SOFTWARE INSTALLATION GUIDE



# **RUCKUS IoT Insights** Software Installation Guide, 2.0.0

**Supporting IoT Insights Release 2.0.0** 

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# Preface

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## **Contacting RUCKUS Customer Services and Support**

The Customer Services and Support (CSS) organization is available to provide assistance to customers with active warranties on their RUCKUS products, and customers and partners with active support contracts.

For product support information and details on contacting the Support Team, go directly to the RUCKUS Support Portal using https://support.ruckuswireless.com, or go to https://www.commscope.com/ruckus and select **Support**.

### What Support Do I Need?

Technical issues are usually described in terms of priority (or severity). To determine if you need to call and open a case or access the self-service resources, use the following criteria:

- Priority 1 (P1)—Critical. Network or service is down and business is impacted. No known workaround. Go to the Open a Case section.
- Priority 2 (P2)—High. Network or service is impacted, but not down. Business impact may be high. Workaround may be available. Go to the **Open a Case** section.
- Priority 3 (P3)—Medium. Network or service is moderately impacted, but most business remains functional. Go to the **Self-Service Resources** section.
- Priority 4 (P4)—Low. Requests for information, product documentation, or product enhancements. Go to the Self-Service Resources section.

### **Open a Case**

When your entire network is down (P1), or severely impacted (P2), call the appropriate telephone number listed below to get help:

- Continental United States: 1-855-782-5871
- Canada: 1-855-782-5871
- Europe, Middle East, Africa, Central and South America, and Asia Pacific, toll-free numbers are available at <a href="https://support.ruckuswireless.com/contact-us">https://support.ruckuswireless.com/contact-us</a> and Live Chat is also available.
- Worldwide toll number for our support organization. Phone charges will apply: +1-650-265-0903

We suggest that you keep a physical note of the appropriate support number in case you have an entire network outage.

### **Self-Service Resources**

The RUCKUS Support Portal at https://support.ruckuswireless.com offers a number of tools to help you to research and resolve problems with your RUCKUS products, including:

- Technical Documentation—https://support.ruckuswireless.com/documents
- Community Forums—https://forums.ruckuswireless.com/
- Knowledge Base Articles—https://support.ruckuswireless.com/answers
- Software Downloads and Release Notes-https://support.ruckuswireless.com/#products\_grid
- Security Bulletins—https://support.ruckuswireless.com/security

Using these resources will help you to resolve some issues, and will provide TAC with additional data from your troubleshooting analysis if you still require assistance through a support case or RMA. If you still require help, open and manage your case at https://support.ruckuswireless.com/ case\_management.

## **Document Feedback**

RUCKUS is interested in improving its documentation and welcomes your comments and suggestions.

You can email your comments to RUCKUS at #Ruckus-Docs@commscope.com.

When contacting us, include the following information:

- Document title and release number
- Document part number (on the cover page)
- Page number (if appropriate)

For example:

- RUCKUS SmartZone Upgrade Guide, Release 5.0
- Part number: 800-71850-001 Rev A
- Page 7

## **RUCKUS Product Documentation Resources**

Visit the RUCKUS website to locate related documentation for your product and additional RUCKUS resources.

Release Notes and other user documentation are available at https://support.ruckuswireless.com/documents. You can locate the documentation by product or perform a text search. Access to Release Notes requires an active support contract and a RUCKUS Support Portal user account. Other technical documentation content is available without logging in to the RUCKUS Support Portal.

White papers, data sheets, and other product documentation are available at https://www.commscope.com/ruckus .

## **Online Training Resources**

To access a variety of online RUCKUS training modules, including free introductory courses to wireless networking essentials, site surveys, and products, visit the RUCKUS Training Portal at https://commscopeuniversity.myabsorb.com/. The registration is a two-step process described in this video. You create a CommScope account and then register for, and request access for, CommScope University.

## **Document Conventions**

The following table lists the text conventions that are used throughout this guide.

#### **TABLE 1** Text Conventions

Convention	Description	Example
monospace	Identifies command syntax examples	<pre>device(config)# interface ethernet 1/1/6</pre>
bold	User interface (UI) components such as screen or page names, keyboard keys, software buttons, and field names	On the <b>Start</b> menu, click <b>All Programs</b> .
italics	Publication titles	Refer to the RUCKUS Small Cell Release Notes for more information.

## Notes, Cautions, and Safety Warnings

Notes, cautions, and warning statements may be used in this document. They are listed in the order of increasing severity of potential hazards.

#### NOTE

A NOTE provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

#### ATTENTION

An ATTENTION statement indicates some information that you must read before continuing with the current action or task.



#### CAUTION

A CAUTION statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.



#### DANGER

A DANGER statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations.

## **Command Syntax Conventions**

Bold and italic text identify command syntax components. Delimiters and operators define groupings of parameters and their logical relationships.

Convention	Description
bold text	Identifies command names, keywords, and command options.
italic text	Identifies a variable.
[]	Syntax components displayed within square brackets are optional.
	Default responses to system prompts are enclosed in square brackets.
{x   y   z}	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x y	A vertical bar separates mutually exclusive elements.
< >	Nonprinting characters, for example, passwords, are enclosed in angle brackets.
	Repeat the previous element, for example, member[member].
λ.	Indicates a "soft" line break in command examples. If a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

# **About This Guide**

## **Introduction to RUCKUS IoT Insights**

The RUCKUS IoT Insights is a RUCKUS CommScope application that provides an OT overview of the RUCKUS IoT Controller network and its associated data. The RUCKUS IoT Insights provides a full northbound API that allows for integration into 3rd party building management eco-systems, development or customization of front end dashboard solutions, this API allows for the re-skinning and development of custom IOT- OT solutions, integration into existing dashboards or the data push to external Service Data Analytics platforms from existing Cloud Service Providers such as Amazon, Google or Microsoft without the need for lengthy integration or Software development efforts.

This guide provides information about how to install the RUCKUS IoT Insights on a supported hypervisor. Topics include the installation instructions using the .OVA or .qcow2 file.

#### NOTE

If release notes are shipped with your product and the information there differs from the information in this guide, follow the instructions in the release notes.

This guide is intended for use by those responsible for installing and setting up network equipment. It assumes a basic working knowledge of local area networking, wireless networking, and wireless devices.

# Installing IoT Insights on a VMWare ESXi

The RUCKUS IoT Insights can be installed on a VMware ESXi hypervisor using an .OVA file.

- 1. Download the distribution package in the .OVA file format from the RUCKUS Support website at https://support.ruckuswireless.com.
- 2. Open VMware ESXi and select Virtual Machines from the Navigator pane.

#### FIGURE 1 Selecting Virtual Machine

vmware esxi		- /							root@192.168.111	123 🕶   Helg	₩ 1.	Q. Search	- •
Tr Navigator	6 localhost.localdomain - Virtual Machines												
✓ ☐ Host Manage	🔁 Create / Register VM 📔 🔐 Comide 📗	🖡 Power on 📲 Power of 🔒	ivipend	C Refresh	🕴 🔕 Action	ia (					(Q 5	Search	
Monitor	Virtual machine	<ul> <li>Status</li> </ul>	~ 1	Jsed space	~	Guest OS	v	Host nam	e v	Host CPU	~	Host memory	
Virtual Machines	D. B Ubuntu VM	📀 Nom	sal d	20 GB		Ubuntu Linux (6	4-bit)	Unknown		0 MHz		0 MB	
Storage	Insights2 0.0 77	Norm	sal 1	11.22 G8		Ubuntu Linux (6	4-bit)	Unknown		0 MHz		0 MB	
• Q Networking	Quick filters											2 ite	.ms "
	Recent tasks. Task v Denny	Target ×	Initiator		Queued 10/07/2021 14:	.v 3544	Started 10/07/2021 14:35:44	~	Result 🔺		×	Completed ¥ 10/07/2021 14:38:44	(i) ×

3. Click Create/Register VM.

4. On the New virtual machine page, click Select creation type, and select Deploy a virtual machine from an OVF or OVA file. Click Next.

