IT1 STUFF2GLUE

A quick guide

Automated documentation of switches & firewalls..

Leslie Vanbavinckhove – IT1

6/27/2019

Contact us at: leslie@it1.be
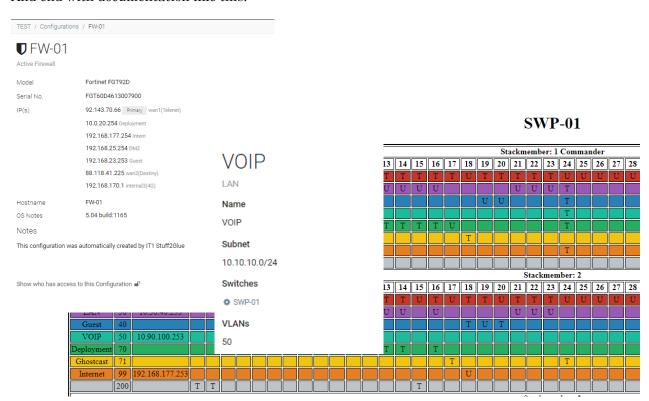
What does it do?

THE PROGRAM

IT1 Stuff2Glue was created to automate the documentation of our switches and firewalls.

In a nutshell we start with config files like these:

```
interface GigabitEthernet1/0/1
port access vlan 40
#
interface GigabitEthernet1/0/2
description GigabitEthernet1/0/1 Interface
port link-type trunk
undo port trunk permit vlan 1
port trunk permit vlan 30 70
port trunk pvid vlan 30
#
interface GigabitEthernet1/0/3
description GigabitEthernet1/0/1 Interface
port link-type trunk
undo port trunk permit vlan 1
port trunk permit vlan 30 70
port trunk pvid vlan 30
#
interface GigabitEthernet1/0/4
description GigabitEthernet1/0/1 Interface
port link-type trunk
undo port trunk permit vlan 1
port trunk permit vlan 30 70
port trunk pvid vlan 30
#
interface GigabitEthernet1/0/5
description GigabitEthernet1/0/1 Interface
port access vlan 200
#
interface GigabitEthernet1/0/6
description GigabitEthernet1/0/1 Interface
port link-type trunk
undo port trunk permit vlan 1
port trunk permit vlan 30 70
port trunk pvid vlan 30
```

```
edit "DMZ"
    set vdom "root"
    set ip 192.168.5.254 255.255.255.0
    set allowaccess ping https fgfm capwap
    set vlanforward enable
    set type switch
    set snmp-index 6
next
edit "Deployment"
    set vdom "root"
    set ip 10.199.199.254 255.255.255.0
    set allowaccess ping
    set type switch
    set snmp-index 21
next
edit "Guest"
    set vdom "root"
    set ip 192.168.199.253 255.255.255.0
    set allowaccess ping https http
    set role lan
    set snmp-index 23
    set interface "Intern"
    set vlanid 100
next
edit "Azure Demo"
```

And end with documentation like this:

TEST / Configurations / FW-01

🛡 FW-01

Active Firewall

Model	Fortinet FGT92D
Serial No.	FGT60D4613007900
IP(s)	92.143.70.66 Primary wan1(Telenet)
	10.0.20.254 Deployment
	192.168.177.254 Intern
	192.168.25.254 DMZ
	192.168.23.253 Guest
	88.118.41.225 wan2(Destiny)
	192.168.170.1 internal3(4G)
Hostname	FW-01
OS Notes	5.04 build:1165

Notes

This configuration was automatically created by IT1 Stuff2Glue

Show who has access to this Configuration 🔒

VOIP

LAN

Name

VOIP

Subnet

10.10.10.0/24

Switches

⚙ SWP-01

VLANs

50

SWP-01

Stackmember: 1 Commander

13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
T	T	T	T	T	U	T	T	T	T	T	U	U	U	U	U
U	U	U	U							U	U	U	T		
						U	U				T				
											T				
T	T	T	T	U							T				
					T						T				
											T				

Stackmember: 2

13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
T	T	U	T	U	T	T	U	T	T	T	U	U	U	U	U
U	U		U						T	U	T				
T	T		T						T			T			
								T							
									U						

LAN	30	10.30.40.253															
Guest	40																
VOIP	50	10.90.100.253															
Deployment	70																
Ghostcast	71									T					T		
Internet	99	192.168.177.253									U						
	200			T	T							T					

HOW DOES IT WORK?

