Advantech AE Technical Share Document

Date	2021/10/20	SR#	1-3917109311					
Category	□FAQ ■SOP	Related OS	N/A					
Abstract	How to connect WISE-4	How to connect WISE-4471 with WISE-PaaS DataHub?						
Keyword	WISE, NB-IoT, WISE-PaaS, DataHub							
Related Product	WISE-4471, WISE-4671							

Problem Description:

This document shows that how to connect WISE-4471 with WISE-PaaS DataHub, and query data result. This document is using WISE-PaaS4.0.



Configuration on WISE-PaaS 4.0

Step1. Log-in WISE-PaaS portal

- https://portal-catalog-ensaas.sa.wise-paas.com/

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Enabling an Intelligent Planet

Step 2. Go Management Portal.

EnSaaS Catalog	× +					-		×
\leftrightarrow \rightarrow C \triangle	portal-catalog-ensaas.	sa.wise-paas.com				* *	≡ſ	彦捷 :
應用程式 A Employ	ree Portal 💿 Siebel C	all Center 🛛 😽 transparent漢語(A EKI-7710G-2CP	ICG_Redmine	ST352 product - D	20		其他書籤
😑 Catalog Portal					â	O O SA) EN	&
Catalog (Console ~ R	e Management Portal is the con- users with an out-of-the-box r	sole of EnSaaS K8s Service nicroservice framework, a	e, which provides n enterprise-class				
	Management Portal	container management platfor	m, multi-tiered tenant wo	orkspaces, and a				
W/I	User Center	applications.	ace that provides full lifec	ycle management for				
	Service Portal				View Now			
6 Steps	Billing Portal	VISE-PaaS/loTSuite.						
	Tickets Portal							

Figure 2. Management Portal.

Step 3. Go Ingress tab which is under Router management.

∷≡	WISE-PaaS/ EnS	aaS	4.0	Mana	agemer	nt Portal
Арр	lications		ome	> Globa	al	
Plat	form management	~	s 🤊			
Infra	astructure	~	iptior	Name WISE-Pa	aS-L	Cluster
Use	r	~		THE T		ews002
Rou	ter management	^			Internal D	omain
	Ingress		b-aet	est	portal-dat	tahub.aetest.ew:
Syst	em settings	~				
Serv	vice instances	~				

Figure 3. Enter Ingress page.

Step 4. Enter DataHub domain by clicking the address in the right hand side.

⊞ Manageme	ent Portal							습 Home	Console	⊘ SA	₩ EN	& •
aetest	E Home > Ingress⑦	Global										
Ingress Overview	Subscription N 1-1	lame Clu ∨ e	ster ws002 V	Workspace w201020064 ∨	Namespace aetest	視; >	Q Please	input	Ingress na	ame	Ingres	s: 1
	Name ≑	Internal Dom	ain	External Domain		Path	svc	Port	Created A	t \$	Operatio	n
	datahub- aetest	portal- datahub.aete	est.ews002.en.interr	portal-datahub-aetes nal paas.com	st-ews002.sa.wise-	/	datahub- aetest	http	2020/10/3 16:26:50	30	:	
			Figur	e 4. Enter Data	Hub.							

Step 5. Create a new project and name a the project.

DataHub		isensing.ae@advantech.com 🔻
E Device Manage	ement	
🜲 Alarm	Project List	+ New Project
Account	Create A New Project	0
😋 System Settin	* Project ID WISE4471or4671	Description AE demd
🚯 🛛 WISE-PaaS Da		
Notification Ser		<u>∠</u> ×
E Hoor Cuido		

Figure 5. Create a new project

Step 6. After the new project is created, enter the project by clicking project row.

Project ID 🔺	Description 🔺	Detail	Delete	
Advantech		•••	<u>ش</u> >	
Luke1113		•••	<u>ش</u> >	
NBIoT	Test	•••	<u>ش</u> >	
SimonTest		•••	<u>ش</u> >	
Test1112	WISE4471	•••	<u>ش</u> >	
WISE4471or4671	AE demo	•••	<u>ش</u> >	
			Prev 1	Next

Figure 6. Go and set a new node for this new project.

