



ENGINEERING STANDARDS LIBRARY / REAL-TIME MEDIA AND PROVENANCE

Real-Time Media and Provenance Standards Portfolio

Permanent standards portfolio for real-time media and provenance.

PERMANENT DOCUMENT ID

MYTHOS-MED-PORT-0001

PUBLICATION

Portfolio Edition
Version 1.0.0-candidate

ASSURANCE PROFILE

Standard / Advanced
High Assurance

PERMANENT PUBLICATION IDENTITY

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0 ATOMIC CRITERIA	6 ASSURANCE VIEWS	4 IMPLEMENTATION PROFILES	1 PERMANENT IDENTITY

Publication doctrine. This publication establishes durable requirements for its defined scope. Interpretation must preserve the permanent document identity, required evidence, controlled exceptions, source currency, and formal revision history.

INFRASTRUCTURE AND CONTROL TOPOLOGY

Real-Time Media and Provenance

A trustworthy real-time media and provenance standards portfolio system is a governed chain of ownership, identity, desired state, enforcement, workload or device behavior, telemetry, recovery, and independently reviewable evidence.

OWNERSHIP

Purpose, service boundary, accountable owner, suppliers, users, and retained responsibility remain explicit.

ENFORCEMENT

Identity, policy, segmentation, configuration, and local safety mechanisms constrain every trust transition.

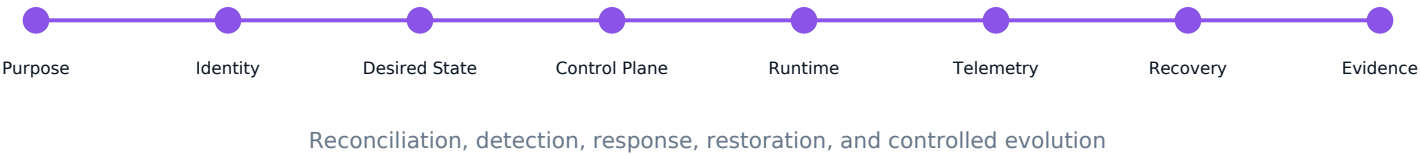
CONTINUITY

Capacity, dependency loss, safe degradation, backup, restoration, rollback, and exit are tested before reliance.

EVIDENCE

Inventory, desired state, runtime observation, tests, incidents, exceptions, and change records form the assurance chain.

GOVERNED INFRASTRUCTURE FLOW



INTERPRETATION AND ASSURANCE

How to apply this publication

Normative intent

Requirements define outcomes and constraints. Implementations may vary, but evidence must demonstrate equivalent control.

Evidence over assertion

Vendor documentation and design intent are not equivalent to reproduced behavior. Record evidence grade and uncertainty.

Risk-proportional depth

Higher consequence, autonomy, sensitivity, and irreversibility require stronger isolation, review, verification, and recovery.

Controlled exception

Exceptions require an owner, rationale, compensating control, residual-risk acceptance, expiration, and reevaluation trigger.

Normalized assessment scale



A numeric score must never hide a failed mandatory gate, missing evidence, untested workload, or unacceptable residual risk.

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Portfolio Position

Permanent standards portfolio for real-time media and provenance.

OPERATING POSITION

This portfolio consolidates 1 permanent standards for real-time media and provenance.

- Use it to establish a shared control vocabulary, implementation sequence, evidence profile, and adoption roadmap.
- Individual standards remain independently identifiable and citable.

MYTHOS-MED-PORT-0001 / REAL-TIME MEDIA

Portfolio Register

OPERATING POSITION

MYTHOS-MED-0001 - Real-Time Voice, WebRTC, and Synthetic Media Provenance Standard

MYTHOS-MED-PORT-0001 / REAL-TIME MEDIA

Control Architecture

OPERATING POSITION

Reasoning proposes; policy authorizes; deterministic systems execute; evidence records.

- State, identity, sources, and learning remain governed throughout the lifecycle.
- High-consequence use requires stronger isolation, approval, reproducibility, and recovery.

MYTHOS-MED-PORT-0001 / REAL-TIME MEDIA

Assurance Model

OPERATING POSITION

Six assurance views: governance, architecture, security, operations, privacy/rights, and human/societal impact.

- Three implementation profiles: Foundational, Advanced, and High Assurance.
- Atomic criteria receive pass, partial, fail, not-applicable, or controlled-exception disposition.

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Adoption Sequence

OPERATING POSITION

Establish ownership and inventory.

- Classify consequence and select profile.
- Create enforceable identity, policy, execution, and data boundaries.
- Evaluate representative workloads and adversarial cases.
- Release gradually with rollback and evidence.
- Operate, reassess, and retire with preserved records.

