Netcomm NL1901ACV A Guide for Commander Partners

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Vocus Group Limited | ABN 96 084 115 499 | vocus.com.au Level 10, 452 Flinders Street, Melbourne, VIC 3000



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Logging into Modem - Locally

(if you have changed the IP range you will need to use the new range)

Modem IP: 192.168.1.1

You will then be presented with to Login popup

Please enter the login credential for the device Default username: admin Default password: serial number of the device

Windows Security	×					
Microsoft Edge						
The server 192.168.1.1 is asking f password.	or your user name and					
That server also reports: "Broadb	and Router".					
Warning: Your user name and password will be sent using basic authentication on a connection that isn't secure.						
admin						
•••••						
Remember my credentials						
ОК	Cancel					

You will be presented with the "Device Information" page





NL1901ACV LAN Setup

On the left-hand menu select Advanced Setup



🔘 comm	ander
Device Info Basis: Setup Advanced Setup Larger 2 Interface WMI Service MMI Service MMI Service Info Info MMI Device Setting MMI Device Setting MMI Second MMI Second	Card Answer Michael Ander Walt Ander Kard Kurk Hardense. Songe Name Definition Address Statistical Martine S

In this window please enter the Desired IP Range then click ok *please note this will change the IP used to login to the modem*

Local Area Network	(LAN) Setup
Configure the Broadba	and Router IP Address and Subnet Mask for LAN interface. Group Name ${f Default}$ \lor
IP Address:	192.168.1.1
Subnet mask	255.255.255.0
Enable IGMP Sn	ooping
O Standard Mode	
Blocking Mode	
Enable IGMP LAN to L (LAN to LAN Multicast	AN Multicast: Disable \checkmark is enabled until the first WAN service is connected, regardless of this setting.) freevall
	III EWOII
O Disable DHCP Ser	ver
Enable DHCP Sen	/er
Start IP Address:	192.168.1.100
End IP Address:	192.168.1.250
Primary DNS server	192.168.1.1
Secondary DNS server	0.0.0.0
Leased Time (hour):	24
Edit DHCP OPtion 6	0 Edit DHCP OPtion DHCP Advanced Setup
Static IP Lease List: (A	A maximum 32 entries can be configured)
MAC Addre	ess IP Address Remove
Add	Entries Remove Entries
Configure the sec	ond IP Address and Subnet Mask for LAN interface



NL1901ACV WIFI Setup

1. On the left-hand menu select Advanced Setup

2. Once selected it will default to 2.4ghz Interface please change this to 5ghz if you want to change 5ghz 3. Using the left-hand menu select either "2.4GHz or 5GHz" both menu screens are the same design so steps below can be replicated on either 2.4GHz or 5GHz



Wireless	Wireless
2.4 GHz	2.4 GHz
Basic	5 GHz
Security	Basic
MAC Filter	Security
Wireless Bridge	MAC Filter
Advanced	Wireless Bridge
Station Info	Advanced
5 GHz	Station Info

On the right-hand side of the page you will see the "Wireless -- Basic" screen here we configure the WIFI SSID To change the SSID please replace the "Netcomm ****" with desired SSID



1. On the left-hand menu select Security 2. Please select the "SSID" to change

© comm	nander	Wireless - Security The page along van to configure society features of the wireless UAII interface. Town my along configuration manally Workey Wir Produkt Stag(VBG) Workey Wir Produkt Stag(VBG) Workey Wir Produkt Stag(VBG)
Device Info Basic Setup Advanced Setup Virieless 2.4 Gitz Sector Sector Virieless Bridge Advanced Station Info 5 Gitz Voice Disposition	Windess - Bas The spea allows Cide Apply frame - Evable - Deable - Deable - Deable - SSD: - It BISD: - It BISD: - It BISD: - It - Deable -	WHS Shap Enails WHS Deabled v Panel Status, PA Deabled v Status Status, PA Net Control Status, PA Microsoft Status, PA Net Control Status, PA Nation A Administration Net Control Status, PA
Management Logout	Max Clients: 3	Apphy/Save

