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# Technote

# **EnGenius M36**



# **Configuratie MESH**

Datum: 28-07-2010 Versie: 1.0

ABN-AMRO 436058316 SWIFT code ABNANL2A IBAN nr NL82ABNA0436058316 BTW nr NL8132.61.685.B.01 KvK nr 32094060 Aanbiedingen en overeenkomsten conform de voorwaarden gedeponeerd bij de Kamer van Koophandel onder nummer 32094060

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## Access Point instellingen (Gateway)

Login op het default IP adres **192.168.1.1** met gebruikersnaam: **admin** en wachtwoord: **admin** Klik op **System Properties** en stel de landcode in en kies in de keuzelijst voor optie **MESH** en klik **Apply.** 

EnGenius	Wireless Access	s Point		
Access Point	System Prop	erties		Home Reset
	Device Name	M36	( 1 to 32 characters )	
Status	Country/Region	Netherlands		
Wireless Client List     System Log	Operation Mode	C Access Point C Repeater Mesh		
System		mean		
System Properties     IP Settings     Spanning Tree Settings	Apply Cancel			
Wireless				
Wireless Network				
WDS Link Settings				
Wireless Advanced Settings				
Management				
Administration				
Management VLAN				
SNMP Settings      MR Address				
Backup/Restore Settings				
Firmware Upgrade				
. Time Settings				

Klik op IP Settings in het linker menu om het IP adres aan te passen. Het IP adres welke u kunt gebruiken is afhankelijk van het netwerk waarin de unit geplaatst wordt.

EnGenius	Wireless Access Poi	int	
Mesh	IP Settings		Home Reset
Status	IP Network Setting	<ul> <li>Obtain an IP address automatically (DHCP)</li> <li>Specify an IP address</li> </ul>	
• Main	IP Address	192 . 168 . 1 . 1	
<ul> <li>Wireless Client List</li> <li>System Log</li> </ul>	IP Subnet Mask	255 . 255 . 255 . 0	
System	Default Gateway	0.0.0	
System Properties	Primary DNS	0.0.0.0	
<ul> <li>IP Settings</li> <li>Spanning Tree Settings</li> </ul>	Secondary DNS	0.0.0.0	
Wireless Wireless Network Wireless MAC Filter Wireless Advanced Settings Management Administration SIMIP Settings NMS Address Backup/Restore Settings Firmware Upgrade Time Settings Log Diagnostics LED Control	Apply Cancel		

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#### Kies in het linker menu op Wireless Network.

EnGenius	Wireless Access Point				
Mesh	Wireless Network			Home	Reset
	Wireless Mode	802.11b/g Mixed (2GHz/54Mbps) 💌			
Status	Channel / Frequency	Ch1-2.412GHz			
Wireless Client List		Mesh			
System Log	SSID	Security	Gateway		Edit
System	EnGeniusMesh	Disabled	Γ	E	Edit
System Properties					
IP Settings		Access Point		r	
spanning free settings	SSID	Secu	rity	Enable	Edit
Wireless	EnGenius1	Open System/N	lo Encryption		Edit
. Wireless Network	EnGenius2	Open System/N	lo Encryption		Edit
Wireless MAC Filter				4. A	
<ul> <li>Wireless Advanced Settings</li> </ul>	International International				
Management	Apply Cancel				
Administration					
SNMP Settings					
<ul> <li>NMS Address</li> </ul>					
Backup/Restore Settings					
Firmware Upgrade					
Time Settings					
• Log					
<ul> <li>Diagnostics</li> </ul>					

Selecteer bij Wireless Mode de band waarop u wilt gaan uitzenden. Selecteer bij Channel het kanaal waarop u zal gaan uitzenden.

Klik op de edit button onder de header MESH.

	http://192.168.1.1/setup.cgi?reqfile=.	/html/ME_WLANMesh.htm&actionEdit55IDProfile=1&wlanmode=3&wlanchannel=1&wlanssidisolatic	
	SSID Profile		
Mesh	Wireless Setting		Reset
	SSID	EnGeniusMesh (1 to 32 characters)	
Status	Wireless Security		
Wireless Client List	Security Mode	WEP	
System Log	Auth Type	Open System 💌	Edit
System	Input Type	Hex	Edit
System Properties IP Settings	Key Length	128/152-bit (32 hex digits or 16 ASCII char)	
Wireless	Default Key	1	Edit
Wireless Network	Key1		Edit
Wireless MAC Filter	Key2		
mieless Ruvanced Settings	Key3		
Management Administration	Key4		
SNMP Settings			
NMS Address	Save Cancel		
Firmware Upgrade			
Time Settings			
Log			
Diagnostics			
LED Control			

Onder wireless settings vult u een SSID in. Onder wireless security kiest u voor de security methode. Klik op Save.