FIGURE 2 Creating New Virtual Machine



5. Click Select OVF and VMDK files, enter a name for the virtual machine, and select the OVF file. Click Next.

FIGURE 3 Importing OVA File

😚 New virtual machine - Demo Insig	hts2 Machine
<ul> <li>1 Select creation type</li> <li>2 Select OVF and VMDK files</li> <li>3 Select storage</li> <li>4 License arreements</li> </ul>	Select OVF and VMDK files Select the OVF and VMDK files or OVA for the VM you would like to deploy
5 Deployment options 6 Additional settings 7 Ready to complete	Enter a name for the virtual machine. Demo Insights2 Machine Virtual machine names can contain up to 80 characters and they must be unique within each ESXI instance.
	× 🖬 Insights2.0.0.77.ova
vinware	
	Back Next Finish Cancel

6. Click **Select storage**, and select the datastore in which you want to save the configuration and disk files. Click **Next**.

#### FIGURE 4 Selecting Storage

1 Select creation type 2 Select OVF and VMDK files 3 Select storage	Select storage Select the storage type and datastore						
4 License agreements 5 Deployment options 6 Additional settings 7 Ready to complete	Standard Persistent Memory Select a datastore for the virtual machine's	configuration file	s and all of i	s' virtual disks			
	Name ~	Capacity ~	Free	~ Туре	✓ Thin pro… ✓	Access	~
	datastore1	337.5 GB	298.14 GE	VMFS6	Supported	Single	toms
							toma

7. Click **Deployment options**, and select the **Network mappings** and **Disk provisioning**. Click **Next**.

**FIGURE 5** Viewing Deployment Options

New virtual machine - Demo Insig	ghts2 Machine			
<ul> <li>1 Select creation type</li> <li>2 Select OVF and VMDK files</li> <li>3 Select storage</li> </ul>	Deployment options Select deployment options			
4 Deployment options 5 Ready to complete	Network mappings	VM Network	VM Network	~
	Disk provisioning		ick	
	Power on automatically			
<b>vm</b> ware				

8. Click Ready to complete and review the settings. Click Finish.

**FIGURE 6** Confirming the Settings

Select creation type Select OVF and VMDK files Select storage	Ready to complete Review your settings selection b	before finishing the wizard
Deployment options	Product	Insights2.0.0.77
	VM Name	Demo Insights2 Machine
	Files	Insights2.0.0.77-disk1.vmdk
	Datastore	datastore 1
	Provisioning type	Thin
	Network mappings	VM Network: VM Network
	Guest OS Name	Unknown
	Do not refresh y	our browser while this VM is being deployed.
<b>vm</b> ware <sup>*</sup>		

#### NOTE

The OVA file upload can take some time, so it is important not to refresh or navigate away from the VMware dashboard during this VM creation phase.

You can monitor the VM status and System status in the Recent Tasks Window.

#### FIGURE 7 Viewing ESXI Upload Image

Task	✓ Target	<ul> <li>Initiator</li> </ul>	Queued ~	Started ~	Result 🔺 🗸 🗸	Completed •
Upload disk - Insights2.0.0.77-disk1.vmdk (1 of 1)	Demo Insights2 Machine	root	10/07/2021 14:47:35	10/07/2021 14:47:35		Running 8 %
Create VM	Demo Insights2 Machine		10/07/2021 14:47:37	10/07/2021 14:47:37	Completed successfully	10/07/2021 14:47:37
Destroy	Test Insights2.0.0.77	root	10/07/2021 14:35:44	10/07/2021 14:35:44	Completed successfully	10/07/2021 14:35:44
Import VApp	Resources	root	10/07/2021 14:47:37	10/07/2021 14:47:37		Running 8 %

After installing the VM, if the VM is not set to auto power on then the Installer can start the VM and initiate the Insights System Startup.

#### FIGURE 8 Confirming the Upload

🖻 Create / Register VM 📔 📝 Console 📔 🕨 Power on 🗧 Power	off 🔢 Suspen	d 📔 Ċ Refresh 📔 🍈 Actio	ns		QS	earch
Virtual machine ~	Status ~	Used space ~	Guest OS ~	Host name ~	Host CPU ~	Host memory ~
D. 👸 Ubuntu VM	Normal	20 GB	Ubuntu Linux (64-bit)	Unknown	0 MHz	0 MB
D. 👸 Insights2.0.0.77	Normal	11.22 GB	Ubuntu Linux (64-bit)	Unknown	0 MHz	0 MB
Demo Insights2 Machine	Normal	Unknown	Ubuntu Linux (64-bit)	Unknown	0 MHz	0 MB

9. Click on the VM name **Demo Insights2 Machine**.

#### NOTE

The **Demo Insights2 Machine** VM is an example here.

10. From the main menu, click the **Power on** to start the VM.

#### FIGURE 9 ESXI Startup Page

Console 🔣 Monitor	Power on Power off 🔢 Sus	spend 👩 Restart   🥖 Edit   🧲 Refresh	Actions	
VMware Tools is not in	Demo Insights2 M Guest OS Compatibility Vitware Tools CPUs Memory	Machine Ubuntu Linux (64-bit) ESX: 6.7 virtual machine No 1 2 GB	e displayed as well as allowing yours	CPU 0 MHz 0 B STORAGE 8.62 GB
reboot, etc. You should	install VMware Tools. 🔅 Actions			a to perform operations on the goest of st e.g. gateerar sharaown,
reboot, etc. You should	i install VMware Tools. 🔹 Actions	•	✓ Hardware Configuration	a lo heurouri oberanous ou rice flocer o si edir floreceu susraouni
General Information     Q Networking	i install VMware Tools. 🏠 Actions		Hardware Configuration     ■ CPU	1 vCPUs
General Information     Question     Metworking     Metworking	t install VMware Tools. 🎡 Actions VMware Tools is not install	ed. 🔷 Actions	Hardware Configuration     GPU     Memory	1 vCPUs 2 GB
reboot, etc. You should     General Information     Q. Networking     Whyare Tools     Storage	t install VMware Tools. 🏠 Actions VMware Tools is not installe 1 disk	ed. 🏠 Actions	Hardware Configuration     GPU     Memory     Hard disk 1	1 vCPUs 2 GB 20 GB
General Information     Qeneral Information     Qeneral Information     Qeneral Information     Whware Tools     Storage     Storage     Notes	t install VMware Tools. 🏠 Actions VMware Tools is not installe 1 disk	ed. 🏠 Actions	Hardware Configuration     GPU     Memory     Hard disk 1     USB controller	1 vCPUs 2 GB 20 GB USB 2.0
General Information     Qeneral Information     Q	I install VMware Tools. 🏠 Actions VMware Tools is not installe 1 disk	ed. 🏠 Actions 🖌 Edit notes	Hardware Configuration     GPU     Memory     Hard disk 1     USB controller     Network adapter 1	1 vCPUs 2 GB 20 GB USB 2.0 VM Network (Connected)
General Information     Qeneral Information     Qeneral Information     Qeneral Information     Qeneral Information     Whware Tools     Deneration     Storage     Notes	t install VMware Tools. 🏠 Actions VMware Tools is not installe 1 disk	ed. 🏠 Actions 🖌 Edit notes	Hardware Configuration      GPU      Memory      Hard disk 1      USB controller      Metwork adapter 1      Wideo card	1 vCPUs 2 GB 20 GB USB 2.0 VM Network (Connected) 4 MB
General Information     General Information     Metworking     Metworking     Motware Tools     Storage     Notes	I install VMware Tools. 🏠 Actions VMware Tools is not installe 1 disk	ed. 🏠 Actions		1 vCPUs 2 GB 20 GB USB 2.0 VM Network (Connected) 4 MB ATAPI CD/DVD drive 0

11. Under the General Information tab, you can view the name of the host, IP address of the VM, storage capacity etc .

#### FIGURE 10 ESXI Network Address

▼ General Information	
🕶 🧕 Networking	
Host name	insights
IP addresses	1. 192.168.111.34 2. <u>fe80::20c:29ff:fee4:cd7a</u>
VMware Tools	VMware Tools is not managed by vSphere
Storage	1 disk
Dis Notes	🥒 Edit notes

12. Open a web browser on your host machine and enter the IP address of the VM in the address bar. A warning sign with the message Your connection is not Private is displayed.

