



EMP Shield Tech Lab Inc. / Yuya Ishikawa

Anti-EMP Electromagnetic Shielding Business

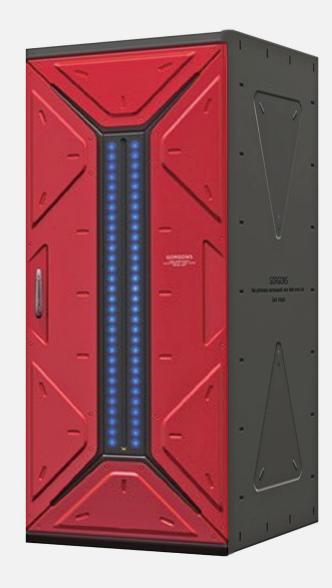




### PRODUCT INFORMATION

#### **GORGON2**

- Equipped with the world's most advanced electromagnetic shielding technology.
- Can be deployed on small servers.
- Designed to provide electromagnetic shielding for the entire server room.
- One unit can accommodate approximately 20 servers.
- Custom sizes are available to match the environment in which they will be installed.



### SHIELD TECHNOLOGY-COMPETITOR COMPARISON

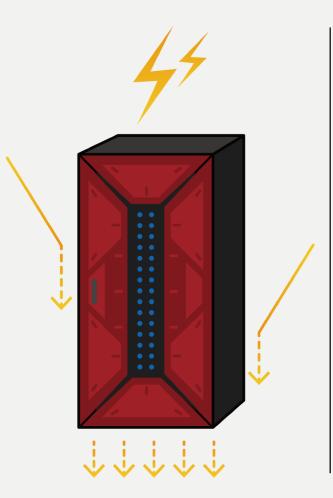
#### GORGON2

Acts as an antenna.

Strong against

low-frequency

electromagnetic



## Competitors' products

**Blocking** 

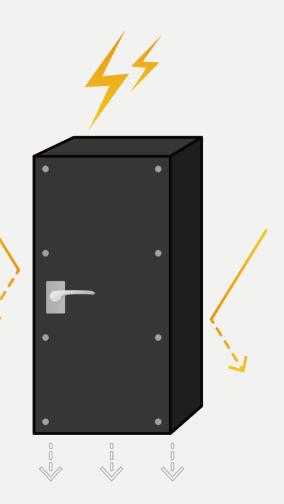
electromagnetic wave.

Depending on material.

Difficult against

low-frequency

electromagnetic wave.



### **COMPANY PROFILE**

**Company** Electromagnetic Shield Tech Laboratory Co., Ltd.

Address 7-20-6 Shinjuku, Shinjuku-ku, Tokyo

**CEO** Yuya Ishikawa

Technical Consultant Osamu Sugihara

Capital 19.9 million yen

Register date December 2008

### **TECHNICAL ADVISOR INTRODUCTION**

#### Introduction

Born in Hokkaido in 1959. Since 1995, he began evaluating, designing, and developing security software, and has obtained many international patents since 1998. He served as director of the Electromagnetic Shield Research Lab and is currently appointed as a technical advisor. He is a leading expert in cyber security and countermeasures against electromagnetic attacks, defenses, and electromagnetic waves.

#### **Patents**

- In 1998, Network Monitoring Software "MAAT" Patent No. 4220680
- Stealth Agent Patent No. 4406171
- In 2001, we developed the 4282913 patent for the electromagnetic wave shield rack "GORGONS".

#### **Activities and development achievements**

- Internal Information Leakage Prevention System (MAAT) adoption results; JDA,JMSDF,Ibaraki Pre-gov
- Internal Information Leakage Prevention System (Stealth Agent) Kanagawa University, Suruga Bank



### **Business Overview**

- Provision of server infrastructure services using electromagnetic shielding effective for anti-EMP countermeasures
- Server defense measures are needed as cloudization progresses rapidly
- It has already been introduced by the Ministry of Defense, etc., and its effectiveness has been proven

#### Patented for electromagnetic shielding

Patent No. 4282913 acquired in 2009 "Server Rack"

· Related patents related to the above will be filed soon (2021/12~)