3. Once you have selected the interface change "WPA/WAPI Passphrase" icon as per the image below



To view the password, you can click "Click here to display" link this will open a popup window displaying the current password



NL1901ACV Mobile Broadband/4G Setup

On the left-hand menu select Advanced Setup





On the right-hand side of the page you will see the "Modem status" screen here we configure the cellular service

Please follow the steps below to configure 3G/LTE

Modern Status														
Wide Area Network (WAN) Service For Hobile Broadband Setup Choose Add, Remove or Edit to configure a WAN service For Mobile Broadband interface.														
[Interface	Description	Туре	Vlan8021p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mid	Manage	Edit	Action	
	lte0	mobile	mobile	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	PIN	Edit	Connect	
					Add	Remove	e Inforn	nation						

Cellular configuration

Please Click the "Edit" (if LTE is connected you will need to disconnect first) *only modify then APN or you will disable the LTE service*

	Support NDIS		
	DHCP		
	Enable NAT		
User Name:]	
Password:		1	
Authentication Method:	AUTO 🗸	-	
APN:			
Dial Number:	*99#	1	
Net Select:	AUTO	~	
Dial Delay(in sec.):	10		
Default WAN Connection Select:	DSL OR ETHERN	IET 🗸	
WAN backup mechanism:		O DSL/WAN port	• IP connectivity
at 11 at 11		1	
Checking IP address:	8.8.8.8		
Period time (in sec.):	10		
limeout (in sec.):	5		
Fail Tolerance:	3		
Keep-alive:			
Destination address:	4.2.2.2	(leave this blank to disable Keep-alive)	
Period Ping Timer(in sec.):	300	(300-65535)	
Fail count:	3	(1-65535)	
Apply/Save			

In this window please enter the APN *PRIMUSLNS1* Then click Apply/Save (the service should auto connect if not hit connect)

Modem Status Disconnecting													
Wide Area Network (WAN) Service For Mobile Broadband Setup Choose Add, Remove or Edit to configure a WAN service For Mobile Broadband Interface.													
[Interface	Description	Туре	Vlan8021p	VlanMuxId	Igmp	NAT	Firewall	IPv6	Mld	Manage	Edit	Action
	lte0	mobile	mobile	N/A	N/A	Disabled	Enabled	Enabled	Disabled	Disabled	PIN	Edit	Connect
					Add	Remove	e Inform	nation					



NL1901ACV Port Forward Setup

On the left-hand menu select Advanced Setup

🜀 commander		© commander
Device Info Basic Setup Advanced Setup Layer 2 Interface WAN Service Mobile Broadband LAN NAT Security Parental Control	Once selected it will Default to Layer 2 Interface lease change this to NAT >>>>	NAT - Virtual Servers Setup Device Info Basic Setup Advanced Setup Layer 2 Interface WAN Service Mobile Broadband LAN Virtual Servers Port Triggering OVC Host ALG Security Parental Control Rooting DIS DSL

On the right-hand side of the page you will see the "NAT -- virtual Servers Setup" screen please change to "Static NAT" TAB

Please follow the steps below to configure Port Forward

NAT Virtual Servers Setup
Virtual Senser allows you to direct hooming traffic from 1WH side (detablied by Protocol and External port) in the Internal sport as equined only if the external port meeds to be converted to a different port number used by the senser on the UM side. A maximum 32 entries can be configured.
Server Hume [External Port Stard [External Port End [Porticial] External Port End] Server IP Address (WAI Interface [LAII Loopland, Enable/Deable Remove
Add San/Appy Ramon

Please click the "Add" button

NAT Virtual Servers	
Select the service name, and enter the server IP address and clck ² Apply/Save ² to forward IP packets for this service to the specified server. NOTE: The "Internal Port End" cannot be modified directly. Hormally, it is set to the same value as "External Port End". However, if your modify "Internal Port Start", then "Internal Port End" will I Remaining manuel or entries that can be configured:25	e set to the same value as "Internal Port Start".
Use Interface mobile/Ite0 Service Inner: Select One	
Enable LAW Looptack	
Server IP Address: 192.168.1.	
Status: V	
Apphy/Save	
External Dock StardExternal Dock End Dectored Internal Dock StardEnternal Dock End	
TCP V	
TCP V	
TCP V	
TCP V	
Apply/Save	

