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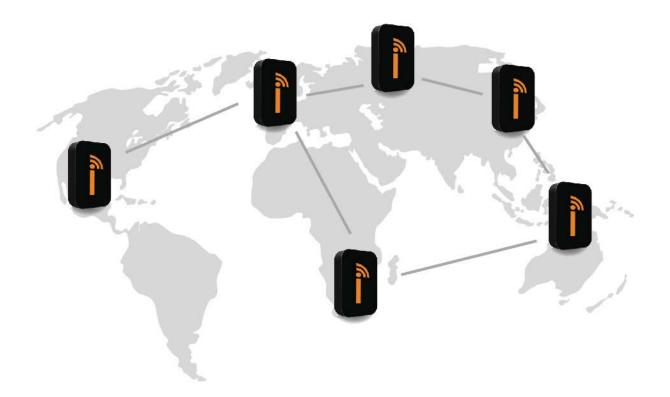
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A wireless Mesh IoT sensor system



User Manual

vicotee.com/pdf/usermanual

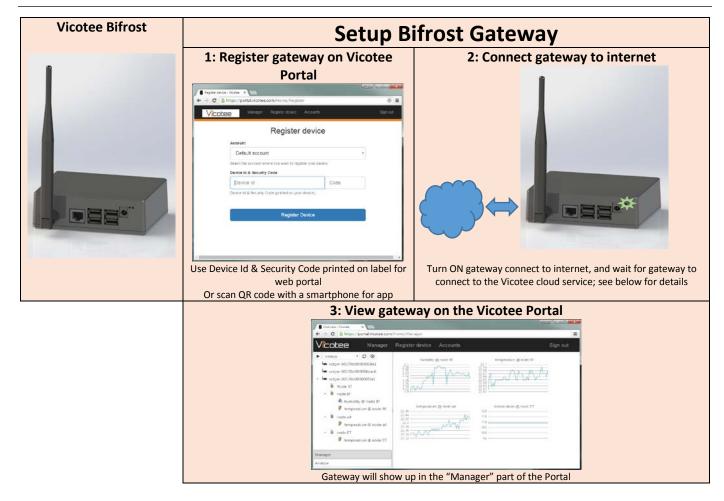


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1 QUICK START GUIDE





Series 10000 - 1zzzz 3: Turn ON node 3: Turn ON node 4: Wait for node to connect to gateway Disconder to connect to gateway Disconder to connect to gateway Disconder to connect to gateway	Vicotee Njord	Setup	Njord node
S: Turn ON node 4: Wait for node to connect to gateway S: Turn ON node S: Collect data Image: particular dataset optimized at the set optimized at the se	Series 10000 – 1zzzz	Register device Device til & Steady Care Register Device Use Device Id & Security Code printed on label	
gateway Image: Stateway Image: Statew			
Vicotee logo will flash until connection has been Watch data flow into the Vicotee Portal either on web or a		gateway	C Browner Vorwei C Browner Vorwei



2 NJORD LOGO FLASH SIGNALS

The Vicotee logo on the Njord nodes double as a simple user interface by use of flashing LED signals. Refer to table below for definition of signals.



Fig. 1 Vicotee Flashing Logo

Flash Sequ	uence	Message			
Quick Flash (***)	0.5 sec ON / 1.0 sec OFF	Node Starting up – Continuous until 30 seconds after			
		connection to gateway has been established			
Slow Flash (*********)	1.5 sec ON / 1.5 sec OFF	Node configuration update is being received and			
		implemented			
2 * Rapid Flash (*-*)	0.2 sec ON / 0.2 sec OFF	Node is offline or has low power			
	3 sec pause then repeat				
3 * Rapid Flash (*-*-*)	0.2 sec ON / 0.2 sec OFF	System error			
	3 sec pause then repeat				

3 BIFROST LED FLASH SIGNALS

The Bifrost gateway is equipped with two LEDs to indicate communication state to the Vicotee cloud service (\bigcirc) and to the wireless mesh network (\clubsuit).

When connected the LEDs will be continuously lit, when receiving data on either network the LEDs will flash.



Flash S	Message			
LED OFF()	OFF	Not connected		
LED ON (***)	Continuously Lit	Gateway connected		
LED Flashing (***-***-***)	1 sec ON / 150 msec OFF	Receiving data		



4 VICOTEE WEB PORTAL

The backbone of the data handling of the Vicotee sensor system is the Vicotee Web Portal. This cloud-based portal is built on the Virinco WATS technology. Data is accessible from the cloud either through the web portal using a web-browser or through our dedicated app for smartphone/tablet access.