11. Source Authority and Reference Register

Primary sources informing interpretation; current obligations and provider behavior must be verified at assessment time

NIST CSF 2.0

Cybersecurity Framework 2.0

<https://doi.org/10.6028/NIST.CSWP.29>

Enterprise governance and cybersecurity outcome framework.

NIST SP 800-53 Rev. 5

Security and Privacy Controls for Information Systems and Organizations

<https://doi.org/10.6028/NIST.SP.800-53r5>

Broad control baseline for organizational systems and services.

RFC 8826

Security Considerations for WebRTC

<https://www.rfc-editor.org/rfc/rfc8826>

WebRTC threat model, identity, signaling, media, and browser security considerations.

W3C WebRTC

WebRTC 1.0: Real-Time Communication Between Browsers

<https://www.w3.org/TR/webrtc/>

Browser media and peer-connection API specification.

C2PA

Coalition for Content Provenance and Authenticity Specification

<https://c2pa.org/specifications/specifications/>

Content credentials, manifests, signing, validation, and provenance.

WCAG 2.2

Web Content Accessibility Guidelines 2.2

<https://www.w3.org/TR/WCAG22/>

Accessibility requirements relevant to media, captions, input, and interaction.

Source currency rule: authorities, specifications, legal obligations, provider services, firmware, browser behavior, carrier requirements, and operational evidence MUST be checked at assessment time. This publication records a 2026-07-24 source snapshot.



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Real-Time Voice, WebRTC, and Synthetic Media Provenance Standard

Real-time media security, identity, consent, relay, recording, synthetic participants, provenance, quality, abuse response, and evidence.

PERMANENT DOCUMENT ID

MYTHOS-MED-0001

PUBLICATION

Candidate Standard
Version 1.0.0-candidate

ASSURANCE PROFILE

Standard / Advanced
High Assurance

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INFRASTRUCTURE AND CONTROL TOPOLOGY

Real-Time Media and Provenance

A trustworthy real-time voice, WebRTC, and synthetic media system is a governed chain of ownership, identity, desired state, enforcement, workload or device behavior, telemetry, recovery, and independently reviewable evidence.

OWNERSHIP

Purpose, service boundary, accountable owner, suppliers, users, and retained responsibility remain explicit.

ENFORCEMENT

Identity, policy, segmentation, configuration, and local safety mechanisms constrain every trust transition.

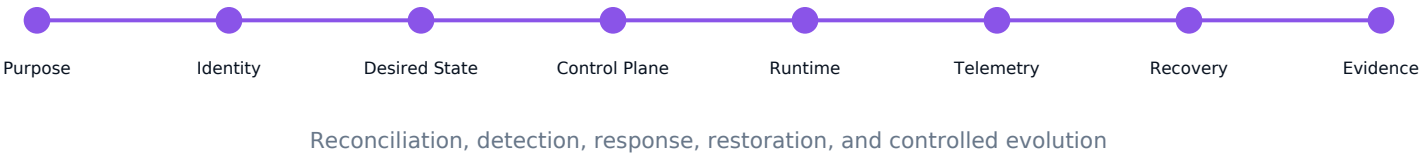
CONTINUITY

Capacity, dependency loss, safe degradation, backup, restoration, rollback, and exit are tested before reliance.

EVIDENCE

Inventory, desired state, runtime observation, tests, incidents, exceptions, and change records form the assurance chain.

GOVERNED INFRASTRUCTURE FLOW



INTERPRETATION AND ASSURANCE

How to apply this publication

Normative intent

Requirements define outcomes and constraints. Implementations may vary, but evidence must demonstrate equivalent control.

Evidence over assertion

Vendor documentation and design intent are not equivalent to reproduced behavior. Record evidence grade and uncertainty.

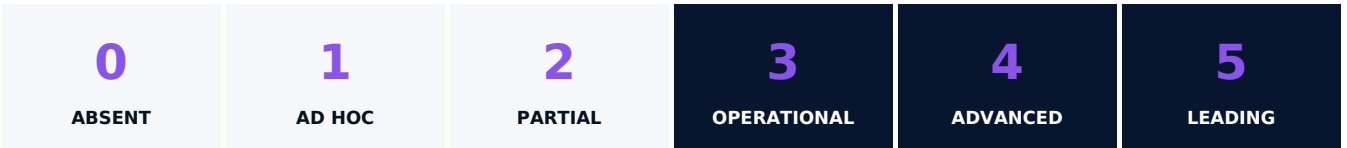
Risk-proportional depth

Higher consequence, autonomy, sensitivity, and irreversibility require stronger isolation, review, verification, and recovery.

