MYTHOS SYSTEMS

ENGINEERING GUIDE

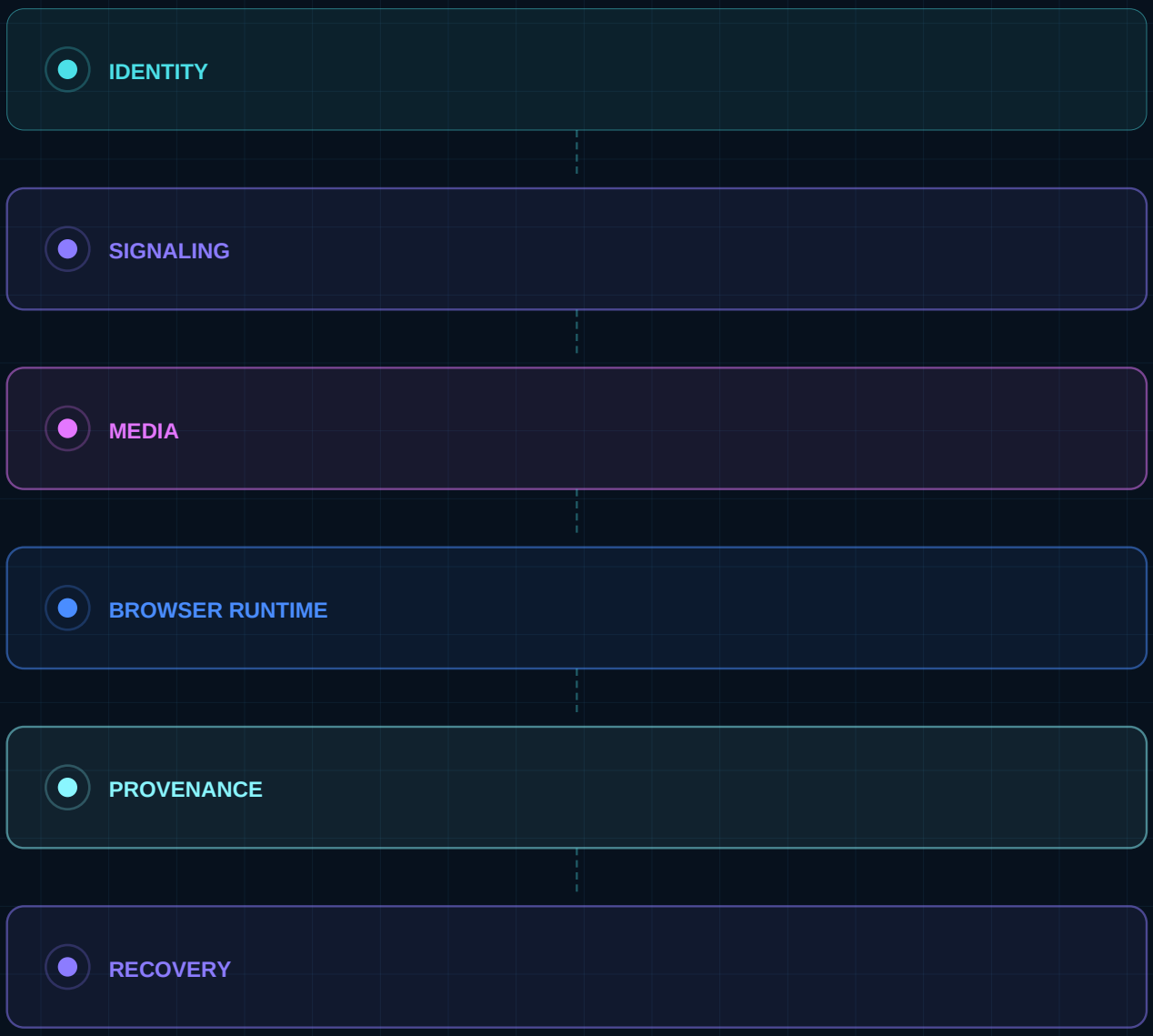
Realtime Media and Browser Compute Engineering Guide

Realtime signaling and media paths, browser/runtime isolation, WebGPU execution, provenance, privacy, quality, and recovery.

MYTHOS-GUIDE-MEDIAWEB-0001

PERMANENT PUBLICATION IDENTITY / CANDIDATE PUBLICATION / PUBLIC

Operating architecture



Evidence-bearing implementation path

01 DEFINE SCOPE & AUTHORITY

02 MODEL STATE & BOUNDARIES

03 IMPLEMENT POLICY & AUTOMATION

04 OBSERVE REAL EFFECTS

05 TEST FAILURE & RECOVERY

06 RECONCILE EVIDENCE

The guide remains informative; conformance is established only by the applicable permanent standards and evidence.

INFRASTRUCTURE AND CONTROL TOPOLOGY

Real-Time Media and Provenance

A trustworthy real-time media and browser compute engineering guide 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

Reconciliation, detection, response, restoration, and controlled evolution

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

0	1	2	3	4	5
ABSENT	AD HOC	PARTIAL	OPERATIONAL	ADVANCED	LEADING

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

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Engineering Doctrine

Implementation guide for WebRTC, synthetic media, content provenance, WebGPU, WebAssembly, WebLLM, browser

OPERATING POSITION

Disclose who or what is participating, what is synthetic, what can access content, what is retained, and what leaves the device.

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Session Security

OPERATING POSITION

Protect signaling, session authorization, media keying, relay boundaries, recording, transcription, and user-visible permissions.

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Synthetic Media

OPERATING POSITION

Govern voice and likeness rights, persona identity, consent, content credentials, deepfake abuse, revocation, and dispute evidence.

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Browser Compute

OPERATING POSITION

Harden origin, CSP, dependencies, workers, storage, model integrity, WebAssembly, WebGPU, permissions, and resource budgets.

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Failure and Fallback

OPERATING POSITION

Define behavior when browser capability, GPU, relay, network, model, signer, identity, or storage is unavailable.

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Publication Controls and Decision Record

Permanent identity, evidence, exceptions, and revision discipline

- Document identity remains stable across revision and packaging.
- Evidence grades and uncertainty accompany consequential claims.
- Exceptions are time-bounded and independently visible.
- Source currency is reviewed at assessment and scheduled publication review.
- Release artifacts are hashed and listed in the public manifest.

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11. Source Authority and Reference Register

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

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.