i4 Automation Ltd

Setting up UniCloud on a UniLogic PLC

This application note is to help guide and assist in setting up your UniLogic PLC get connected to UniCloud.

- 1. Open up your project with UniLogic and have the PLC connected to the computer in question through any method you prefer.
- 2. Go to PLC Communications in the Solution explorer and select Panel Ethernet, then go to DNS Servers on the Properties window and type in the DNS Server you are using (Google's DNS Server is 8.8.8.8)



3. If you want VNC for your Unicloud go to VNC Server Management and select Enabled with password.

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Communication Development Mode OukicKSync Debug Solution Explorer • # VinC Senser Maaagament X Module HMI Data X Lists X Analogue Inputs X Digital Dutputs X Digital Dutputs X Home Screen X ID Config Tutorial X Messagers X Telegram X Router X Main Ladder X • 1 Search Solution Explorer 2
Solution Explorer • • VXC Server Management X Module HMI Data X Lists X Analogue Inputs X Analogue Dutputs X Digital Inputs X Digital Inputs X Home Screen X ID Config Tutorial X Messages X Telegram X Router X Main Ladder X • : Search Solution Explorer P
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6. Login to UniCloud with your credentials from Unicloud.io

Asset Type: X UnCloud X	Cloud Login Credentials
Let's get started by logging in:	Email: Password: Enter password Configure Proxy Settings Not a user yet? Sign Up Login Cancel

7. Once logged in press create Asset type, after this you can change the asset type name here and organise your tag timer intervals. (Note: the tags + update frequency = how many tags per month and that is what defines what subscription plan is required, you are not locked to just 5 mins between updates for example)

Organization Asset Type	Tags timer interval Reduce cellular data usage Subscription plan required	00:01:21			Nick@i4automation.co.uk Organization name: i4 Automation
Subscription		*Expected Me	onthly Number of tags updates: 198,396		
Router Settings					
		Tags	Update Frequency	Total # tags per month	
	Remote Access		0 sec	1,000	
	Start-up	20	5 min	200,000	
	Basic	40	1 min	2,000,000	
	Intermediate	80	20 sec	11,000,000	
	Advanced	200	10 sec	55,000,000	
	*The actual monthly tags ma	whe higher in cases the Appplica	ation will send data using Ladder.		

8. If you want UniCloud for remote access then press the remote access tab in solution explorer under asset type in UniCloud and tick 'Remote Access Control Enabled'.

Solution Explorer 🔹 🔹	Remote Access X Asset Type X UniCloud X VNC Server Management X Panel Ethernet (192.168.1.85) X URB Remote I/O X EX.RC Remote I/O X Uni-I/O & Uni-I/O & Uni-I/O & Controller Model (USP-07 +
Search Solution Explorer	
2 Router	Remote Access
VNC Server Management	
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Lists	
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🔤 🚉 Switch Case	
► HMIHMI	
- G Web Server	
▲ @ OniCloud	
🖌 🔛 Asset Type	
Tags	
QAlarms	
Remote Access	

9. To add tags to the telemetry of the asset type then go to Tags in solution explorer and press add tag, the same thing can be done for alarms also.

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Solution Explore	er 🔹 🔹	Alarms	× UniCloud ×	Tags × Asset Type ×	Main Ladder ×				₹×
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L For	itch Case		Tag		Alias Name	Access Levels	Usage Count	Description	
4 HMHN	41	0	Bar Pressure dis	splay		Read/Write	1		
4 10	Module1	1	RPM Display			Read/Write	1		
	Custom Controls	2	Temp display			Read/Write	1		
C We	th Server	3	Tank Fill Level			Read/Write	1		
4 🛆 Un	iCloud	4	On/Off Button			Read/Write	1		
	Tags	5	Refill Tank			Read/Write	1		
	QAlarms								
	Remote Access								

10. Once everything has been set up, you can then go back to the UniCloud tab in Solution Explorer and press 'Sync Asset type' at the top.

