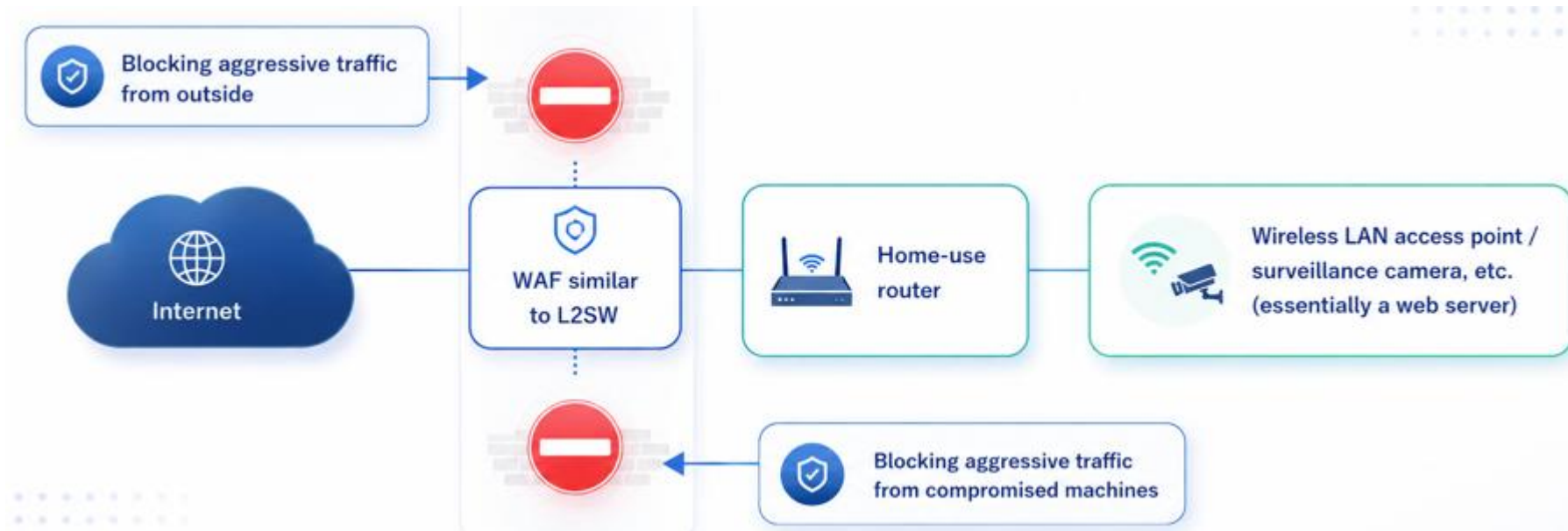


Network design-001

Mitigate outbound cyberattacks originating from a compromised home router.

the client procures inexpensive equipment without going through an IT design company



by purchasing directly from Amazon or other distributors without going through an SI, the cost can be reduced to as low as one-tenth (we can also introduce two alternative distributors besides Amazon)

additional Network design

if the physical ports are not limited to two in Virtual-Wire, there is a possibility that the user may cause an L2 loop.

to reduce this possibility to “zero”,
the physical ports are limited to two in Virtual-Wire.

It is also possible to block LAN ports by filling an RJ45 plug with plastic and use it to physically close unused ports.

operational Network design

in the event of an incident, the router and the line are directly connected using RJ45-JJ

Network design-002

our company reduced the client's network equipment from over 20 units down to just 2 (ROA/ROI), reducing power consumption and contributing to decarbonization



Network design-003-001

network design that contributes to decarbonization by reducing air travel costs.

Before

as the number of tenants increased, engineers had to travel by air for business trips



After

logged into the existing remote device via Internet VPN and added an SVI



Network design-003-002

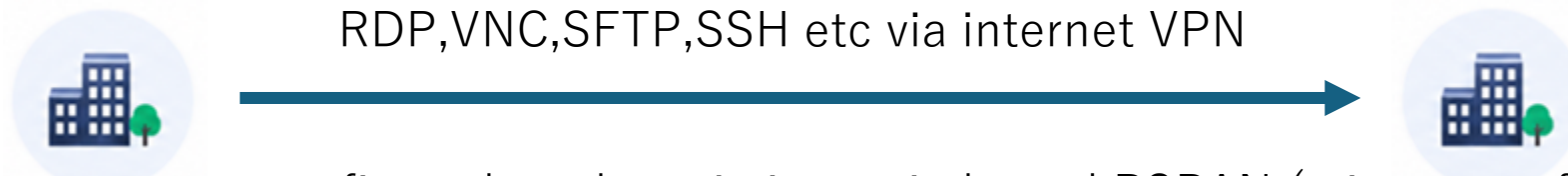
network design that contributes to decarbonization by reducing air travel costs.