Step 7. Create a new node and name the node and choose "device" option.

DataHub		🔺 isensing.ae@advantech.com 🔻
🚆 Device Management 🗍	/ WISE4471or4671	
🔺 Alarm 🗸 No	ode List	+ New Node
🐣 Account 🗸	Create A New Node	0
😋 System Setting 🗠	Note Name WISE4471 Description NEIoT	Gateway 🕂
WISE-PaaS Dashboard		Device
Notification Service		× Next



Step 8. Once the node is built, please remember the "Node ID" and "Credential Key". The two information will be used for following steps.



Figure 8. Remember Node ID and Key of the new node.

Step 9. Please go back to Management Portal page.



Figure 9. Service Portal.

Step 10. After get to Service Portal, find the rabbitmq on the Instance list and go to Secret Management by clicking the tab as shown.

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→ C C	🗅 🍙 portal-mp-ensaas.s	a.wise-paas.com/instance	e-list			* 🔺 🎯
應用程式 A	Employee Portal 🔘 Sieb	oel Call Center 🛛 😽 transpar	rent漢語(A EKI-771)	0G-2CP 🐴 ICG_Redmine	B ST352 product - D	» 📙 其(
Manag	gement Portal				습 모 Home Console	SA EN
stance Lis	st 🕐					
						Total. 4
Ibscription N 1-1YY2XFD	Jame S WISE-PaaS-Inter ∨ Instance Name ≜	Service Name	Q Type and press EN	ITER to search Instance Name.	Created Time 🔺	Action
ubscription N 1-1YY2XFD Status \$ Active	Iame S WISE-PaaS-Inter ∨ Instance Name ¢ rabbitmq-df0ee192-b1da -4c3a-aced-07e488d515 5c	Service Name All Instance ID df0ee192-b1da-4c3a- aced-07e488d5155c	Q Type and press EN	ITER to search Instance Name.	Created Time 🔶 2020/10/20 09:42:21	Action

Figure 10. Secret Management.

Step 11. Find the same Credential Key which is displayed after the new node is created.

		\equiv EnSaaS4.0
-		
		Secrets Service Keys
	New Node List	t
	Node Name	WISE4471
	Node ID	7acb6f56-3e4f-43da-a41b-35c24ba205dd
	Credential Key	ea7cb6bea3c738c669dac2d3984aa5jl
	DCCS API Url	https://api-dccs-ensaas.sa.wise-paas.com/

SE-PaaS/Er	nSaaS4.0 1	Management Portal			Home Console SA EN
	Status 🗘	Service Key Name 🗘	Description ≑	Created Time 🗢	Action
	Enabled	c0afba7278cab13218c610df723cae51		2020/11/12 18:02:32	:
	Enabled	0418d26db7917a16e456eae2cf143fvd	WISE4060-test	2020/11/17 14:40:35	:
	Enabled	6d1994033a1709a764eeae0c0f66956u		2020/11/3 10:27:13	1
	Enabled	f9bc1749169279736f9633fa57be12jp	datahub_node_1ba705d5-f93e-42e8-8416- ccae6471913b	2020/11/3 10:28:17	:
	Enabled	d8abdd49bdcc678dd3f31458567b731d		2020/11/17 11:19:04	:
	Enabled	772a0cad59d77b521955e433ed5c2ale	datahub_node_2b9eb314-9d5a-4c9f-b3dd- 893569c53bb3	2020/11/13 14:01:09	:
	Enabled	6644371d0983b44794e2341b335ccd74	datahub_node_3c1be4e9-2567-44d1-a2e8- 49edd576e6e2	2020/11/13 14:17:23	View Edit
	Enabled	c74ccd31605936118c0e2194b06bed8q	WISE4060-test	2021/1/6 14:40:43	Disable Delete
	Enabled	ea7cb6bea3c738c669dac2d3984aa5jl	datahub_node_7acb6f56-3e4f-43da-a41b- 35c24ba205dd	2021/2/3 14:07:14	

Figure 11. Find the new node with its Key and get the information of it.