In the example here, the IP address is 192.168.111.34.

13. Click Advanced tab.

#### FIGURE 11 Clicking on Advanced Tab



#### Your connection is not private

Attackers might be trying to steal your information from **192.168.111.34** (for example, passwords, messages or credit cards). <u>Learn more</u>

NET::ERR\_CERT\_COMMON\_NAME\_INVALID



14. Click the link Proceed to 192.168.111.34(unsafe) to open the IoT Insights System Installer page.

FIGURE 12 Browser Security Accept

Your connection	is not private
Attackers might be trying passwords, messages or c	to steal your information from <b>192.168.111.34</b> (for example, redit cards). <u>Learn more</u>
NET::ERR_CERT_COMMON_NAM	E_INVALID
Q To get Chrome's h	ighest level of security, turn on enhanced protection
♀ To get Chrome's h	ighest level of security, <u>turn on enhanced protection</u>
♀ To get Chrome's h Hide advanced	ighest level of security, <u>turn on enhanced protection</u> Back to safety
To get Chrome's h Hide advanced	ighest level of security, <u>turn on enhanced protection</u> Back to safety
Q To get Chrome's h Hide advanced	e that it is <b>192.168.111.34</b> ; its security certificate is from

15. In the left navigation pane of System Installer, click **System**. The **System Settings** page is displayed. Complete the following configuration. Click **Next** after the configuration is complete.

#### **FIGURE 13 Viewing System Settings**

COMMSCOPE" RUCKUS"	Insights	System Installer	15:42:31
> System	System Settings. Ener the Raim: Company Name for this Installation, the Realm is used to identify the System and provide an reference for all Sin Buildings, Floor, Location and Devices used throughout this installation.	85,	
	Insight Serial Number 949368C085A54DE965098C0436A5BC0 Syntem Name Insights2.0		
	Unique Realm ID Number 943380:0 8565-446e-9550-980:0438a5bc0 Rahm Name		00
			0 00
		ЮТ	
			W Next
	ASBCD 1-2 3 4	5 6 7	Ver 2.0.0.50

- a) Insights Serial Number The Insights serial number is unique and is auto generated during the system initalization.
- b) System Name The system name is populated in this box.
- c) Unique Realm ID Number The Realm ID number is unique and is auto generated along with Insights Serial Number.
- d) **Realm Name** Enter the Realm Name. The Realm Name is referenced and used as part of the System Identification and Site Association process.

16. In the left navigation pane of System Installer, click **Network**. The **Network Settings** page is displayed. Complete the following configuration. Click **Next** after the configuration is completed.

COMMSCOPE"	Insights	System Installer	15:43:00
> System	Network Settings. Configure the Setting for the Network on this Instance of IoT Insights select the Type and Configuration depending on the requiring installation network configuration.	nel	
> Network	Network Type Manual IP Address 192, 2168, 111, 41		
	Solvent Mark 265.255.255.0 XAC Address 52:54:00:07/09:3e		
	Gaterary Address 192, F03, 111, 224 Primary DNS 127, 03, 0, 53 Secondar DNS		
		ІОТ	€ B
		R.	
			HNed
	Assect 1-2-3 4	5 6 7	Ver 2.0.0.50

#### **FIGURE 14 Configuring Network Settings**

- a) Network Type Select Manual or DHCP from the list. Depending upon the option selected the Dashboard page changes. In the above example, the Network Type is Manual.
- b) IP Address Enter the IP Address.
- c) Subnet Mask Enter the IP address of Subnet Mask.
- d) MAC Address Enter the MAC address of Machine
- e) Gateway Address Enter the IP address of Gateway.
- f) Primary DNS Enter the IP address of Primary DNS.
- g) Secondary DNS Enter the IP address of Secondary DNS.

17. In the left navigation pane of System Installer, click **Region**. The **Region Settings** page is displayed. Complete the following configuration. After selecting the regional values, click **Next**.

COMMSCOPE" RUCKUS"	OT Insights		Sys	tem Installer	15:43:17
System	Region Settings. Enter the Specific settings for your Region TimeZone Location	and System Thresholds/Triggers.			
Network	Language Region English (United Kingdom) TimeZone Europe/London		•		
Region	Temperature Unit. *C Triggers & Thresholds.		•		
	Device Mangement	Minimum Battery % 40 Loss of Signal Seconds 7200 Minum RSSI dB			
		Animum LQI %		IOT	
	Environmental Monitoring	Maximum Temperature *C 25 Minimum Temperature *C 18 Maximum Humidity %	•		A
		50 Minimum Humidity %	•		ни
		1-2-3	4 5	6 7	Ver 2.0.0.50

**FIGURE 15 Configuring Region Settings** 

- a) Language Region Select the language from the list.
- b) **TimeZone** Selec the timezone from the list.
- c) Temperature Units Select the temperature unit from the list.

In addition to the units, the Installer can also modify any system level **Triggers** or alarm **Thresholds**. These are the values that will be used to set maximum and minimum tolerances for basic operation and alarm generation. In a lot of cases the default value will be suitable, but you can change these depending on the requirements.

18. In the left navigation pane of System Installer, click **Connectivity**. The **IoT Connectivity** page is displayed. The Insights Installer will try to auto discover the local IoT controller on the network. During this scan process, the scan window or the progress bar will increment showing that the scan is underway. After the scan is completed, you can select the IoT controller server from the **Discovered Servers** list. You can bypass this scan and enter the address of the IoT controller manaully in the field **Selected Server**. Type username in the field **Server Username**, and password in the field **Server Password**, and click **Connect**.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:36:29
> System	IoT Connectivity. System is examing for Local IOT Controllers and will provide a list below.		
> Network	Discontend Server		
> Region	Serve Charanne Serve Passroord admin Scala Progres.	Correct	
> Connectivity			
		ІОТ	
			M Next
		2-3-4-5-6-7	Ver 2.0.0.77

FIGURE 16 Scanning for the IoT Controoler

FIGURE 17 Completing the Scan

COMMSCOPE" RUCKUS"	Insights	System Installer	15:39:20
> System	IoT Connectivity. System is scanning for Local IOT Centrollers and will provide a list below.		
> Network	Diaceneral Servers Found : Solened Server	2 Ruckus IoT Controllers	
> Region	Server Uveraans Server Passmood	Come	
> Connectivity			
		Ιστ	
			M Next
		2-3-4-5 6 7	Ver 2.0.0.77

#### FIGURE 18 Configuring Controller Datastream Plugin

COMMSCOPE" RUCKUS"	Insights	System Installer	15.41:51
> System	IoT Connectivity. System is scaming for Local 10T Controllers and will provide a list below.		
> Network	Discovered Servers  192.168.111.162  Found 2 Rucku  Setteds Server  192.168.111.162  Server Unemain Server Zasword	s IoT Controllers	
> Region	admin	Connect	
> Connectivity	Controller Datatesan Status Installed and Running Sena Updates /status		
	Even Updates	І Т	
	Life COCKUS 201 Controller Controller Justanteam is Annees the semiga are unso arous out you ca exciting settings or other service	er contige tem a tila coust traac	
			M Next
		-3-4-5 6-7	Ver 2.0.0.77

If the Controller Datastream Plugin is already configured on the controller then the status of **Controller Datastream Plugin**, **Status Update** and **Event Update** is displayed on the Installer. If it is not configured, then the system can be configured from the Installer and provisioned in the IoT controller as part of the setup process. Click **Next**.

19. In the left navigation pane of System Installer, click **Authentication**. The **Insights Connectivity** page is displayed. Complete the following configuration. Click **Next** after the configuration is completed.

