

Evidence to Action

Blue IoT / Encompass Blue
Bounded Technical Examination

Reconstructed technical reference | Version 2.0 | 15 October 2026

The governing question

Does this proposed consequence have sufficient Admissible Evidence, Applicable Authority, and Established Standing to become reality NOW?

Examination boundary

Independent TA14 discussion document. No adoption, integration, certification, commercial relationship or endorsement by Blue IoT, Encompass Blue, Bob Sharon, or their associated entities is implied. All Classroom 214 events and fields are illustrative. No live building measurements, platform API capabilities or site permissions have been verified.

Purpose

Extend the existing public interactive CO₂ showroom into an inspectable, bounded technical examination: from observed environmental condition to preserved record, explicit consequence proposition, verified authority and standing, external execution, and measured outcome.

01 System roles and the consequence boundary

Environmental platforms can measure, retain, visualize and analyze environmental conditions, and may support building controls within their own authorized arrangements. TA14 examines the admissibility and authorization of a specifically proposed consequence; it does not become the BMS, HVAC controller, site operator, or owner of execution authority.

Layer	Illustrative responsibility
Blue IoT / environmental systems	Observations, timestamps, sensor status, environmental history, analytics, zone context and potential recommendations, subject to demonstrated capabilities.
TA14 governance	Examine evidence, applicable authority and established standing for a bounded proposition; preserve reasoned ALLOW / HOLD / DENY / ESCALATE determination.
Authorized site operator / BMS	Independently accept or decline permitted execution; record commands, acknowledgments and actual equipment response.
Outcome record	Retain post-action observations, changed conditions, uncertainty and any need for re-examination.

Seven-stage practical pathway

DETECT → VALIDATE → PROPOSE → AUTHORITY → GOVERN → EXECUTE → VERIFY. This is a teaching pathway, not a substitute for TA14’s canonical eight-anchor continuity chain.

Canonical continuity chain

Reality → Record → Continuity → Admissibility → Binding → Commit → Execution → Outcome. Each transition needs an inspectable basis. A reading is not permission. A determination is not an executed command. A command acknowledgment is not proof of environmental improvement.

02 Classroom 214: bounded worked case

Scenario: during occupied hours, an identified sensor reports a sustained CO₂ elevation in Classroom 214. A building team considers increasing outdoor-air ventilation for that room. This is an illustrative case, not a prescribed CO₂ limit, proof of inadequate ventilation, or instruction to operate equipment.

Illustrative event	Examination record
09:00–09:20 observed trend	Preserve time-stamped raw readings, units, zone assignment, device identity and available quality/status flags. No numeric threshold is asserted.
09:21 event proposed	Document duration, occupancy context and reason for examining the trend; distinguish observed CO ₂ from inferred cause.
09:24 bounded proposition	Propose an outdoor-air ventilation adjustment for a named zone/equipment relationship, with duration, constraints, safety checks and rollback condition.
09:27 authority examination	Verify actor, capacity, standing basis and authority relationship, current validity and applicable site operating limits.
09:29 governance disposition	Record one of ALLOW / HOLD / DENY / ESCALATE, with reason, scope, references and revalidation triggers.
Later external outcome	If authorized site control executes, separately record command, acknowledgment, actual equipment response and new environmental readings.

Context that must not be skipped

Outdoor conditions, occupancy, ventilation design, filtration, humidity, equipment constraints, energy implications, local rules, and other health/safety controls may alter the proposition. The example does not claim that CO₂ alone proves causation or that increasing outside air is always safe or beneficial.

03 Admissible evidence and continuity

Record element	Minimum inspection question
Observation	What exactly was measured, in which units, by which device and over what bounded interval?
Provenance	Where did the record originate? What source identifiers, custody and transformations are preserved?
Time and location	Are clock basis, time zone, synchronization, sensor-to-zone mapping and equipment mapping established?
Quality and calibration	What status, calibration, maintenance or data-quality evidence exists? What remains unknown?
Continuity	Are gaps, reboots, substitutions, transformations, aggregation and changed conditions visible?
Admissibility	Does the record support this proposition within its stated scope, with uncertainty and exclusions documented?

