



EtherGap™ V 4.0 (US Patent # 11425102)

Air Gap Controller with Data Bus Isolation and Out of Band Control Signaling

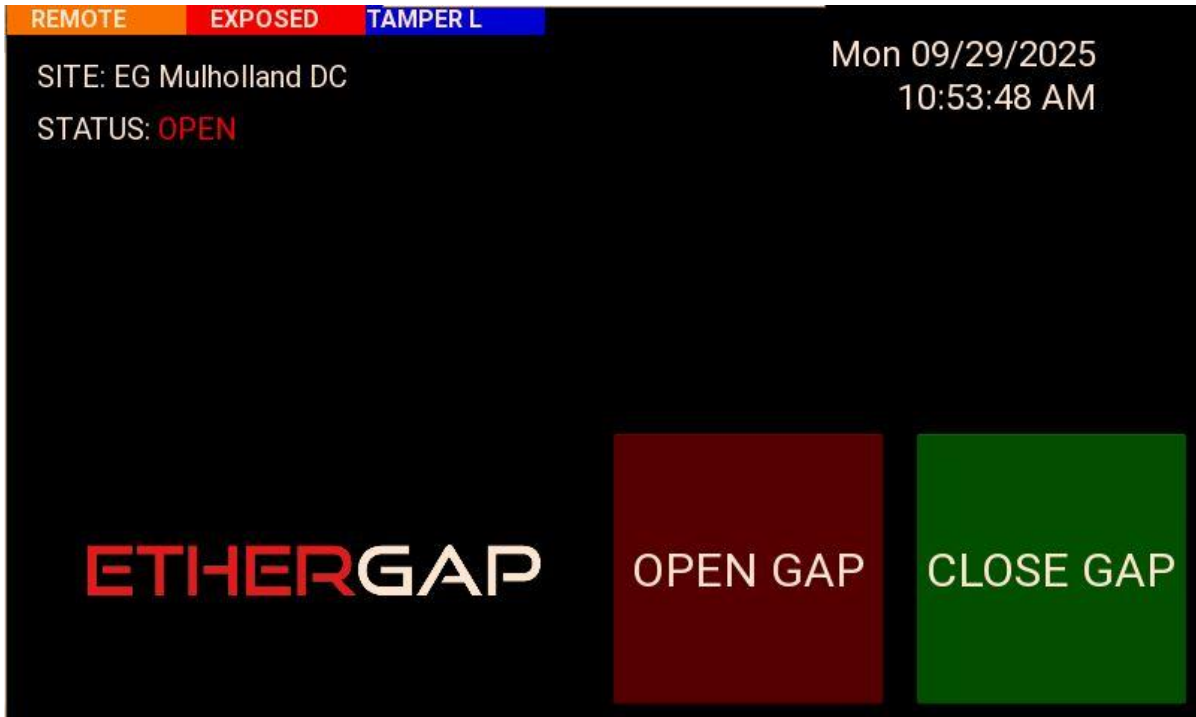
Product Features Overview

- Automated operation via scheduler interface. Pre-schedule any number of one-time or recurring air gap open/close events.
- Lockdown capability to prevent unauthorized access or operation.
- Front panel 5" touch screen allows for easy, instant operation at the device.
- Gigabit Ethernet port for separate administrative network. Remote access over dedicated admin network via VNC allows console access for any number of EtherGap devices from one console system.
- Gigabit Ethernet ports for Common, Normally Connected, and Normally Disconnected segments. Even with full power loss, the default states are preserved.
- 3 USB ports for accessories (keyboard, mouse, etc.) or USB flash updates to system. (included for lifetime – no risk from downloaded attack)
- HDMI port and USB ports for dedicated console KVM access.
- Built on the Debian Linux operating system.
- Automated logging of all activity allows easy auditing and security maintenance as well as auditable compliance logs for regulated industries.
- Blockchain secured logging using SHA-256 cryptographic hashes (patent pending). Logs cannot be altered, replaced or deleted without triggering a tamper alert.
- Optional integrated UPS power system provides backup power for over 20 hours
- Lifetime Full Warranty. Made in the USA.

Screen Images:

Main Screen with current date and time, deployment site location, touch operation buttons.

