Day 4-1-1
anti-virus

detecting a malicious file

malware, detection,
hiding, removing

malware

is the generic term for computer virus, worms, spyware and other malicious software

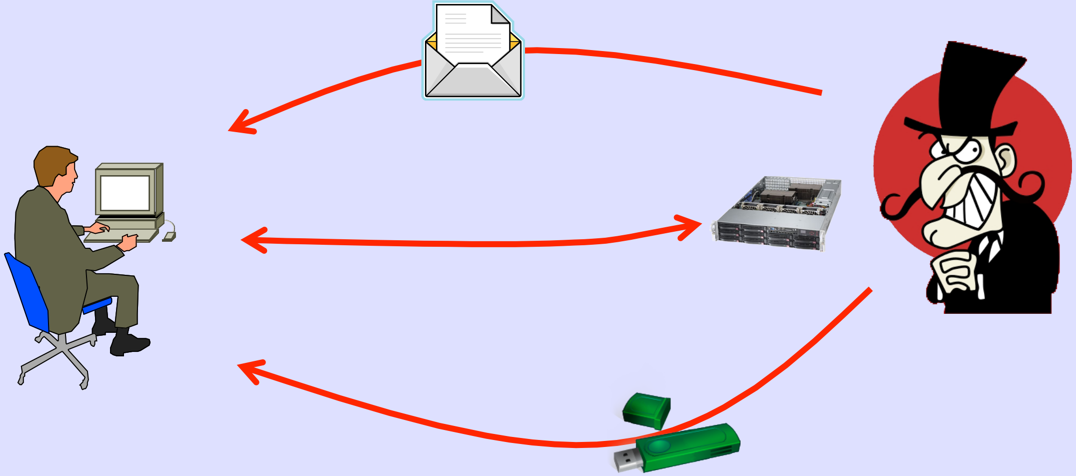
skilled attacker can make it, fun attacker can use it.

- even there are malware build tools with GUI ☹

infection

attackers try to make your devices infected in many ways

- security holes, e-mail, web
- USB memory, file servers



causes

vulnerability

- 0-day security hole without patch
- old security holes are still used to infect

auto-execution for removal media

- USB memory, CD loading

users' careless open

- sometimes happen to execute malwares

detection

signature-based detection

- blacklist of malwares
- check a file with the signatures
- update needed to detect newer malware

heuristics detection

- behavior, characteristic code

when?

