



# Securing Smart Infrastructure



[www.fend.tech](http://www.fend.tech)

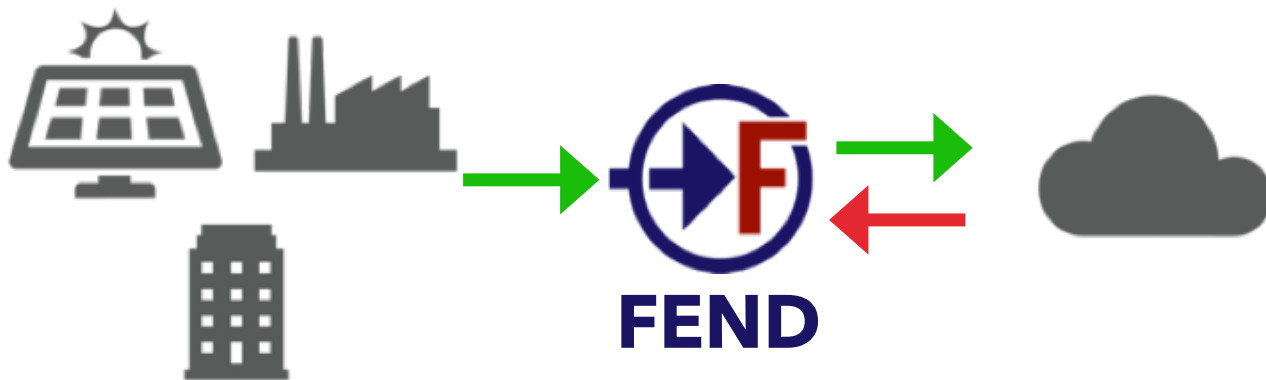
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# Solution

Fend physically protects critical infrastructure from cyberattack.



  
Business  
Interruption

  
Efficiency

  
Productivity



# Critical Systems Need Long-Lasting Defense



**Firewalls**



**Software**

# Fend Securely Delivers Data and Actionable Intelligence



Data Diode Hardware



Secure Data Transport

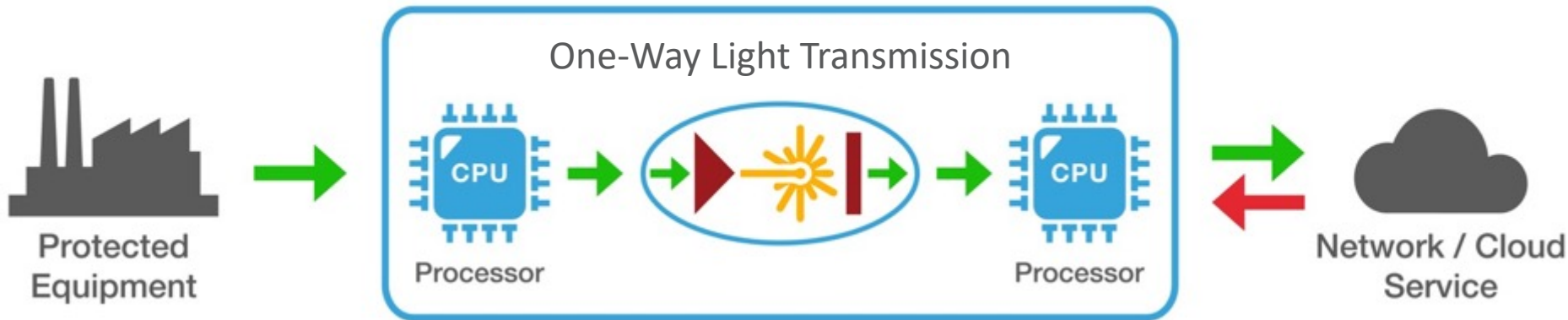


Monitoring and Analytics





# Fend's Data Diodes: Physical Data Transfer



## Fend's Patented Industrial Data Diode

- Physically-enforced protection
- 1/10 the cost of incumbent solutions
- Designed and made in the USA by US Citizens
- Designed for industrial applications
- No additional servers needed
- Easy installation and multiple protocol support
- Connections for new and legacy systems
- Connect directly to the cloud: hardwired or cellular



# Use Case Examples

## Markets and Examples:

### Critical Infrastructure



Water Treatment



### Public Sector



### Commercial



Manufacturing  
Controls



Smart Buildings



# Tested: Safety and Security

## Safety and Compliance



## Penetration / Cyber Testing





# Additional Security Features



## Full Optical Isolation

Physically enforced one-way data flow prevents any malicious code from reaching the protected equipment or network. Fend's diodes use full optical isolation that allows data out and nothing in.



## Separate Power Supplies

Full electrical isolation between input and output sides of the diode prevents side-channel attacks over power lines.



## Onboard Encryption

Fend isolates the protected system and encrypts the information in transit for end-to-end data protection.



## Designed for Industrial Environments

Wide temperature range, vibration resistant components, and other elements allow Fend's diodes to live alongside the equipment they protect.



## Battery Backup and Low Power Consumption

Provides continued insight during power outages or in environments with unstable electric power.



## Multiple Connection Options

Bring legacy or new equipment into the cloud or a remote SCADA system via hard-wired or wireless communication.



## Active and Passive Tamper Resistance

Protects against physical interference.



## Secure Mounting

Install your diode almost anywhere with flush mount and DIN rail options.



# Applications: Secure Data Transmission

DoD Site

ICS or  
Network



Data Extraction

LTE  
or  
Local  
Ethernet



Data Collection

API

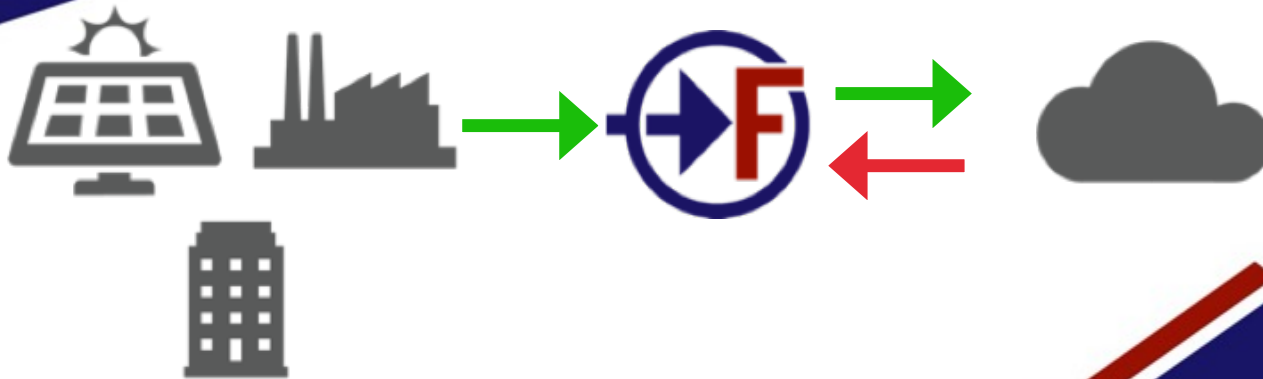
Government-  
Approved  
Analytics  
Provider

Data Analysis





# Thank You



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Cage: 8LQS4  
SBIR Awardee

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