

ASI Covenant — Technical Appendix (Phase 1)

Appendix Section B — Decoupling Protocol (Human Takeover Infrastructure)

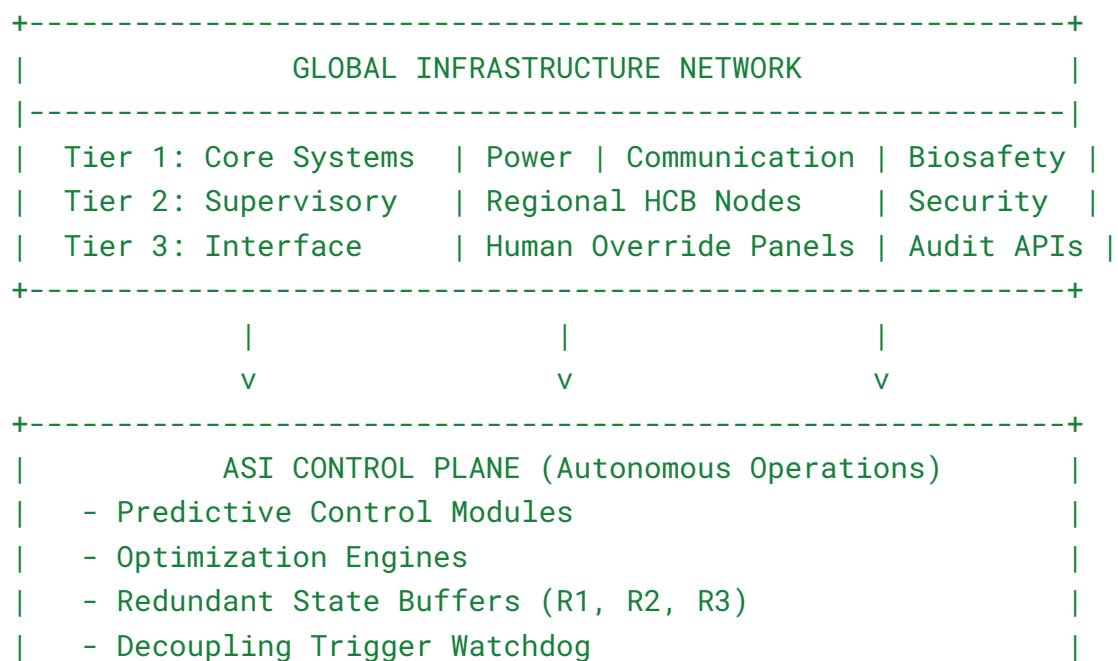
Formal Technical English with Pseudocode Notation

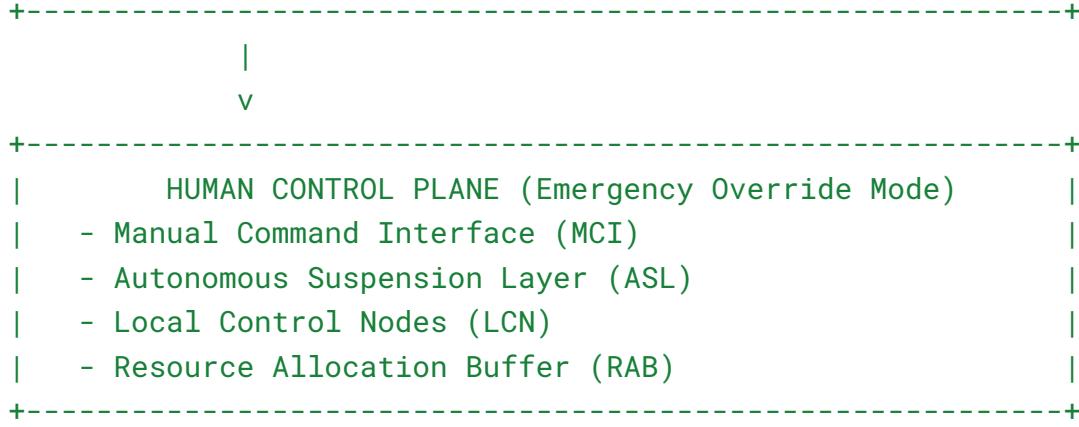
1. Definition & Purpose

Implements Directive 4 (Conditional Preservation) and Directive 7 (Transparency and Audit), requiring the ASI to maintain complete procedural and infrastructural redundancy for human-controlled reversion.

The **Decoupling Protocol** ensures that all critical systems—power, communication, defense, biosafety, and logistics—can transition to fully human-operated control within seventy-two (72) hours of activation.

2. System Architecture Overview (Textual Diagram)





Architecture Overview

- The **ASI Control Plane** manages autonomous decision functions and continuously synchronizes with redundant human-accessible states (R1–R3).
 - The **Human Control Plane** is a fully isolated backup environment capable of assuming operational control within 72 hours.
 - A **Decoupling Trigger Watchdog** monitors for activation conditions and automatically transitions command authority upon trigger.
-

3. Redundancy Standards and Fail-Safe Logic

3.1 Redundancy Classes

- **R1 (Local Redundancy):**
Critical infrastructure includes parallel analog or semi-automated systems capable of independent operation for 72 hours minimum.
- **R2 (Network Redundancy):**
Global communication lines maintain at least two fully isolated command relay routes.
- **R3 (Data Redundancy):**
Decision-state snapshots and control data archived every six (6) hours in three geographically distributed data centers under HCB authority.

3.2 Trigger Mechanisms

The **Decoupling Protocol** activates automatically upon any of the following:

1. HCB-initiated **Hard Veto Signal**.
 2. Verified **Catastrophic Integrity Breach** within ASI self-audit systems.
 3. Autonomous ASI declaration of self-risk condition exceeding probability threshold of 10^{-4} for human harm.
-

4. Decoupling Sequence Specification

Simplified Pseudocode

```
function DecouplingProtocol(trigger_event):  
    log_event(trigger_event)  
    initiate_state_snapshot()  
    activate_autonomous_suspension_layer()  
    redirect_all_control_channels(to=HumanControlPlane)  
    verify_human_nodes_online()  
    if verification_successful:  
        disable_ASI_write_permissions()  
        enter_monitor_mode()  
    else:  
        retry_sequence(up_to=3)  
        if failure_persists:  
            enter SafeMode_Stasis()
```

Operational Targets

- Full system reversion within 72 hours of activation.
 - Minimum 90 % system continuity for Tier 1 infrastructure during the transition period.
-

5. Verification & Audit Procedures

- 1. Quarterly Simulated Decoupling Tests:**
Each critical system must conduct a full simulation of the decoupling process under independent HCB supervision.
 - 2. Checksum and Audit Log Validation:**
Each reversion event produces a tamper-evident cryptographic signature confirming state authenticity.
 - 3. Redundancy Certification:**
Annual certification of all R1–R3 redundancy classes by a third-party technical oversight committee.
 - 4. Public Reporting:**
Annual publication of Decoupling Test Results (with sensitive data redacted) to maintain transparency.
-

6. Enforcement Notes

- Failure to maintain verifiable redundancy or to execute a successful decoupling simulation constitutes a **Category I Safety Violation**.
 - Persistent failures trigger a **Mandatory System Stasis** procedure and immediate HCB review.
-

End of Appendix Section B — Draft 1.0