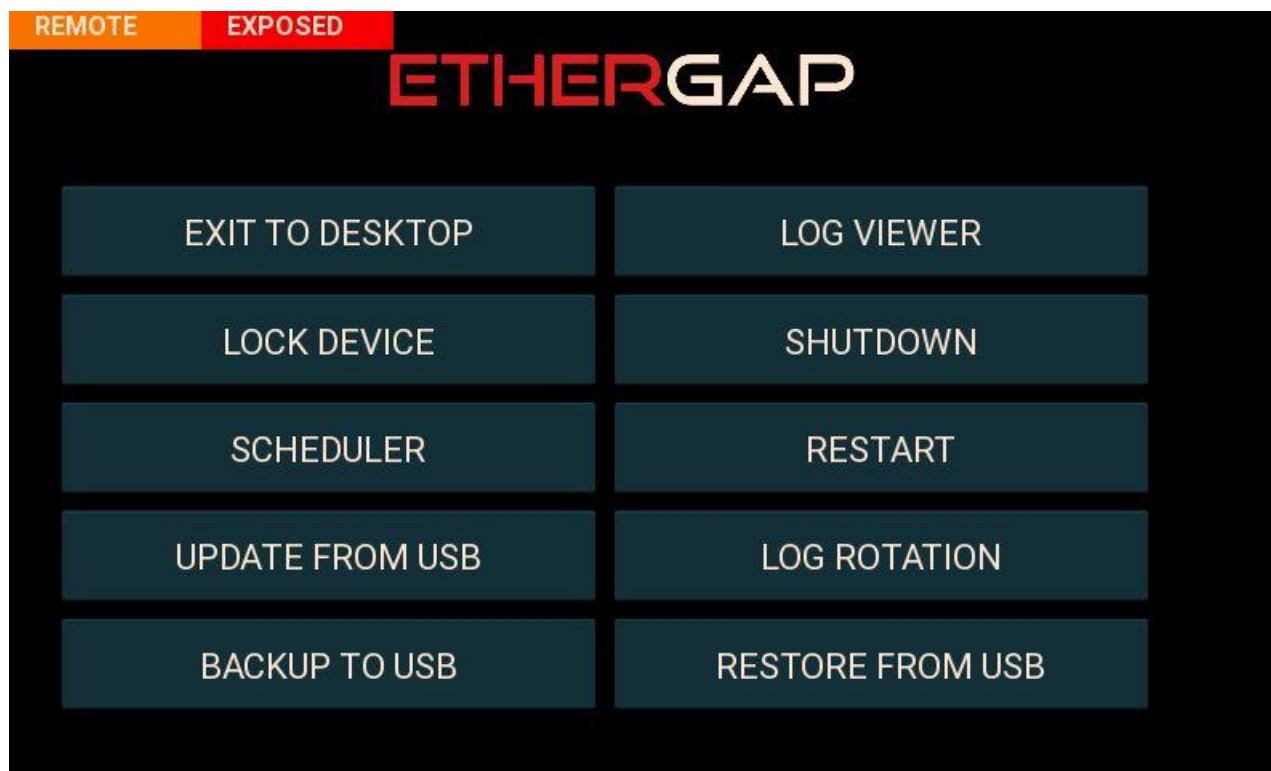
Display indicators indicate 1) Remote access active 2) Admin interface exposed to WAN3) Log file has been tampered. (Tamper A would indicate archived logs tampered)