#### **■** Implementation (GORGON&GORGON2)



**JMSDF** 



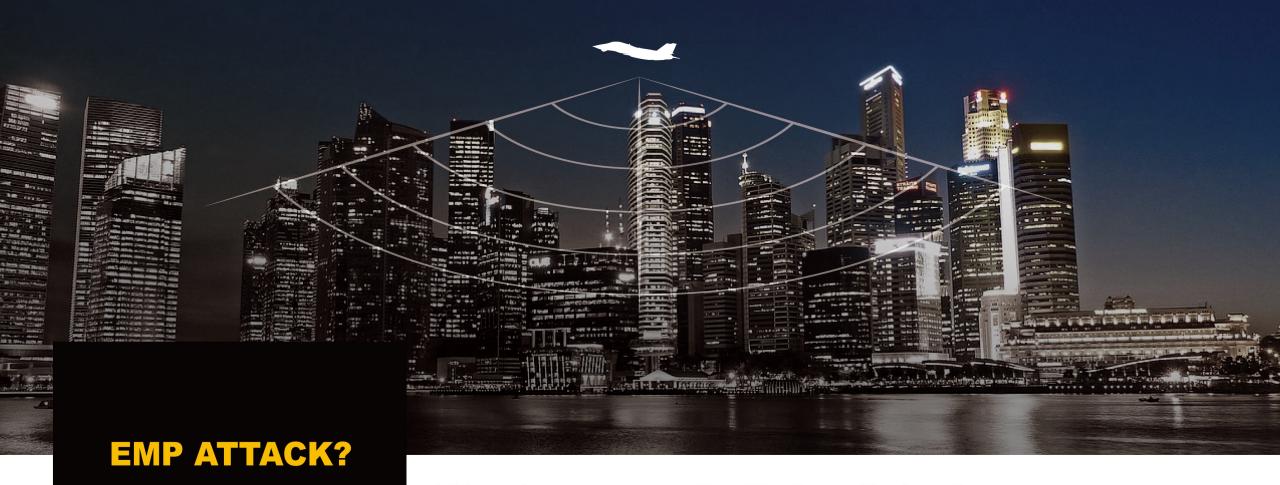
MIC



South Korean Army



**NTT West** 

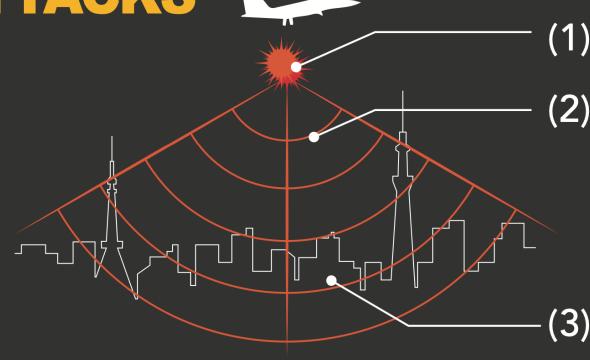


#### **Electromagnetic Pulse Attack**

An EMP attack (Electromagnetic Pulse Attack) is a physical attack that makes any electronic product in the area irrevocable by powerful electromagnetic waves. It is said that infrastructure will be degenerate for a century, and in recent years, there has been a rapidly growing sense of caution, especially in developed countries.

**DETAILS OF EMP ATTACKS** 

EMP attacks short out and irreparably destroy servers, devices, and other electronic devices which is above and under ground by generating instantaneously powerful electromagnetic waves by means such as nuclear explosions at high altitudes (30 km to several hundreds km).

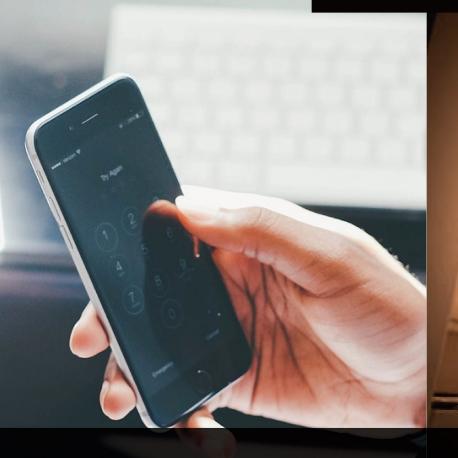


1. EMP BOMB etc.

Instantly generates powerful electromagnetic waves

3.
server down
Destruction of electronic
equipment

# EXPECTED DAMAGE



All urban infrastructures heavily depend on electrical equipment.

There are large-scale and local attacks.

Onlydestroys electronic devices. No to human.



EMP attacks are physical attacks on the electronic products.

Cyberattacks are online attacks not physically.

# Compared to cyberattacks, EMP attacks are more lossy and damaging

**EMP attack / Solar Flares** 

Cyber attack

**Attack Object** 

All electronic devices in the target area

Data and systems on the server

**Attack methods** 

Overcurrent due to instantaneously releasing powerful electromagnetic waves

Unauthorized access to the system

Recovery period

Irreparable

Days ~ several years

### EFFECTS OF SOLAR FLARES

Natural disasters 2025

Superflares coming Damages estimates trillions of dollars

### Electromagnetic Pulse Attack

In the Worst case. For several weeks.

All electric and digital devices become unusable. Anywhere on earth.

### PARTNER

Sales agent

#### Manufacture and sale of GORGON

**XUAE**, Middle East and Africa have agency agreements in place

**JV Recruitment** 

Joint Venture recruitment

Sales reasoning

**Exclusive/Non-exclusive**