AQUILA - Host Isolation Exception

Overview

Host isolation exceptions (also called endpoint isolation exclusions) are configurable rules in Endpoint Detection and Response (EDR) systems—such as Elastic Security, Microsoft Defender for Endpoint, or Cortex XDR—that allow specific IP addresses, processes, services, or endpoints to bypass network isolation restrictions. While full isolation blocks nearly all inbound and outbound traffic to quarantine a potentially compromised host, exceptions carve out secure "whitelists" for essential communications. This ensures critical functions like remote remediation, security telemetry, or business tools (e.g., Microsoft Teams or Outlook) remain operational without fully severing the device from the network. Exceptions must be defined cautiously, as they create controlled openings in an otherwise locked-down state.

These features are implemented via policy-based rules in EDR consoles, often supporting wildcards for flexibility (e.g., allowing all processes to reach a specific management IP). They complement host isolation by balancing security with usability, particularly in regulated environments like PCI DSS where partial connectivity is needed for compliance or operations.

Prerequisites

- Administrator permissions

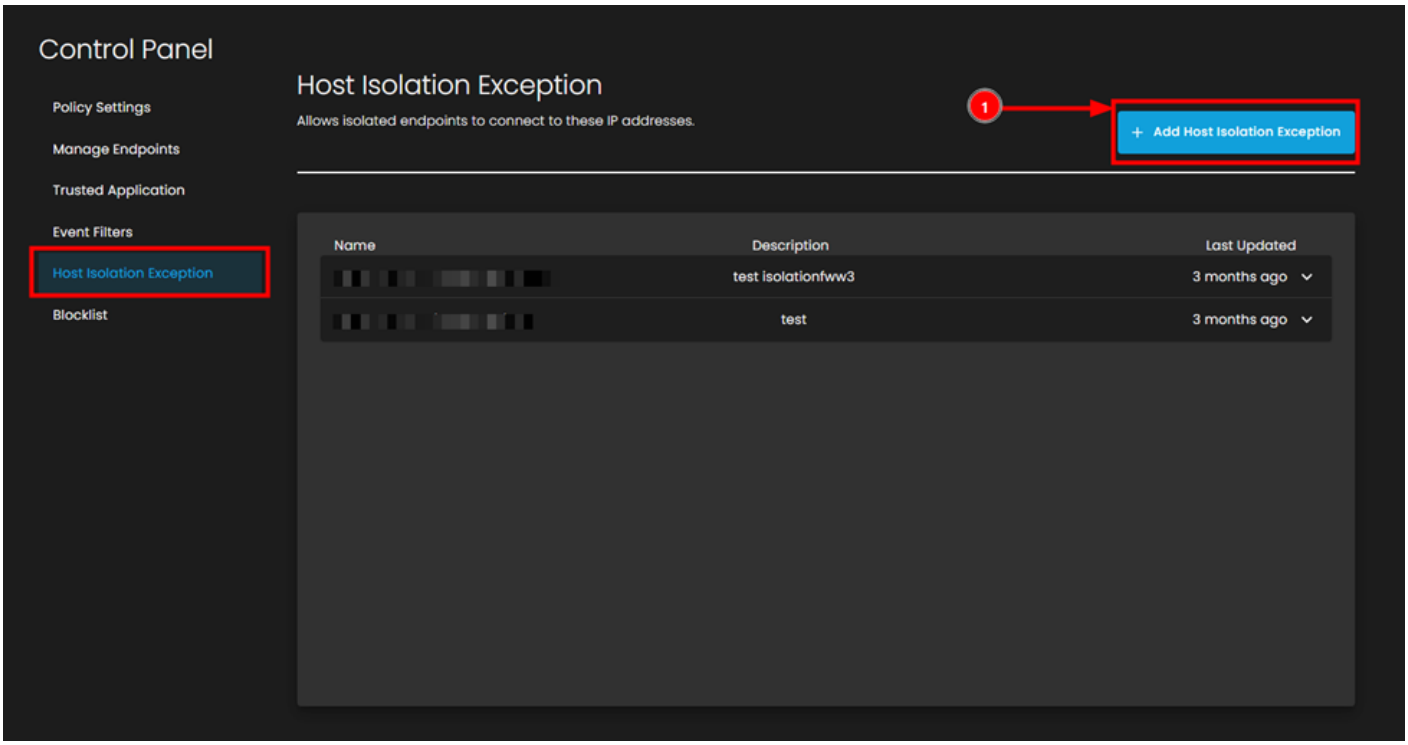
Step By Step Guide

1. Navigate to Endpoint Management

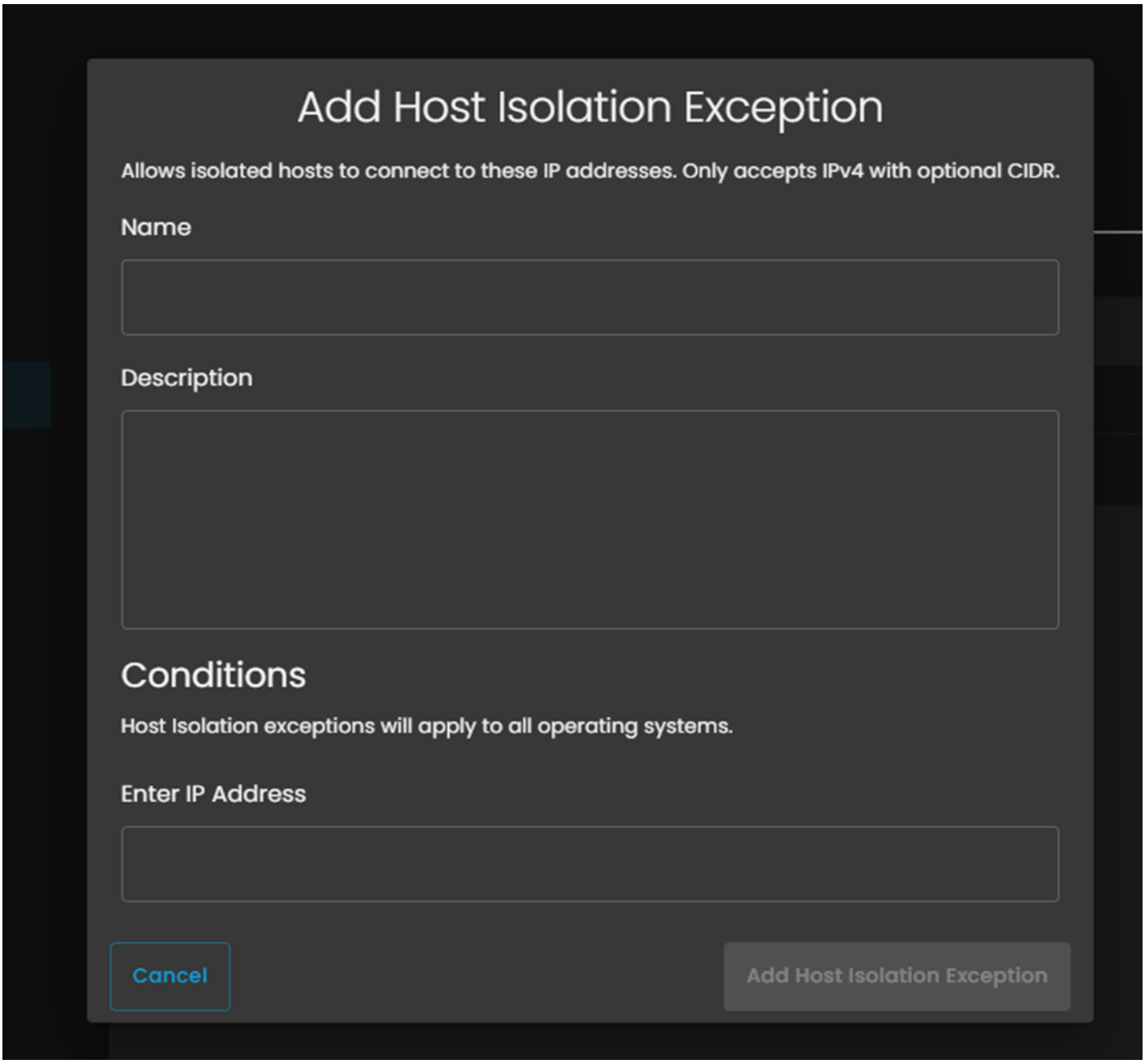
2. Configure Host Isolation Exception

To allow isolated endpoints to connect to specific IP addresses:

In the Control Panel left sidebar, under **Event Filters**, click on **Host Isolation Exception**



1. Click the **+ Add Host Isolation Exception** button (top right, blue button)
2. In the "**Add Host Isolation Exception**" dialog box, fill in the following fields:



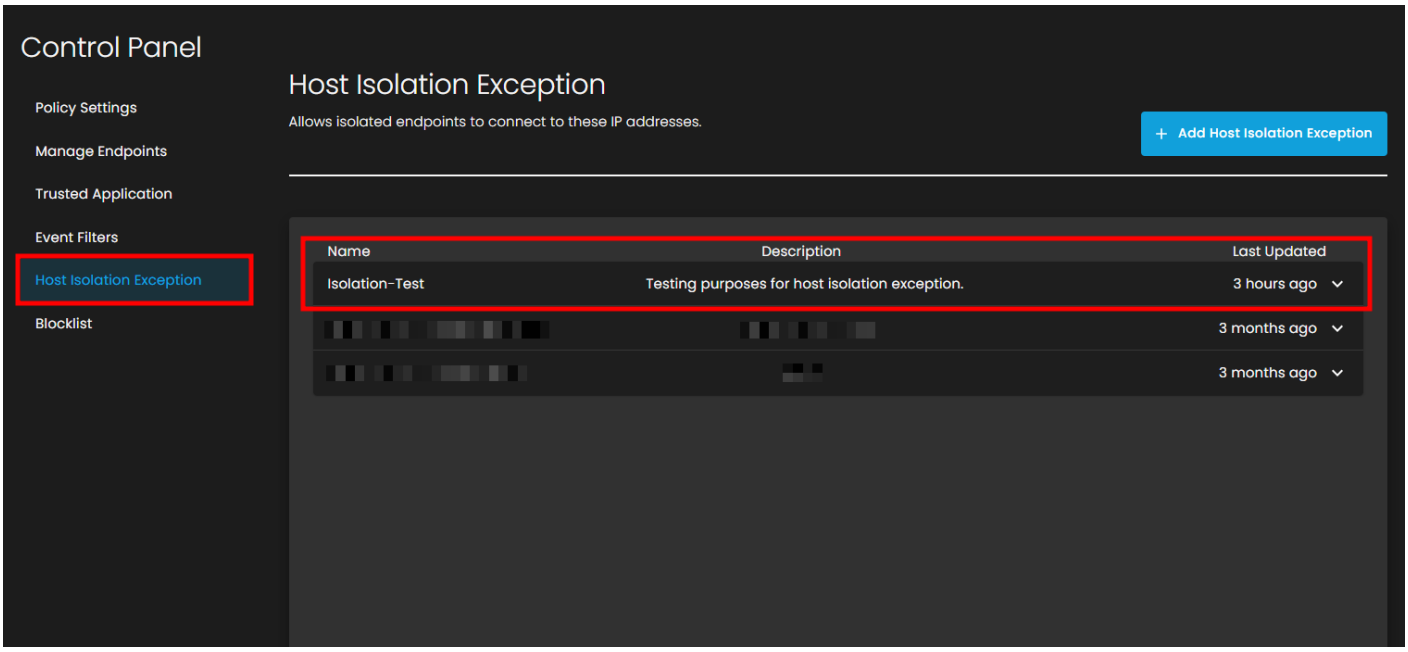
3. **Enter IP Address:**
    - Enter the IPv4 address you want to whitelist
    - You can only enter one IP address per exception

