CONFIGURATION GUIDE

Cloudpath Enrollment System ELK Server Configuration Guide, 5.4

Supporting Software Cloudpath Release 5.4

Part Number: 800-72170-001 Rev A
Publication Date: 08 March 2019

Copyright, Trademark and Proprietary Rights Information

© 2019 ARRIS Enterprises LLC. All rights reserved.

No part of this content may be reproduced in any form or by any means or used to make any derivative work (such as translation, transformation, or adaptation) without written permission from ARRIS International plc and/or its affiliates ("ARRIS"). ARRIS reserves the right to revise or change this content from time to time without obligation on the part of ARRIS to provide notification of such revision or change.

Export Restrictions

These products and associated technical data (in print or electronic form) may be subject to export control laws of the United States of America. It is your responsibility to determine the applicable regulations and to comply with them. The following notice is applicable for all products or technology subject to export control:

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Disclaimer

THIS CONTENT AND ASSOCIATED PRODUCTS OR SERVICES ("MATERIALS"), ARE PROVIDED "AS IS" AND WITHOUT WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED. TO THE FULLEST EXTENT PERMISSIBLE PURSUANT TO APPLICABLE LAW, ARRIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, FREEDOM FROM COMPUTER VIRUS, AND WARRANTIES ARISING FROM COURSE OF DEALING OR COURSE OF PERFORMANCE. ARRIS does not represent or warrant that the functions described or contained in the Materials will be uninterrupted or error-free, that defects will be corrected, or are free of viruses or other harmful components. ARRIS does not make any warranties or representations regarding the use of the Materials in terms of their completeness, correctness, accuracy, adequacy, usefulness, timeliness, reliability or otherwise. As a condition of your use of the Materials, you warrant to ARRIS that you will not make use thereof for any purpose that is unlawful or prohibited by their associated terms of use.

Limitation of Liability

IN NO EVENT SHALL ARRIS, ARRIS AFFILIATES, OR THEIR OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, SUPPLIERS, LICENSORS AND THIRD PARTY PARTNERS, BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, EXEMPLARY OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES WHATSOEVER, EVEN IF ARRIS HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN AN ACTION UNDER CONTRACT, TORT, OR ANY OTHER THEORY ARISING FROM YOUR ACCESS TO, OR USE OF, THE MATERIALS. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, some of the above limitations may not apply to you.

Trademarks

ARRIS, the ARRIS logo, Ruckus, Ruckus Wireless, Ruckus Networks, Ruckus logo, the Big Dog design, BeamFlex, ChannelFly, EdgeIron, FastIron, HyperEdge, ICX, IronPoint, OPENG, SmartCell, Unleashed, Xclaim, ZoneFlex are trademarks of ARRIS International plc and/or its affiliates. Wi-Fi Alliance, Wi-Fi, the Wi-Fi logo, the Wi-Fi CERTIFIED logo, Wi-Fi Protected Access (WPA), the Wi-Fi Protected Setup logo, and WMM are registered trademarks of Wi-Fi Alliance. Wi-Fi Protected Setup™, Wi-Fi Multimedia™, and WPA2™ are trademarks of Wi-Fi Alliance. All other trademarks are the property of their respective owners.

Contents

Overview **4**

Prerequisites **4**

Setting Up the System **4**

ELK Server Configuration 4

Cloudpath Configuration 5

Viewing the Cloudpath Data 5

Overview

The Cloudpath Enrollment System (ES) provides information about secure wireless traffic in the form of enrollment, user, and certificate records, as well as scheduled reports, and Cloudpath provides the ability to export this data into a spreadsheet or CSV file.

Starting with Cloudpath version 4.x, you can configure the Cloudpath to send data to an existing Elasticsearch, Logstash, or Kibana (ELK) server.

> **NOTE**
> This feature is currently in the beta state, as we continue to develop and improve the integration. We encourage customers with an existing ELK system, and early adopters, to test this new functionality. Please submit questions and feedback on this feature by contacting our support desk at cloudpathsupport@ruckuswireless.com.

> **NOTE**
> Cloudpath supports version 5.5.2 of the ELK schema.

This feature is available on Cloudpath version 4.2.x, and later.

Prerequisites

This set of instructions assumes you are using CentOS and Apache (httpd), but this configuration should work with other systems.

Setting Up the System

ELK Server Configuration

1. Download and install Elasticsearch, Logstash, and Kibana as outlined on the https://www.elastic.co/products website.
2. Edit the `/etc/elasticsearch/elasticsearch.yml` file.
3. Give the `cluster.name` a unique name.
4. Enter the **service elasticsearch start** command.
5. Configure services to run on boot using these commands:
   - **chkconfig --add elasticsearch** (adds it as a service)
   - **chkconfig --add logstash** (adds it as a service)
   - **chkconfig elasticsearch** (tells the service to auto-run at boot level 3, 5, and 6)
   - **on** (tells the service to auto-run at boot level 3, 5, and 6)
6. Enter the **service logstash start** command.
7. Enter the **httpd restart** command.
8. Enter the **iptables -A INPUT -p tcp -m tcp --dport 9200 -j ACCEPT** command.

Cloudpath Configuration

Configure the Cloudpath to communicate with the ELK server.

1. Enter the *Hostname* and *Port* of the reporting server. By default, the port number is 9200
2. Select the Frequency of data uploads from the Cloudpath to the ELK server.
3. Create a new workflow snapshot on the **Configuration** > **Workflows** page.

Viewing the Cloudpath Data

T o view the Cloudpath data on your ELK server, open a browser to **http://<ELK server hostname>:5901**.

NOTE
The **Use Index** contains time-based events. We recommend using '*' for the **index**, and then select **enrollmentStart** in the **Time-field name** drop-down box.

© 2019 ARRIS Enterprises LLC. All rights reserved.
Ruckus Wireless, Inc., a wholly owned subsidiary of ARRIS International plc.
350 West Java Dr., Sunnyvale, CA 94089 USA
www.ruckuswireless.com