Step 12. Find "coap" connecting information in the pop-out document.





Step 13. According to last step, put the relative information to WISE-4471 via WISE studio. Please refer to Configuration on WISE studio.

Configuration on WISE Studio

Step 1. Install WISE Studio

Click me to download SW.

Step 2. Make sure the WISE module can receive signal from a Telecom.

Welcome, Haley.Chang	COM4		
Intel(R) Core(TM) i7-6700 CPU @ 3.40GHz	WEB UTILITY		
2 7.88G RAM	Reconnect 🕃 Open In Browser		
₽	WISE-4471-S250UA		
USB-Serial Connect to WISE Module by USB	Information		
Available USB-Serial: 1	✗ Configuration		
		 Cellular Information 	
	I/O Status	PIN Status	READY
Intel(R) Ethernet Connection (2) I219-LM IP Address: 172.16.12.17	🗱 Advanced 👻	Fite Status	READT
MAC Address : 88D7F652167D	Data Loggar	Current Service Mode	LTE CAT-NB1
	Data Logger	3 IP Address	10.82 196 89
Go To Configuration	Diagnostician		
Intel(R) I211 Gigabit Network Connection		Modem Manufacturer	u-blox
IP Address: 192.168.0.104		IMEI Code	352753091717296
MAC Address : 88D /F652167C			
Go To Configuration		ICCID Code	89886920047000039432
Go to configuration			

Figure 13. Check the device status via WISE studio.

Step 3. Select "WISE-PaaS" service in CLOUD tab.

- IP/Domain name: external host
- Server port: port of server
- SCADA name: Project ID
- SCADA ID: Node ID
- CoAP URI: /ps/(vhost)/amq.topic/

WISE-4071-301710A						
Information	Cellular Positionin	g Network App Time	& Date Control Ck	oud Firmware		
<pre>"serviceName": "RabbitWQ", "serviceName": "RabbitWQ", "serviceName": "RabbitMq001-pub.sa.vise-pass.com", "carviceName": "QuarterName": "QuarterName": "QuarterName": "QuarterName": "QuarterName": "QuarterName": "QuarterName": "QuarterName": "QuarterName: "QuarterName": "QuarterName: "QuarterName": "QuarterName: "Quarte</pre>	nfiguration					
"servicekeyKouid": "866b9867-bd09-4cfd-8ebc-5c511188d154", "one": "	Select Servir	A WISE PaaS 2.0	~	Detail		
"space": "", "space": ", "serviceInstanceName": "rabbitmo-df8ee192-b1da-dc3a-aced-07e488d5155c".					Project ID	
"serviceInstanceId": "df0ee192-b1da-4c3a-aced-07e488d5155c", "subscriptionId": "405bdf8ca619d97aa8d95229a899f9c9".	IS			Information	AEtest	
"credential": { "dashboard_url": "http://rabbitmg-001-pub.sa.wise-paas.com:150-0710gin/BlQObXww3jy0/B3EGudJj5XIyRre8ZcE1",	Connection Statu	S Connected		Credential	Node ID	
<pre>"externalMosts": "rabbitmq-001-pub.sa.wise-paas.com", "hostname": "rabbitmq-001.sa.wise-paas.com",</pre>	Error Coc	e None			86fa9f86-b760-4ba1-b136-6	74bcc416a47
♥ "hostnames": ["rabbitmq-001.sa.wise-paas.com"		2 Refresh				
I, Wes-Paa	aS Setting main Name rabbit	External Hosts		Server Port	5683 CoAP port	
<pre>""coap": { "host": "rabbitmg-001.sa.wise-paas.com", communication (communication) (communicatition) (communication) (communication) (communicatio</pre>	AEtes	Project ID		SCADA ID	86fa9f86-b760-4ba1-b136-674bcc416a47	
<pre>v 'hosts": [</pre>	t Frequency 60 (sec)				Node ID	
"password": "B3EGudjjSXLyRre8ZcEl", port number	CoAP URI /ps/Jp	:02239Boy8/amq.topic/				
"uri": "coap://rabbitmq-001-pub.sa.wise-paas.com/ps/Jpe022398oy8/amq.topic/",	•					
"coap://rabbitmg-001-pub.sa.wise-paas.com/ps/Jpe02239Boy8/amg.topic/"					✓ Submit	
"usernane": "BlQobXxx2jy0", "vhost": "Jpe022398oy8" COAP URI						
b						