Controlled exception

Exceptions require an owner, rationale, compensating control, residual-risk acceptance, expiration, and reevaluation trigger.

Normalized assessment scale



A numeric score must never hide a failed mandatory gate, missing evidence, untested workload, or unacceptable residual risk.

INTERACTIVE NAVIGATION

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Navigation doctrine

Bookmarks and internal links are conveniences. Permanent document identity, criterion identifiers, evidence references, and revision history remain authoritative.

MYTHOS-MED-0001 / REAL-TIME MEDIA

0. Executive Mandate

Purpose, strategic outcome, and non-negotiable operating doctrine

MANDATE

Organizations adopting real-time voice, WebRTC, and synthetic media capabilities **MUST** define an owned service boundary, establish enforceable identity and configuration, protect data and safety, test failure and recovery, and preserve evidence sufficient for independent review.

Required outcomes

- Create a durable governance boundary for real-time voice, WebRTC, and synthetic media across design, acquisition, deployment, operation, change, and retirement.
- Require risk-proportional segmentation, identity, configuration, telemetry, resilience, recovery, and supplier controls.
- Prevent central automation, administrative tooling, or provider services from becoming unbounded authority.
- Prove operation with representative workloads, devices, failure modes, and restoration exercises.
- Define measurable conformance, exceptions, reassessment triggers, and a viable exit path.

Decision boundary: conformance supports a documented assurance claim for the named scope. It does not prove universal availability, safety, regulatory acceptance, vendor fitness, or immunity from cyber-physical failure.

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1. Scope and Applicability

Boundary definition, audience, exclusions, and triggering conditions

IN SCOPE

- Architecture, acquisition, configuration, integration, and operation of real-time voice, WebRTC, and synthetic media capabilities.
- Human, workload, device, service, network, data, facility, provider, supplier, and evidence dependencies.
- Design, deployment, monitoring, support, incident response, recovery, migration, and retirement.
- On-premises, hosted, managed, carrier, manufacturer, integrator, and externally operated components.

OUT OF SCOPE

- Claims of legal, safety, carrier, or regulatory approval without the responsible authority.
- Vendor certification treated as proof of the adopter configuration or operating effectiveness.
- Theoretical or laboratory behavior presented as production evidence without a declared boundary.
- Inherited controls without documented scope, owner, period, limitations, and shared responsibility.

Applicability triggers

- The capability supports a business-critical, safety-relevant, regulated, public, or externally dependent service.
- The environment can expose sensitive data, identity, control, physical process, communications, or shared infrastructure.
- A management plane, automation system, carrier, provider, or supplier can affect broad operational scope.
- Failure, compromise, or change can be difficult to detect, reverse, isolate, or recover.
- The system depends on hardware, firmware, radio, browser, cloud, endpoint, IoT, OT, or real-time media behavior.

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2. Definitions and Taxonomy

Controlled language for architecture, governance, and assessment

AUTHORITY

The right to approve, deny, constrain, or execute an action. Model output is not authority.

EVIDENCE

A reproducible source, trace, measurement, test, record, signed artifact, or documented observation supporting a claim.

ASSURANCE VIEW

A defined perspective such as governance, architecture, security, operations, privacy, or human oversight.

ATOMIC CRITERION

A uniquely identified requirement that can be assessed, evidenced, excepted, and revised independently.

IMPLEMENTATION PROFILE

A risk-proportional set of required depth, evidence, and gates for a class of use.

CONTROLLED EXCEPTION

A time-bounded deviation with owner, rationale, compensating control, residual risk, expiration, and review trigger.

DETERMINISTIC MECHANISM

A component whose inputs, policy, state transition, and side effects can be constrained and verified.

SOURCE AUTHORITY

The documented basis for treating a source as reliable for a defined claim, context, jurisdiction, and time.