COMMSCOPE" RUCKUS"	Insights		System Installer	15:52:55
> System	Insights Authentication. Place provide a Default Pasaweed for the System "administrater" Act Interface. Additional users and Access levels can be created added on	count, this account will be the master account for the Imghts Us ce the system is initialized and has re-Started.	*	
> Network	Password  Confirm Password 	Password Strength VERY STRONG		
> Region	Racovery e-mail address ruckusiot@commscope.com			
> Connectivity				
> Authentication			ІОТ	
				0
				M Next
		1-2-3-4	-5-6-7	Ver 2.0.0.77

FIGURE 19 Configuring the Insights Authentication

- a) Password Enter the Administration password. To have a strong password, confirm the following criteria are met.
  - The length of the password must be 8 characters long.
  - The password must have both upper and lower case letters.
  - It must have minimum one number.
  - It must have one special character.
- b) Confirm Password Type the password again in this field.
- c) Recovery email address Type the recovery email address.

20. In the left navigation pane of System Installer, click **Terms and Conditions**. The **End User License Agreement** page is displayed. Click the **Agree to Terms and Conditions** checkbox, click the **Next** tab to perform the final installation step.

FIGURE 20 Configuring the End License Agreement

COMMSCOPE" RUCKUS"	Insights	System Installer	15:54:02
> System	End User License Agreement Commuspe RUCKUS and user license agreement terms and conditions of use please confirm you agree to the terms of use below.		
> Network	End-User Linean Apreement RUCKUS WIRELESS, INC. Ruckus IoT Insights (IoT Insights) Software License DI Fass Dean Trus Software License DI Fass Dean Trus Software License	1	
> Region	WILLING TO LICEASE THE SOFTWARE TO YOU FLICENSEET) ONLY ON THE CONDITION THAT THE LICENSE ACCEPTS ALL OF THE FOLLOWING FEMSA AND CONSITIONS. IF A USER ACCEPTS THIS LICENSE, ORD DOWNLOADS, USE SOF INSTALLS THE SOFTWARE, AS AN EMPLOYEE OF, OR AS AN AGENT OR CONTRACTOR FOR THE BENEFIT OF, A COMPANY, THAT LOWARY SHALL BELEVENSE AND THE USER REPRESENTS THAT THAS THE POWER AND AUTHORITY TO ACCEPT THIS AGREEMENT AND THE USER REPRESENTS THAT THAS THE POWER AND AUTHORITY TO ACCEPT THIS AGREEMENT CONTRACTOR FOR THE ADDRESS AND AUTHORITY TO ACCEPT THIS AGREEMENT ACKNOWLEDGES THAT THAT THAS THE POWER AND AUTHORITY TO ACCEPT THIS AGREEMENT.		
> Connectivity	CONDITIONS. IF LICENSEE DOES NOT AGREE TO THE TERMS AND CONDITIONS OF THIS LICENSE. RICKUSSI SUMMILLING TO LICENSE THE SOFTWARE. IN THAT EVENT, LICENSE MAY NOT DOWILLOAD, USE OR INSTALL THE SOFTWARE AND SHALL BE GIVEN A FULL REFUND OF ANY LICENSE FEES ACTUAL PAID FOR THE SOFTWARE. 1) Entertimes		
> Authentication	1) centration "Device" means a single Ruckus access point on Licensee's network. "Documentiation" means the published technical manuals, including any updates thereto, relating to the use of the Software means generally available by Ruckus. "Evaluation ferm" means the limited period of lime following Licensee's initial download of the Software during which Licensee is permitted to use the Software without placing an Order; provided, that the Evaluatio Term is audject to early termination as provided in this agreement. "Software" means a copy of a machine executable version of a Ruckus software product that Ruckus	IØT	
> T&C's	Insters available to Lectrice to dominate units equipment, owned or controller by Dutersers, and any error corrections, spudates or upgrades of such of Namer product that Ruckura makes available to Lecrence. ""Criter" means one or more ordering documents or transactional records in the form required by Ruckur from Lionsee (or a Ruckus Channel Pattret for the benefit of Lociense) to activate the Software or increase the Authorized Device Limit. ""Kuckus Channel Pattret means an entity authorized by Ruckus to sell licenses to Software.		
	S Agree to Terms and Conditions.		M Head
	rcsar 1-2-3-4	-5-6-7	Ver 2.0.0.77

21. In the left navigation pane of System Installer, click **Install** to start the installation process. The **Install IoT Insights** page is displayed. The system will update the Installer with the current status, and the progress bar will show the total progress of the installation.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:57:26
> System	Install IoT Insights. Click lantal to start the lastillation of langths, once completed click the Restart Button to Reset the system and log into langths		
> Network			
> Region	HINSTALL		
> Connectivity			
> Authentication		IOT	
> T&C's			
> Install			
		1-5-6-7	Ver 2.0.0.77

FIGURE 21 Configuring the IoT Install Insights

After the installation has completed, click Restart.

FIGURE 22 Restarting the IoT Insights

COMMSCOPE" RUCKUS"	Insights	System Installer	15:58:29
> System	Install IoT Insights. Click Install to start the Installation of Insights, once completed click the Restart Button to Reset the system and log into Insights.		
> Network	Seta Network set to Static address : 192.168.111.34 Settings will take effect on restart		
> Region	System Install Computed.		
> Connectivity			
> Authentication			325
> T&C's			
> Install			WRESTART
		-5-6-7	Ver 2.0.0.77

The following page appears showing the progress bar indicating the status of the restarting process.

#### FIGURE 23 Rebooting the IoT Insights



22. After the restart is completed, a login screen is displyed. The Administration can now enter the username and password and click Login.

FIGURE 24 Logging into IoT Insights



# Installing RUCKUS IoT Insights on Amazon Web Service

•	Setting up an AWS Account	. 31
•	Configuring the AWS Command Line Interface	. 33
•	Installing Insights	. 34

Installing Insights under Amazon Web Service (AWS) requires the set-up of two parts. The first part includes setting up an AWS account. The second part includes obtaining and configuring the AWS Command Line Interface (CLI).

## Setting up an AWS Account

Perform the following steps to set-up an AWS account.

- 1. Login into the AWS console using the url https://aws.amazon.com/console/
- 2. Select Services > Security > Identity and Compliance > IAM.
- 3. Click **Users** in the left pane.
  - a) Under the column User name, select a user from the group of users .
  - b) Click Security Credentials tab.
  - c) In the Access Key section, click Create Access Key.
  - d) Click Download .CSV file.
- 4. Select Roles in the left pane and create a new role called vmimport.
- 5. Select the **vmimport** role and attach the following policies:

Permissio	ns Trust relationships	Tags	Access Advisor	Revoke sessions		
- Perm	hissions policies (3 polici	es applie	ed)			
Attach	policies					O Add inline policy
Po	elicy name 👻				Policy type 👻	
› 🗊	AmazonEC2FullAccess				AWS managed policy	×
× 🕫	AmazonS3FullAccess				AWS managed policy	×
•	vmimport				Inline policy	×

- 6. Edit the vmimport policy JSON file {} as per the following code.
- 7. Download the access keys (excel file).

#### Installing RUCKUS IoT Insights on Amazon Web Service

Setting up an AWS Account

8. Select Roles in the left pane, and create a new role called "vmimport"

```
{
"Version": "2012-10-17",
"Statement": [
"Effect": "Allow",
"Action": [
"s3:ListBucket",
"s3:GetBucketLocation"
],
"Resource": [
"arn:aws:s3:::$iotctl"
]
},
"Effect": "Allow",
"Action": [
"s3:GetObject"
],
"Resource": [
"arn:aws:s3:::$iotctl/*"
]
},
{
"Effect": "Allow",
"Action": [
"ec2:ModifySnapshotAttribute",
"ec2:CopySnapshot",
"ec2:RegisterImage",
"ec2:Describe*"
],
"Resource": "*"
}
```

Permissions Trust relationships Tags Access Advisor Revoke sessions

- Permissions policies (3 policies applied)

Attach policies

Attach policies	O Add inline policy
Policy name 👻	Policy type 👻
AmazonEC2FullAccess	AWS managed policy X
> 11 AmazonS3FullAccess	AWS managed policy X
<ul> <li>vmimport</li> </ul>	Inline policy X
Policy summary         [] JSON         Edit policy           1 - {         "Version": "2012-10-17",	Simulate policy
16* "Action": [ """""""""""""""""""""""""""""""""""	+

Select System > S3. 9.