IT1 Stuff2Glue is a console application (so easy to use with any automation) created in C#.

All required settings can be passed as command line arguments.

Once executed the program will do the following:

- Read all config files in a pickup folder
- Figure out what type of config file it is
- Parse these files
- Create the VLAN scheme
- Use the ITGlue API to update ITGLUE.
    - Create Firewall Configurations
    - Create Switch Configurations
    - Extrapolate the networks used by all devices and create network (LAN) objects detailing IP range, VLAN id, devices connected to it etc…
    - Create a Network object VLAN Schema and add a file to it with the VLAN scheme.

WHAT DEVICES ARE SUPPORTED?

Currently only a handfull devices are supported:

- ALL Fortigate firewalls.
- HP Switches:
    - 1910
    - 1920
    - 1920S
    - 1950
    - 2910
    - 2920
    - 2930
    - 2530

If your device type is not supported, it is enough to add a function to parse this type to integrate it with Stuff2Glue.

UPDATING TO YOUR ENVIRONMENT

COMMAND LINE ARGUMENTS:

So in Program.cs at the top are some arguments. For testing it is great to have them there, but once you use a compiled version of the program you want to remove this array.

```
0 references
static void Main(string[] args)
{

    //fake input from cli
args = new string[16];
    args[0] = "NORMAL";
    args[1] = "-OrgId";
  args[2] = "1458135";
    args[3] = "-PathToPickup";
    args[4] = "C:\\NetwerkAdministratie\\Pickup";
    args[5] = "";
    args[6] = "";
    args[7] = "-AlternativePath";
    args[8] = "C:\\Netwerkadministratie\\Alternative";
    args[9] = "-NoDelete";
    args[10] = "-Debug";
  args[11] = "-WriteHTML";
```

But as you can see here, there are some important settings trough the command line.

- OrgId is the ITGlue organisational ID where the documentation should be placed.
- PathToPickup is where the config files are located.
- AlternativePath is where some temp files are placed, like the HTML file for the VLAN scheme.
- NoDelete prevents the program from deleting read files from the Pickup folder.
- Debug shows extra information while the program is running.
- WriteHTML tells the program to also create the VLAN scheme.
- Password is the ITGLUE API KEY.

Make sure the directories exist and the pickup folder has some config files.

SWITCHES AND FIREWALLS

In Switch and Fortigate.CS you see a line like this:
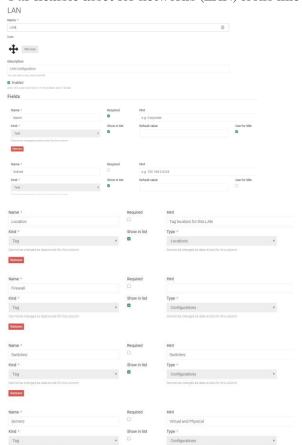```
GlueConfigurationTypeID = "131054"
```

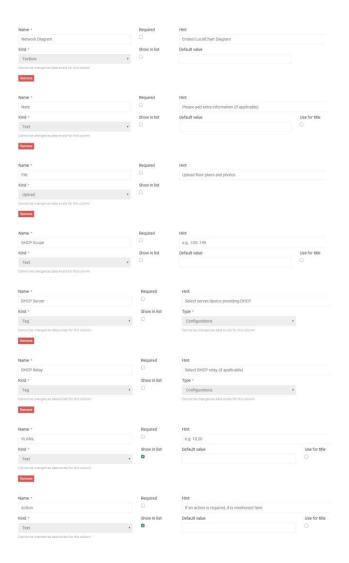If your configuration ID for switches and firewalls is different, you'll need to update this value.

# NETWORKS:

For networks we use a Flexible Asset. You will need to create this Flexible Asset type and update the ID on line 18 in ITGLUEAPI.cs

```
public static string configTypeID = "934595842146471";
```

Our flexible asset for networks (LAN) looks like this:

ITGLUE API KEY:

On line 51 of the ITGLUEAPI.cs we define the API KEY used. Make sure to edit this to the key of your environment.

```
static string key = "ABCDEFG";
```

RUN THE APPLICATION

After updating all these items, you should be good to go to run the application and automate your documentation.