Before

each time a packet capture was performed, engineers had to travel by air for business trips



After



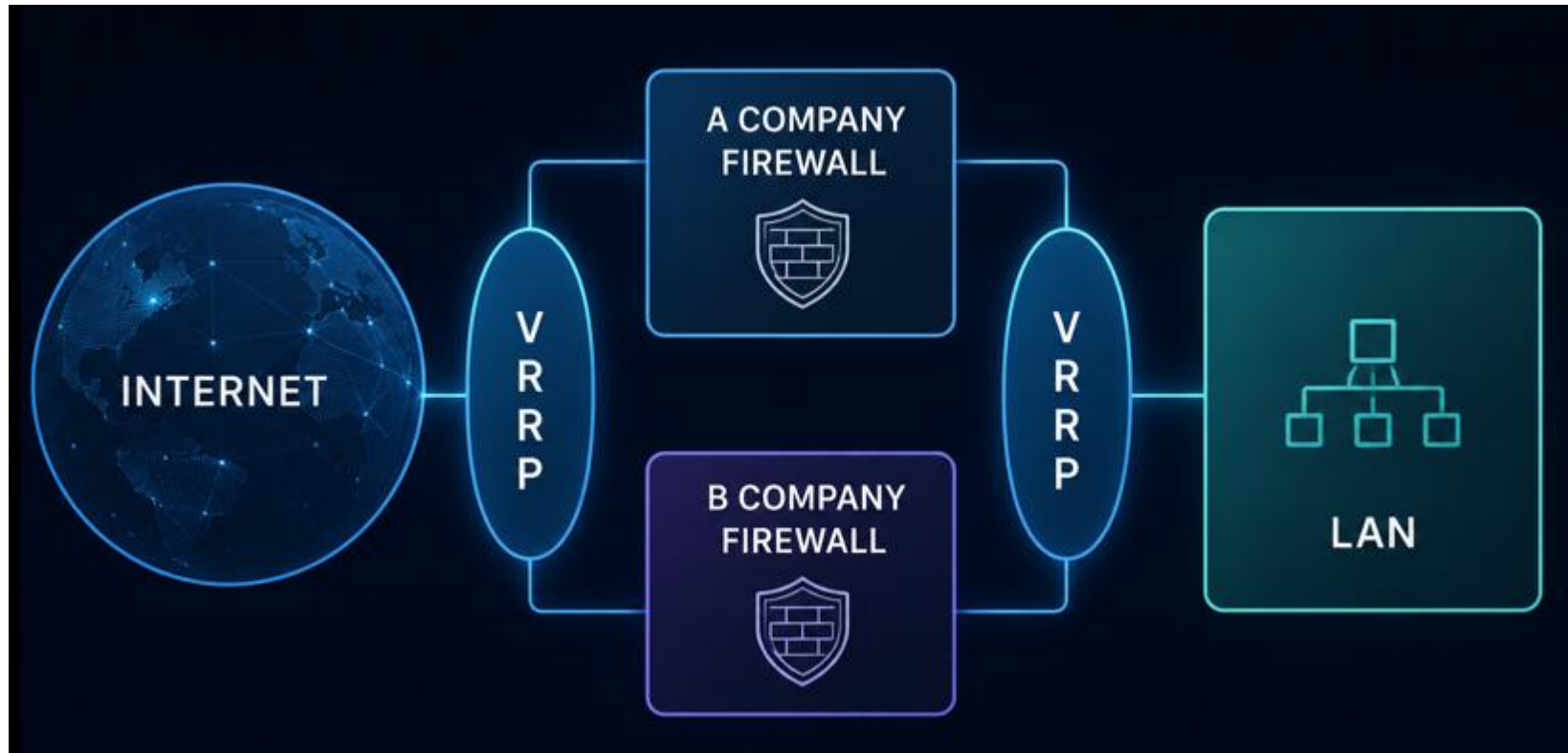
a mirror port was configured on the existing switch, and RSPAN (mirror port forwarding) was configured on the new switch.