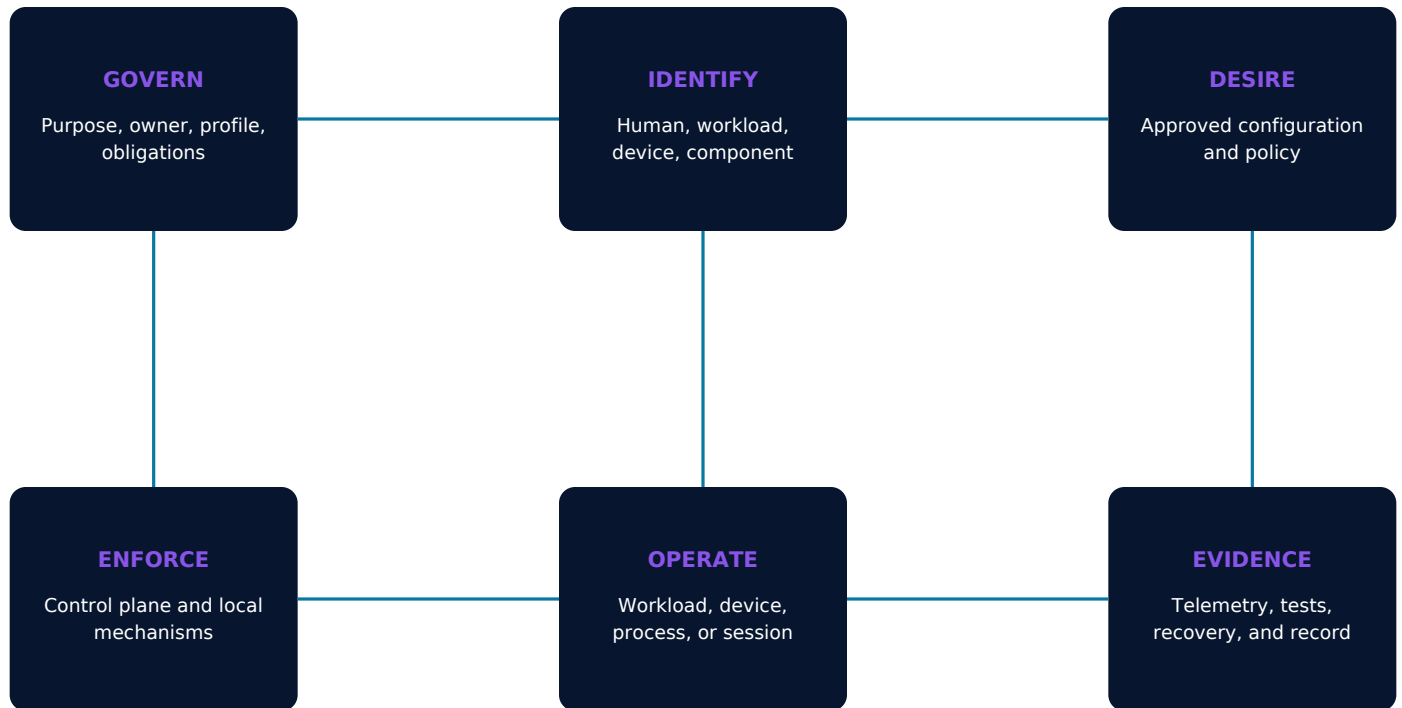
REASSESSMENT TRIGGER

A change, incident, drift signal, dependency revision, or time boundary requiring renewed evaluation.

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3. Architecture and Trust Model

Separation of governance, management, enforcement, runtime, telemetry, and recovery



Mandatory trust boundaries

- Management planes **MUST** be isolated, strongly authenticated, monitored, and recoverable.
- Identity and policy **MUST** be evaluated at every provider, network, device, workload, and administrative transition.
- Runtime state **MUST** be compared with approved desired state and material drift **MUST** trigger response.
- Safety and continuity mechanisms **MUST** remain available when cloud, WAN, identity, DNS, time, carrier, or management dependencies fail.
- Evidence **MUST** be protected from the systems and administrators whose behavior it is intended to assess.

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4. Governance and Accountability

Decision rights, separation of duties, and lifecycle ownership

ACCOUNTABLE OWNER

Accepts scope, risk tolerance, funding, and residual risk.

SYSTEM OWNER

Maintains architecture, inventory, operating boundaries, and change control.

SECURITY / PRIVACY

Defines threat, identity, data, isolation, monitoring, and incident requirements.

EVALUATION AUTHORITY

Designs representative tests, gates releases, and preserves reproducibility.

OPERATIONS

Maintains availability, rollback, recovery, evidence, and incident handling.

HUMAN OVERSIGHT

Reviews consequential decisions, exceptions, disputed outcomes, and harm signals.

DECISION PRINCIPLE

No single actor should be able to define the objective, grant authority, execute the consequential action, suppress evidence, and approve the result. Separation must be technical where consequence requires it.

