Monitoring Radius Authentication Server

eG Innovations Product Documentation

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Total Performance Visibility

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Chapter 1: Introduction

Remote Authentication Dial In User Service (RADIUS) is an AAA (authentication, authorization, and accounting) protocol for controlling access to network resources. RADIUS servers and clients are commonly used by ISPs and corporations managing access to the internet or internal networks across an array of access technologies, including modems, DSL, wireless and VPNs.

In an era where corporates and end-users alike have come to look upon the Internet as a reliable medium for transacting business, ISPs have begun to depend a lot on the RADIUS server to ensure that such transactions are safe and secure. This only means that even a brief non-availability of the RADIUS server, or a slowdown in authentication experienced by the server, can expose the infrastructure and the business to untold harm. If such an adversity is to be prevented, then the RADIUS server has to be continuously monitored. This is what exactly eG Enterprise does.

Chapter 2: How to Monitor the Radius Authentication Server Using eG Enterprise?

eG Enterprise monitors the Radius Authentication server in an agentless manner.

2.1 Managing the Radius Authentication Server

The eG Enterprise cannot automatically discover the Radius Authentication server so that you need to manually add the component for monitoring. To manage a Radius component, do the following:

1. Log into the eG administrative interface.
2. Follow the Components -> Add/Modify menu sequence in the Infrastructure tile of the **Admin** menu.
3. In the **COMPONENT** page that appears next, select Radius as the **Component type**. Then, click the **Add New Component** button. This will invoke Figure 2.1.

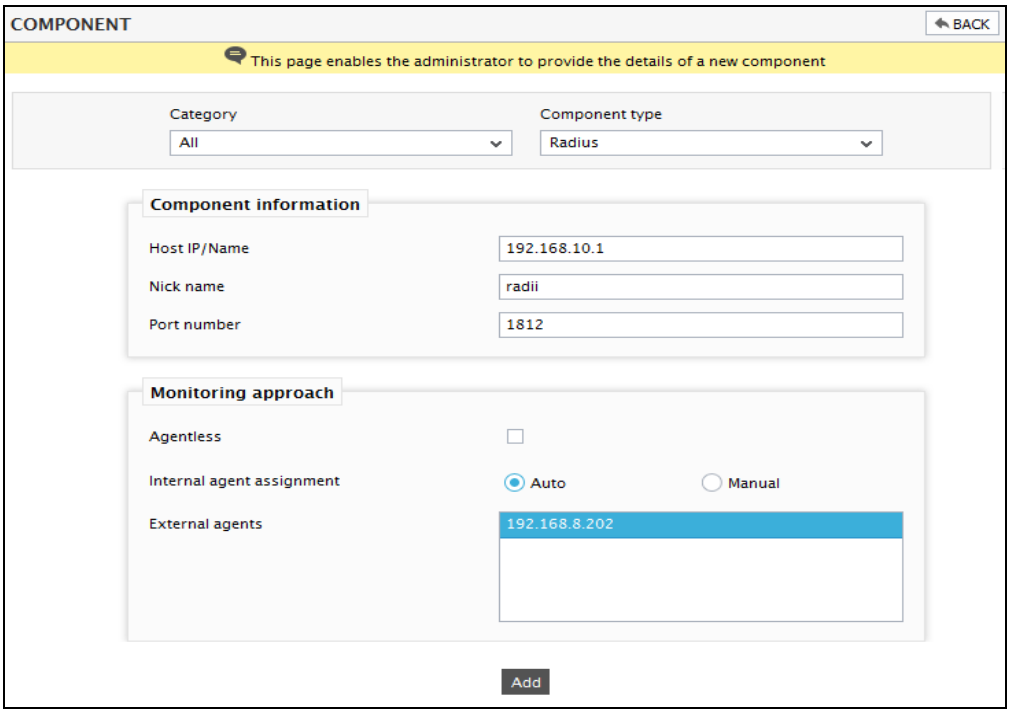

Figure 2.1: Adding Radius Authentication Server

4. Specify the **Host IP/Name** and the **Nick name** of the Radius Authentication Server in Figure 2.1. Then, click on the **Add** button.

5. When you attempt to sign out, a list of unconfigured tests appears (see Figure 2.2).

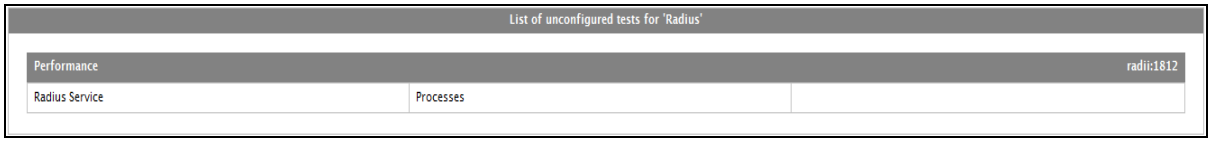

Figure 2.2: List of Unconfigured tests for the Radius Authentication server

6. Configure the tests by clicking on the test names in the list of unconfigured tests. To know details on configuring the **Radius Service** test, refer to Section **3.1.1**.
7. For information on the **Processes** test, refer to *Monitoring Unix and Windows Servers* document.
8. Then, signout of the eG administrative interface.

Chapter 3: Monitoring Radius Servers

eG Enterprise presents a specialized Radius monitoring model (see Figure 3.1) that periodically checks the availability and responsiveness of the Radius server.