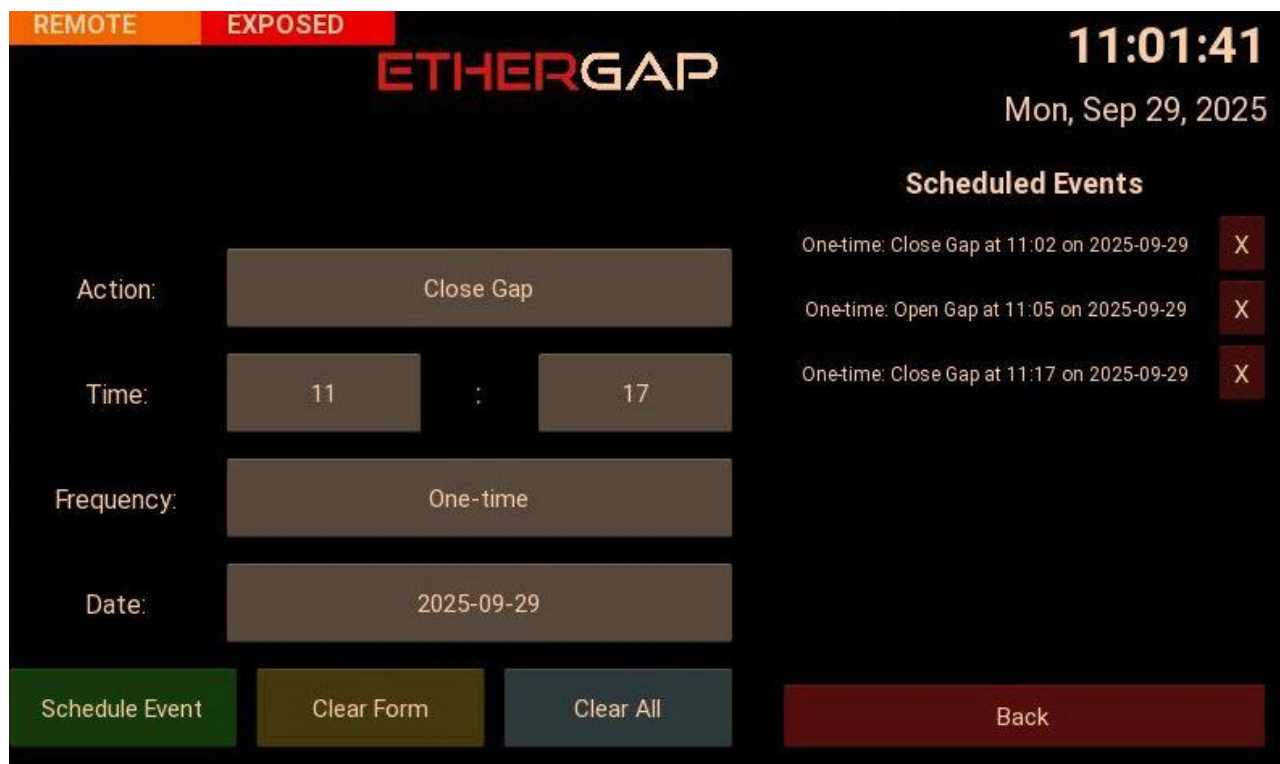
Lock screen keeping system entirely inaccessible until PIN is entered.



Main Menu screen.



Scheduler screen. Any number of one-time or recurring events can be scheduled from here. One-time events disappear after execution while recurring events stay in the displayed list. All scheduling additions/removals and events are logged.



Log viewer screen. Critical and important events appear in red or yellow respectively. Events returning to normal after Critical or important are green when they resume normal status. Security hashes are hidden in this view.

EtherGap: Scheduler event 0: One-time: Open Gap at 11:39 on 2025-09-25 - datetime parsed successfully at Mon Sep 29 11:00:22 AM PST 2025
EtherGap: Scheduler loaded 1 total events at Mon Sep 29 11:00:22 AM PST 2025
EtherGap: Scheduler update_events_list: removed 1 past events at Mon Sep 29 11:00:22 AM PST 2025
EtherGap: Scheduler update_events_list: displaying 0 events at Mon Sep 29 11:00:22 AM PST 2025
EtherGap: POTENTIAL COMPROMISE via ETH0 at Mon Sep 29 11:01:06 AM PST 2025
EtherGap: Scheduler validation failed: Cannot schedule event in the past! Selected: 2025-09-29 11:01, Current: 2025-09-29 11:01 at Mon Sep 29 11:01:13 AM PST 2025
EtherGap: Scheduler event added: One-time: Close Gap at 11:02 on 2025-09-29 (Job ID: 111) at Mon Sep 29 11:01:18 AM PST 2025
EtherGap: Scheduler update_events_list: displaying 1 events at Mon Sep 29 11:01:18 AM PST 2025
EtherGap: Scheduler attempting to save 1 events at Mon Sep 29 11:01:18 AM PST 2025
EtherGap: Scheduler save: event 0 processed - One-time: Close Gap at 11:02 on 2025-09-29 at Mon Sep 29 11:01:18 AM PST 2025
EtherGap: Scheduler successfully saved 1 events to file at Mon Sep 29 11:01:18 AM PST 2025

SHOW HASHES

RELOAD

BACK

In this view, hashes are visible. Each hash is calculated using the current log entry, system info and the previous entry's hash. A Genesis entry is created for the first log line using system specific data and a secret key held by EtherGap.