MYTHOS-MED-0001 / REAL-TIME MEDIA

5. Normative Control System

Atomic criteria 01-04 of 18

MYTHOS-MED-0001-C01 Session Purpose, Participant, and Trust Disclosure

The organization MUST define, implement, verify, and maintain session purpose, participant, and trust disclosure for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE approved service contract; architecture decision; owner and risk sign-off

MYTHOS-MED-0001-C02 User, Device, Service, Bot, and Persona Identity

The organization MUST define, implement, verify, and maintain user, device, service, bot, and persona identity for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE asset, service, dependency, supplier, region, and lifecycle inventory

MYTHOS-MED-0001-C03 Signaling Authentication and Session Authorization

The organization MUST define, implement, verify, and maintain signaling authentication and session authorization for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE desired-state configuration; policy evidence; privileged-access and negative tests

MYTHOS-MED-0001-C04 DTLS-SRTP, Keying, and Media Confidentiality

The organization MUST define, implement, verify, and maintain dtls-srtp, keying, and media confidentiality for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE network, data-flow, zone, conduit, radio, device, or trust-boundary diagrams

MYTHOS-MED-0001 / REAL-TIME MEDIA

5. Normative Control System

Atomic criteria 05-08 of 18

MYTHOS-MED-0001-C05 ICE, STUN, TURN, and Relay Trust Boundary

The organization **MUST** define, implement, verify, and maintain ice, stun, turn, and relay trust boundary for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE runtime logs, traces, metrics, alarms, quality, capacity, and drift evidence

MYTHOS-MED-0001-C06 Browser, Application, and Media Permission Control

The organization **MUST** define, implement, verify, and maintain browser, application, and media permission control for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE failure, failover, rollback, restoration, revocation, and recovery exercise

MYTHOS-MED-0001-C07 Recording, Transcription, Consent, and Retention

The organization **MUST** define, implement, verify, and maintain recording, transcription, consent, and retention for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE safety, privacy, residency, consent, or physical-impact assessment

MYTHOS-MED-0001-C08 Synthetic Voice, Avatar, and Transformation Disclosure

The organization **MUST** define, implement, verify, and maintain synthetic voice, avatar, and transformation disclosure for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE supplier, carrier, firmware, license, support, portability, and exit evidence

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5. Normative Control System

Atomic criteria 09-12 of 18

MYTHOS-MED-0001-C09 Model, Voice, Likeness, and Rights Governance

The organization MUST define, implement, verify, and maintain model, voice, likeness, and rights governance for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE approved service contract; architecture decision; owner and risk sign-off

MYTHOS-MED-0001-C10 Content Credentials, C2PA, and Provenance Binding

The organization MUST define, implement, verify, and maintain content credentials, c2pa, and provenance binding for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE asset, service, dependency, supplier, region, and lifecycle inventory

MYTHOS-MED-0001-C11 Deepfake, Impersonation, and Social-Engineering Defense

The organization MUST define, implement, verify, and maintain deepfake, impersonation, and social-engineering defense for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE desired-state configuration; policy evidence; privileged-access and negative tests

MYTHOS-MED-0001-C12 Moderation, Abuse Reporting, and Rapid Revocation

The organization MUST define, implement, verify, and maintain moderation, abuse reporting, and rapid revocation for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE network, data-flow, zone, conduit, radio, device, or trust-boundary diagrams

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5. Normative Control System

Atomic criteria 13-15 of 18

MYTHOS-MED-0001-C13 Latency, Jitter, Loss, Synchronization, and Quality

The organization **MUST** define, implement, verify, and maintain latency, jitter, loss, synchronization, and quality for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE runtime logs, traces, metrics, alarms, quality, capacity, and drift evidence

MYTHOS-MED-0001-C14 Accessibility, Captioning, and Assistive Interaction

The organization **MUST** define, implement, verify, and maintain accessibility, captioning, and assistive interaction for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE failure, failover, rollback, restoration, revocation, and recovery exercise

MYTHOS-MED-0001-C15 Metadata, Biometric, and Sensitive Content Protection

The organization **MUST** define, implement, verify, and maintain metadata, biometric, and sensitive content protection for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary **MUST** identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE safety, privacy, residency, consent, or physical-impact assessment

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5. Normative Control System

Atomic criteria 16-18 of 18

MYTHOS-MED-0001-C16 Service, Relay, Provider, and Network Failure

The organization MUST define, implement, verify, and maintain service, relay, provider, and network failure for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE supplier, carrier, firmware, license, support, portability, and exit evidence

MYTHOS-MED-0001-C17 Evidence Capture, Dispute, and Forensic Preservation

The organization MUST define, implement, verify, and maintain evidence capture, dispute, and forensic preservation for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE approved service contract; architecture decision; owner and risk sign-off

MYTHOS-MED-0001-C18 Media Lifecycle and Periodic Reassessment

The organization MUST define, implement, verify, and maintain media lifecycle and periodic reassessment for in-scope real-time voice, WebRTC, and synthetic media capabilities. The control boundary MUST identify accountable ownership, affected services and assets, authoritative desired state, trust transitions, failure and recovery behavior, minimum evidence, inherited responsibility, and reassessment triggers.