#### 10. Create S3 bucket iotcl.

aws Services 🔻		Q. Search for services, features, marketplace products, and docs	s [Alt+S]	🔀 👃 frank.aiello@2262-2661-1671 ▼ Global ▼
Amazon S3 ×	① Easily move terabytes of data into	S3 with AWS DataSync - an online data migration service.		Learn More
Buckets Access Points	Amazon S3			
Object Lambda Access Points Multi-Region Access Points Batch Operations	<ul> <li>Account snapshot</li> <li>Last updated: Oct 21, 2021 by Sto</li> </ul>	rage Lens, Metrics are generated every 24 hours. Learn more 🙎		View Storage Lens dashboard
Access analyzer for \$3	Total storage 84.2 GB	Object count 816	Avg. object size 105.6 MB	You can enable advanced metrics in the "default-account-dashboard" configuration.
Block Public Access settings for this account	Buckets (2) Info			C Copy ARN Empty Delete Create bucket
Dashboards AWS Organizations settings	Buckets are containers for data stored	in S3. Learn more 🛛		< 1 > ©
Feature spotlight (3)	Name O iotctl	AWS Region US East (Ohio) us-east-2	♥ Access Objects can be public	∇ Creation date     July 30, 2021, 14:06:36 (UTC-04:00)

- 11. Download the IoT Insights2 .ova file from the Ruckus support site or https://ruckus-networkssoleng.s3.euwest-2.amazonaws.com/Insights2/Insights2.0.0.93.ova.
- 12. Upload the Insights2 .ova file to the iotctl s3 bucket.

## **Configuring the AWS Command Line Interface**

Before completing the Command Line Interface (CLI) steps ensure you have the log-in details for the AWS account and access keys.

- 1. Open the command prompt, and enter the below commands.
  - sudo apt-get update
  - sudo apt-get install awscli
  - aws --version

```
faiello@faiello-NUCl0i7FNH:~/awsv74$ aws --version
aws-cli/1.20.10 Python/3.7.5 Linux/5.3.0-64-generic botocore/1.21.10
faiello@faiello-NUCl0i7FNH:~/awsv74$
```

2. Configure the AWS CLI using the access keys as below.

#### NOTE

Ensure the region name that is entered is the same as in AWS account set-up.

```
faiello@faiello-NUCl0i7FNH:~/awsv74$ aws configure
AWS Access Key ID [*******************12UH]:
AWS Secret Access Key [***************6dSf]:
Default region name [us-east-2]:
Default output format [json]:
faiello@faiello-NUCl0i7FNH:~/awsv74$
```

3. Create a JSON file called "import.json" The file should contain the following:



#### NOTE

Replace the "S3Key" with the correct file name of the Insights2 .ova file.

- 4. Enter the command aws ec2 import-image --cli-input-json file://import.json to attach the policy to the role previously created.
- 5. Use the command **aws ec2 describe-import-image-tasks -import-task-ids "import-ami-of662ebae1a3c5ed4**" to monitor the status of the imported Insights ova image.



6. When the status shows "completed", the Insights2 instance is installed in your AWS account, refer Services > EC2 > Instances.

## **Installing Insights**

1. Open a web browser on your host machine and enter the IP address of the VM in the address bar. A warning sign with the message Your connection is not Private is displayed.

In the example here, the IP address is 192.168.111.34.

2. Click Advanced tab.

FIGURE 25 Clicking on Advanced Tab



3. Click the link Proceed to 192.168.111.34(unsafe) to open the IoT Insights System Installer page.

**FIGURE 26 Browser Security Accept** 

rour connection is no	t private		
Attackers might be trying to steal passwords, messages or credit car	your information from 1 ds). <u>Learn more</u>	192.168.111.	34 (for example,
NET::ERR_CERT_COMMON_NAME_INVALID			
Hide advanced		1.	Back to safety
This server could not prove that it	is <b>192 168 111 34</b> : its s	ecurity certifi	icate is from
THE OWNER CONTRACTORY FOR THE CONTRACT OF THE CONTRACT.	13 136.100.111.34,113 3	county contin	icute is norm
his server could not prove that it	is <b>192.168.111.34</b> ; its s	ecurity certifi	icate is from
the second second the process the second			

4. In the left navigation pane of System Installer, click **System**. The **System Settings** page is displayed. Complete the following configuration. Click **Next** after the configuration is complete.

#### **FIGURE 27 Viewing System Settings**

COMMSCOPE" RUCKUS"	Insights	System Installer	15:42:31
> System	System Settings. Ener the Raim Company Name for this Installation, the Realm is used to skently the System and provide an reference for all Sin Buildings, Flores, Location and Devices used throughout this installation.	86,	
	Insights Serial Number 949308C085A54DEE565098C0435A5BC0 Syntem Name Insights2.0		
	Unique Realm ID Number 943380c0-8565-440e-9550-98c0438a5bc0 Realm Name		000
			0 0 09
		IOT	
		A State of S	
			MiNed
	ASSICO 1-234	5 6 7	Ver 2.0.0.50

- a) Insights Serial Number The Insights serial number is unique and is auto generated during the system initalization.
- b) System Name The system name is populated in this box.
- c) Unique Realm ID Number The Realm ID number is unique and is auto generated along with Insights Serial Number.
- d) **Realm Name** Enter the Realm Name. The Realm Name is referenced and used as part of the System Identification and Site Association process.

5. In the left navigation pane of System Installer, click **Network**. The **Network Settings** page is displayed. Complete the following configuration. Click **Next** after the configuration is completed.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:43:00
> System	Notwork Settings. Configure the Setting for the Network on this Instance of IoT Insights, select the Type and Configuration depending on the requiring instances instructs configuration.	red.	
> Network	Network Type Manual IP Address 1922-108, 119, 41		
	Sylvest Mask 255.255.0 MAC Advens 52:54:00:07:09:2e		
	Gaterary Addens 1922-163, 119,254 Primary 2058 127,0.0.53 Sasardu DVD		
		ІОТ	
			M Next
	ASSICE 1-2-3 4	5 6 7	Ver 2.0.0.50

#### **FIGURE 28 Configuring Network Settings**

- a) Network Type Select Manual or DHCP from the list. Depending upon the option selected the Dashboard page changes. In the above example the Network Type is Manual.
- b) IP Address Enter the IP Address.
- c) Subnet Mask Enter the IP address of Subnet Mask.
- d) MAC Address Enter the MAC address of Machine
- e) Gateway Address Enter the IP address of Gateway.
- f) Primary DNS Enter the IP address of Primary DNS.
- g) Secondary DNS Enter the IP address of Secondary DNS.

6. In the left navigation pane of System Installer, click **Region**. The **Region Settings** page is displayed. Complete the following configuration. After selecting the regional values, click **Next**.

COMMSCOPE"	<b>OT</b> Insights		Syster	n Installer	15:43:17
System	Region Settings. Enter the Specific settings for your Region TimeZone Localtor	a and System Thresholds/Triggers.			
Network	Language Region English (United Kingdom) TimeZone Europe/London		•		
Region	Triggers & Thresholds.		•		
	Device Mangement	Minimum Battery % 40 Less of Signal Seconds 7200 Minimum RSSI dB			
		-65 Minimum LQI % 25	•	IOT	
	Environmental Monitoring	Maximum Temperature "C 25 Minimum Temperature "C 18 Maximum Humidity %	•		T
		50 Minimum Humidity %	•		н
		1-2-3	4 5 6	7	Ver 2.0.0.50

**FIGURE 29 Configuring Region Settings** 

- a) Language Region Select the language from the list.
- b) **TimeZone** Selec the timezone from the list.
- c) Temperature Units Select the temperature unit from the list.

In addition to the units, the Installer can also modify any system level **Triggers** or alarm**Thresholds**. These are the values that will be used to set maximum and minimum tolerances for basic operation and alarm generation. In a lot of cases the default value will be suitable, but you can change these depending on the requirements.