4.1 GETTING STARTED

In order to log and access data from Vicotee devices users will need to create a profile on the Vicotee Web Portal. This is done by going to <u>https://portal.vicotee.com</u> and clicking the *Join/Sign in* link in the topmost right-hand corner.

D portal.vicotee.com - Vicot ×	Guest 🗖 🗖 🗙
← → C Attps://portal.vicotee.com	=
Vicotee Manager Register device Accounts	Join/Sign in
Getting started	
1. Register device 😡	
2. Power-On	
3. Monitor	

Fig. 2 Vicotee Web Portal Getting Started Page



4.2 SETTING UP ACCOUNTS

With a profile in place, it is possible to set up a number of accounts in the system in order to keep track of several Vicotee networks and share these with colleagues or friends.

All users have a default account set up when the profile is created and new accounts are added by clicking the *plus sign (+)* next to the dropdown list of available accounts and giving the new account a name using the Name-box. Any accounts shared to the active profile from other profiles will appear in the dropdown list automatically.

Accounts can be shared between profiles in the system by adding their e-mail addresses in the bottommost field in the screen.

Guest	
← → C Attps://portal.vicotee.com/Home/Accounts	≡
Vicotee Manager Register device Accounts	Sign out
Accounts	
Default account	
Name	
Default account	
Share	
Want to share the account? Enter the user's e-mail adress (separate with comma).	
Save Delete	
4	•

Fig. 3 Vicotee Web Portal Accounts Page



4.3 **REGISTERING DEVICES**

In order to capture data from nodes, both nodes and gateways need to be registered to an account. This is done by selecting the account to which the device is to be added and entering the device Id and Code. These are printed on the device label.

With device information entered into the Vicotee Web Portal, turn on the device and the system will allow the device to connect and start logging data.

ester device - Vicotee ×	al.vicotee.com/Home/Registe	r	(
icotee	Manager Register device	Accounts	Sign
	Register	device	
Account			
Defa	ılt account		•
Select the	account where you want to regist	er your device.	
Device Id	& Security Code		
Devic	e Id	Code	
Device Id	& Security Code (printed on your	device).	
	Register D	evice	

Fig. 4 Vicotee Web Portal Register Device Page

4.4 MANAGING DATA

With accounts set up and devices registered (See above paragraphs on how to do this), data should start flowing into the system. With a couple of devices attached, the data manager overview should resemble Fig. 5 showing historical data for the attached sensors, in this case a series of humidity and temperature sensors.



Acotee Manager	Register device Accounts	Sign o
 virinco vctgw: 00170d0000300841 vctgw: 00170d000058dac6 vctgw: 00170d0000605fa1 Node 37 node 8f node 8f temperature @ node 8f temperature @ node 8f node a4 temperature @ node a4 temperature @ node a4 temperature @ node E7 	humidity @ node 8f	temperature @ node 8f 22.7 22.68 22.67 22.65 22.64 22.65 22.64 22.65 22.61 temperature @ node E7 120 115 110 105 100 95

Fig. 5 Vicotee Web Portal Manager Page – overview

Selecting any of the sensors, using the menu on the left-hand side of the screen, will open a window for the specific sensor with the possibilities to see the data as a chart (Fig. 6) or as a grid (Fig. 7) as well as setting options for the specific sensor. In the grid view, a number of filters can be set up in order to select which data is shown.



Overview - Vicotee × ← → C A thtps://portal.vicotee.com/	Home/Manager	
Vicotee Manager	Register device Accounts	Sign out
 virinco virinco vctgw: 00170d0000300841 vctgw: 00170d000058dac6 vctgw: 00170d0000605fa1 Node 37 node 8f humidity @ node 8f temperature @ node 8f mode a4 temperature @ node a4 node E7 	Chart Grid Options	59:42 -
Itemperature @ node E7 Manager Analyze	2016-09-21723:58:31 2016-09-21723:58:31 2016-09-21723:58:51 2016-09-21723:58:01 2016-09-21723:58:01 2016-09-21723:58:02 2016-09-21723:58:02 2016-09-21723:58:22 2016-09-21723:58:23	2016-09-21723:59:42