4. Click the **Add Host Isolation Exception** button to save

3. Verify the Exception is Active

5. Return to the Host Isolation Exception page

6. Verify your newly created exception appears in the list



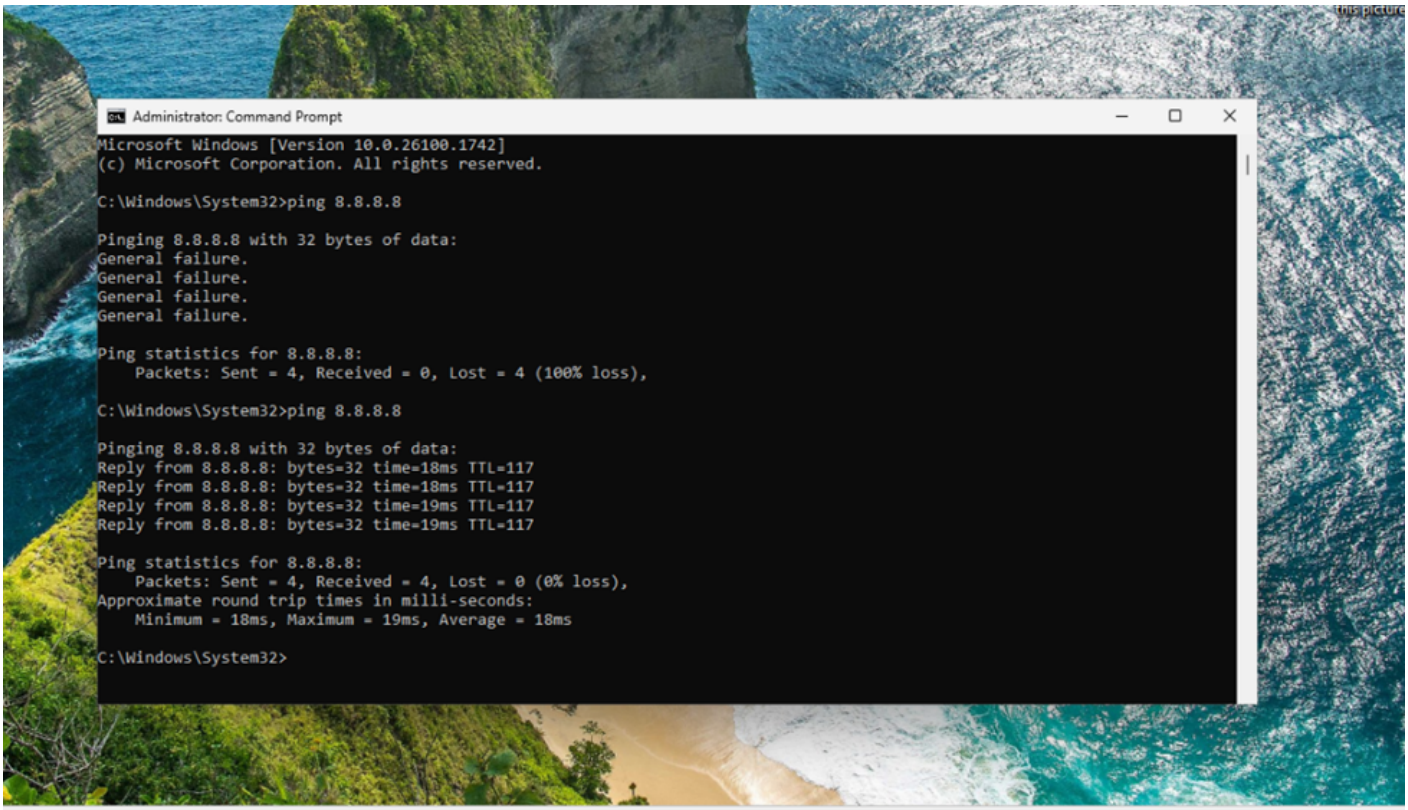
4. Test the Exception

To confirm the exception is working:

7. Return to the isolated endpoint

8. Open Command Prompt

9. Test connectivity to the whitelisted IP address:



10. You should now see successful replies:

- Reply from 8.8.8.8: bytes=32 time=18ms TTL=117

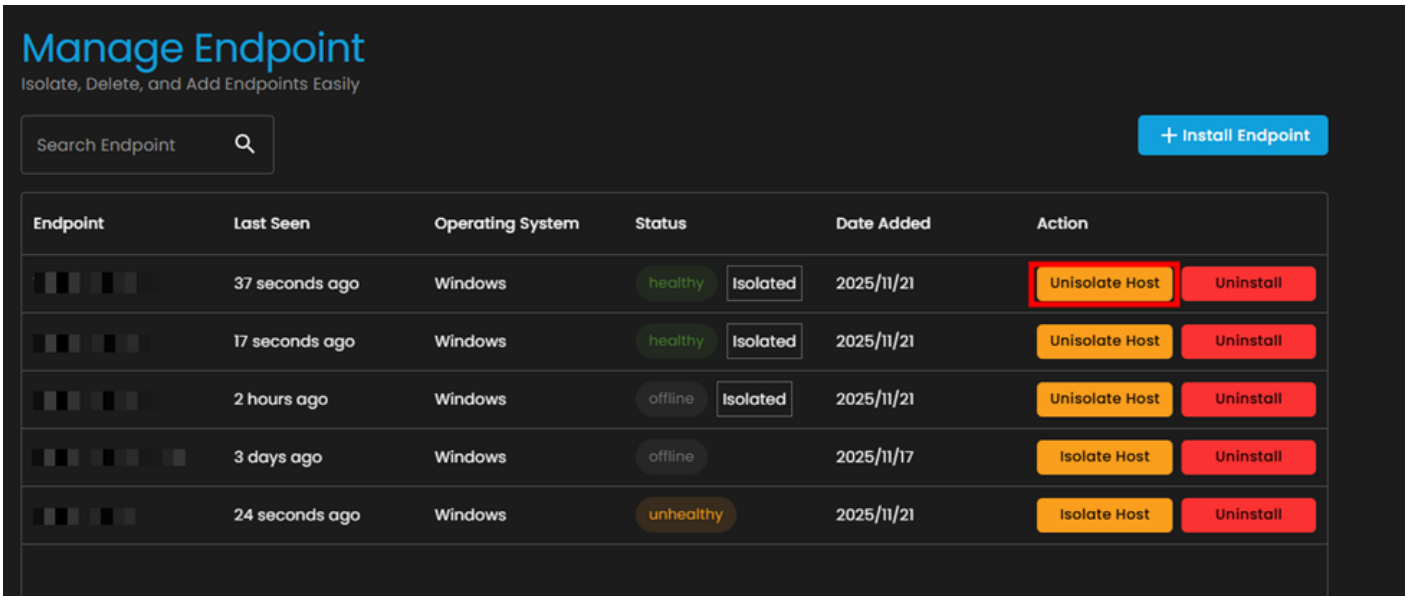
11. Ping statistics should show **0% loss** with round trip times

This confirms that the isolated endpoint can now communicate with the specified IP address.