7. In the left navigation pane of System Installer, click **Connectivity**. The **IoT Connectivity** page is displayed. The Insights Installer will try to auto discover the local IoT controller on the network. During this scan process the scan window or the progress bar will increment showing that the scan is underway. After the scan is completed, you can select the IoT controller server from the **Discovered Servers** list. You can bypass this scan and enter the address of the IoT controller manaully in the field **Selected Server**. Type username in the field **Server Username**, and password in the field **Server Password** and click **Connect**.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:36:29
> System	IOT Connectivity. System is scaming for Local IOT Controllers and will provide a list below:		
> Network	Dacoveral Servers		
> Region	Serve Dasmood	Connect	
> Connectivity			
		ΙΟΤ	
			M Next
		2-3-4-5-6-7	Ver 2.0.0.77

FIGURE 30 Scanning for the IoT Controoler

FIGURE 31 Completing the Scan

COMMSCOPE" RUCKUS"	Insights	System Installer	15:39:20
> System	IoT Connectivity. System is scaming for Local IOT Centrollers and will provide a list below.		
> Network	Discovered Servers Found 2 Riv Salettel Server	chus IoT Controllers	
> Region	Serve Cherzana Serve Paurord Admin Serve Cherzana Serve Paurord Serve Pa	Correct	
> Connectivity			
		ЮТ	
			M Next
		2-3-4-5 6-7	Ver 2.0.0.77

#### FIGURE 32 Configuring Controller Datastream Plugin

COMMSCOPE" RUCKUS"	Insights	System Installer	15:41:51
> System	IoT Connectivity. System is scamming for Local IOT Controllers and will provide a list below.		
> Network	Discovered Servers           192.168.111.162           *           Selected Server           192.168.111.162           Server Unramme           Server Unramme           Server Passored	Found 2 Ruckus IoT Controllers	
> Region	admin	Connect	
> Connectivity	Controller Datastream Status Installfield and Running Status Updates Instatus		
	Event Updates //events The RUCKUS IOT Controller "Controller Datastream" is <b>Faabled</b> the unitines are bid	ted shows but you cast chance them as this could brack	
	ensing setings or other services		
			Mixed
	icilar f	1-2-3-4-567	Ver 2.0.0.77

If the Controller Datastream Plugin is already configured on the controller then the status of **Controller Datastream Plugin**, **Status Update** and **Event Update** is displayed on the Installer. If it is not configured, then the System can be configured from the Installer and provisioned in the IoT controller as part of the setup process. Click **Next**.

8. In the left navigation pane of System Installer, click **Authentication**. The **Insights Connectivity** page is displayed. Complete the following configuration. Click **Next**. Click **Next** after the configuration is completed.

COMMSCOPE" RUCKUS"	OT Insights	System Installer	15:52:55
> System	Insights Authentication. Plaus provide Default Plauseed for the System "administrator" Account, this account will be the master account for the longites Insteface. Additional users and Access first due to created added once the system is installand and has re-Stand.	User	
> Network	Passed Passed		
> Region	Recovery e stall address ruckusiot@commscope.com		
> Connectivity			
> Authentication		IOT	
			0
			H Next
	Coxr 1-2-3-4	)-5-6-7	Ver 2.0.0.77

FIGURE 33 Configuring the Insights Authentication

- a) Password Enter the Administration password. Ensure that the strength of the password is strong.
- The length of the password must be 8 characters long.
- The password must have both upper and lower case letters.
- It must have minimum one number.
- It must have one special character.
- a) **Confirm Password** Type the password again in this field.
- b) Recovery email address Type the recovery email address.

9. In the left navigation pane of System Installer, click **Terms and Conditions**. The **End User License Agreement** page is displayed. Click the **Agree to Terms and Conditions** checkbox, click the **Next** tab to perform the final installation step.

FIGURE 34	Configurin	g the End	d License	Agreement
I I O O I LE O I	conngann	8	LICCIIDC	/ greeniene

COMMSCOPE" RUCKUS"	IOT Insights	System Installer	15:54:02
> System	End User License Agreement Commoge EUCKUS and user losme apresent terms and conditions of use please confirm you agree to the terms of use below.		
> Network	End-User Lonus Agreenet RUCKUS WIRELESS, INC. Ruckus loT Insights (IoT Insights) Software License DIE Ses PERATURE SOFTWARE LICENSE FABRERIETY DICKUS WIDELESS, INC. "DICKUS SIS	1	
> Region	WILING TO LICENSE THE SOFTWARE TO YOU PLICENSEET) ONLY ON THE CONDITION THAT THE LICENSE ACCEPTSALL OF THE FOLLOWING TEMMS AND CONDITIONS. IF A USER ACCEPTS THIS LICENSE, OR DOWINCARDS, USES ON INSTALLS THE SOFTWARE, AS A MERPLOYEE OF AS AN AGENT OR CONTRACTOR FOR THE EXPERT OF A COMPANY, THAT COMPARY SHALL BE DEEMED THE LICENSEE AND THE DESERTECHNESS THAT IT HAS THE POSTER AND ADTIODORY TO ACCEPT THE SAFERESENT AND ADDITION OF A DESERVED THAT THAT THE POSTER AND ADTIODORY TO ACCEPT THE SAFERESENT AND THE DESERTECHNESS THAT IT HAS THE POSTER AND ADTIODORY TO ACCEPT THE SAFERESENT ACKNOWLEDGES THAT IT HAS FEAD THIS LICENSE AND ADDITION TO ACCEPT THE SAFERESENT ACKNOWLEDGES THAT IT HAS A PLAN THIS LICENSE AND ADDITION TO ACCEPT THE SAFERESENT ACKNOWLEDGES THAT IT HAS ADDITION TO ACCEPT THE ADDITION TO ACCEPT THAT ADDITION TO ACCEPT THE ADDI		
> Connectivity	CONDITIONS. FLUCENSEE DOES NOT AGREE TO THE TERMS AND CONDITIONS OF THIS LICENSE. RUCKUS IS UNMULLING DUCENSE THE SOFTWARE. IN THAT EVENT, LICENSE WIN NOT DOWNLOAD, USE OR INSTALL THE SOFTWARE AND SHALL BE GIVEN A FULL REFUND OF ANY LICENSE FEES ACTUALL PAD FOR THE SOFTWARE.		
> Authentication	1) Definitions "Device" means a single Ruckus access point on Licensee's network. "Documentation" means the published technical manualsi, including any updates thereto, relating to the use of the Software made generally available by Ruckus. "Evaluation Term" means the limited period of time following Licensee's initial download of the Software during which Licensee is permitted to use the Software without bacing an Order provided, that the Evaluation Term is subject to early terminations as provided in this agreement. "Software" means a copy of a machine exclusible version of a Ruckus software product that Ruckus		
> T&C's	makes available to Locense for download onto equipment owhere or controlled by Locense, and any error corrections, updates or upgrates of such oblawine product that Ruckus makes available to Locense. "Order" means one or more ordering documents of transactional records in the form required by Ruckus from Locense (or a Ruckus Channel Partner for the benefit of Locense) to activate the Software or increase the Authorized Device Limit. "Ruckus Channel Partner" means an entity authorized by Ruckus to sell licenses to Software.		
	© Agree to Terms and Conditions.		Wheat
	Cont 1-2-3-4	-5-6-7	Ver 2.0.0.77

10. In the left navigation pane of System Installer, click **Install** to start the installation process. The **Install IoT Insights** page is displayed. Click **Install**. The system will update the Installer with the current status, and the progress bar will show the total progress of the installation.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:57:26
> System	Install IoT Insights. Click Install to star the Installation of Imighta, once completed click the Restart Button to Reset the system and log into Imighta		
> Network	30fa		
> Region	MINSTALL		
> Connectivity			
> Authentication		IOT	
> T&C's			
> Install			
		-5-6-7	Ver 2.0.0.77

FIGURE 35 Configuring the IoT Install Insights

The following page appears showing the progress bar indicating the status of the restarting process.

#### FIGURE 36 Rebooting the IoT Insights



11. After the restart is completed, a login screen is displyed. The Administration can now enter the username and password and click **Login**.