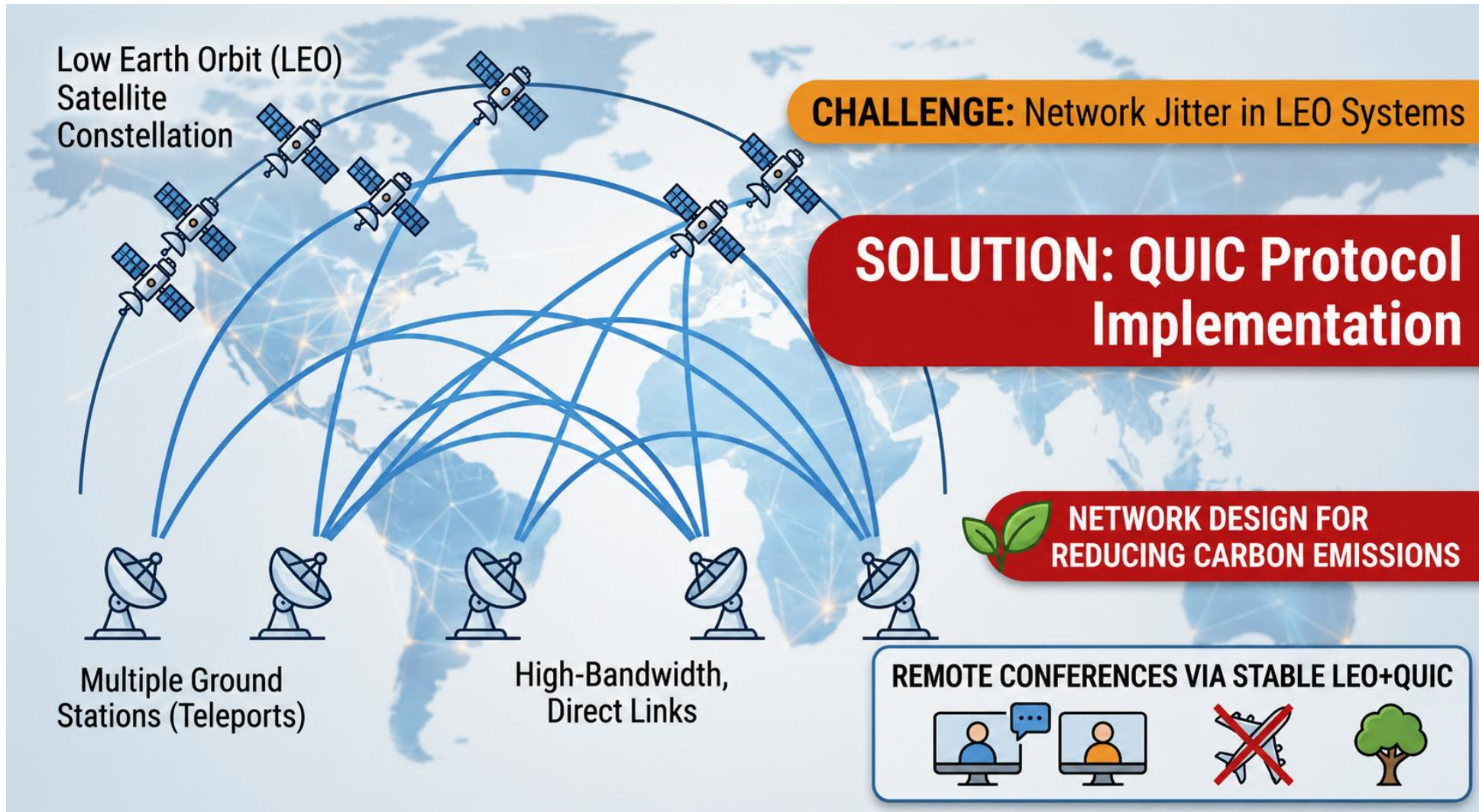
using a PC equipped with two NICs, packet capture and remote login were performed simultaneously

Network design-004

Cyber-Resilient Firewall Architecture with Sub-100 ms Failover for Vulnerability Response

- Implement a redundant firewall design utilizing different firewall operating systems and/or products from different vendors.
- While active TCP sessions are interrupted during failover, this architecture enables the fastest available workaround and significantly reduces exposure time following the disclosure of a critical vulnerability.





I have added the text "EVIDENCE IS ON THE NEXT PAGE"