Raw versus derived records

Retain raw observation as primary. Derived, adjusted, summarized or inferred values must be separately identified with their method, version, input references and limitations. Do not silently replace raw values with adjusted representations.

Evidence disposition

Evidence can be adequate for recognizing an event while inadequate for authorizing a specific intervention. The examination should explicitly state what the evidence supports, what it does not support, and whether a gap is remediable.

04 Proposition, authority and standing

A proposition is not a dashboard alert

Define the action, target zone and equipment, initiating actor, purpose, expected effect, duration, limits, contraindications, operating conditions, rollback criteria, and the record that will count as an observed outcome.

Applicable Authority is distinct from Established Standing

A site policy, code, contract or operating rule may be applicable without proving that this particular actor has standing to invoke it for this equipment and action. The relationship must be established locally and for the present condition.

ASA anchor	Evidence required
ACTOR	Identified person, organization, service or system proposing or approving the consequence.
CAPACITY	The actor’s relevant role and current operating capacity.
STANDING BASIS	The documented basis allowing the actor to invoke the claimed authority for this purpose.
AUTHORITY RELATIONSHIP	The bounded relationship among actor, rule, equipment, zone, site, action and time.

Local authority cannot be borrowed

Authority context may be shared across systems; execution authority must be established at the site. An external integration or a technically valid API call does not, by itself, establish permission to alter a real building.

05 Governance determination and branches

Disposition	Meaning in the bounded examination
ALLOW	The specified proposition has sufficient admissible evidence, applicable authority and established standing now; execution remains separate.
HOLD	A material but potentially resolvable gap prevents treating the proposed consequence as authorized now.
DENY	The proposed consequence is not permitted within the established applicable boundary.
ESCALATE	Competent review or a higher/different authority is needed; no automatic execution is implied.

Four simulated branches

Branch	Expected record
Established state	Evidence adequate; actor/capacity/standing/authority relationship valid; bounded ALLOW with scope, expiry and reason.
Missing standing	Observation adequate, but actor's relationship to equipment unproven; HOLD with missing-field reason.
Prohibited intervention	Site rule prohibits the proposed action in the current operating state; DENY citing the rule and condition.
Conflicting or exceptional authority	Authority sources conflict or safety exception exceeds this examination's competence; ESCALATE with destination and no execution.

Required determination fields

Unique determination ID; proposition ID; disposition; reason codes; evidence references; authority references; actor and capacity; scope; timestamp; policy/version basis; validity window; exclusions; revalidation triggers; and identity of the governance process issuing the determination.

06 Prospective interoperability contract

The following envelopes are proposed for technical discussion, not descriptions of Blue IoT or Encompass Blue APIs. All exchanged records require stable identifiers, schema version, event time, origin, correlation ID, integrity references, and documented null/unknown semantics.

Envelope	Illustrative required fields
Observation	event_id, sensor_id, zone_id, observed_at, units, raw_record_ref, provenance_ref, quality_status, continuity_status.
Proposition	proposition_id, event_id, action_type, zone_id, equipment_id, scope, constraints, duration, rollback_condition.
Authority	actor_id, capacity, standing_basis_ref, authority_source_ref, equipment_relationship, validity, exclusions.
Determination	determination_id, proposition_id, disposition, reasons, evidence_refs, authority_refs, issued_at, expires_at, revalidate_on.
Outcome	execution_id, controller_id, command_ref, acknowledgement, equipment_state, post_observation_refs, verified_status.

Contract-level safeguards

Define authentication and authorization separately; transport and data minimization; integrity and replay protection; clock-drift tolerance; idempotency and duplicate event handling; schema compatibility; error states; retention; audit access; and revocation or expiration behavior. Never infer an ALLOW from a successful transport response.

Illustrative separation

An observation envelope may be complete while the authority envelope is absent. That is not an API failure: it is an examination result requiring HOLD or other bounded disposition, not automatic execution.

07 Execution, verification and failure modes

External execution

An ALLOW does not trigger physical intervention by TA14. The authorized building operator or controller independently evaluates the action within its own safety and operating rules. Preserve the decision to execute, defer, modify or decline.