#### FIGURE 37 Logging into IoT Insights



# Installing RUCKUS IoT Insights on Linux KVM Machine

The RUCKUS IoT Insights software is provided in a compressed zip file containing all of the basic functions needed to setup install and provission the Insights platform on your own Virtual Machine (VM).

- . Downlaod the Beta file beta-Insights-qcow2\_2.0.0.69.tar from the repository.
- 2. Use the tar xvf beta-Insights-qcow2\_2.0.0.69.tar command to unzip the file. This will then provide the following 4 files.
  - ruckus@ruckus-NUC8i7BEH:~/Insights/Beta/test\$ tar xvf beta-Insights-qcow2\_2.0.0.69.tar
  - beta-Insights-qcow2\_2.0.0.69.qcow2
  - beta-Insights\_2.0.0.69.xml
  - install.sh
  - un-install.sh
  - ruckus@ruckus-NUC8i7BEH:~/Insights/Beta/test\$

To ease the setup, the system provides pre-configured xml, and scripts to install and configure the system. This script and xml file assumes certain file locations for KVM and Bridge configuration for Linux, if these are different the system wil not work and will need to be changed for correct operation.

3. Run the Installer to install the ruckus@ruckus-NUC8i7BEH:~/Insights/Beta/test\$ ./install.sh, VM and start the system.

#### FIGURE 38 Viewing Insights KVM Installer



4. After the installation is completed, the system will start automatically and Insights 2 image will boot. You can verify this by using the command virsh list -all.

FIGURE 39 Viewing the Beta Insights Image Using the Virsh Command

Id	Name	State
25	Insights2.0-clone	running
27	beta-Insights_2.0.0.69	running
	alpha-Insights_2.0.0.50	shut off
	Insights2.0	shut off
	rIoT-Controller-1.5.1.1.22	shut off

#### FIGURE 40 Viewing the IP address of Insights Server

•	D	192.168.111.44	DE:00:BA:AE:8A:08	1:de:0:ba:ae:8a:8	defconf	192.168.111.44	DE:00:BA:AE:8A:08	Andy-s-Galaxy-S10	14:12:16
	D	192.168.111.48	52:54:00:36:C6:0B	1:52:54:0:36:c6:b	defconf	192.168.111.48	52:54:00:36:C6:0B	insights	23:08:30
- D		192.168.111.85	AC:CC:8E:CD:40:56	1:ac:cc:8e:cd:40:56	defconf	192.168.111.85	AC:CC:8E:CD:40:56	axis-accc8ecd4056	20:23:07
- D		192.168.111.90	70:CA:97:37:E9:F0	1:70:ca:97:37:e9:f0	defconf	192.168.111.90	70:CA:97:37:E9:F0		12:53:16

5. You must connect to the Host Insight web server using the web browser https://192.168.88.48.

FIGURE 41 Connecting to the IP address of Installer

our connection is not	private
ttackers might be trying to steal you asswords, messages or credit cards)	ur information from <b>192.168.111.48</b> (for example, ). <u>Learn more</u>
ET::ERR_CERT_COMMON_NAME_INVALID	
Q To get Chrome's highest level	of security, turn on enhanced protection

- 6. Click Advanced tab.
- 7. Click the link Proceed to 192.168.111.48(unsafe) to open the IoT Insights System Installer page.

8. In the left navigation pane of System Installer, click **System**. The **System Settings** page is displayed. Complete the following configuration. Click **Next** after the configuration is complete.

COMMSCOPE" RUCKUS"	OT Insights	System Installer	15:42:31
> System	System Settings. Ease the Raim: Company Name for this Installation, the Realm is used to identify the System and provide an reference for all Site Buildings, Picer, Location and Devices used throughout this installation.	n,	
	Insight Strid Number 945386C085A540E2955098C0438A5BC0 System Name Insights2.0		
	Unique Ranim ID Number 943388c0 85a5-4dee-9550-98c0438a5bc0 Radim Name		0
			0 0 00
		ICT	
		Line and Alexandree	
			H Next
	ASBC0 (1-2)3 (4)	5 6 7	Ver 2.0.0.50

#### FIGURE 42 Viewing System Settings

- a) Insights Serial Number The Insights serial number is unique and is auto generated during the system initalization.
- b) System Name The system name is populated in this box.
- c) Unique Realm ID Number The Realm ID number is unique and is auto generated along with Insights Serial Number.
- d) **Realm Name** Enter the Realm Name. The Realm Name is referenced and used as part of the System Identification and Site Association process.

9. In the left navigation pane of System Installer, click **Network**. The **Network Settings** page is displayed. Complete the following configuration. Click **Next** after the configuration is completed.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:43:00
> System	Network Settings. Configure the Settings for the Network on this Instance of IoT Insights. select the Type and Configuration depending on the requiring a set of the Setting Setting and the set of IoT Insights.	nd	
> Network	Network Type Manual IF Address 1122-005.111.41		
	Robest Mark 265.265.0 MAC Address 52:56:00:07:09:2e		
	Getenzy Addess 192.6:6:11.254 Primary DNS 127.6.6.53 Secondary DNS		
		ΙΟΤ	
		R.	
			M Next
	usice <b>1-2-3</b> 4	5 6 7	Ver 2.0.0.50

#### FIGURE 43 Configuring Network Settings

- a) Network Type Select Manual or DHCP from the list. Depending upon the option selected the Dashboard page changes. In the above example, the Network Type is Manual.
- b) IP Address Enter the IP Address.
- c) Subnet Mask Enter the IP address of Subnet Mask.
- d) MAC Address Enter the MAC address of Machine
- e) Gateway Address Enter the IP address of Gateway.
- f) Primary DNS Enter the IP address of Primary DNS.
- g) Secondary DNS Enter the IP address of Secondary DNS.

10. In the left navigation pane of System Installer, click **Region**. The **Region Settings** page is displayed. Complete the following configuration. After selecting the regional values, click **Next**.

COMMSCOPE" RUCKUS"	<b>OT</b> Insights		System Installer	15:43:17
> System	Region Settings. Enter the Specific settings for your Region TimeZone Localton	and System Thresholds/Triggers.		
> Network	Linguage Region English (United Kingdom) TussZone Europe/London			
Region	Temperature Units c Triggers & Thresholds.			
	Device Mangement	Minimum Bathey % 40 Loss of Signal Seconds 7200 Minimum RSSI dB 465		
		Minimum LQI % 25		
	Environmental Monitoring	Maximum Temperature *C 25 Minimum Temperature *C 18 Maximum Humidity %		1
		50 Minimum Humidity %	•	H Next
		1-2-3	4 5 6 7	Ver 2.0.0.50

**FIGURE 44 Configuring Region Settings** 

- a) Language Region Select the language from the list.
- b) TimeZone Selec the timezone from the list.
- c) Temperature Units Select the temperature unit from the list.

In addition to the units, the Installer can also modify any system level **Triggers** or alarm **Thresholds**. These are the values that will be used to set maximum and minimum tolerances for basic operation and alarm generation. In a lot of cases the default value will be suitable, but you can change these depending on the requirements.