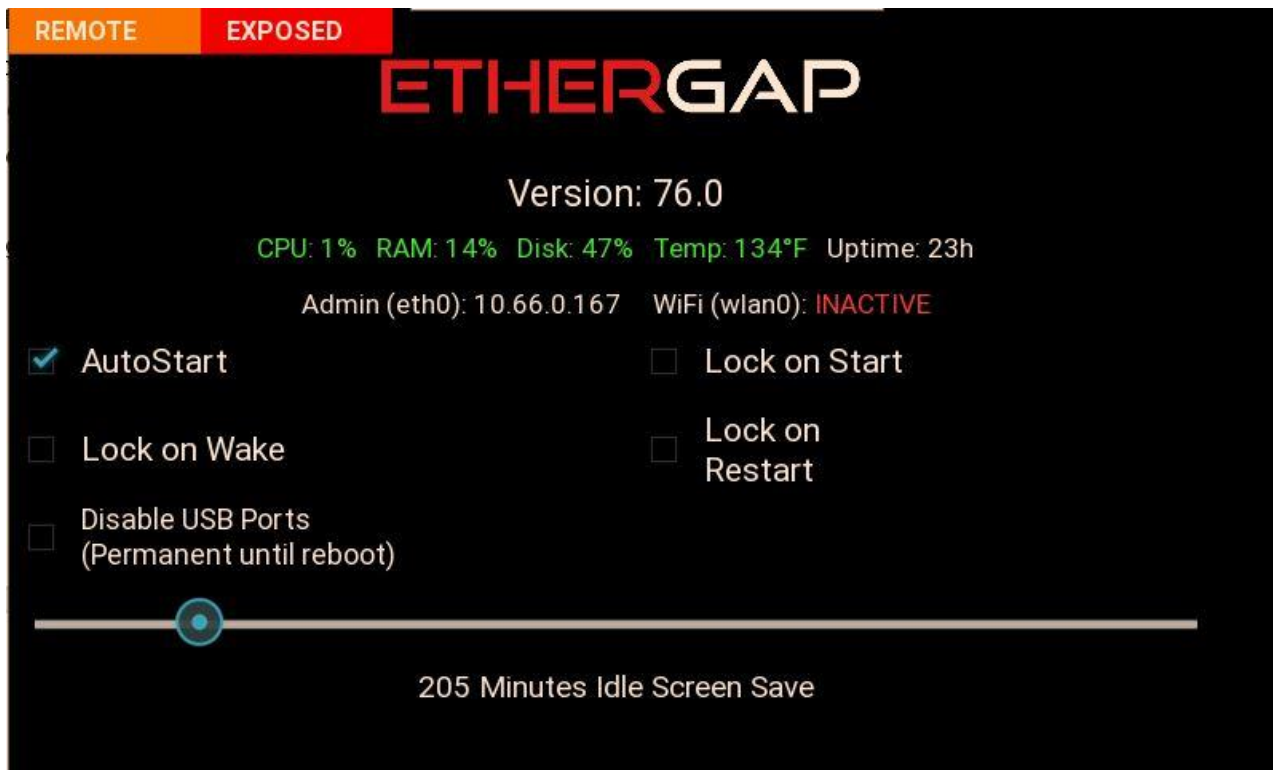
EtherGap: Scheduler update_events_list: removed 1 past events at Mon Sep 29 11:00:22 AM PST 2025
| HASH: 8d6a548dcf55c0e885593b0d6768fa9892f5ff36d711fda01b25546298eaf6cb
EtherGap: Scheduler update_events_list: displaying 0 events at Mon Sep 29 11:00:22 AM PST 2025
| HASH: d0f580fbc1fae6d684233720e73647ab81bdbe3bc462cba81efe0d44a874968b
EtherGap: POTENTIAL COMPROMISE via ETH0 at Mon Sep 29 11:01:06 AM PST 2025
| HASH: 0bbfca11b8db321068f3bac958896f70f960684e697532febff210dcde33bfd9
EtherGap: Scheduler validation failed: Cannot schedule event in the past! Selected: 2025-09-29 11:01, Current: 2025-09-29 11:01 at Mon Sep 29 11:01:13 AM PST 2025
| HASH: 538a7f23fa7638b58f35442bf51f4664d3ac287a3e2b1e4ea7ae4e6cb69fbadb
EtherGap: Scheduler event added: One-time: Close Gap at 11:02 on 2025-09-29 (Job ID: 111) at Mon Sep 29 11:01:18 AM PST 2025
| HASH: 23652f347bd5a0b90c49175092cd1a37288ff3cf0e963793202bebc5ed925a11
EtherGap: Scheduler update_events_list: displaying 1 events at Mon Sep 29 11:01:18 AM PST 2025
| HASH: 0335e95da763c4c636f88f323043b54657212f4a8ad7a2bc7075726c32e17474
EtherGap: Scheduler attempting to save 1 events at Mon Sep 29 11:01:18 AM PST 2025

