

iMouseGuard + ZMES Operations Guide

Architecture Overview

```
ZoneMinder (Docker)
↓
ZMES (Perl WebSocket Event Server - port 9000)
↓
Python WS Forwarder (zmes_ws_to_telegram.py)
↓
Hook Script (imouse_hook_alert.py)
↓
Telegram / Slack / WhatsApp)
```

Important Paths

Project Root:
/opt/iMouseGuard

ZMES:
/opt/iMouseGuard/zmeventnotification

App:
/opt/iMouseGuard/iMouseGuard

Config:
/opt/iMouseGuard/iMouseGuard/config/zmes_ws_only.ini

Env:
/opt/iMouseGuard/iMouseGuard/.env

Logs:
/opt/iMouseGuard/iMouseGuard/logs

Stop Existing Processes

```
killall -f zmeventnotification.pl || true
killall -f zmes_ws_to_telegram.py || true
```

Start ZMES (Background)

```
mkdir -p /opt/iMouseGuard/iMouseGuard/logs
```

```
cd /opt/iMouseGuard/zmeventnotification
```

```
nohup perl -T ./zmeventnotification.pl --config=/opt/iMouseGuard/iMouseGuard/config/zmes_ws_only
```

```
echo $! > /opt/iMouseGuard/iMouseGuard/logs/zmes.pid
```

Start WS Forwarder (Background)

```
cd /opt/iMouseGuard/iMouseGuard
```

```
nohup bash -lc '
```

```
set -a
```

```
source .env
```

```
set +a
```

```
source venv/bin/activate
```

```
python bin/zmes_ws_to_telegram.py
```

```
' > /opt/iMouseGuard/iMouseGuard/logs/ws_forwarder.log 2>&1 &
```

```
echo $! > /opt/iMouseGuard/iMouseGuard/logs/ws_forwarder.pid
```

Verify Services

```
ps aux | egrep "zmeventnotification.pl|zmes_ws_to_telegram.py" | grep -v egrep
```

```
ss -ltnp | grep ":9000"
```

```
tail -n 50 /opt/iMouseGuard/iMouseGuard/logs/zmes.log
```

```
tail -n 50 /opt/iMouseGuard/iMouseGuard/logs/ws_forwarder.log
```

Stop Services

```
kill $(cat /opt/iMouseGuard/iMouseGuard/logs/zmes.pid)
```

```
kill $(cat /opt/iMouseGuard/iMouseGuard/logs/ws_forwarder.pid)
```

Manual Hook Test

```
source venv/bin/activate
```

```
python bin/imouse_hook_alert.py 999999 19 <<<'{"EventId":"999999","MonitorId":"19","Cause":"Manu
```

Debug Mode Forwarder

```
export IMOUSE_WS_DEBUG=1  
python bin/zmes_ws_to_telegram.py
```