

Communicate with NetEco through an openAPI user



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01	Huawei e84081311	21.03.2019	openAPI

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This document describes the procedure about how to test the communication with NetEco through an openAPI user.

1. Create an OpenAPI User

Login as installer on Neteco and create an openAPI account:

Choose settings menu \rightarrow users \rightarrow fill the requested details \rightarrow choose OpenAPI User \rightarrow select the PV plant \rightarrow ok

NetEco	Overview Monite	or Historical Data	Maintenance	System			English(English) 🔻
영 System > User Management	1						
🛱 Users	"User Nam "Passwor	ie:					
	User Typ	e: OpenAPI User	Ŧ				
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	Select a PV plan	t that can be accessed:		ŕ			
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2. Check the communication protocol

Dashboard Web Server query data from NetEco through HTTPS protocol, Dashboard Web Server is Client, NetEco is Server.

Source Device	Source IP Address	Source Port	Destination Device	Destination IP Address	Destination Port	Protocol	Port Description	Authentication Mode	Encryption Mode
Client	IP address of the client	Random port	NetEco server	IP address of the NetEco server	27200	HTTPS	Port for logging in to the NetEco server open interface in TLS encryption mode.	Username/password	TLS1.1&1.2

Check if the port 27200 is enable and if you have active on your computer the TLS1.1&1.2 and SSL.





3. Install Postman on your computer



Download and install Postman and before start to interrogate Neteco with your openAPI user disable the SSL certificate verification form the Postman settings:

SETTINGS						×
General Themes Shortcuts Dat	a Add-ons	Sync	Certificates	Proxy	Update	About
REQUEST		HEADERS				n
Trim keys and values in request body	OFF	Send no-c	ache header		0 🕥	N
SSL certificate verification	OFF	Send Post	man Token head	ler	0 🕥	N
Always open requests in new tab	OFF	Retain hea	aders when clicki	ng on links	0	FF
Always ask when closing unsaved tabs		Automatic	ally follow redire	ects	0 🕥	N
Language detection	Auto 💌	Send anor	nymous usage da	ata to Postma	in 🌔 O	N
Request timeout in ms (0 for infinity)	0					
Automatically persist variable values Enabling this will persist the current value of variables to the initial value at the end of every request execution. Learn more about variable values	OFF					
USER INTERFACE						
Editor Font Size (px)	12					



4. Login on Postman with openAPI user

Use your server IP to login and interrogate Neteco with your openAPI user. Example: if the Neteco IP is 52.58.159.100 use the next link to login: <u>https://52.58.159.100:27200/openAPI/login</u>

URL: https://ip:port/openApi/login

Request:

Method: POST

Parameter: username, password

Response: {"errorMsg":0,"openApiroarand":"e21bfb25-5637-49d3-8ec2-d6106cc0fc97"} The key note with red will help you to interrogate the other parameters.

+ New	Import Runner 📭		/ly Workspace 🔻 👗 Invite	🧿 😵 🖨 🔶 Sign In
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Clear all	Save Responses 🕥	POST • https://52.58.159.100:27200/openApi/login?userNa	ime=EugenApi&password=Huawei123	Send V Save V
▼ Toda	y.			
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	Wrh76QL9BB7kescHixrDSFd7Nthm	password	Huawei123	
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POST	https://52.58.159.100:27200/openA pi/queryPlantList?openApiroarand= 3+qz6tyfV0C8PxWcpht16OOEa1f2q	1 {"errorMsg":0,"openApiroarand": Wrh76QL9BB7kescHixrDSFd7 2	7WthmTi2t"	
POST	https://52.58.159.100:27200/openA pi/queryPlantList?openApiroarand= 3+qz6tyfV0C8PxWcpht16OOEa1f2q			
9	2.			C Learn 📑 🛄 🕐

5. Query Plant List

URL: <u>https://ip:port/openApi/queryPlantList</u> Request: Method: POST Parameter: openApiroarand Response: Example:



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631 ms Size: 643 B Download	Status: 200 OK Time:		Body Cookies (1) Headers (10) Test Results	https://52.58.159.100:27200/openA pi/login?userName=EugenApi&pass word=Huawei123	POST
Q	."totalRate":"3760.000 kW","cur	lantName":"Feldioara","totalStringPower":"NA","inverter	Pretty Raw Preview Auto *	https://52.58.159.100:27200/openA pi/queryPlantList?userName=Eugen Api&password=Huawei123&openA	POST
	cEnergy":"NA")])	36 GWh","co2reduce":"11.352 kt","income":"278.96k EUR",	<pre>c,"dayEnergy":"1.932 Muh","totalEnergy":"11.38 2</pre>	https://52.58.159.100:27200/openA pi/queryPlantList?openApiroarand= 3+qz6tyfV0C8PxWcpht16OOEa1f2q	POST
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6. Query Device List

URL: https://ip:port/openApi/queryDeviceList Request: Method: POST Parameter: plantid, openApiroarand Response: Example:

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7. Query Plant Real Time Data

URL: https://ip:port/openApi/queryPlantdetail Request: Method: POST Parameter: plantid, openApiroarand Response: Example:

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POST	https://52.58.159.1 00:27200/openApi/ queryPlantdetail?pl	<pre>1 {"errorMsg":0,"resultData":{"plantid":100058,"plantName":"Fe .97k EUR","performanceRatio":"NA","totalRadiation":"NA"," 2</pre>	ldioana","currentPower":"558.686 kW","dayEnergy":"2.007 MWh","to "specificEnergy":"NA"}}	stalEnergy":"11.386 GWh","co2reduce":"11.352 kt","income":"278
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8. Query Device Real Time data

URL: https://ip:port/openApi/queryDeviceDetail Request: Method: POST Parameter: plantid, openApiroarand Response: Example:



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https://52.58.159.1 00:27200/openApi/ queryPlantDetail?p	,"PV1Voltage":"677.2","PV2Voltage":"677 :"1.49","PV3Electricity":"1.44","PV4Ele :"TR2@_15","status":18,"runstatus":"512 ;"totaPowerGeneration":"64722.57","Out	2." "PV3Voltage": "677.1", "PV4Voltage": "677.1", "PV5Voltage": "677.0", "PV ctricity": "0.00", "PV5Electricity": "1.43", "PV6Electricity": "0.00", "Cabi "," apptotalsower": "3.55", "outputchtuvePower": "3.692", "outputUnActive putativeFactor": "1.000", "Frequency": "50.04", "AoutputVoltage": "233.25"	<pre>/6Voltage":"677.0", "PvIElectricity":"1.4 inetbottomTemp":"14.9"}, ["deviceid":1532 Power":"0.000", "dailyPowerGeneration":" ,"BoutputVoltage":"233.94","CoutputVolt 000000000000000000000000000000000000</pre>	0","PV2Electricity" ,"deviceName" 6.76" :age":"232.56"
https://52.58.159.1 00:27200/openApi/ queryPlantDetail?p	<pre>, Houtput:lettricity : 5.52 , boutput:l ,"PV50tage":fold.fo,"PV60tage":fold ,"PV6Electricity":"0.00","Cabinetbottom ,"outputUnActivePower":""_adilyPower6e "CouptutVoltage":"" "adityPower6e</pre>	ectricity :5.22, computationary :5.22, routoleage : onl., of (%, "PVEELectricity":".tay, "PV2Electricity": 1.34, "PV2Electricity": Temp":"14.6"),("deviceid":1533,"deviceName":"TR20_13","status":0,"runS nenation":","totalPowerGeneration":","OutputActiveFactor":","Freque w":"""BeneticityTectricity":"""ComputativeFactor":"","""""""""""""""""""""""""""""""""	<pre>//voltage : 0/1/ , /voltage : 0/1/ , // /1.33", PV4Electricity": "0.00", "PV5Elect status": ", "mpptTotalPower": ", "outputAc ency": ", "AoutputVoltage : ", "BoutputVol DV2Voltare": " , "PV3Voltareg": " ", "BoutputVol DV2Voltare": " , "PV3Voltareg": " , "BV4Voltareg": ", ", "BV4Voltareg": ", ", ", "BV4Voltareg": ", ", ", ", ", ", ", ", ", ", ", ", ",</pre>	ricity":"1.32" tivePower":"" tage":""
https://52.58.159.1 00:27200/openApi/ queryPlantDetail?p	<pre>, compared the set of the se</pre>	"PV2Electricity: "," PV3Electricity": ", PV4Electricity': "," PV5Electricity': "," ," ," pv5Electricity': "," ," ," ," ," ," ," ," ," ," ," ," ,"	<pre>ricity:", PV6Electricity:", Cabinet Power":"4.644", outputUnActivePower":"0 0.03", "AoutputVoltage":"233.90", "Boutput" ", "PVIVoltage":"686.4", "PV2Voltage":"687.4"</pre>	bottomTemp":""} 1.000" VOltage":"233.96" 16.4","PV3Voltage"
https://52.58.159.1 00:27200/openApi/ queryPlantDetail?p	:"687.7","PV4Voltage":"687.7","PV5Volta ,"PV5Electricity":"1.49","PV6Electricit .079","outputActivePower":"4.086","output :59.03","AoutputVoltage":"233.43","Bou	ge":"686.7","PV6Voltage":"686.7","PV1Electricity":"1.42","PV2Electrici y":"0.00","CabinetbottomTemp":"15.3"){"deviced:":1535,"devicelme:"1" UtuhactivePower":"0.001","dallyPowerGeneration:":"6.2","totalPowerGene tputVoltage":"233.02","CoutputVoltage":"231.47","AoutputElectricity":	<pre>ity : "1.55", "PV3Electricity": "1.45", "PV4 R16_11", "status": 10, "runStatus": "512", " eration": "67434.40", "OutputActiveFactor" '5.68", "BoutputElectricity": "5.69", "Cout</pre>	Electricity":"0.00" mpptTotalPower":"4 ':"1.000","Frequency" putElectricity":"5
	70 PV1Vn1Fade****878 S* "PV7Vn1Fade**	n/A 1 PV5Vnitade ' ne/ / PVavnitade"***** 7" "PV5Vnitade"*********	PVNVNITADP - NNM 2" "PVIFIACTPICITY".	1 40