HIDE HASHES

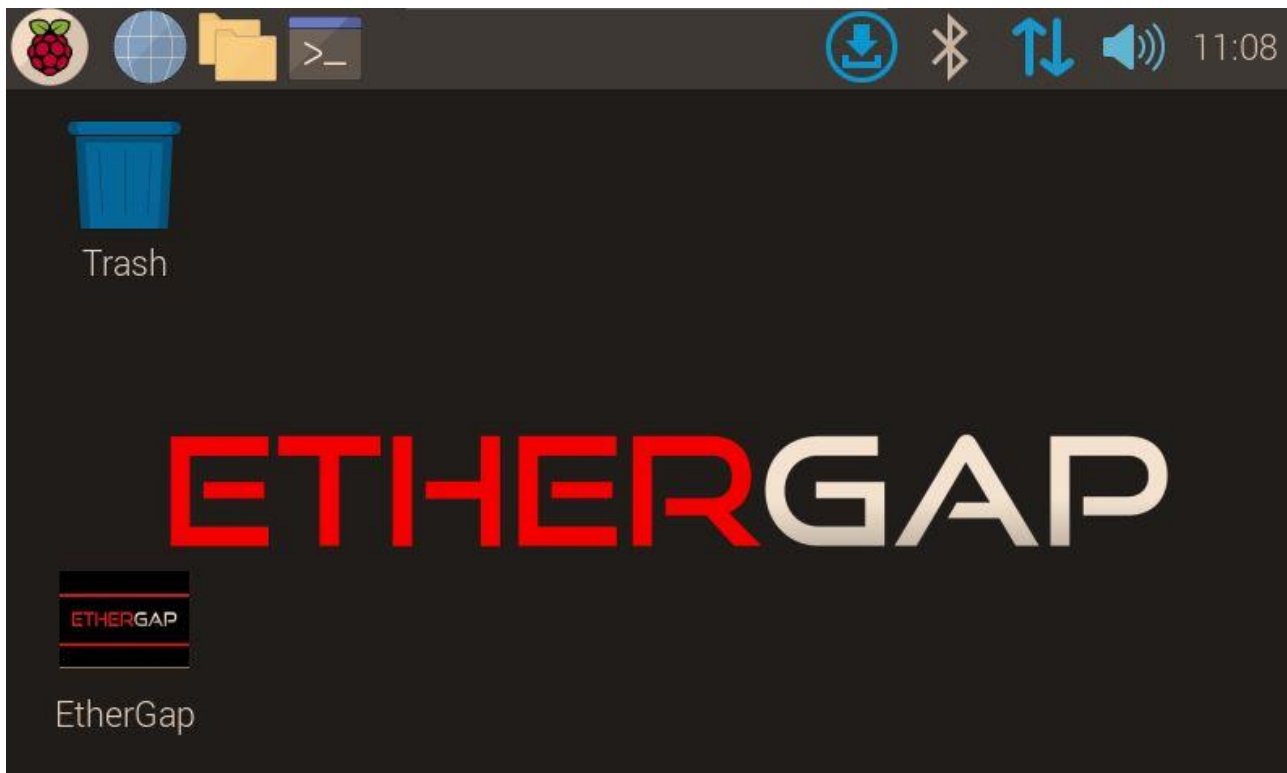
RELOAD

BACK

System status screen. CPU, RAM, Disk, and Temperature are continuously monitored and will alert if any reach warning or critical levels. Current administrative interfaces are monitored for connection/address. Various system characteristics can be set or adjusted here.



Linux Desktop. Experienced users can exit the EtherGap interface and access familiar Linux functions if desired. Daemon process run continuously to continue monitoring air gap status, log integrity, etc.



Specifications:

19" Rackmount or tabletop

2u rack height with 6" depth

Power: 5.1V DC at 5.0 A USB-C

Internal UPS option – full power for over 20 hours.



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