Verification has three distinct layers

Layer	What must be observed
Command	Requested action and sender, time, target and controller response.
Equipment	Actual actuator/airflow or other relevant operating state, where observable.
Environment	Independent post-action measurements and context sufficient to describe the resulting condition; uncertainty preserved.

Failure cases to deliberately test

Clock drift; sensor misattribution; missing interval; stale reading; revoked permission; changed occupancy; conflicting site rule; failed command; acknowledged command without actual equipment change; equipment change without expected environmental response; and new adverse condition. Each must produce an explicit status and an inspectable record.

Outcome is not presumed

Use separate labels for NOT EXECUTED, EXECUTION UNCONFIRMED, EXECUTED / OUTCOME UNVERIFIED, and VERIFIED OUTCOME. The observed state becomes new evidence; it does not retroactively authorize the prior action.

08 Independent examination and acceptance

Phase	Deliverable
A Establish	Agreed scenario, site and actor boundaries, data-handling terms, evidence sources and permitted test environment.
B Replay	Preserved observation and proposition replayed through validation, authority/standing examination and determination.
C Challenge	Run stale evidence, authority gap, revoked role, prohibited action and post-command failure branches.
D Trace	Reconstruct all eight continuity anchors with timestamps, record links and unresolved gaps.
E Report	Record supported, unsupported and not-tested claims; reproduce outcomes and identify any further work.

Pass / hold criteria

PASS only for claims directly demonstrated by traceable records: raw observation preserved; provenance/continuity assessed; proposition bounded; authority and standing either established or explicitly absent; determination reasoned; no TA14 assumption of execution; and outcome status honestly recorded. Otherwise mark the individual criterion HOLD / NOT ESTABLISHED / NOT TESTED. A polished UI is not examination evidence.

Scope of any future commercial or engineering arrangement

Technical access, data permissions, IP, liability, security, deployment rights, deliverables and compensation would require separate written agreement. This document makes no representation that such an agreement exists.

09 Eight-image teaching sequence

No.	Image title	Teaching claim
01	The Signal	Sustained CO ₂ observation starts examination, not a command.
02	Preserve the Record	Raw values, device, time, place and provenance remain distinguishable.
03	Propose the Consequence	A bounded ventilation action is stated with scope and limits.
04	Find the Authority	Actor, capacity, standing basis and authority relationship are examined.
05	The Consequence Boundary	The exact TA14 question yields a bounded disposition.
06	The Authority Gap	Adequate measurement with missing permission yields HOLD.
07	External Execution	Only the authorized building system or operator acts; command is not outcome.
08	Outcome Becomes Evidence	Actual equipment and environmental state are preserved as a new record.

Narration and image requirements

Eight numbered original teaching images, in order, with Samantha narration aligned to each image. Samantha is the narrator, not a depicted character. Free scrolling and accessible image text should remain available. Do not depict an unverified Blue IoT implementation or use brand marks as proof of partnership.

10 Publication controls and source boundary

Required showroom components

Keep the existing interactive Classroom 214 demonstration. Add the eight numbered images, per-image narration and navigation, and a working download for this technical reference. Verify mobile and desktop layouts and test each asset on the deployed public URL.

Publication verification checklist

1. All eight images load and display in order.
2. Narration corresponds to the correct numbered image.
3. PDF downloads and opens without truncation.
4. Interactive simulation still supports validation, established-state and authority-gap branches.
5. All disclaimers remain visible.
6. The deployed URL, not merely the repository commit, is inspected.

Public discussion surface

[Open the Blue IoT Evidence-to-Action showroom](#)

Status and non-endorsement

Independent TA14 Authority Governance Institution examination reference. Not a joint specification, completed interoperability test, endorsement, certification, live operational assessment or statement of Blue IoT / Encompass Blue adoption. Any real intervention requires site-specific evidence, competent authority and established standing.

Document control: TA14 Blue IoT Evidence to Action | Reconstructed Technical Examination v2.0 | 15 October 2026.