On the new window you create the rule wanted

please make sure you follow directions below without mistake or the rule will not work

Select interface

Remaining number o	f entries that can l	e configured:32	
Use Interface	mobile/lte0	\sim	
Service Name: Select a Service:	Select One		\sim
O Custom Service:			
Enable LAN Loop	oback		



Now select a service or enter a customer service type (this is the best option if you want to use nonstandard ports)

Use Interface	mobile/Ite0 V	
Service Name:		
Select a Service:	Select One V	
O Custom Service:		
Enable LAN Loop	back	

Now enter the LAN IP you wish to have the port forward enabled on and select enable or disable



Now Enter the "External port" settings as shown below

- External port is the port that will be accessed from the "outside world" _
- Internal port is the port wanted on the computer (these can be different) -

l	External Port Star	tExternal Port End	Protocol	Internal Port St	art	Internal Port End
l	80	80	TCP/UDP 🗸	80		80
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
l			TCP 🗸 🗸			
			TCP 🗸 🗸			
			TCP 🗸			

Once done click "Apply/Save"

NAT Virtual Servers
side: the service name, and enter the serve ID address and click 'Apply/Save' to forward IP packets for this service to the specified server. NOTE: The 'Internal Port End'' cannot be modified directly. Normally, it is set to the same value as "Internal Port End". However, if you modify "Internal Port Start", then "Internal Port End" will be set to the same value as "Internal Port Start" Remaining number of entries that can be configured:22
Jise Interface ETH WAN/ppp4.2 V Service Service: Select One V Custom Service: webserver Enable LAN Loopback
Server IP Address: 192.168.1.101
Status: Enable V
Apply/Save
External Port Stard[External Port End Protocol [Internal Port Stard[Internal Port End
80 80 TCP/UDP 80 80
TCP V
TCP V
TCP V
TCP V
Apply/Save



NL1901ACV IPSec VPN

On the left-hand menu select Advanced Setup



On the right-hand side, you will see the current setup IPsec tunnels and have the ability to add or remove them



Follow the guide below to setup an IPSec tunnel Click "Add New Connection" the page will change to look like below

IPSec Settings	
IPSec Connection Name	new connection
IP Version:	IPv4 V
Tunnel Mode	ESP V
Local Gateway Interfaces	Select interface ~
Remote IPSec Gateway Address (IP or Domain)	0.0.0.0
Tunnel access from local IP addresses	Subnet V
1P Address for VPN	0.0.0.0
Mask or Prefix Length	255-255-255-0
Tunnel access from remote IP addresses	Subnet ~
3P Address for VPN	0.0.0.0
Mask or Prefix Length	255-255-255-0
Key Exchange Nethod	Auto(IKE) >>
Authentication Method	Pre-Shared Key V
Pre-Shared Key	lay
Perfect Forward Secrecy	Disable ~
Advanced DXE Settings	Show Advanced Settings
	Apphy/Sarve

Enter the desired details and click apply and save (I have put an example below)

<u>Local</u> = the device you ar	re configuring
<u>Remote</u> = the site you wis	sh to access

IPSec Settings	
IPSec Connection Name	intranet
IP Version:	IPv4 ~
Tunnel Mode	ESP V
Local Gateway Interface:	ETH WAN/ppp4.2
Remote IPSec Gateway Address (IP or Domain)	58.172.16.1
Tunnel access from local IP addresses	Subnet ~
IP Address for VPN	192.168.1.0
Mask or Prefix Length	255.255.255.0
Tunnel access from remote IP addresses	Subnet ~
IP Address for VPN	10.28.15.0
Mask or Prefix Length	255.255.255.0
Key Exchange Method	Auto(IKE) ~
Authentication Method	Pre-Shared Key 🗸
Pre-Shared Key	stbethesameatbothends
Perfect Forward Secrecy	Enable 🖂
Advanced IXE Settings	Show Advanced Settings
	Apply/Save