Network design-004-002

StarLink and Terrestrial lines Evidence DataSet

```
Tera Term - [разъединено] VT
Файл  Операции  Настройка  Управление  Окно  Помощь
Switch## 1st Try - Starlink (Base State)
Switch#show ntp associations
  address      ref clock      st when poll reach  delay  offset  disp
*~210.173.160.27 133.243.236.17  2   7   64  17   24.1  -3.68  1880.3
* master (synced), # master (unsynced), + selected, - candidate, ~ configured

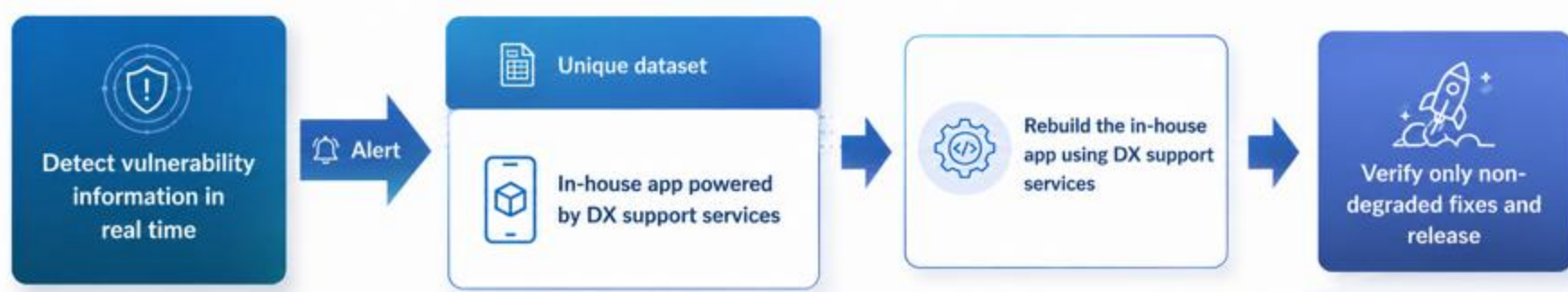
Switch## 2nd Try - terrestrial lines (Base State)
Switch#show ntp associations
  address      ref clock      st when poll reach  delay  offset  disp
*~210.173.160.27 133.243.236.17  2  20   64  37    5.1  -0.73   875.7
* master (synced), # master (unsynced), + selected, - candidate, ~ configured
Switch#
```

Starlink: 1880.3 → "Highly volatile waves (more than double the ground line)"
Fixed Line: 875.7 → "Trending towards stability"

Starlink: 24.1 → "Slower due to traveling through space"
Fixed Line: 5.1 → "Fast because it's a ground fiber optic line (approx. 5x faster)"

software design (in-house development by the customer through DX support services) - 001

real-time monitoring of vulnerability handling is performed only for software developed in-house by the client through the DX support service; alerts are issued immediately, enabling the client to perform recompilation themselves



proiectare software (software design (in-house development by the customer through DX support services) – 002

reducing the “success experience” given to aggressive generative AI

- software is not used for defensive random number generation



Software design-003 (Executive Network Monitoring Architecture)

network design that directly connects Syslog, traps, and management segments to executives, management staff, and administrative offices for monitoring

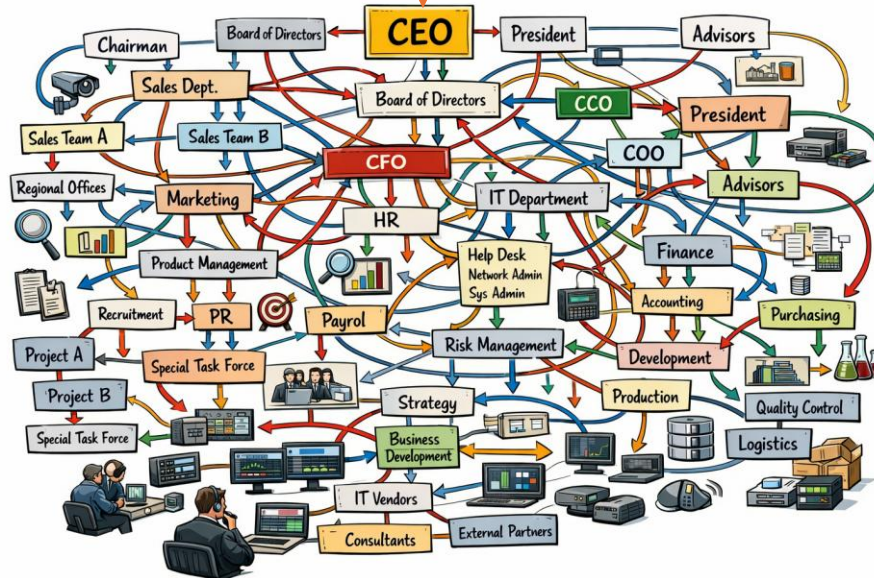
Executive Notification Policy

Device failure detected
Communication loss detected
No log received for a defined period
Notify source IP address only

