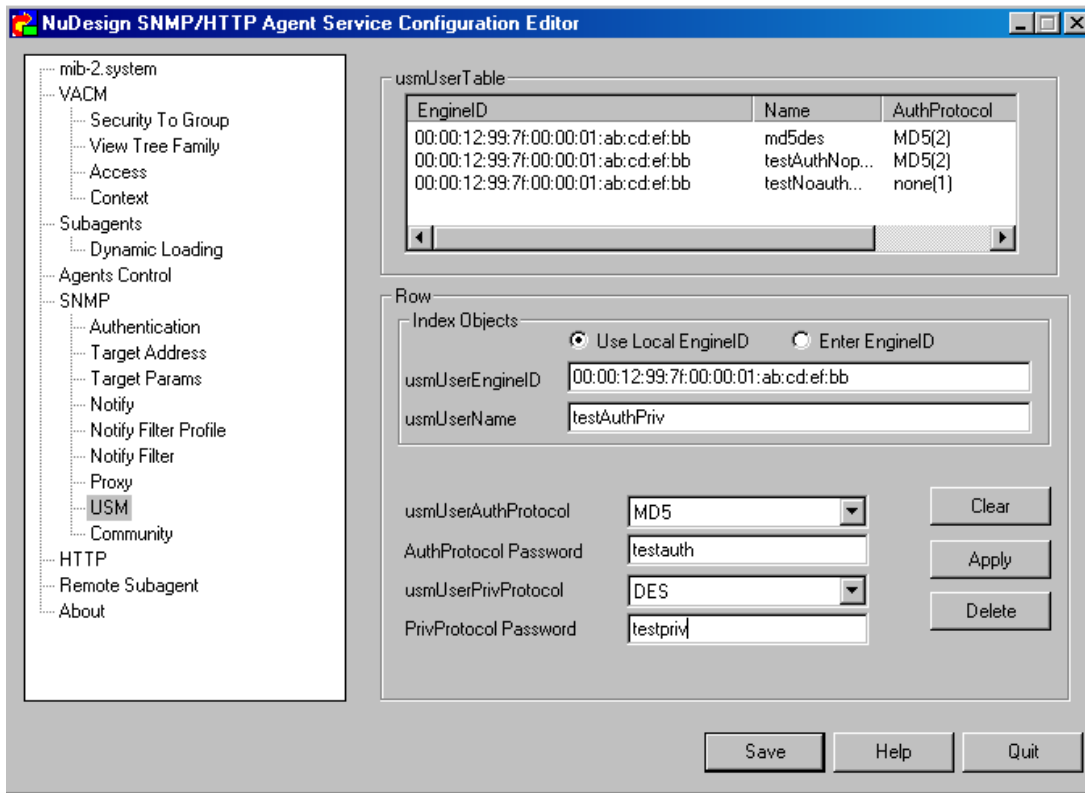
## 5. SNMPv3 Auth Priv

It is important to close the SystemInfo box and configure the manager for SNMPv3 AuthPriv communication. The user should be “testAuthPriv” with the passwords being “testAuth” and “testPriv”.