Schakel vervolgens de optie Gateway in.

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#### Klik op de edit button onder de header Access Point.

EnGenius	SSID Profile	ntmy/mic_wLANMesn.htmsactionEdtS5UPronie=18wlanmode=38wlanchannel=18wlanssidisolation=0	
Mesh	Wireless Setting		Reset
	SSID	EnGeniusMesh (1 to 32 characters)	
Status	Wireless Security		
Wireless Client List	Security Mode	WEP 💌	
System Log	Auth Type	Open System 💌	Edit
System	Input Type	Hex 💌	Edit
System Properties     IP Settings	Key Length	128/152-bit (32 hex digits or 16 ASCII char) 💌	
Spanning Tree Settings     Wireless	Default Key	1 🗸	Edit
Wireless Network	Key1		Edit
Wireless MAC Filter	Key2		
Management	КеуЗ		
Administration	Key4		
<ul> <li>SNMP Settings</li> <li>NMS Address</li> <li>Backup/Restore Settings</li> </ul>	Save Cancel		
Firmware Upgrade     Time Settings			
Log     Diagnostics     LED Control			
· LED CONTON	Klaar		4

Onder wireless settings vult u een SSID in. Onder wireless security kiest u voor de security methode. Klik op Save.

Vervolgens onder de profile list nogmaals op Apply om de settings door te voeren.

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# Access Point instellingen (Relay)

Login op het default IP adres **192.168.1.1** met gebruikersnaam: **admin** en wachtwoord: **admin** Klik op **System Properties** en stel de landcode in en kies in de keuzelijst voor optie **MESH** en klik **Apply.** 

Access Point          Status       Home       Rese         Main       Wireless Client List       System Mogenerity         System       Access Point       Imagenerity         System Properties       Repeater       Mesh         System Stewards       Mereless Returns       Apply       Cencel         Wireless Net Filter       Moninstration       Apply       Cencel         Administration       Amagement VLNA       SNMP Settings       Apply       Cencel	EnGenius	Wireless Access	s Point		
Status   Main   Wrieless Client List   System   System Cog   System Properties   P Settings   Spanning Tree Settings     Wireless Network   Wireless Mac Filter   Wireless Mac Filter   Wireless Mac Filter   Wireless Advanced Settings	Access Point	System Prop	erties		Home Reset
Status   Main   Main   Wireless Client List   System Log   System System Properties   Pettings   System Status     Apply     Cancel     Apply     Cance		Device Name	M36	(1 to 32 characters)	
<ul> <li>Wireless Client List</li> <li>System Log</li> <li>System Properties</li> <li>IP Settings</li> <li>Spanning Tree Settings</li> <li>Wireless Network</li> <li>Wireless Network</li> <li>Wireless Network</li> <li>Wireless Advanced Settings</li> <li>Management</li> <li>Administration</li> <li>Admagement</li> <li>Administration</li> <li>ShMP Settings</li> <li>ShMP Settings</li> </ul>	Status	Country/Region	Netherlands		
System       System Properties         IP Settings       Apply         Synaming Tree Settings       Apply         Wireless Nac Filter       Synaming Settings         Wireless Advanced Settings       Administration         Administration       Anagement VLAN         SNMP Settings       SNMP Settings         Backup/Restore Settings       Additiones	• Wall • Wireless Client List • System Log	Operation Mode	C Access Point Repeater		
System Propeties IP Settings Apply Cancel Backup/Restore Settings Apply Cancel App	System		- mesn		
Wireless         Wireless Network         Wireless MAC Filter         WDS Link Settings         Wireless Advanced Settings         Management         Administration         Management VLAN         SINMP Settings         NMS Address         Backup/Restore Settings	System Properties     IP Settings     Spanning Tree Settings	Apply Cancel			
<ul> <li>Wireless NaC Filter</li> <li>WDS Link Settings</li> <li>Wireless Advanced Settings</li> <li>Management</li> <li>Administration</li> <li>Management VLAN</li> <li>SNMP Settings</li> <li>HMS Address</li> <li>Backup/Restore Settings</li> </ul>	Wireless				
Wireless MAC Filter WDS Link Settings WDS Link Settings Management Administration Amangement VLAN SNMP Settings HMS Address Backup/Restore Settings	Wireless Network				
Whreles Advanced Settings Management Administration SNMP Settings NMS Address Backup/Restore Settings	Wireless MAC Filter     WOS Link Settings				
Management Administration Management VLAN SINMP Settings NMS Address Backup/Restore Settings	Wireless Advanced Settings				
Administration     Anangement VLAN     SNMP Settings     NMS Address     Backup/Restore Settings	Management				
Management VLAN     SNMP Settings     MMS Address     Backup/Restore Settings	Administration				
SNMP Settings     NMS Address     Backup/Restore Settings	Management VLAN				
NMS:Address     Backup:Restore Settings	SNMP Settings				
Backup/Restore Settings	NMS Address				
El população el população	Backup/Restore Settings				
FirmWate Upgrade  Time Settinge	Time Settings				

Klik op IP Settings in het linker menu om het IP adres aan te passen. Het IP adres welke u kunt gebruiken is afhankelijk van het netwerk waarin de unit geplaatst wordt.