NL1901ACV Framed Route Setup

On the left-hand menu select Advanced Setup



Now We can proceed to setup the framed route



In this window please enter the framed Route Details

<u>IP address:</u> (this will be the Framed route IP provided by ISP)

<u>Subnet Mask:</u> (this will be the subnet provided by ISP

The start address and end address with change automatically

DNS Service please use the DNS provided by ISP

Click on Apply/Save - done





NL1901ACV Static Route Setup

On the left-hand menu select Advanced Setup



Please follow the steps below to configure a new Static Route

Routing Static Route (A maximum 32 entries can be configured)						
	IP Version	DstIP/Mask	Gateway	Interface	Metric	Remove
			Add Rem	nove		
Please click "Add" the page will change as per below						

	Please click	"Add" the	e page will	change	as per	below
--	--------------	-----------	-------------	--------	--------	-------

Routing Static Route Add	
Enter the destination network address, subnet mask, gateway A	ND/OR available WAN interface then click 'Apply/Save' to add the entry to the routing table.
IP Version:	IPv4 V
Destination IP address/prefix length:	
Interface:	×
Gateway IP Address:	
(optional: metric number should be greater than or equal to zero Metric:	o)
	Apply/Save

Entered desired details and click "Apply/Save"

Routing Static Route Add		
Enter the destination network address, subnet mask, gateway Al	ND/OR available WAN interface then click 'Apply/Save' to add the entry to the routing table.	
IP Version:	IPv4 V	
Destination IP address/prefix length:	10.128.0.0/24	
Interface:	×	
Gateway IP Address:		
(optional: metric number should be greater than or equal to zero Metric:		
	Apply/S	ave



Pv4 static route configuration information

ltem	Description
Destination IP address	Set the destination IP address of a IPv4 static route.
Interface	Specifies the name of a LAN/WAN interface. If the interface name is specified, a static route searches the routing table of the WAN instance for an outbound interface according to Next hop .
Next hop	Set the next-hop IP address of a IPv4 static route.
Metric	Set the priority of a IPv4 static route. A smaller value indicates a higher priority.



NL1901ACV Voice Settings

Follow modem log in process

VOICE SETTINGS ARE READ ONLY - To change Voice settings, call Commander Technical support for further support.

Select from menu on the left: Voice -> VOIP Status

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Device Info Basic Setup Advanced Setup Wireless Voie VoIP Status Diagnostics Management Logout	Voice Voice Status Account denial will display "Disabled", registered successfully will display "Up", and unregistered will display "Down". SIP Account Call Time User Accounts Registration Status Hook Status Call Status 1 0:00:00 Up On Hook Idle 2 0:00:00 Down On Hook Idle 2 0:00:00 Down On Hook Idle Active call monitoring Calling number Called number Source IP Destination IP Port used Duration Packets sent Packets lost Call history: Index Calling number Called number Source IP Destination IP Port used Duration Direction Packets sent Packets received Packets lost												

The example below shows no services registered 'Registration Status' = Down

IP Account	Call Time	User Accounts	Registration Status	Hook Status	Call Status					
1	0:00:00		Down	On Hook	Idle					
2	0:00:00		Down	On Hook	Idle					
tive call mor alling numb	nitoring er Called	number Source	IP Destination IP	Port used Du	ration Direct	ion Packet	s sent Packet	s received P	ackets lost	

The sample below shows SIP 1 Account as registered and SIP 2 not registered

Voice Voice	Status															
Account denial v	vill display "(Disabled",	registere	ed successful	ly will displ	ay "Up",	, and uni	register	red will d	isplay "Dowr	n".					
SIP Account	Call Time User Accounts		Registration Status		Hook Status		Call Status									
1	0:00:00			Up		On Hook		Idle								
2	0:00:00			Dow	Jown On Ho		Hook	Id	le							
Active call mo	nitoring															
Calling numb	er Called	alled number Source		IP Destination IP		Port us	ed Du	ration	Directi	on Packet	s sent	Packet	s received	Packet	ts lost	
all history:																
Index Callin	g number	Called n	umber	Source IP	Destinat	ion IP	Port us	ed D	uration	Direction	Packet	s sent	Packets re	eceived	Packets lost	Timestamp