11. In the left navigation pane of System Installer, click **Connectivity**. The **IoT Connectivity** page is displayed. The Insights Installer will try to auto discover the local IoT controller on the network. During this scan process, the scan window or the progress bar will increment showing that the scan is underway. After the scan is completed, you can select the IoT controller server from the **Discovered Servers** list. You can bypass this scan and enter the address of the IoT controller manaully in the field **Selected Server**. Type username in the field **Server Username**, and password in the field **Server Password**, and click **Connect**.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:36:29
> System	IOT Connectivity. System is scanning for Local IOT Controllers and will provide a list below.		
> Network	Discovered Servers  Selected Server		
> Region	Serve Disensored admin admin Secula Program.	Carrect	
> Connectivity			
		IOT	
			M Next
	1004 f	2-3-4-5-6 7	Ver 2.0.0.77

FIGURE 45 Scanning for the IoT Controoler

FIGURE 46 Completing the Scan

COMMSCIGPE" RUCKUS"	IOT Insights	System Installer	15:39:20
> System	IoT Connectivity. System is examing for Local IOT Centrollers and will provide a list below.		
> Network	Discovers Servers  Found 2 Rux  Salacted Server	kus loT Controllers	
> Region	Server Unitanae Server Zaannood	Connect	
> Connectivity			
		ЮТ	
			M Next
		-3-4-5-6-7	Ver 2.0.0.77

#### FIGURE 47 Configuring Controller Datastream Plugin

COMMSCOPE" RUCKUS"	Insights	System Installer	15:41:51
> System	IoT Connectivity. System is scaming for Local IOT Controllers and will provide a list below:		
> Network	Discovered Servers 192-168.111.62 Selected Server 192.168.111.62 Server Utername Server Zasnoved	nd 2 Ruckus IoT Controllers	
> Region	admin	Connect	
> Connectivity	Centroller Datastream Status Installed and Running Statu Cyclates (status		
	Event Updates //events To-REVEY'S INT Controlling "Controlling Destinations" in Earthful the utiling on Visid ab		
	Life rocked for control control outstatum, is answer to strong are unter an enting settings of other service	Of the Long of the analysis of the second seco	
			H Next
		2-3-4-567	Ver 2.0.0.77

If the Controller Datastream Plugin is already configured on the controller then the status of **Controller Datastream Plugin**, **Status Update** and **Event Update** is displayed on the Installer. If it is not configured, then the system can be configured from the Installer and provisioned in the IoT controller as part of the setup process. Click **Next**.

12. In the left navigation pane of System Installer, click **Authentication**. The **Insights Connectivity** page is displayed. Complete the following configuration. Click **Next** after the configuration is completed.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:52:55
> System	Insights Authentication. Pleas provide a Defail Password for the System 'administrator' Account, this account will be the main Instruction additional users and Access levels can be created added conce the systems is infailable and ha	oter account for the longith User re-Statud.	
> Network	Pasword Drough	STRONG	
> Region	Recovery + exail address ruckusiot@commscope.com		
> Connectivity			
> Authentication		ЮТ	
			M Next
		9-3-4-5-6 7	Ver 2.0.0.77

FIGURE 48 Configuring the Insights Authentication

- a) Password Enter the Administration password. To have a strong password, confirm the following criteria are met.
  - The length of the password must be 8 characters long.
  - The password must have both upper and lower case letters.
  - It must have minimum one number.
  - It must have one special character.
- b) Confirm Password Type the password again in this field.
- c) Recovery email address Type the recovery email address.

13. In the left navigation pane of System Installer, click **Terms and Conditions**. The **End User License Agreement** page is displayed. Click the **Agree to Terms and Conditions** checkbox, click the **Next** tab to perform the final installation step.

COMMSCOPE" RUCKUS"	Insights	System Installer	15.54.02
> System	End User License Agreement Commope RUCKUS and user license agreement terms and conditions of use please confirm you agree to the terms of use below.		
> Network	End-User License Agreement RUCKUS WIRELE 55, INC. Ruckus IoT Insights (IoT Insights) Software License	]	
> Region	PLEASE READ THIS SOFTWARE UCCNSE CAREFULLX, RUCKUS WIRELESS, INC, ("RUCKUS") IS WILLING TO LICENSE "THE SOFTWARE TO YOU ("LUCENSEE") ONLY ON THE CONTON THAT THE LICENSEE ACCEPTS ALL OF THE FOLLOWING TEMS AND CONSISTIONS. IF A USER ACCEPTS THIS LICENSE, RO DWILLADDS, USES OR INSTALLS THE SOFTWARE, SA ME REPLOYEE OF, OR AS AN AGENT OR CONTRACTOR FOR THE BENETIT OF, A COMPANY, THAT COMPANY SMALL BE DEEMED THE LICENSEE AND THE USER REPRESENTS THAT IT THAS THE POWER AND ADTINGTIT YO ACCEPT THIS AGREEMENT ( BENALE OF THE COMPANY. BY DOWILLOADING, INSTALLING AND/OR USING THE SOFTWARE, LICENSEE ACKNOWLEDGES THAT IT HAS FEAD THIS LICENSE AND AGREES TO BE DOWIND BY ITS TERMS AND CONDITIONS. IF LUCENSEE DIGS AND TARGE TO THE TERMS AND CONDITIONS OF THIS LUCENSEE, RUCKUS IS UWILLING TO LICENSE THE SOFTWARE. THE TRANS AND CONDITIONS OF THIS LUCENSEE, RUCKUS IS UWILLING TO LICENSE THE SOFTWARE. THE TERMS AND CONDITIONS OF THIS LUCENSE. AND AGREE TO THE TERMS AND CONDITIONS OF THIS LUCENSEE, RUCKUS IS UWILLING TO LICENSE THE SOFTWARE. THE TRANS AND CONDITIONS OF THIS LUCENSEE, RUCKUS IS UWILLING TO LICENSE THE SOFTWARE. THE TRANS AND CONDITIONS OF THIS LUCENSEE. AND YNTER THE ADDITIONS OF THIS LUCENSE. AND AGREE TO THE TERMS AND CONDITIONS OF THIS LUCENSE. AND AGREE TO THE TERMS AND CONDITIONS OF THIS LUCENSE. AND AGREE TO THE SOFTWARE. MY NOT DOWNLOADING.		
> Connectivity	USE OR INSTALL THE SOFTWARE AND SHALL BE GIVEN A FULL REFUND OF ANY LICENSE FEES ACTUAL PAID FOR THE SOFTWARE.		
> Authentication	1) Definitions "Device" metalor" metalor" metalox access point on Licenser's network. "Device" metalor" metalor" metalox has published hechnical mesas, including any updates thereto, relating to the use of the Software made generally available by Ruckus. "Evaluation Term" means the immid general by Ruckus. "Subaution Term" means the immid general of time following Licenser's initial download of the Software during which Licensee is permitted to use the Software without placing an Order; providet, that the Evaluation Term is aujuscit to entry termination as provided in this agreement. "Software" means a copy of a machine executable version of a Ruckus software product that Ruckus makes available to Licensee for download onto sequipment owned or controlled by Licensee, and any error makes available to Licensee for download onto sequipment owned or controlled by Licensee, and any error		
> T&C's	consciouts, pagates or upgatators or statis storware product that indust statute available or Lettersce. Records and the statistical statistical stormare product that indust statute available or Lettersce. International statistical statistical statistical statistical statistical statistical statistical statistical the Authorized Device Limit. "Rockas Channel Partner" means an entity authorized by Ruckas to sell locenses to Software.		A C
	Agree to Temps and Cooditions.		H Next
	Carr 1-2-3-4	-5-6-7	Ver 2.0.0.77

FIGURE 49 Configuring the End License Agreement

14. In the left navigation pane of System Installer, click **Install** to start the installation process. The **Install IoT Insights** page is displayed. The system will update the Installer with the current status, and the progress bar will show the total progress of the installation.

COMMSCOPE" RUCKUS"	Insights	System Installer	15:57:26
> System	Install IOT Insights. Click handle statilation of langita, once completed click the Restart Botton to Reset the system and log into Insights.		
> Network	Sata		
> Region	MINISTALL		
> Connectivity			
> Authentication		ІОТ	3
> T&C's			
> Install			
		-5-6-7	Ver 2.0.0.77

FIGURE 50 Configuring the IoT Install Insights

After the installation has completed, click Restart.

FIGURE 51 Restarting the IoT Insights

COMMSCIGPE" RUCKUS"	Insights	System Installer	15.58:29
> System	Install IoT Insights. Click Install to start the Installation of Insights, once completed click the Restart Button to Reset the system and log into Insights.		
> Network	Bate Network set to Static address : 192.168.111.34 Settings will take effect on restart		
> Region			
> Connectivity			
> Authentication		IØT	
> T&C's			
> Install			MRESTART
		5-6-7	Ver 2.0.0.77

The following page appears showing the progress bar indicating the status of the restarting process.

#### FIGURE 52 Rebooting the IoT Insights



15. After the restart is completed, a login screen is displyed. The Administration can now enter the username and password and click Login.

FIGURE 53 Logging into IoT Insights





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