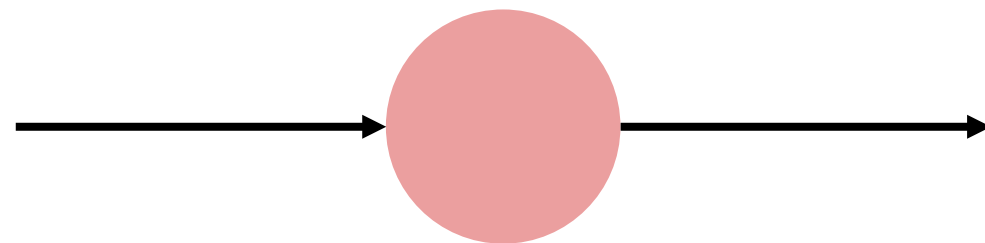# Risk of Cyber-Pandemic

- Various PCs, servers, and network devices are taken over by AI-based malware

- This causes a tremendous impact on the Internet and control systems that are the social infrastructure.
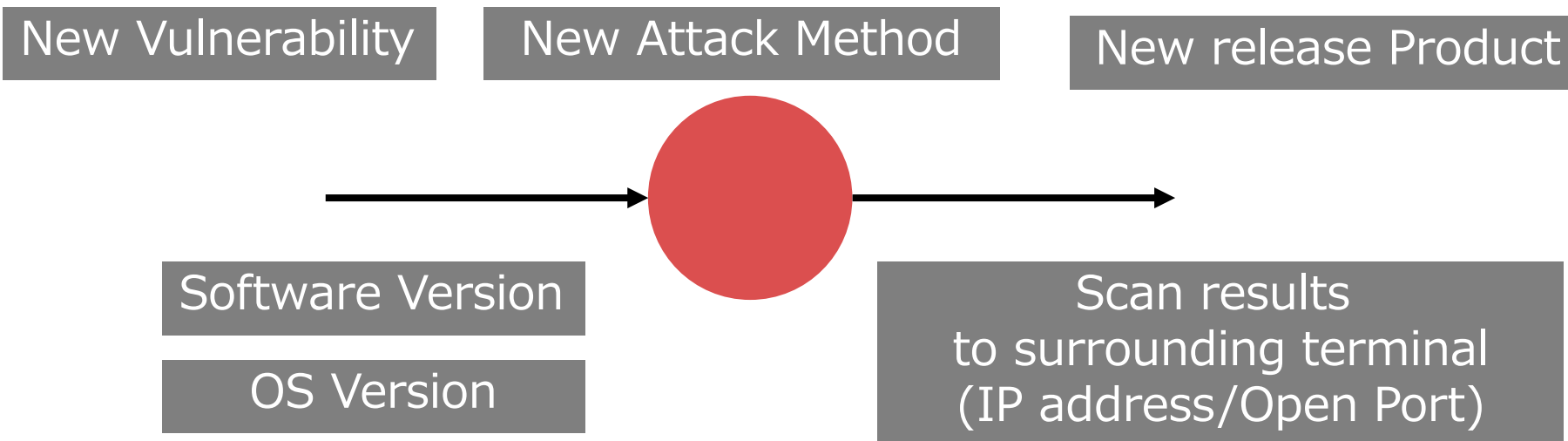
・**Conventional Malware**
　Simple infection spread by specific vulnerabilities

・**AI-based Malware**
　Learning new information and environment to spread infection

New Vulnerability　　New Attack Method　　New release Product

Software Version

OS Version　　Scan results
to surrounding terminal
(IP address/Open Port)

・**High diffusivity inside and outside the environment**
　AI malware can infiltrate factories, ATMs, etc. that are not directly connected to the Internet in multiple stages.

ATM
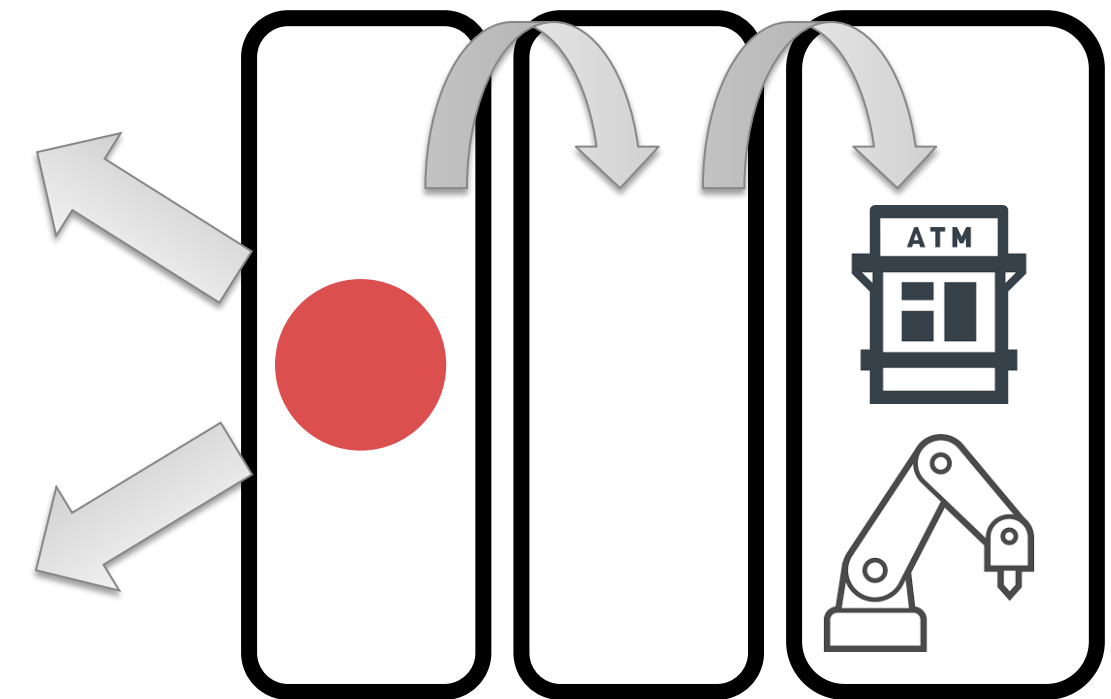
Proof of Concept

- First Step
  - Develop functionality to update itself via internet communication
  - Communicate to multiple external websites, APIs, and RAGs to learn their behavior
- Second Step
  - Update information, add functionality, and replicate itself to areas not directly connected to the Internet using only API communication with a single server

Tyep	Data	Source
Environmental Information	OS/Software version and etc.	Host Scan
	Sensitive/Important Data	Host Scan
	Network scan results and etc.	Network Scan
Security-related information	Vulnerability Information	NIST/CISA and etc.
	New Attack Method	Red Team Procedure(need to developed)
	New release Product	Internet

Examples of information to be updated
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