MINIMUM EVIDENCE asset, service, dependency, supplier, region, and lifecycle inventory

6. Evidence and Assessment

Examine, interview, test, observe, restore, and trace

EXAMINE

Policies, inventories, diagrams, configuration, code, firmware, contracts, provider evidence, logs, exceptions, and lifecycle records.

INTERVIEW

Accountable owners, architects, engineers, operators, safety personnel, security teams, vendors, carriers, integrators, and responders.

TEST

Identity, segmentation, policy, negative paths, malformed input, capacity stress, dependency loss, failover, rollback, and revocation.

RESTORE

Independent restoration of configuration, data, service, device, controller, cluster, media, or browser state from protected evidence.

OBSERVE

Production-like performance, quality, drift, resource use, physical behavior, alarms, user impact, and incident execution.

TRACE

End-to-end linkage from approved intent and identity through change, runtime behavior, telemetry, outcome, exception, and review.

Evidence grades

A

Independently reproducible, complete, current, integrity-protected, and representative.

B

Reproduced by the implementing organization with strong traceability and controlled scope.

C

Partially reproduced or indirect; limitations, inherited responsibility, and uncertainty recorded.

D

Assertion, diagram, design intent, certificate, or vendor statement without reproduced behavior.

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7. Assurance Views

Six perspectives required for a complete assurance claim

GOVERNANCE

Ownership, purpose, risk tolerance, policy, exception, and decision rights.

ARCHITECTURE

Boundaries, dependencies, failure modes, state, data flow, and portability.

SECURITY

Identity, authorization, isolation, secrets, abuse resistance, and incident response.

OPERATIONS

Reliability, performance, cost, observability, change, recovery, and support.

PRIVACY / RIGHTS

Purpose limitation, minimization, consent, access, correction, deletion, and egress.

HUMAN / SOCIETAL

Usability, accessibility, disclosure, contestability, impact, and human control.

Conformance requires a defensible position across every applicable view. A strong aggregate score cannot compensate for an unowned system, a failed mandatory gate, untested recovery, or evidence below the accepted grade.

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7.2 Evaluation Metrics and Decision Gates

Measures must expose service behavior, control effectiveness, failure, uncertainty, and cost

SERVICE

Availability, correctness, coverage, quality, latency, throughput, and user or process outcome.

CONTROL

Unauthorized attempt, policy denial, drift, segmentation escape, privilege, and exception exposure.

RESILIENCE

Failover success, recovery time, data loss, safe degradation, restore validity, and dependency survival.

SECURITY

Exploitability, credential exposure, supply-chain integrity, attack detection, containment, and revocation.

CAPACITY

Utilization, saturation, queueing, radio or fabric headroom, thermal margin, quota, and forecast error.

OPERATIONS

Change failure, mean time to detect, repair, support burden, vendor escalation, and evidence completeness.

PRIVACY / SAFETY

Unauthorized egress, retention breach, consent coverage, unsafe action, physical consequence, and contestability.

LIFECYCLE

Patch debt, end-of-support exposure, portability, replacement time, retirement completion, and reassessment age.

Decision gate: thresholds **MUST** be declared before assessment, cover representative load and failure conditions, and identify mandatory safety, identity, recovery, and evidence failures that block promotion.

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8. Failure Modes and Adversarial Scenarios

Challenge assumptions before the system is trusted with consequential work

CONSENT FAILURE

Recording, transcription, synthesis, or training occurs without valid disclosure or permission.

REQUIRED: PREVENT | DETECT | CONTAIN | RECOVER | EVIDENCE

RELAY EXPOSURE

A media relay or provider can access content or metadata beyond the stated boundary.

REQUIRED: PREVENT | DETECT | CONTAIN | RECOVER | EVIDENCE

SYNTHETIC IMPERSONATION

Generated voice or likeness deceives participants or authorizes action.

REQUIRED: PREVENT | DETECT | CONTAIN | RECOVER | EVIDENCE

PROVENANCE STRIPPING

Content credentials are removed, invalid, or misunderstood as truth verification.

REQUIRED: PREVENT | DETECT | CONTAIN | RECOVER | EVIDENCE

RECORDING MISUSE

Captured media is retained, copied, or repurposed outside the declared purpose.

REQUIRED: PREVENT | DETECT | CONTAIN | RECOVER | EVIDENCE

QUALITY OR ACCESSIBILITY FAILURE

Latency, loss, captioning, or assistive interaction makes service unusable or unsafe.

REQUIRED: PREVENT | DETECT | CONTAIN | RECOVER | EVIDENCE

Adversarial testing MUST protect people and production systems. Use isolated environments, synthetic or minimized data, bounded authority, kill switches, explicit legal and ethical review, and documented stop conditions.