Project Edit Layout PLC Tools Asset Type Help						A (1
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in out Asset Type Asset Type	Refresh Syn Asset Type Asset	ic Compare Crea Type Asset Type Organiz	te ation			
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Solution Explorer		age of Party in the most cade				
		1				nick@i4automation.co.uk
Motion	Organization	· · ··				Organization name: i4 Automation
VIC Server Management		Organization				
Loss Ladder	Asset Type					
Module1	Subscription	Organization name	i4 Automation			
Eists						
∑ Formulas	Router Settings					
fig Switch Case		Asset Type				
4 The Module 1						
Screen1		Asset Type name	UniCloud Demo I4A			
Scustom Controls						1
G Web Server						
4 OUniCloud		Subscription				
Asset Type						
Tags		Tags timer interval	00-05-00			
QAlarms			(PT)			
		Reduce cellular data usage				
		Subscription plan required	Start-up			
- Man Data Tables			*Expec	ted Monthly Number of tags updates: 53,568		
Data Tables Recipes						l l
Data Sampling						
Massage Composer			Tags	Update Frequency	Total # tags per month	
Cmails Differenter		Remote Access		0 sec	1,000	
- Finalis		Start-up	20	5 min	200,000	
4 SMS		Intermediate	80	20 sec	11,000,000	
SMS Messages		Advanced	200	10 sec	55,000,000	
SQL Connector						-
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🖌 Password Management 🗸 🗸						Eng 💶 🛛 100%

11. Now that all the work is done on the UniLogic side of things you can now go to <u>Unicloud.io</u> sign in and add the asset type you created to the Assets management under Device Management on the left-hand side.

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5	Main Dashboard	Device Manage	evice Management									
69	Device Management											
6	Events Management	Assets Management	PLC Management Route	rs Management								
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	organizations	Search	Q							🔁 View Archived 🕀 A	dd	
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12. Press 'Add' like shown above, then select the asset type you created in UniLogic, also put in your PLC's Serial number which is located either on the box of the unit or the side of the unit on a sticker and validate this.

Asset Type:	UniCloud Demo I4A	~	
PLC type:	Unistream		
*PLC Serial:			Validate

Telephone: 01480 395256 www.i4automation.co.uk sales@i4automation.co.uk



13. After validating, type an asset name that you want this to be.

Ausei name.	շիր
Asset Serial Number:	U
Comments:	

14. You will now be asked to download the Certificate to insert into your PLC, download the certificate from the pop up shown below.



15. Go into your UniApps on your PLC and press network tab.



16. Press on the right tab then press UniCloud.

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	UniApp	ps	09:46:32 AM	05/30/2024	UNITRONICS'	UniApps	09:49:19 AM 05/30/20	24
Ethernet IP Serial RS «	MODBus MOD « CANBUS CANBUS	VNC Server VNC Server VNC Client Client «	Email Acco	Accounts mail iounts bdem	OPC UA OPC UA ** UniCloud UniCloud *	Mobile Router Mobile Router BACnet BACnet		
System M	1emory N	etwork	Utilities		System	Memory Net	work Utilities	

17. Press activate UniCloud.

	UniCloud	10:00:43 AM 05/30/2024					
UniCloud	Asset Remote Access	Connection					
	Activate UniCloud	emote Access					
Clear Settings							
Unic	IniClaud Maday Secure Remote A						
	omcioud Mode: Secure Remote A	ccess					
System	Memory Network	Utilities					

18. Pick a download method for your certificate from the options shown.

W UNITRONICS'		UniCloud	10:02:15 AM	05/30/2024
UniCloud	Asset	Remote Access	Connection	
		Load Certificate from USB		
	L.	oad Certificate from UniCloud		
		Create Asset in UniCloud		
	UniCloud Mode		Back	
	UniClo	ud Mode: Secure Remote Ac	cess	
System	Memory	Network 💿	Utilities	

19. Now that this step has been completed, we must ensure you have activated the asset to send the Telemetry and remote access to the cloud. To do this, please navigate to the asset tab at the top of the screen and press 'Start Sending Data'. The connection status should now say connected.

					Innovative Solutions for Industr
	TRONICS'	UniCloud	10:07:00 AM	05/30/2024	
UniCloud Asset		Remote Access	Connection		
	Operation				
		Start sending data			
	Statistics				
	Communication status	Disconnected (5)			
	Last transmission				
Asset type, Organization		UniCloud Demo I4A, i4 Automation			
	SD Status	Exist	5		
	Messages stored	0			
s	System Memory	Network	Utilities		
	TRONICS'	UniCloud 10 : 09 : 52 AM 05/30/2024			
Un	iCloud Asset	Remote Access	Connection		
	Operation				
		Stop sending data			
	Statistics				
	Communication status	Connecte	ed (1)		
	Last transmission	Thu May 30 10:09:42 2024 UniCloud Demo I4A, i4 Automation Exists 0			
	Asset type, Organization				
	SD Status				
	Messages stored				
s	System Memory	Network	Utilities		

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You Should now be fully connected from PLC to UniCloud. From here, you can access the PLC from VNC, WEB or a secure VPN Connection (VPN Connection Guide see 'UniCloud VPN Connection' Application Note)

If you have anymore questions or queries regarding these notes then please don't hesitate to contact us at <u>i4Automation</u>.