Fig. 6 Looking at data from a specific sensor in chart mode

Overview - Vicotee X					Guest - D	×
← → C A https://portal.vicotee.com/Ho	me/Manager					Ξ
Vicotee Manager	Register devic	e Accounts			Sign out	
 virinco C vctgw: 00170d0000300841 vctgw: 00170d000058dac6 vctgw: 00170d0000605fa1 	Chart Grid	Options (Configuration Hours	· C R		
🗎 Node 37				Show	v 50 + records	
■ node 8f	DateTime •	Name	Avg	Min	Max	
🔦 humidity @ node 8f	⊽ 0n ▼	v Contains	∇ Equals	♥ Equals	⊽ Equals	
🖟 temperature @ node 8f	2016-Sep-22 00:00:00	humidity	2.2711844608701	1.9536437988281	2.4648132324218	
 ■ node a4 Itemperature @ node a4 	2016-Sep-22 00:00:00	temperature	22.876263764480	22.830959472656	22.906035156249	
 ■ node E7 <i>i</i> temperature @ node E7 						
Manager						
Analyze	1 - 2 of 2 records			le 4 Prev	1 Next + H	+

Fig. 7 Looking at data from a specific sensor in grid mode



Overview - Vicotee ×		Guest 🗖 🗖 🗙
← → C A https://portal.vicotee.com/	Home/Manager Register device Accounts	≡ Sign out
 virinco virinco vctgw: 00170d0000300841 vctgw: 00170d000058dac6 vctgw: 00170d0000605fa1 Node 37 node 8f node 8f temperature @ node 8f temperature @ node a4 node E7 temperature @ node E7 	Chart Grid Options Display Name temperature @ node 8f Description GPS Graph Type Line	Save
Manager Analyze		

Fig. 8 Sensor options

Switching the Data Manager to data analysis mode allows for more in-depth analysis of sensor data, e.g. comparison of data from different sensors as shown in Fig. 9.



Vicotee Manager	Registe	r device	e Ac	counts					Sign out
▶ virinco ▼ ♀ ⊙ vctgw: 00170d0000300841	10			Hour	S	•	C 0		
 vctgw: 00170d000058dac6 vctgw: 00170d0000605fa1 Node 37 node 8f humidity @ node 8f 	25	8							Clear temperature @ node & temperature @ node a
 temperature @ node 8f node a4 temperature @ node a4 node E7 temperature @ node E7 	19	2016-09-21723:05:20 -	2016-09-21T23:13:40 -	2016-09-21123:22:00 -	2016-09-21723:30:20 -	2016-09-21723:38:40 -	2016-09-21723;47:00 -	2016-09-21723:55:20 -	-

Fig. 9 Using the Data Manager for Data Analysis

5 VICOTEE PORTAL APP

All functionality of the Vicotee web portal can also be found in the Vicotee app, downloadable through Google Play and Apple App store.

More info and screen shots to come.



6 TECHNICAL DOCUMENTATION

Datasheets and other technical documentation for both Bifrost and Njord devices can be downloaded from <u>http://vicotee.com</u>.



7 CE DECLARATION OF CONFORMITY – NJORD

EU Declaration of Conformity

Object of the declaration:

Product: Vicotee Njord

Series: 10000 – 1zzzz

CE

Manufacturer: Vicotee AS

Address: Gråterudveien 20, NO-3036 Drammen, Norway

This declaration is issued under the sole responsibility of the manufacturer

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

2014/30/EU The Electromagnetic Compatibility (EMC) Directive

2014/53/EU The Radio Equipment Directive

2011/65/EU The Restriction of the use of certain hazardous substances (RoHS) Directive

Conformity is shown by compliance with the applicable requirements of the following documents:

Radio EN 300 328 v1.8.1 (2012-04)

IEEE 802.15.4e

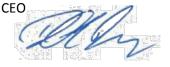
EMC ETSI EN 301 489-17 V2.2.1 (2012-09)

Signed for and on the behalf of: Vicotee AS

Place of issue:Drammen, NorwayDate of issue:October 21, 2016Name:Richard Evje Pettersen

Position:

Signature:



The technical documentation for the product is available from the above address.



 (\mathbf{F})

8 CE DECLARATION OF CONFORMITY - BIFROST

EU Declaration of Conformity

Object of the declaration:

Product: Vicotee Bifrost

Manufacturer: Vicotee AS

Address: Gråterudveien 20, NO-3036 Drammen, Norway

This declaration is issued under the sole responsibility of the manufacturer

The object of the declaration described above is in conformity with the relevant Union harmonization legislation:

2014/30/EU The Electromagnetic Compatibility (EMC) Directive

2014/53/EU The Radio Equipment Directive

2011/65/EU The Restriction of the use of certain hazardous substances (RoHS) Directive

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Place of issue:

Radio

Date of issue:

Name:

Position:

Signature:

CEO

The technical documentation for the product is available from the above address.