write operations take place

- new file, file modification

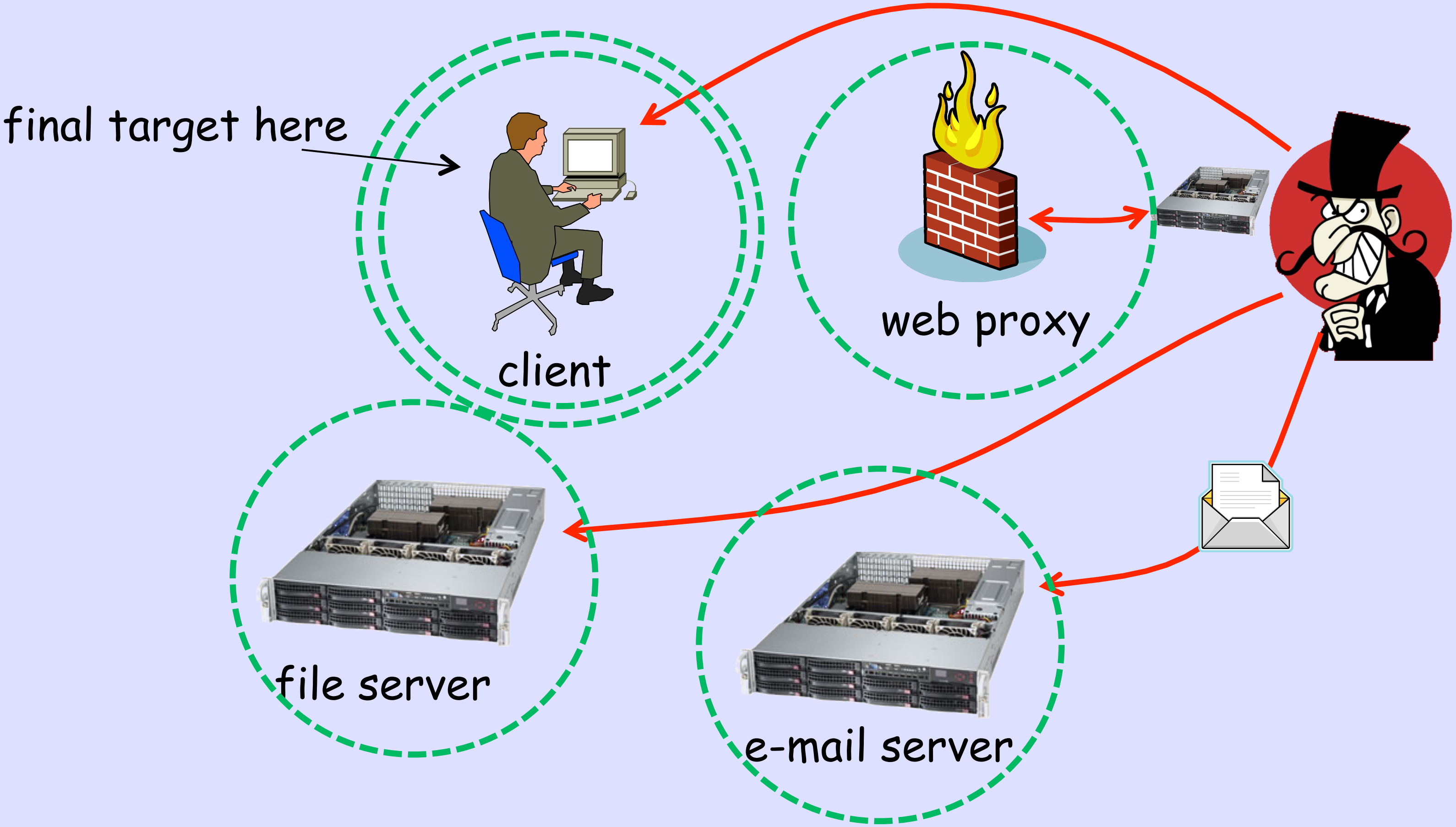
new media is inserted

- USB memory, CD

periodic or manually

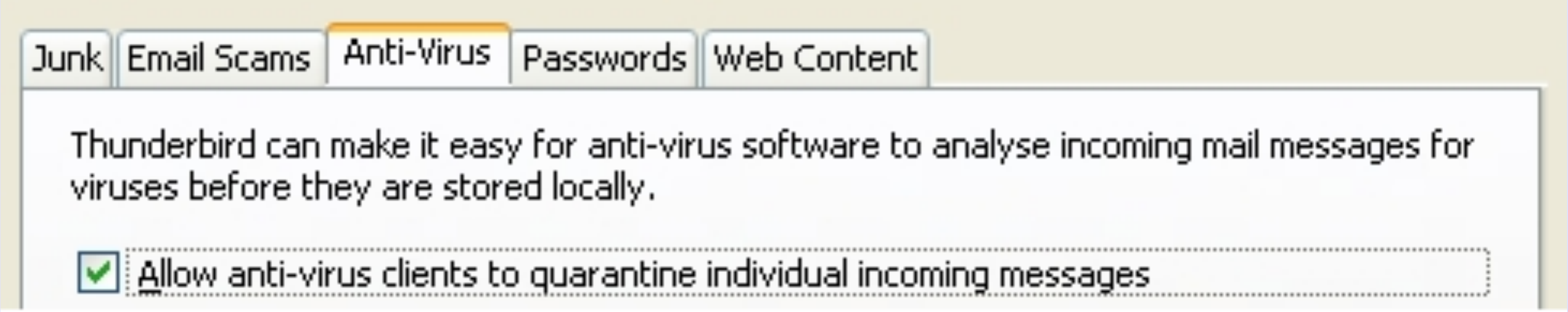
- scan all or important files

where?


final target here
client
web proxy
file server
e-mail server

staging for detection

Thunderbird example



Thunderbird can make it easy for anti-virus software to analyse incoming mail messages for viruses before they are stored locally.

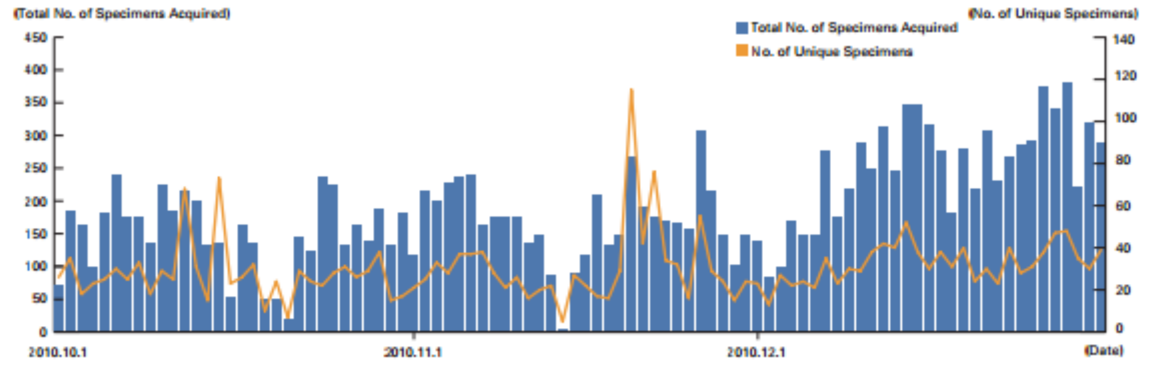
☑ Allow anti-virus clients to quarantine individual incoming messages

