

# Explaining Trojans

---



## **Dale Meredith**

MCT | CEI | CEH | MCSA | MCSE  
Cyber Security Expert

[dalemeredith.com](http://dalemeredith.com) | [Twitter: @dalemeredith](https://twitter.com/dalemeredith) | [Linkedin: dalemeredith](https://www.linkedin.com/in/dalemeredith)

Pay no attention to that man behind the curtain!

**Oz**

# Trojans up Close

---

# Trojan

A program in which malicious or harmful code (called a **payload**) is contained inside apparently harmless programming or data in such a way that it can get control and do its chosen form of damage.

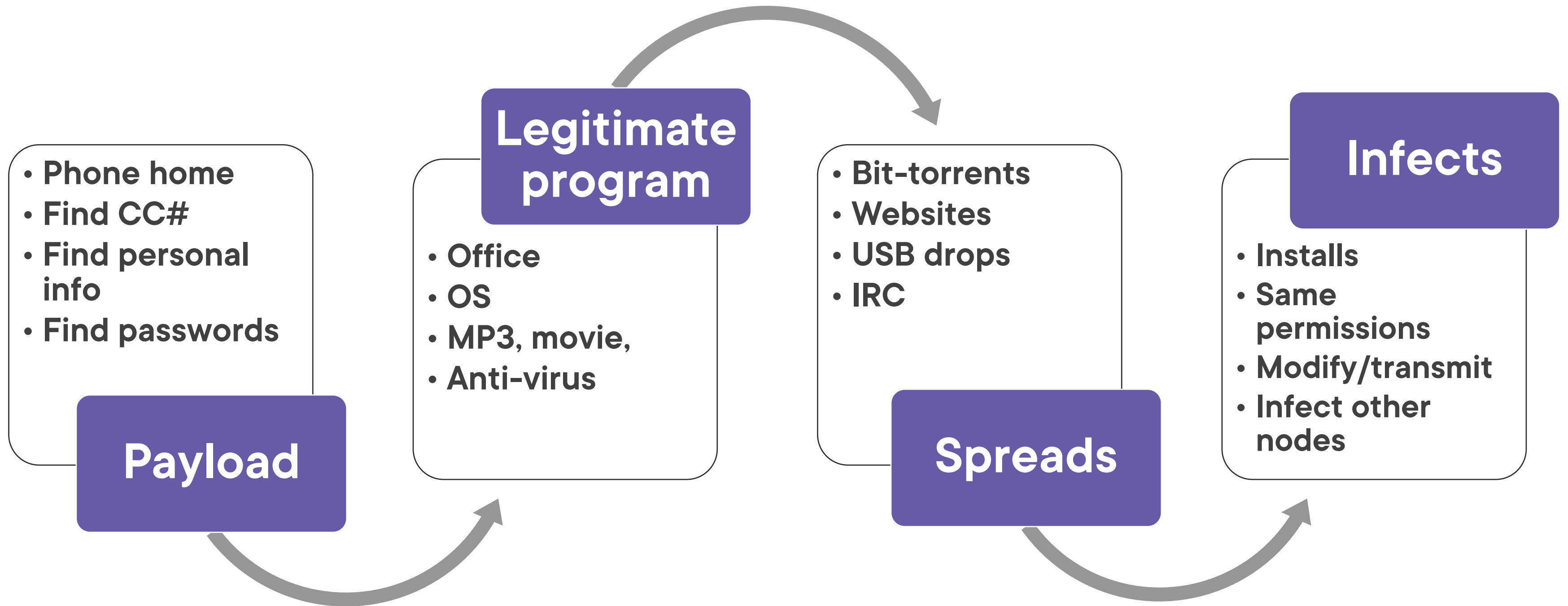


**Typically contains  
spyware, keyloggers,  
rootkit, or other  
executables**

**Can relay or steal data**



# Trojan Lifecycle



# What's the Goal?

---

# Here's the Endgame

Disable firewalls

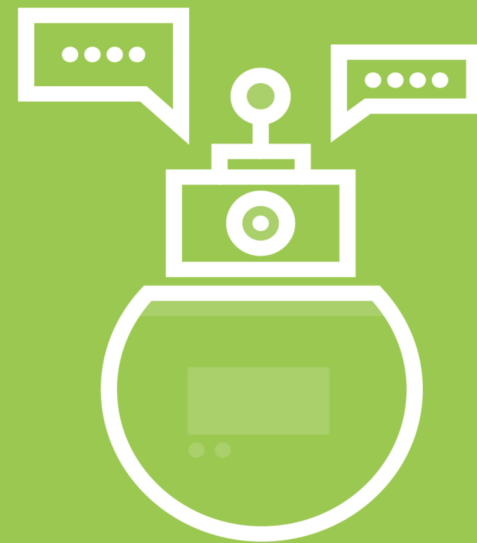
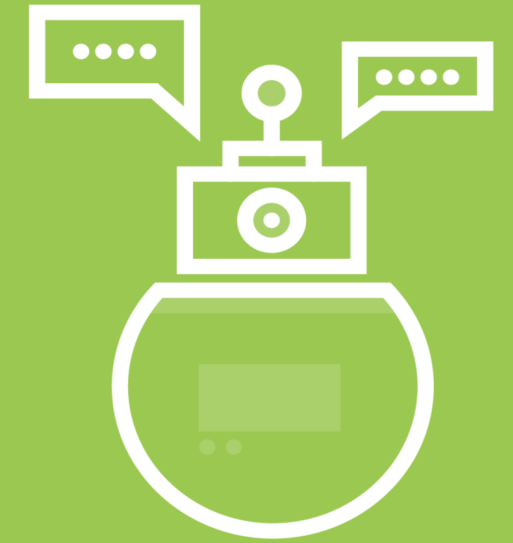
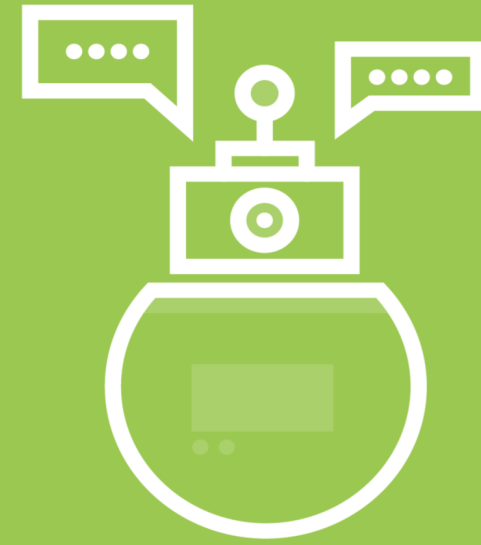
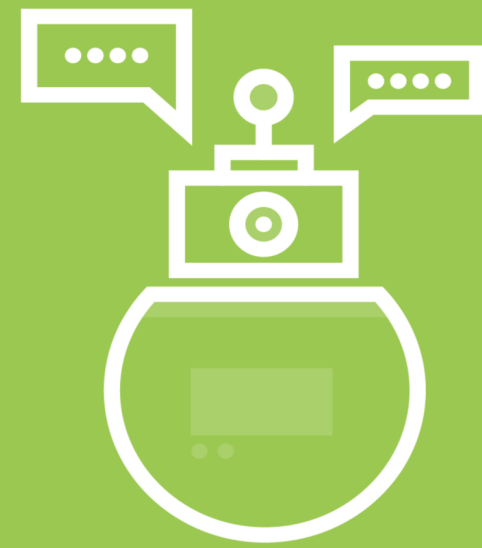
Replace or delete OS files