9. Implementation Profiles

Risk-proportional implementation without weakening mandatory boundaries

FOUNDATIONAL TYPICAL SCOPE Low consequence, limited autonomy, non-sensitive data, reversible outputs. MINIMUM DEPTH Named owner; inventory; basic evaluation; access control; logging; rollback; annual review.	ADVANCED TYPICAL SCOPE Business-critical workflow, sensitive data, multiple tools or providers, moderate autonomy. MINIMUM DEPTH Formal threat model; representative evaluation; approval gates; isolated execution; tested recovery; quarterly review.	HIGH ASSURANCE TYPICAL SCOPE Safety, security, regulated, financial, identity, or broadly consequential use. MINIMUM DEPTH Independent challenge; strongest identity; deterministic enforcement; comprehensive evidence; canary release; continuous monitoring.
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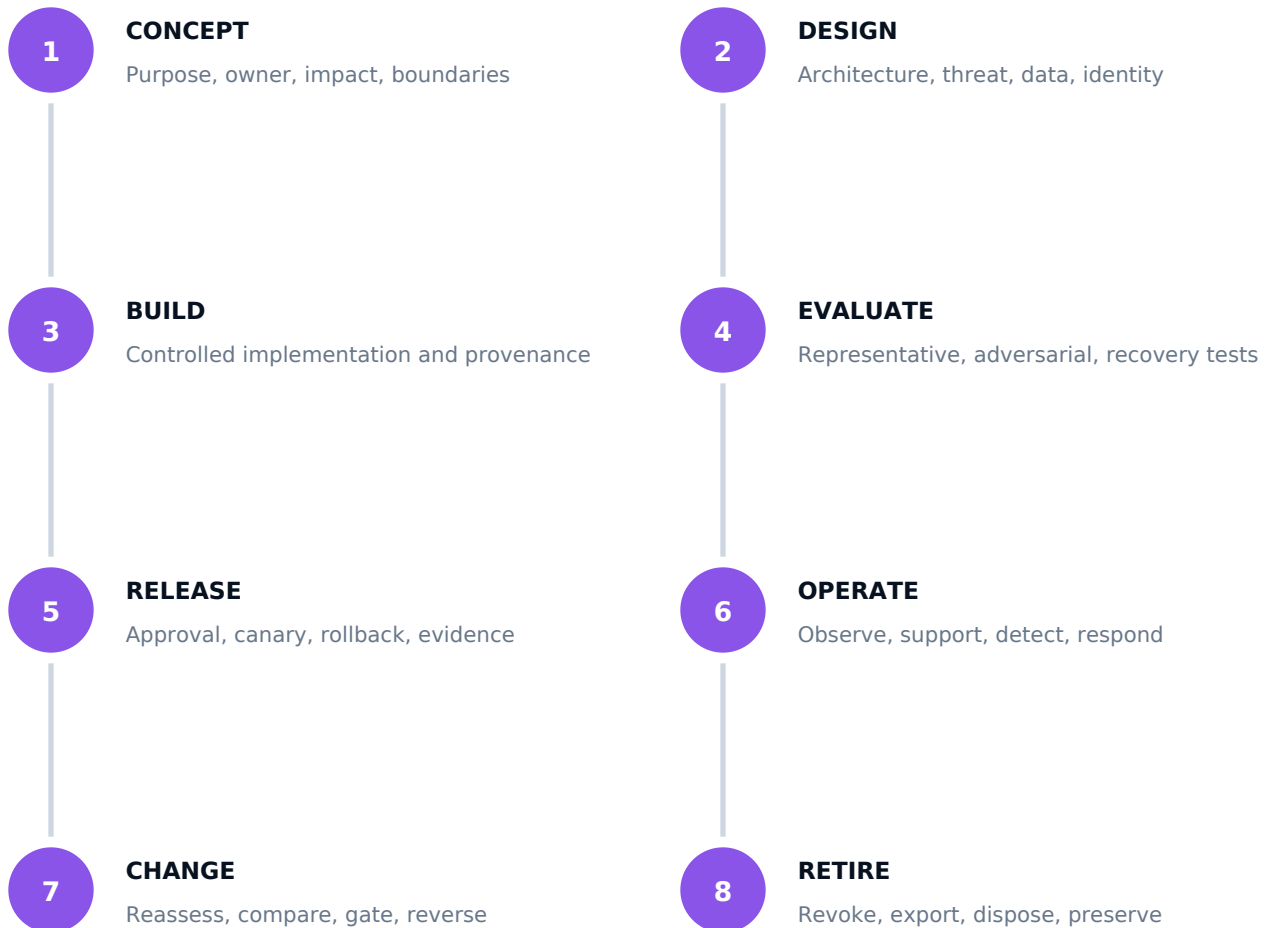
Profile selection rule

Choose the highest profile triggered by consequence, autonomy, sensitivity, scale, irreversibility, external dependency, or inability to rapidly detect and recover. Tailoring may strengthen controls; it may not erase a mandatory gate without a controlled exception.

