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**S9 ANTMINER
MINING ROOM
USER GUIDE**

Index

- Summary 4
- Introduction 5
- Local network access..... 6
- S9 Antminer configuration 7
- S9 Antminer monitoring..... 8
- Pool maintenance 9
- System access resume..... 11
- Conclusion 13

Summary

User guide document will instruct the user to access, monitoring and maintenance miner room. It is structured in step by step to be easy for user.

Introduction

Miner room is a place with lot of things to check during mining process to keep the equipment at least 95% operational during processing time, trying to reduce the down time near 1%.

To reach the target, it is necessary to create some scripts to alert us and auto-correct the deviations. Time by time is mandatory monitoring the process to see if we have low hash rate, if the S9 are frozen, pool web site is down, etc. in any case the technician should stay ready to do the necessary changes.

This document will be updated any time the system had changes.

Local network access

VPN is the way to can access to miner room and work like a local network and all data between the user and miner room will be all time encrypted and transmitted inside private tunnel in Internet.

For now it was create tow VPN user:

Username	Password
diogo	Xxxxxxxx
nuno	Xxxxxxxx

Any operating systems has PPTP VPN client and the configuration should be easy:

1. Create VPN connection and in URL/IP/HOST fill up with: cryptocodessos.ddns.net;
2. Use PPTP settings by default;
3. Insert username and password;

When the VPN client is configured, just try to connect to VPN and ping an internal router IP address 192.168.10.1

Router configuration access:

1. Http to 192.168.10.1 IP address;
2. Username: xxxxxx and password: xxxxxx

S9 Antminer configuration

S9 Antminer was configure as version 1 to connect to Slushpool.com and the network settings was change from DHCP to static address to simplify the access.

S9 network configuration:

Hotname	Protocol	IP Address	Netmask	Gateway	DNS Server
Ant01	Static	192.168.10.11	255.255.255.0	192.168.10.1	192.168.10.1
Ant02	Static	192.168.10.12	255.255.255.0	192.168.10.1	192.168.10.1
Ant03	Static	192.168.10.13	255.255.255.0	192.168.10.1	192.168.10.1
Ant04	Static	192.168.10.14	255.255.255.0	192.168.10.1	192.168.10.1
Ant05	Static	192.168.10.15	255.255.255.0	192.168.10.1	192.168.10.1
Ant06	Static	192.168.10.16	255.255.255.0	192.168.10.1	192.168.10.1
Ant07	Static	192.168.10.17	255.255.255.0	192.168.10.1	192.168.10.1
Ant08	Static	192.168.10.18	255.255.255.0	192.168.10.1	192.168.10.1
Ant09	Static	192.168.10.19	255.255.255.0	192.168.10.1	192.168.10.1

S9 miner configuration:

Ant01:

Pool	URL	Worker	Password
1	stratum+tcp://eu.stratum.slushpool.com:3333	criptomania.cry001	123
2	stratum+tcp://us-east.stratum.slushpool.com:3333	criptomania.cry001	123
3	stratum+tcp://cn.stratum.slushpool.com:3333	criptomania.cry001	123

The configuration has been replicated to all other S9 just change the worker from cry001 to cry002..cry009

S9 Antminer monitoring

S9 Antminer monitoring is important check the temperature, coolers and hash rate. If the hash rate decrease and number of operational S9 machines decrease in the pool, it is important to check all S9 in mining room via remote access (VPN).

To access the S9, firstly connect to local network via VPN (previous chapter) and access to S9 via http:

The screenshot shows the Antminer web interface with the following sections:

- System** | **Home** | **Configuration** | **Miner Status** | **Network**
- Miner Status**
- Summary**

Elapsed	GH/S(RT)	GH/S(avg)	FoundBlocks	LocalWork	Diff%	WU	BestShare
11h05m	13,685.34	13,707.81	0	207,957	32.8%	167,648.34	1103075
- Pools**

Pool	URL	User	Status	Diff	GetWork	Priority	Accepted	Diff%	Diff%	Diff%	Diff%	Rejected	Discarded	Stale	LSOff	LSTime
0	stratum+tcp://eu.stratum.sloshpool.com:3333	myrele.poni	Alive	8.186	148	0	1,575	0	12,861,448	8,182	0	1	2,235	0	6,152	0:00:01
1	stratum+tcp://eu-east.stratum.sloshpool.com:3333	myrele.poni	Alive	1	1	0	0	0	0	0	0	0	0	0	0	Never
2	stratum+tcp://eu.stratum.sloshpool.com:3333	myrele.poni	Alive	1	3	0	0	0	0	0	0	0	0	0	0	Never
total					148		1,575	0	12,861,448	8,182	0	1	2,235	0		
net																
- ASICMiner**