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WISE-4671-S617TUA								
Information	Information Cellular	Positioning	Network App	Time & Date	Control	Cloud	Firmware	
🖋 Configuration	Cloud Configurat	tion						
ևա I/O Status	Select Service A WISE PaaS 2.0							
🎄 Site Survey								
📽 Advanced 🔻	Current Status							
Data Logger	Connected Connected							
Diagnostician	1	Error Code	None					
	WISE-PaaS Setting	External Ho	sts					
	IP/Domain Name	rabbitmq-0	01-pub.sa.wise-pa			Server Port	5683 CoAP port	
	SCADA Name	AEtest	Project	t ID			SCADA ID	86fa9f86-b760-4ba1-b136-674bcc416a47
	Heartbeat Frequency (sec)	y 60						
	CoAP URI	/ps/Jpe022	39Boy8/amq.topic	c/				
								✓ Submit

Figure 14. Configure the device with Figure 12.

Results of receiving data.

• WISE-4471 support plug & play function.

G N课系統時時股份用得公司 - X | ② p_whca X | 函 Employee Portal - Homep: X | 函 WISE-4471 - 研想時役 Adv: X | 函 Management Portal X 函 Adv

- Device and channel tags will be built automatically.
- Data will be uploaded while change of status.

🗧 🤄 🧭 🗴 👔 portal-datahub-ætest-ews002.sawtise-paas.com/#/CloudManager/DeviceManagemen/WISE4471/WISE4471/WISE4471-S2550UA,17302081projectide-WISE44710466718mode 🛠 🛸 🔕 🗄														
1 摩用穩式 📕 Employee Portal	🙁 Siebel Call C	ienter 😽 transparent漢語(A EKI-7710G-2CP	▲ ICG_Redmine B ST352 product -	D 👎	Support Cellular r.	. 🔗 Blas	ster Online - Sp		» 📙 其他書詞				
DataHub							_	👃 💶 ise	nsing.ae@adva	ntech.com 🔻	*			
Device Management	Tag List						Ŀ	LILI IO Status						
🜲 Alarm 🗸 🗸	Name	✓ Q Filter						DI DO C	OM1					
🔍 Account 🔷		Tag Name 🔺 Tag Type 🖌 Description 🗚 Value								Status	Configuration			
		062-DI0	Discrete		0		202	Status						
Account Setting		062-DI1	Discrete		0		202						_	
Role Setting		062-DI2	Discrete		0		202	Channel			Mode	Status		
og System Setting		062-DI3	Discrete		0		202	0			DO			
WISE-PaaS Dashboard		062-DI4	Discrete		0		202	1			DO	OFF		
Motification Sancica		062-DI5	Discrete		0		202							
Notification dervice		062-DO0	Discrete		1	ø	2021-0	02-03 17:57:13		â				
User Guide		062-DO1	Discrete		0	ø	2021-0	02-03 17:25:15		â				
API Document	W447	1_0208-p1v06r00c	Analog		0		2021-0	2-03 17:25:15		俞				
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Figure 15. Check data in the new node.