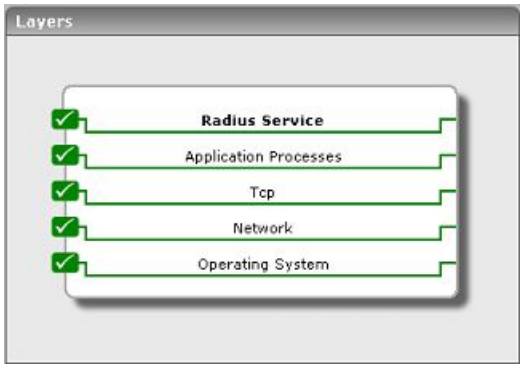

Figure 3.1: The layer model of a Radius server

Since the bottom 4 layers of Figure 3.1 have already been discussed in ample measure in the *Monitoring Unix and Windows Servers* document, the section to come will discuss the topmost layer of Figure 3.1 alone.

3.1 The Radius Service Layer

This layer monitors the availability and responsiveness of the Radius server.

Figure 3.2: The test associated with the Radius Service layer

3.1.1 Radius Service Test

This test reveals the login status of the Radius server and the time taken by the server to authenticate the clients when the clients login to the server.

Target of the Test: A Radius Server

Agent running the test: An external agent

Output of the test: One set of results for every Radius server being monitored.

Configurable parameters for the test

Parameter	Description
Test period	How often should the test be executed.
Host	The host for which the test is to be configured.
Port	The port at which the specified host listens.
AcctPort	The account port used by the Radius server
AuthType	The type of authentication used by the Radius server for authenticating clients. Here, specify PAP if the type of authentication used by the Radius server is **Password Authentication Protocol**. If the authentication used is **Challenge Handshake Authentication Protocol**, then enter CHAP here.
UserName	For logging into the Radius server, the test requires a valid UserName. Specify the user name in the space provided.
Password	The Password of the specified UserName.
Confirm Password	Confirm the password by retyping it.
SharedSecret	The shared secret of the Radius server.
Timout	The maximum duration (in seconds) for which the test will wait for a response from the server.

Measurements made by the test

Measurement	Description	Measurement Unit	Interpretation
Login status	Indicates whether the Radius server is available	Percent	If the value of this measure is 100%, it indicates that the server is available. If

Measurement	Description	Measurement Unit	Interpretation
	or not.		the value of this measure is 0, then it means that the server is not available.
Login time	The time taken by the Radius Sever to authenticate Radius clients using the configured protocol (PAP / CHAP).	Secs	

3.2 Troubleshooting

If the Radius Service test is in the unknown state, it could indicate that the test has not been configured properly. Care should be taken while configuring the acctport and **SHAREDSECRET** parameters of the Radius Service test. To know the Radius port and the name of the shared secret, launch the **WinRadius** application from the Radius server's install directory. Figure 3.3 will then appear.

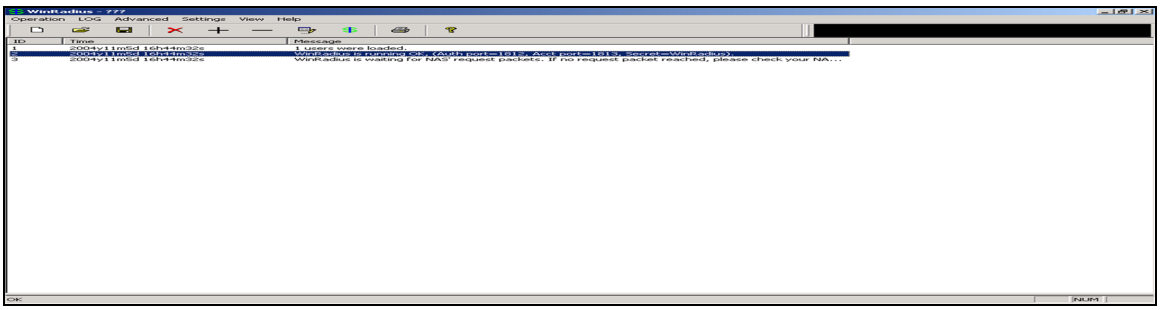

Figure 3.3: Knowing the AcctPort and SharedSecret

Note the second entry in the **Message** column of Figure 3.3. This entry clearly indicates the **Acct port** (in this case, 1813) of the Radius server and its **Secret** (in this case, WinRadius). The same values should be provided while configuring the Radius Service test.

About eG Innovations

eG Innovations provides intelligent performance management solutions that automate and dramatically accelerate the discovery, diagnosis, and resolution of IT performance issues in on-premises, cloud and hybrid environments. Where traditional monitoring tools often fail to provide insight into the performance drivers of business services and user experience, eG Innovations provides total performance visibility across every layer and every tier of the IT infrastructure that supports the business service chain. From desktops to applications, from servers to network and storage, from virtualization to cloud, eG Innovations helps companies proactively discover, instantly diagnose, and rapidly resolve even the most challenging performance and user experience issues.

eG Innovations is dedicated to helping businesses across the globe transform IT service delivery into a competitive advantage and a center for productivity, growth and profit. Many of the world's largest businesses use eG Enterprise to enhance IT service performance, increase operational efficiency, ensure IT effectiveness and deliver on the ROI promise of transformational IT investments across physical, virtual and cloud environments.

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