Chan#	ASIC#	Frequency(avg)	GH/S(ideal)	GH/S(RT)	HW	Temp(Chip1)	Temp(Chip2)	ASIC status
6	83	926.81	4,533.37	4,495.41	0	-	80	
7	83	926.81	4,533.37	4,524.51	1	-	72	
8	83	841.18	4,309.48	4,083.24	3	-	77	
Total	180	631.86	13,561.19	13,685.34				
- Fans**

Fan#	Fan1	Fan2	Fan3	Fan4	Fan5	Fan6	Fan7	Fan8
Speed (r/min)	0	0	5,340	0	0	3,040	0	0

When you get inside the S9 page, go to miner status tab and check the hash rate, temperature of chip and the fan3 and fan6. If all parameters are stabilized you must check the other S9.

In the near future, the system will be resumed to compact dashboard to immediately check all machine status.

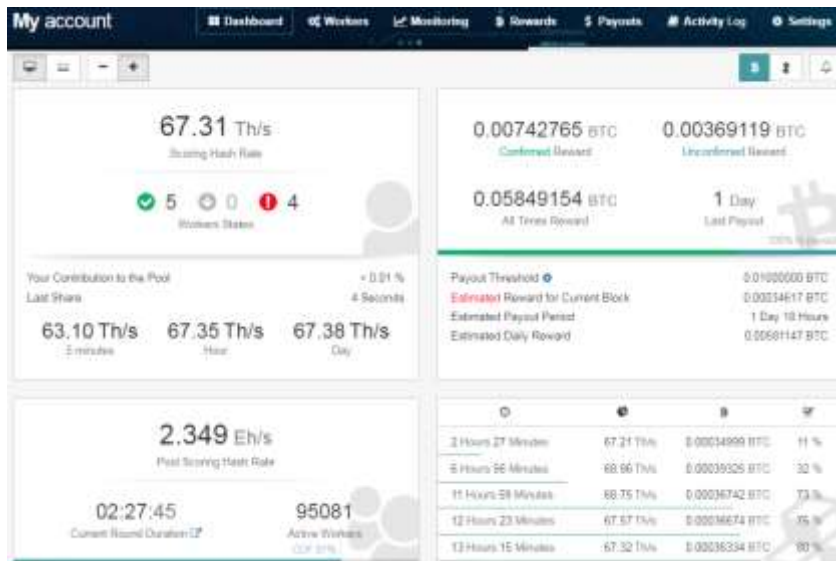
Pool maintenance

It is important to monitoring the pool dashboard to firstly check the operations in S9 status.

1. Access to the pool and login:



2. Check dashboard and workers tab to check some problems:



63.10 This 5 minutes, 67.35 This Hour, 67.38 This Day

Worker Activity: Select attribute

Buttons: New Worker, Manage Labels, Refresh

Worker Name	State	Scoring Hash Rate	Hash Rate (1 hour)	Alert Limit	Minimum Difficulty	Labels
pm1	●	13.91 t/s	14.02 t/s	9.421 t/s	120	
pm2	●	13.94 t/s	13.34 t/s	9.691 t/s	120	
pm3	●	13.34 t/s	13.67 t/s	9.502 t/s	120	
pm4	●	—	—	17.26 t/s	120	
pm5	●	—	—	207.5 t/s	120	
pm6	●	—	—	4.438 t/s	120	
pm7	●	12.64 t/s	12.77 t/s	9.333 t/s	120	
pm8	●	13.28 t/s	13.83 t/s	9.352 t/s	120	
pm9	●	—	—	4.454 t/s	120	

Page size: Secondary Hash Rate: 10, Hash Rate (1 hour)

3. Check monitoring page to check workers connections and disconnections:

My account | Dashboard | Workers | Monitoring | Rewards | Payouts | Activity Log | Settings