9. Query Plant Day History Data

URL: https://ip:port/openApi/queryPlantDayData Request: Method: POST Parameter: plantid, date(XXXX-XX-XX), openApiroarand Response: Example:

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	160&day=2019-03-20&openApiroar	Key	Value	Description	
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10. Query Plant Month History Data

URL: https://ip:port/openApi/queryPlantMonthData Request: Method: POST Parameter: plantid, month(XXXX-XX), openApiroarand Response: Example:

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POST	https://52.58.159.100:27200/openA pi/queryPlantDayData?plantid=101 160&date=2019-03-20&openApiroa	<pre>,("plantid":101160,"createTime":2019-03-02","dayEnergy":"10150.76","specificEnergy":"-","performanceRatio":"-"),("plantid":101166 ,"createTime":2019-03-03","dayEnergy":"3135.93","specificEnergy":"-,"performanceRatio":"-"),("plantid":101160, "dayEnergy":"3746.96","specificEnergy":"-,"performanceRatio":"-"),("plantid":101160,"createTime":"2019-03-03","dayEnergy":"40," "specificEnergy":"3.20","performanceRatio":"8.20"),("plantid":101160,"createTime":"2019-03-03","dayEnergy":"6374 38", "mecFormancePatio":"2019:"05:", "performanceRatio":"-"), "performanceRatio":"-"), "specificEnergy":"-",", 38", "mecFormancePatio":"2019:"05:", "performanceRatio":"-"), "performanceRatio":"-"), "specificEnergy":"-",", 39", "mecFormancePatio":"2019:"05:", "performanceRatio":"-"), "performanceRatio":"-"), "performanceRatio":"-", "performanceRatio":"-"), "perficiEnergy:"-", "perficiEnergy:"-", "perficiEnergy:"-", "perficiEnergy:"-", "perficiEnergy:"-", "perficiEnergy:"-", "perficiEnergy:"-, "perficiEnergy:"-, "perficiEnergy:", "perficiEnergy:"-, "perficiEnergy:", "perficiEne</pre>					
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11. Query Plant Year History Data

URL: https://ip:port/openApi/queryPlantYearData Request: Method: POST Parameter: plantid, year(XXXX-XX), openApiroarand Response: Example:



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12. Query Plant Total History Data

URL: https://ip:port/openApi/queryPlantTotalData Request: Method: POST Parameter: plantid, openApiroarand Response: Example:





13. Logout

URL: https://ip:port/ openApi/logout Request: Method: POST Parameter: openApiroarand Response: Example: {"errorMsg":0}

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