EnGenius	Wireless Access Point
Mesh	IP Settings Home Reset
Status	IP Network Setting C Obtain an IP address automatically (DHCP) C Specify an IP address
• Main	IP Address 192 . 168 . 1 . 1
System Log	IP Subnet Mask 255 . 255 . 0
System	Default Gateway 0 . 0 . 0
System Properties	Primary DNS 0 . 0 . 0
IP Settings     Snanning Tree Settings	Secondary DNS 0 . 0 . 0
Wireless Wireless Network Wireless MAC Filter Wireless Advanced Settings Management Administration SNMP Settings SMRS Address Backup/Restore Settings Firmware Upgrade Firmware Upgrade Diagnostics LED Control	Apply Cancel

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#### Kies in het linker menu op Wireless Network.

EnGenius	Wireless Access Point				
Mesh	Wireless Network			Home	Reset
	Wireless Mode	802.11b/g Mixed (2GHz/54Mbps) 💌			
Status	Channel / Frequency	Ch1-2.412GHz 💌			
Wireless Client List		Mesh			
System Log	SSID	Security	Gateway	Edit	
System	EnGeniusMesh	Disabled		Edit	
System Properties IP Settings		Access Point			
Spanning Tree Settings	SSID	Secur	ity	Enable	Edit
Wireless	EnGenius1	Open System/N	o Encryption		Edit
Wireless Network	EnGenius2	Open System/N	o Encryption		Edit
Wireless MAC Filter					
Management Administration SMMP Settings NMS Address Backup/Restore Settings Firmware Upgrade Time Settings Log Diagnostics JED Control	Apply Cancel				

Selecteer bij Wireless Mode de band waarop u wilt gaan uitzenden. Selecteer bij Channel het kanaal waarop de Gateway uitzend.

Klik op de edit button onder de header MESH.

	Mozilia Firefox	stol/ME: WI AMMark, https://www.ammarkee.com	
EnGenius	SSID Profile	numilue <sup>-</sup> Michanues II i imioarron ienicoorbe. In iie=1 oowiai iliinne=oowiai in iai ii ieii=1 oowia iooran ieni	
Mesh	Wireless Setting		Reset
	SSID	EnGeniusMesh (1 to 32 characters)	
Status	Wireless Security		
<ul> <li>Main</li> <li>Wireless Client List</li> </ul>	Security Mode	WEP 💌	
System Log	Auth Type	Open System 💌	Edit
System	Input Type	Hex V	Edit
<ul> <li>System Properties</li> <li>IP Settings</li> </ul>	Key Length	128/152-bit (32 hex digits or 16 ASCII char)	
Spanning Tree Settings     Wireless	Default Key	1.	Edit
Wireless Network	Key1		Edit
Wireless MAC Filter     Wireless Advanced Settings	Key2		
• Willeless Advanced Dellings	Кеуз		
Management Administration SNMP Settions	Key4		
NMS Address     Backup/Restore Settings     Firmware Upgrade	Save Cancel		
. Time Settings			
Log     Diagnostics     LED Control			
	Klaar		4

Onder wireless settings vult u een SSID in. Onder wireless security kiest u voor de security methode. Klik op Save.

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#### Klik op de edit button onder de header Access Point.

	of hozina firetox		
-nGenius	http://192.168.1.1/setup.cgi?reqfile=./	html/ME_WLANMesh.htm&actionEditSSIDProfile=1&wlanmode=3&wlanchannel=1&wlanssidisolation=0	
	SSID Profile		
Mesh	Wireless Setting		Reset
	SSID	EnGeniusMesh (1 to 32 characters)	
Status	Wireless Security		
Wireless Client List	Security Mode	WEP -	
• System Log	Auth Type	Open System 💌	Edit
System	Input Type	Hex 🗾	Edit
System Properties     IP Settings	Key Length	128/152-bit (32 hex digits or 16 ASCII char) 🗾	
Wireless	Default Key	1 🗴	Edit
• Wireless Network	Key1		Edit
<ul> <li>Wireless MAC Filter</li> <li>Wireless Advanced Settings</li> </ul>	Key2		
Management	Кеу3		
Administration	Key4		
<ul> <li>SNMP Settings</li> <li>NMS Address</li> <li>Backup/Restore Settings</li> </ul>	Save Cancel		
Firmware Upgrade     Time Settings			
Log     Diagnostics     ISD Control			
- LED Control	Klaar		43

Onder wireless settings vult u een SSID in. Onder wireless security kiest u voor de security methode. Klik op Save.