Open a backdoor

Disable Anti-virus

Turn the target into  
a proxy

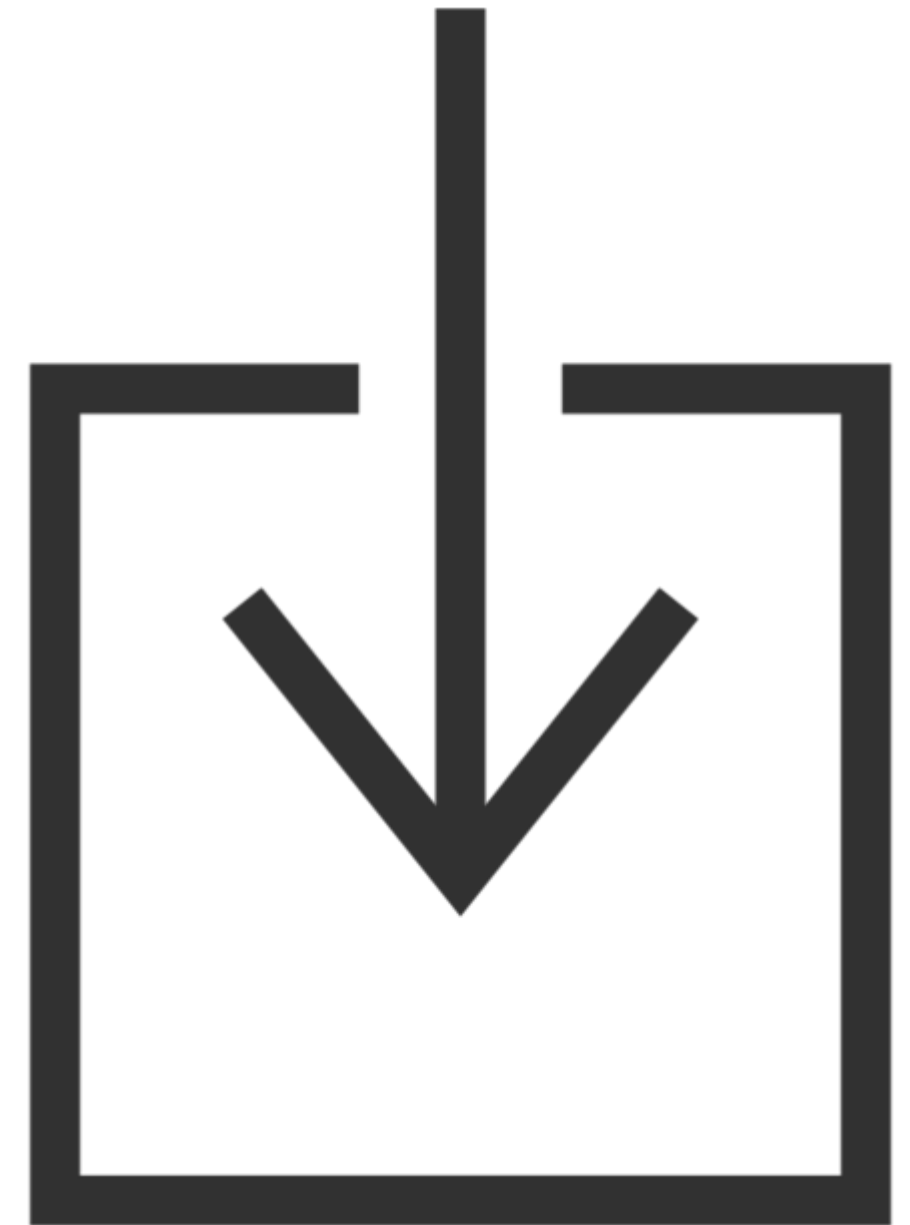
Add to a Botnet



# Here's the Endgame

Generate bogus traffic for  
DoS

Download & install  
spyware, adware, and  
malware



# Here's the Endgame

Generate bogus traffic for  
DOS

Download & install  
spyware, adware, and  
malware

Grab screenshots

Record video from camera

Steal passwords,  
codes, financial, and  
personal data

Use target for spamming





# How Trojans Communicate and Hide

---

# Now You See Me - Now You Don't



## **Overt Channel**

The file everybody wants  
The latest and greatest



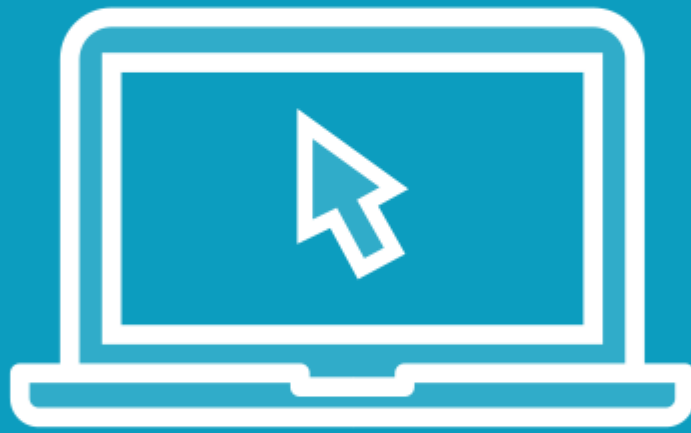
## **Covert Channel**

Hidden path

# So Many Ports, So Little Time

Port	Trojan	Port	Trojan	Port	Trojan
20/22/80/443	Emotet	1807	SpySender	8080	Zeus, Shamoon
21	Blade Runner, DarkFTP	1863	XtremeRAT	8787/54321	Backoffice 2000
22	SSH RAT, Linux Rabbit	2140/3150/6670-71	Deep Throat	10048	Delf
23 EliteWrap	EliteWrap	5000	SpyGate RAT, Punisher RAT	10100	Gift
68	Mspy	5400-02	Blade Runner	11000	Senna Spy
80	Ismdoor, Poison Ivy, Executioner	6666	KillerRat, Houdini RAT	11223	Progenic Trojan
443	Cardinal RAT ghOst RAT, Trick Bot	6667/12349	Bionet, Magic Hound	12223	Hack'99 KeyLogger

# Demo



## What ports are listening?

# Knowing Is Half the Battle



# Indicators You Have a Trojan

---

# Indications of a Trojan Attack



**Updates denied**



**Restarts/Shutdowns**



**Task Manager won't launch**



**Screensavers**



**CTR-ALT-DEL not working**



**Taskbar disappear**

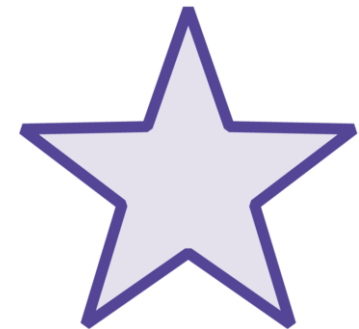
# Indications of a Trojan Attack



**Display altered**



**DVD drive**



**Windows Start button  
disappears**



**Printer starts printing  
documents**



**Redirections**



**Hard drive activity**

# Indications of a Trojan Attack



**Web pages open**



**Data is corrupted**



**Contacts are spammed  
by an unknown user**



**Backgrounds change**



**Date/time changes**



**Amazon orders going to  
Dale Meredith ;-)**

# Learning Check

---

# Learning Check



**Overt channel**



**Covert channel**



**Overt**



Up Next:

Diving Deeper into Trojans

---