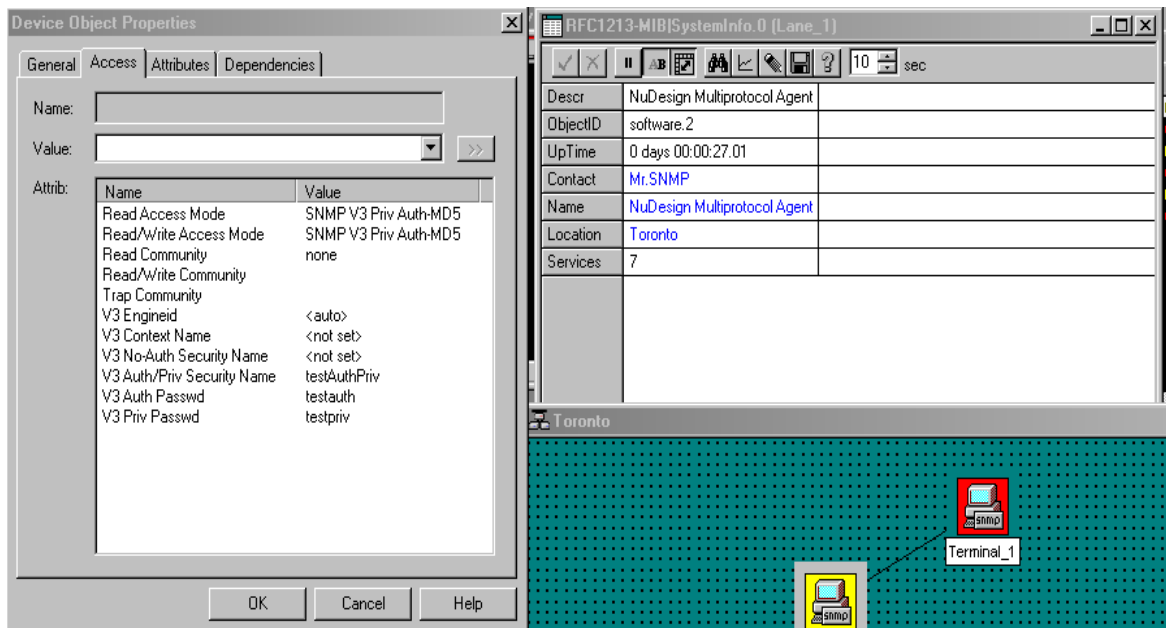
Open the SystemInfo dialog box and you will see no data. That means that the agent has not been configured properly.



On the agent add a new user with above username and passwords. Run the agent.



Now, go back to the SystemInfo box and restart it. You should have the system group data.





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## 6. About NuDesign Technologies

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NuDesign provides software tools, libraries and applications for development of management agents and client applications used in remote configuration, monitoring and control of network devices, services, and applications. Our solutions operate over IPv4 / IPv6 networks in carrier, campus and enterprise settings. We also provide professional services supporting customers requiring specific management application and agent solutions.

Our software is based on industry standard management protocols such as NETCONF, SNMP, CLI, Web and RESTCONF protocols. Our customers are Original Equipment Manufacturers, System Integrators, Operators, Service Providers and End Users worldwide.

Our development products and software technologies provide the basis for the following solutions:

- the management Agents for embedded targets, implementing standard and custom YANG / MIB data models with secure, well integrated NETCONF / SNMPv3 / CLI and / or Web & RESTCONF access.
- the secure SNMPv3 and CLI management solutions for multiple desktop and embedded targets.
- the secure monitoring of Windows and Linux Servers using extensible SNMPv3 Agent Service for Windows or Linux with standard and / or custom extension subagents, configured with the provided SNMPv3 Configuration Editor. NuDesign SNMPv3 Service for Windows is a direct, drop-in replacement of Microsoft Windows SNMP Service (please visit [www.snmp4windows.com](http://www.snmp4windows.com)).
- the SNMP Browser, MIB Builder and Traffic Monitor products that are feature rich, extensible, and easy to use in development, test and production environments.
- specialized SNMPv3 Management Agents and Managers for avionics AFDX<sup>®</sup> / ARINC664 networks and SNMPv1 products for NTCIP Transportation industry.

The highly automated management Agent / Subagent / Manager development tools, code generation wizards, multiple target development libraries, samples, evaluations with associated tutorials and our technical support enable quick learning, fast prototyping, experimentation, development and reliable production deployment.

The code generation tools facilitate organization of design process, providing for generation of project files for target OS / RTOS and a very complete and immediately compilable agent or manager source code.

For more information please visit [www.ndt-inc.com](http://www.ndt-inc.com), it contains NETCONF, SNMPv3 and MIB development tools and management product descriptions, tutorials and full feature product evaluations packages or call 416 737 0328 to discuss your specific needs.