Vervolgens onder de profile list nogmaals op Apply om de settings door te voeren.

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### **Network Monitoring System**

In het linker menu klikt u op NMS address, op deze pagina kunt u 4 IP adressen invoeren waar de M36 zijn monitoring data naar toe zal versturen. Nadat de IP adressen zijn ingesteld klikt u op Apply.

EnGenius	Wireless Ac	cess Point			
Mesh	NMS Add	dress			Home Reset
and the second	ID	NMS Address	Port	Interval	Enable
Status	1	192.168.1.253	8188	60	
Main	2		8188	60	
System Log	3		8188	60	-
Suctom	4		8188	60	
System Properties		1	In 100	<u>Re</u>	
. IP Settings					
Spanning Tree Settings	Apply Ca	ancel			
Wireless					
Wireless Network					
. Wireless MAC Filter					
Wireless Advanced Settings					
Management					
Administration					
SNMP Settings					
<ul> <li>NMS Address</li> </ul>					
<ul> <li>Backup/Restore Settings</li> </ul>					
Firmware Upgrade					
Firmware Upgrade     Time Settings					
<ul> <li>Firmware Upgrade</li> <li>Time Settings</li> <li>Log</li> </ul>					

In de Network Monitoring System klikt u op File  $\rightarrow$  Create MAP U kiest vervolgens voor EZ-map en geeft een passende naam op. In het scherm welke zich opent kiest u voor Map  $\rightarrow$  Start scan

EnGenius Mesh Network Management Tools			
File View Settings Advanced Help			
Node Details		FC F2/Lest2	Client Properties
			Client Signal Strength
IP Address	192.168.1.110	File Settings Map	Cilenc signal so eliger
Mode	Mesh		192 168 1 100
System Name	M36		EnCanius/Mach1
Object ID	iso.org.dod.internet.private.enterprises.engenius	A	00:02:6f7c:0e:42
Description	Wireless Access Point		00:02:6f:7c:0e:44
Location	Unknown	192,106,1,119	00:02:6f:6d:0c:4f
Contact	root@localhost		192,168,1,110
Uptime	0 hours, 15 minutes, 20 seconds.		EnGeniusMesh1
			00:02:6f:7c:0e:44 35 rssi
Profile Mesh	EnGeniusMesh1/Open-System		00:02:6f:6d:0o:4f 23 rssi
Profile AP1			00:02:6f:7c:0e:42
Profile AP2		192.168.1.2	EnGenius110 00:1a:ht2th0:2h
Mesh Mode	Relay	192.168.1.100	00.10.01.01.00.00
Wireless MAC	00:02:6F:7C:0E:44		192.168.1.120
Wireless Mode	802.11b/g Mixed (2GHz/54Mbps)		EnGeniusMesh1
Channel	2.412GHz (channel 01)		00:02:6f.7c:0e:40 16 rssi
TX Power	20 dBm		00:02:6f:6d:0c:4f 61 issi
	Neighbour Signal Strength		
	RSSI value	192 168 1 120	192.168.1.2
	0 5 10 15 20 25 30 35 40 45	102.1001.1.10	EnGeniusMesh1
			00:02:6f:6d:0c:4f 16 rssi
192.168.1	1.2	V	00:02:6f:7c:0e:42 71 rssi
dres			00:02:6f:7c:0e:40 57 rssi
2		Status: Sleeping	testingSaid
192.168.1.100			00:1b:77:98:a7:ad 72 rssi
		[LZ]lest2	
Live Stat Settings		[EZ]Test2 Copy All Clear All	
Node IP 1921681100		15-45-34 jun 29 10 - 192 155 1 2 15 down!	
CNIMP III 24		15:49:44 jun 29 '10 - New Node Found: 192,168,1,120	
SINIME V 20		15:52:38 jun 29 '10 - New Node Found: 192.168.1.2	
Community	N	15:58:56 jun 29 10 - 192.168.1.120 is down!	
Poll Interval 20	seconds	16:07:35 jun 29 '10 - New Node Found: 192.168.1.120	
		16:12:26 jun 29 10 - 192 168 1.110 is down)	
	Start Live Stat	16:14:58 jun 29 '10 - New Node Found: 192.168.1.110 👻	¥
✓ Log to File			Target Map: [EZ]Test2
Map MIB Alarm Event Log [E2]Test2			Refresh