zebrix documentation - https://documentation.zebrix.net/

# How to avoid "unstable connection"

## Why this is happening?

			Hardware Tools -	Ecran2		
<b></b>	<u> </u>	🙀 🔯 😲 🔊 Set Content	Remote	Logs		
	Status	Name $l_z^{\mathbb{A}}$	Message			
	<b>P</b>	Conclusion was filed to and	Realtime connection has been interrupted			
		Chickman - Marchael Low-	Screen has established the connection			
	<b></b>		Realtime connection has been interrup	ted		
		Conception with the local	Screen has established the connection			
			Realtime connection has been interrup	ted		
			Screen has established the connection			

You may have noticed some screen with the "unstable connection" warning sign. This situation happens when the real-time communication channel between the screen and the server is dropped. The real-time communication is needed in order to get screen status or other information as well as sending orders to the display (turn on, turn off, change content, get a screenshot, reboot, etc.). The main root cause of this issue is the firewall configuration and can be solved easily most of the time.

### First fix attempt that should be performed

We noticed that with some firewalls / routers or ISP the problem can easily be solve by **switching the display connection to zebrix to https instead of http**.

- On a SAMSUNG screen, you must change URL from, for example, <a href="http://screenv2.zebrix.net">http://screenv2.zebrix.net</a>. Here is how you can change the URL on a SAMSUNG screen
- On a zebrix player, you must open the configuration tool and select https instead http in the "protocol" section. Here is how to open the configuration tool on a zebrix player

By experience, this problem has often been reported with **PROXIMUS (Belgium)** et **TELENET (Belgium)** ISPs. We were not able to understand the root cause of this issue, we don't know if the problem is related to these ISP networks or to the Modem/Router/firewall offered by these ISPs.

# Firewalls known to be concerned by this problem + solutions

#### **Fortinet Fortigate**

Fortigates have a default setting of five minute TTL's for TCP sessions; active sessions that have no packet movement simply get dropped. That parameter cannot be adjusted via the web interface, you have to use the CLI. Here's an example of how to adjust the TTL to 86400 seconds for the concerned rule, along with a default of ten minutes for everything else:

```
config system session-ttl
   set default 600
        config port
        edit 123
        set protocol 6
        set timeout 86400
        set end-port 80
        set start-port 80
        next
        end
end
```

The "123" after the edit simply means the rule number; it has nothing to do with the port which is set within the rule as a range. The protocol is 6 for TCP.

#### Stonesoft

The problem on stonesoft firewall can easily be fixed by turning off the **"Deep Inspection"** and switching the **"Connection tracking mode"** to **"Loose"** 

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Anti-Spam:	Inherited from Continue Rule(s)						
Connection Op	tions						
Connection Tracking Mode: Idle Timeout: Synchronize Connections: Enforce TCP MSS:		Loose					•
		Inherited from Continue Rule(s)					s
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		Inherited from Continue Rule(s)					•
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oS Protection	Options			15 M			
Concurrent Connection Lim Concurrent Connection Lim		it per <u>S</u> ource IP:	Inherited from Continu	e Rule(s)	Action:	Discard	+
		it per Destination IP:	Inherited from Continu	e Rule(s)	Action:	Discard	+
Rate-Based DoS Protection:			Inherited from Continue Rule(s)				
Scan Detection:		Inherited from Continue Rule(s)				•	

#### **Bluecoat Proxy / Firewall**

It has been noticed that bluecoat proxy antivirus module regularly close the channel to do its scanning job. If turning off the antivirus is not an option for you, consider to switch the connection of screens to https instead of http fixes the problem.

#### **Other firewalls?**

Please consider trying to adjust or disable following modules for the zebrix create rule:

- http antivirus module - WebFilter / contentFiltering - DLP module - SSL Inpection - Deep Packet Inspection - Connection Tracking - transparent proxy - adjusting TTL (Time-to-live) or Timeout.

Alternatively, you can try to https instead of http or http over TCP6001 instead of http over TCP80 (Firewall might be more permissive)