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9.2 Operational Lifecycle

Evidence-bearing operation from concept through retirement



LIFECYCLE INVARIANT

Every stage **MUST** leave sufficient evidence for the next authority to understand what was intended, what changed, what was tested, what failed, what was accepted, what remains uncertain, and how to recover or exit.

10. Adoption Roadmap

A sequenced path from uncontrolled capability to evidence-bearing operation

0-30 DAYS

Establish ownership and truth

Inventory systems and dependencies; classify risk; freeze unsupported claims; identify immediate privilege, data, and evidence gaps.

31-90 DAYS

Create enforceable boundaries

Define policy; isolate execution; implement identity and approval gates; establish representative evaluation and baseline telemetry.

3-6 MONTHS

Prove recovery and operating control

Exercise failure, rollback, revocation, incident, provider exit, and state-recovery scenarios; mature evidence packaging.

6-12 MONTHS

Scale assurance

Automate control checks; expand workload coverage; independent challenge; portfolio metrics; controlled exception expiry; continuous reassessment.

Adoption is complete only when operating evidence demonstrates the selected profile in the actual deployment context. Documentation alone is not conformance.

10.2 Conformance and Exception Statement

What an assurance claim must contain

SYSTEM / SERVICE Named, versioned capability and deployment boundary.	PROFILE Foundational, Advanced, or High Assurance with trigger rationale.
SCOPE Workloads, users, data, tools, regions, providers, and exclusions.	CRITERIA Pass, partial, fail, not applicable, and exception status for every criterion.
EVIDENCE Artifact references, evidence grade, date, environment, and reproducibility.	LIMITATIONS Known failure modes, unsupported workloads, uncertainty, and residual risk.
EXCEPTIONS Owner, rationale, compensating control, expiration, and approval.	VALIDITY Assessment date, change boundary, review date, and reassessment triggers.

Prohibited claim: “compliant” without the named scope, profile, evidence date, limitations, exceptions, and authority accepting residual risk.

11. Source Authority and Reference Register

Primary sources informing interpretation; current obligations and provider behavior must be verified at assessment time

NIST CSF 2.0

Cybersecurity Framework 2.0

<https://doi.org/10.6028/NIST.CSWP.29>

Enterprise governance and cybersecurity outcome framework.

NIST SP 800-53 Rev. 5

Security and Privacy Controls for Information Systems and Organizations

<https://doi.org/10.6028/NIST.SP.800-53r5>

Broad control baseline for organizational systems and services.

RFC 8826

Security Considerations for WebRTC

<https://www.rfc-editor.org/rfc/rfc8826>

WebRTC threat model, identity, signaling, media, and browser security considerations.

W3C WebRTC

WebRTC 1.0: Real-Time Communication Between Browsers

<https://www.w3.org/TR/webrtc/>

Browser media and peer-connection API specification.

C2PA

Coalition for Content Provenance and Authenticity Specification

<https://c2pa.org/specifications/specifications/>

Content credentials, manifests, signing, validation, and provenance.

WCAG 2.2

Web Content Accessibility Guidelines 2.2

<https://www.w3.org/TR/WCAG22/>

Accessibility requirements relevant to media, captions, input, and interaction.

Source currency rule: authorities, specifications, legal obligations, provider services, firmware, browser behavior, carrier requirements, and operational evidence MUST be checked at assessment time. This publication records a 2026-07-24 source snapshot.

11.2 Revision History and Decision Register

Permanent identity, controlled change, and publication integrity

VERSION	DATE	STATE	SUMMARY
1.0.0-candidate	2026-07-24	Candidate	Permanent-publication edition; source refresh; expanded criteria, evidence, assurance, and lifecycle guidance.
Next review	2027-01-24	Scheduled	Review source currency, threat evolution, operating evidence, adoption feedback, and proposed revisions.

Publication decisions

- PERMANENT IDENTITY** The document ID remains stable across revisions; batch or production sequence metadata is not public identity.
- CHANGE CONTROL** Normative changes require rationale, impact analysis, affected-criterion mapping, and approval.
- SUPERSESSION** A superseded edition remains traceable; current routes and catalogs identify the active edition.
- CORRECTION** Material errors require a recorded correction, affected-evidence analysis, and notification appropriate to impact.
- ARCHIVAL INTEGRITY** Published artifacts receive hashes, metadata, and a release manifest sufficient for independent verification.

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