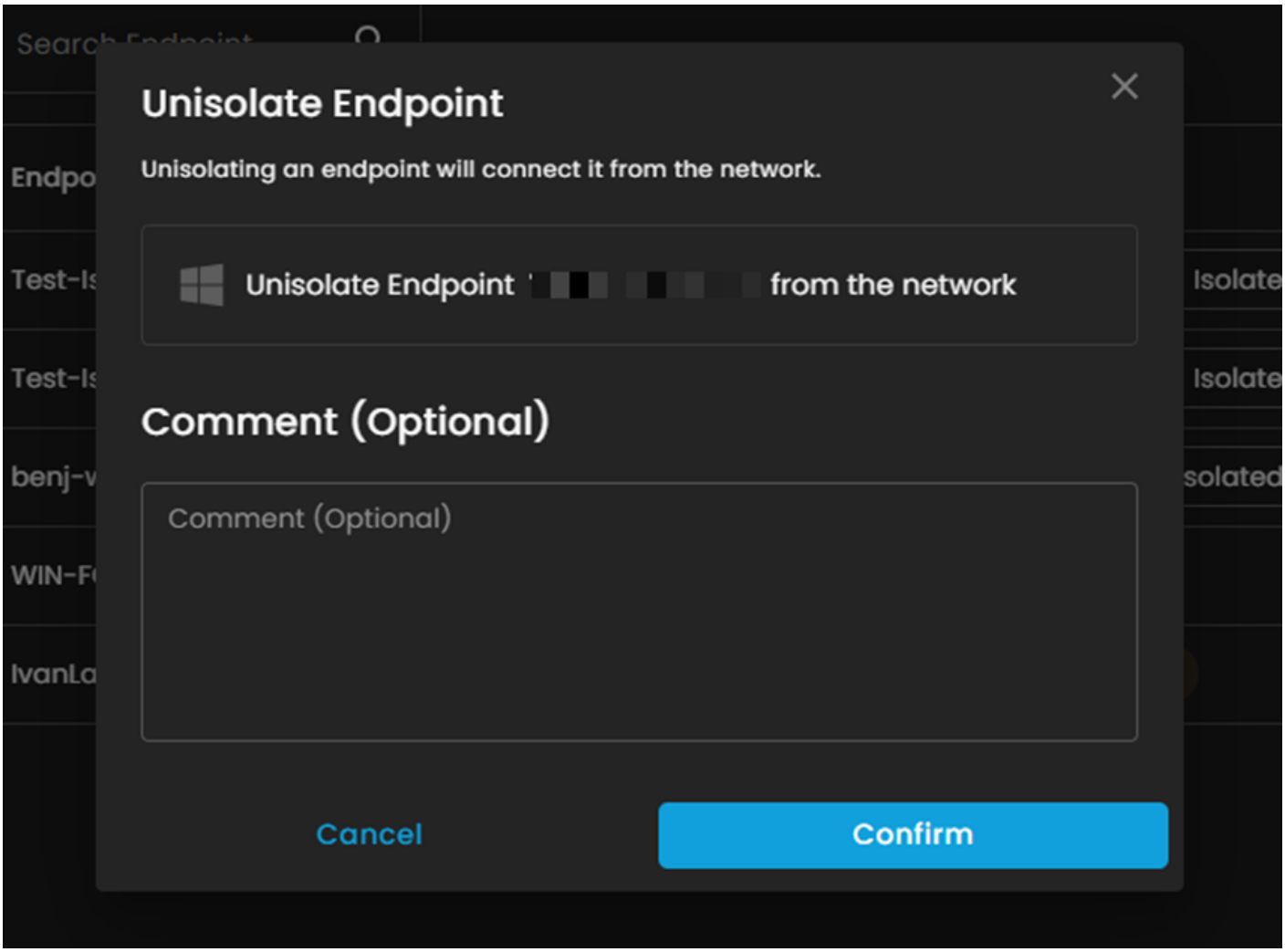
5. Unisolate an Endpoint.

- When you need to restore full network connectivity:

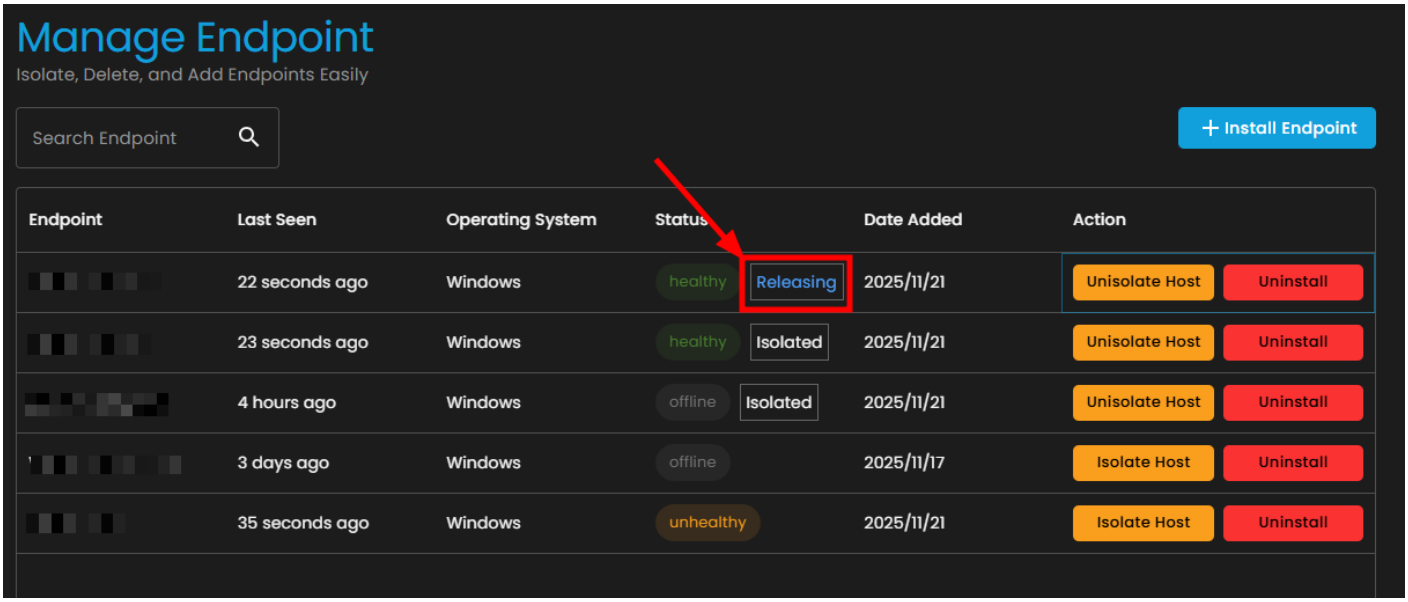
12. Navigate back to **Manage Endpoints**
13. Locate the isolated endpoint (Status: **Isolated)**



14. Click the **Unisolate Host** button
15. In the "**Unisolate Endpoint**" dialog box:



- Click **confirm**.
- After that it will load while releasing



After refreshing, the endpoint action will go back to Isolate Host after releasing, meaning, the **Unisolate** is done.

Pros and Cons

Aspect	Pros	Cons
Operational Continuity	Enables essential tools (e.g., email, collaboration apps like Teams) to function during isolation, minimizing downtime and user disruption. Supports remote management without physical access.	Overly broad exceptions can inadvertently allow threat persistence or lateral movement, undermining isolation's core purpose.
Security Effectiveness	Maintains secure channels for EDR telemetry and remediation (e.g., to Cortex XDR or Defender agents), ensuring ongoing monitoring and response without full blackout.	Increases vulnerability if exceptions target untrusted IPs or processes; attackers could exploit misconfigurations to bypass controls.
Flexibility & Scalability	Customizable rules (e.g., by IP, process path, or service) adapt to diverse environments, with wildcards for efficient management across large fleets. Reduces false positives in automated isolation.	Prone to human error in rule creation—e.g., typos in paths or IPs—leading to ineffective exclusions or security gaps; requires rigorous auditing.
Compliance & Response Efficiency	Facilitates adherence to standards like PCI DSS by allowing controlled access (e.g., to secure VLANs), while speeding up incident resolution through partial connectivity.	Adds complexity to incident response workflows; poor management can create a false sense of security or alert fatigue from repeated testing.
Resource Impact	Low overhead when narrowly defined; preserves productivity for non-critical functions without needing full network recovery.	Potential performance hit from constant rule evaluation; in high-volume environments, unoptimized exceptions can strain endpoint resources.

Conclusion

In essence, host isolation exceptions are a vital refinement for real-world deployment, promoting a "secure by design" approach that avoids the pitfalls of rigid isolation. However, their success hinges on least-privilege principles: limit to verified, high-trust endpoints and integrate with automated validation tools. For implementation guidance in tools like Microsoft Defender, best practices emphasize starting with defaults (e.g., excluding only EDR agents) and layering in business needs via testing.

Revision #4
Created 24 November 2025 09:21:57
Updated 24 November 2025 10:58:27