Device Monitoring

Event Time	Worker Status (Changes)	Account Hash Rate	Report State
2019-02-11 14:55	1 (0) (0) (+1) (0) (-1) (0)	53.46 t/s	⚠
2019-02-11 14:50	4 (0) (3) (0) (+4) (-2) (-2) (0)	59.01 t/s	⚠
2019-02-11 14:45	9 (2) (7) (0) (-5) (+2) (+3) (0)	13.60 t/s	⚠
2019-02-11 06:35	1 (0) (0) (0) (+3) (-3) (0) (0)	71.06 t/s	⚠
2019-02-11 06:30	2 (1) (1) (0) (-1) (+1) (0) (0)	47.15 t/s	⚠
2019-02-09 17:45	1 (0) (0) (0) (-1) (0) (+1) (0)	65.21 t/s	⚠
2019-02-09 17:40	6 (0) (3) (0) (+1) (0) (-1) (0)	69.25 t/s	⚠
2019-02-09 16:55	1 (0) (0) (0) (+4) (0) (-4) (-1)	68.96 t/s	⚠
2019-02-09 16:50	1 (0) (0) (0) (+1) (0) (-1) (0)	31.20 t/s	⚠
2019-02-09 16:05	9 (0) (9) (0) (-4) (0) (+4) (0)	—	⚠

4. The payouts can be checked in the tab:

My account | Dashboard | Workers | Monitoring | Rewards | Payouts | Activity Log | Settings

Payout History

Total: 0.05100399 BTC

Date	Type	Address	Amount	Fee	Transaction ID
2019-02-10 16:04	Sent	16hC7yabR6xGawofFwAAUzCzNwvT5f	0.01039625 BTC	0.00000000 BTC	7dUJhkd9Y1726...
2019-02-04 06:04	Sent	16hC7yabR6xGawofFwAAUzCzNwvT5f	0.01027198 BTC	0.00000000 BTC	e75eeG31tahn1...
2019-02-03 11:04	Sent	16hC7yabR6xGawofFwAAUzCzNwvT5f	0.01025148 BTC	0.00000000 BTC	5aekK6tk444E...
2019-01-29 04:04	Sent	16hTE3kpaLzP7wv3rHxUyF3vWfYp6	0.01094238 BTC	0.00000000 BTC	809696vaw5aw...
2019-01-22 04:04	Sent	16hTE3kpaLzP7wv3rHxUyF3vWfYp6	0.01029191 BTC	0.00000000 BTC	55aw423vC3x5...

System access resume

<<<<----->>>>>>>

router
user: admin
pass: xxxxxxxx

<<<<----->>>>>>>

wireless
rede: crypto
pass: xxxxxx

<<<<----->>>>>>>

VPN PPTP
user: diogo
pass: xxxxxxxx

user: nuno
pass: xxxxxxxx

<<<<----->>>>>>>

NO-IP - Instalar no router principal e permitir PPTP (1723) server para o nosso router
user: nuno.de.meireles@gmail.com
pass: xxxxxxxxxxxxxx
host: cryptocodessos.ddns.net
WAN IP: 192.168.1.35 (internal ip)

<<<<----->>>>>>>

SLUSH POOL
USER: criptomania
PASS: xxxxxxxx

workers:
criptomania.cry001
criptomania.cry002
criptomania.cry003
criptomania.cry004
criptomania.cry005

criptomania.cry006
criptomania.cry007
criptomania.cry008
criptomania.cry009

stratum+tcp://eu.stratum.slushpool.com:3333
stratum+tcp://us-east.stratum.slushpool.com:3333
stratum+tcp://cn.stratum.slushpool.com:3333

ANTMINERS IPs

ANT01 192.168.10.11
ANT02 192.168.10.12
ANT03 192.168.10.13
ANT04 192.168.10.14
ANT05 192.168.10.15
ANT06 192.168.10.16
ANT07 192.168.10.17
ANT08 192.168.10.18
ANT09 192.168.10.19

<<<<----->>>>>>>

VIABTC POOL

USER: criptomania
PASS: xxxxxxx

workers:

criptomania.cry001
criptomania.cry002
criptomania.cry003
criptomania.cry004
criptomania.cry005
criptomania.cry006
criptomania.cry007
criptomania.cry008
criptomania.cry009

stratum+tcp://bch.viabtc.com:3333

<<<<----->>>>>>>

www.f2pool.com

Conclusion

The process will continue in develop state and will be updated wend setup news features or changes. The next step will setup the Wi-Fi power switch (already order from China) and the user guide will reproduced to version 2.

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