Executive Secretariat

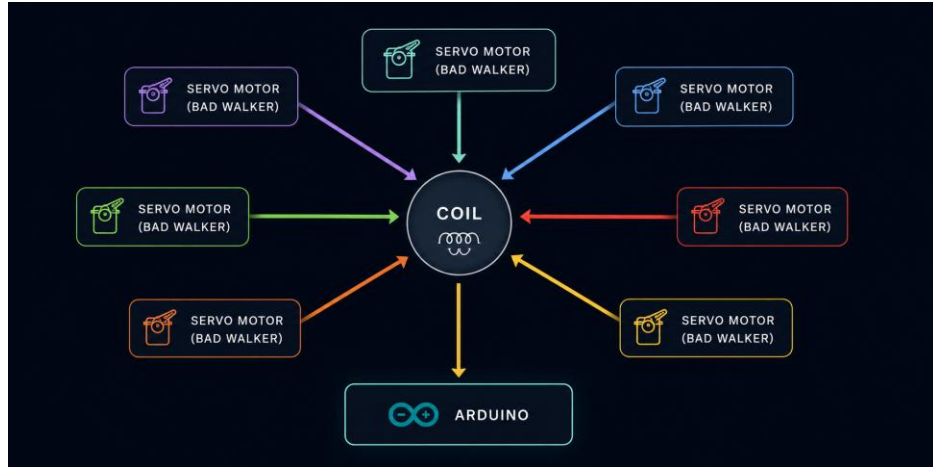


Existing route



Future Roadmap & Scalability-001

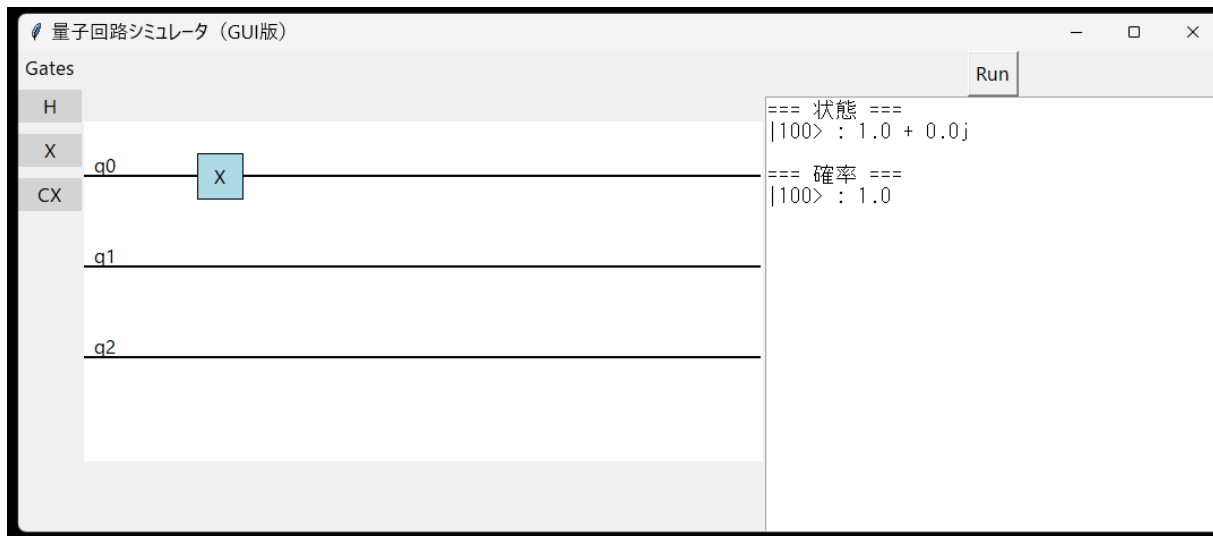
1. Below is an overview of the electronic circuitry designed to jam the successful probe experiences of offensive Generative AI.



*Components other than the servomotors are customized by users themselves on a breadboard, based on a modular-style approach.

*In reality, it functions as a classical analog noise generator. Candidate components for user replacement include DC motors, relays, piezoelectric elements, photodiodes, and reverse-biased Zener diodes.

2. The proprietary quantum computer simulator shown below (currently a prototype) is utilized for the software-level computations of the aforementioned electronic circuitry.



Future Roadmap & Scalability-002

Materials for EMP Shielding Barrier

Protect electronic circuits using clay or gypsum kneaded with oils/fats (oils/fats only, entirely moisture-free).

Mix aluminum oxide (alumina) powder and boron nitride (BN) powder into the clay.

Protect electronic circuits only. Since heavy-duty large motors are utilized, protection from electromagnetic waves is deemed unnecessary.

<https://g-i-t.jp/materials-for-emp-shielding-barrier/>

This concept was conceived on the morning of the submission date; therefore, only a textual description is available at this stage.

The necessary hardware has already been acquired, and I intend to publish photographs documenting the experimental validation process.