otherwise, entire INBOX file will be considered as 'suspicious' once attached malware is stored into your inbox file

hiding

attackers modify malwares

- not to be detected by anti-virus
- they can check this locally



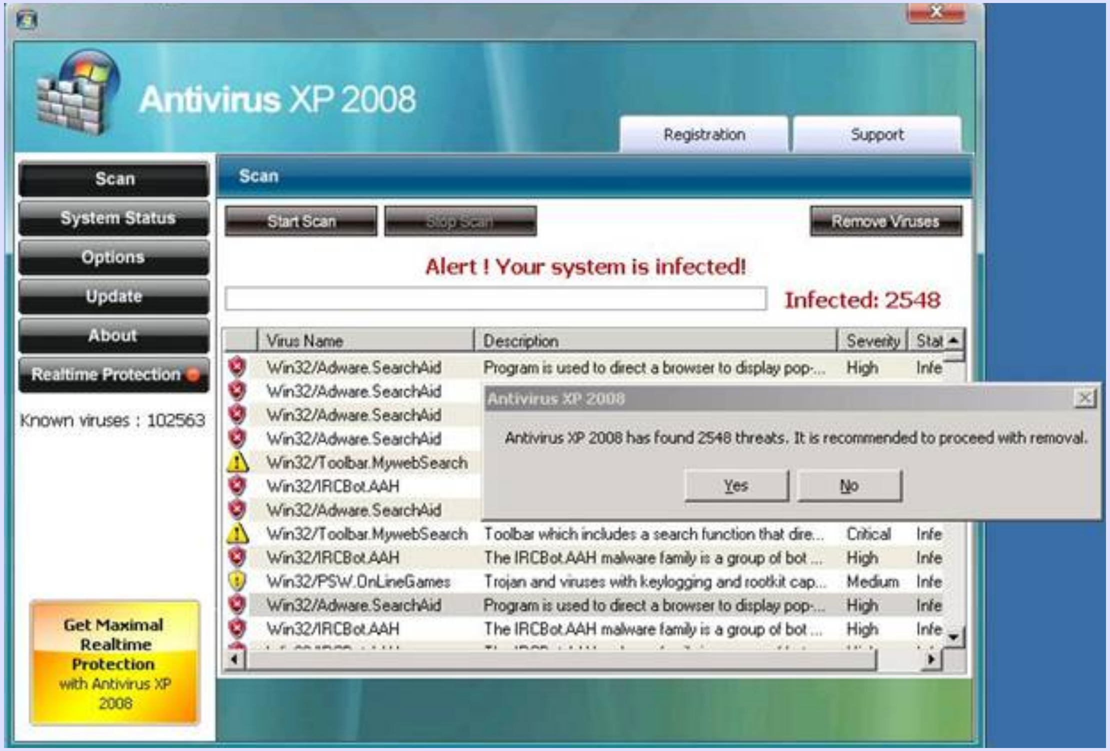
Trends in the Number of Malware Specimens Acquired (Total Number, Number of Unique Specimens)

- up-to-date signature needed

fake security software

do nothing, or is just a malware

- also known as 'scareware'



Known viruses : 102563

Alert ! Your system is infected!

Infected: 2548

	Virus Name	Description	Severity	Stat
🛡	Win32/Adware.SearchAid	Program is used to direct a browser to display pop-...	High	Infe
🛡	Win32/Adware.SearchAid			
🛡	Win32/Adware.SearchAid			
🛡	Win32/Adware.SearchAid			
⚠	Win32/Toolbar.MywebSearch			
🛡	Win32/IRCBot.AAH			
🛡	Win32/Adware.SearchAid			
⚠	Win32/Toolbar.MywebSearch	Toolbar which includes a search function that dire...	Critical	Infe
🛡	Win32/IRCBot.AAH	The IRCBot.AAH malware family is a group of bot ...	High	Infe
🛡	Win32/PSW.OnLineGames	Trojan and viruses with keylogging and rootkit cap...	Medium	Infe
🛡	Win32/Adware.SearchAid	Program is used to direct a browser to display pop-...	High	Infe
🛡	Win32/IRCBot.AAH	The IRCBot.AAH malware family is a group of bot ...	High	Infe

Antivirus XP 2008

Antivirus XP 2008 has found 2548 threats. It is recommended to proceed with removal.

summary

update system

- less security holes

update anti-virus signature

- to detect newer malware

use caution for received/downloaded file

- documents or software