



TECHNOLOGY DIFFERENTIATORS

Aurora™ Technology Differentiators

A multi-source intelligence fusion platform, and the engineering decisions that let it run wherever a mission requires.

AURORA™ POWERED BY C3.AI · OCTOBER 2026

Executive Summary

The central intelligence problem is no longer how to collect. It is how to integrate, interpret, and act across fragmented data at operational speed.

Aurora™ is a multi-source intelligence fusion and pattern-of-behavior platform. It helps analysts and operators identify hostile reconnaissance, anomalous presence, cross-domain relationships, infrastructure exposure, and early indicators of operational intent. C3.ai provides the enterprise architecture that makes the capability operational at institutional scale, across public cloud, private cloud, hybrid, and edge environments. The sections that follow describe each differentiator in detail.

01 Intelligence Layer MULTI-AGENTIC ENGINE · ASKAURORA™ Specialized agents fuse open-source, geospatial, movement, and infrastructure data. Analysts query the fused environment in natural language and keep responsibility for interpretation.	02 C3.ai Platform MODEL-DRIVEN ENTERPRISE AI Type System abstraction, federated data integration, governed generative AI, and secure deployment from cloud to edge.
03 Global Collection Network SHARDED · GEO-DISTRIBUTED · HASH-PARTITIONED 17 billion+ daily geolocation points from 3 billion+ devices. One identifier per request, no central index, data pinned to any jurisdiction.	04 GeoStudio® Sessionization PACKET → SESSION → JOURNEY Raw AIS, ADS-B, and device feeds ordered into voyages, flights, and movement histories that can be counted, compared, and queried.
05 Unclassified Access Strategy COMMERCIAL SAAS & GENAI UNDER OPSEC Obfuscated queries, local filtering, and human-reviewed one-way transfer. No classified data reaches the provider.	06 Inference Engine BROWSER-NATIVE, ON-DEVICE AI Models run in the browser on local CPU, GPU, or NPU. Zero installation, no inference servers, fully offline after first load.
07 Source Code Strategy ON-SITE INSTALLATIONS Source code, IaC, PaC, SaC, and Gen AI tooling ship with every on-site installation. No vendor lock-in.	08 Operational Use Cases SIX MISSION SCENARIOS Counterterrorism, maritime, critical infrastructure, force protection, urban security, and counterintelligence.

01 Aurora™: A New Intelligence Layer

A platform for fusion, not a narrow data product.

Aurora™ brings open-source information, geospatial intelligence, movement and device data, and environmental or infrastructure context into a single analytical environment. Its value is strongest where the question is not "where did a device go?" but "what does the broader pattern mean when viewed alongside open-source reporting, infrastructure context, co-location, and mission-specific indicators?"

ENGINE
Multi-agentic analysis

Hundreds of specialized agents and models operate concurrently across the collection network, processing multilingual surface, deep, and dark web text and reaching consensus on concepts and topics.

INTERFACE
askAurora™

A controlled natural-language layer. Analysts pose mission questions against the fused environment without needing to know where each source resides.

FEEDBACK
Human-in-the-loop

Analysts reinforce useful outputs and deprioritize irrelevant ones, adapting the platform to mission practice and relevant threat patterns.

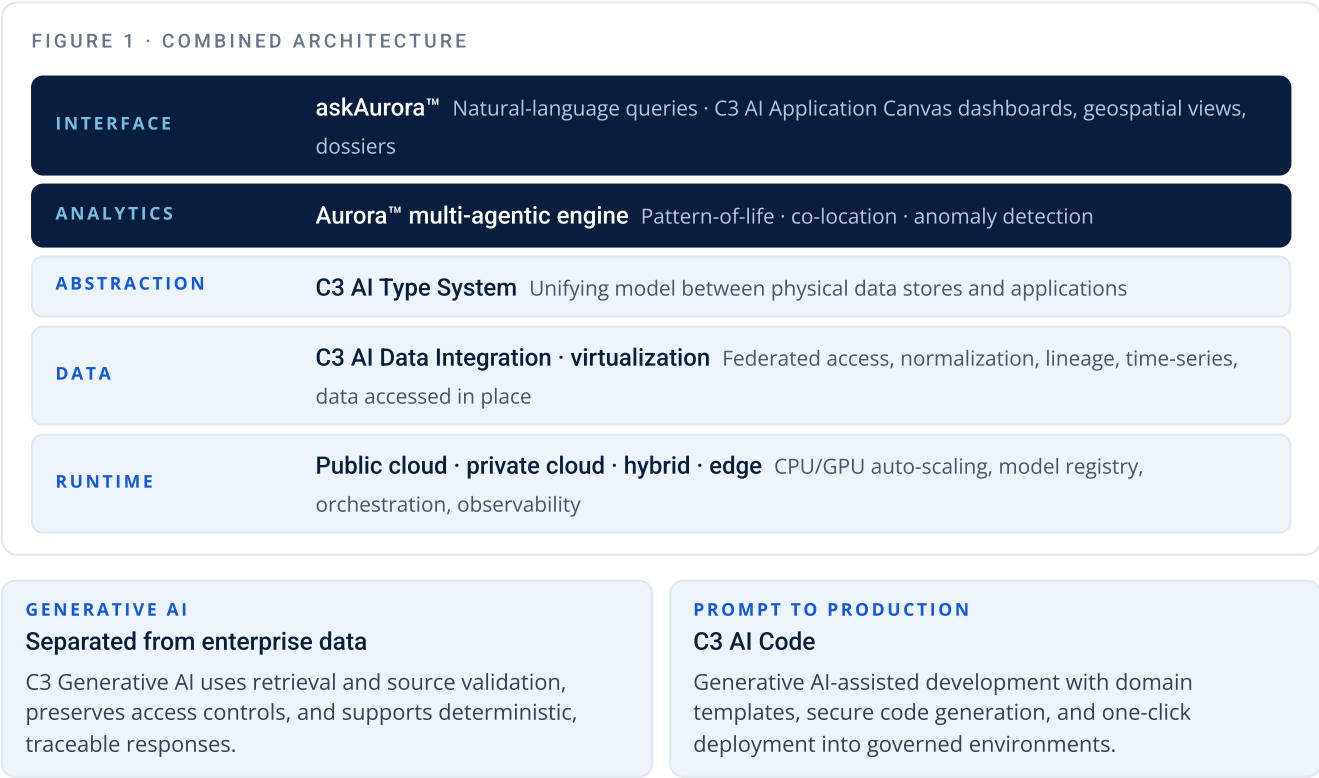
PATTERN DETECTION, CO-LOCATION, AND ANOMALY IDENTIFICATION

Many hostile activities appear first as pattern changes rather than discrete events, and may not trigger rule-based systems: short-duration visits near a protected facility, repeated device presence at unusual hours, indirect proximity between entities through shared locations, or correlation between online rhetoric and local movement.

In intelligence settings, **augmentation is more credible than automation.**

02 The Role of C3.ai

Aurora™ addresses the intelligence problem from the analytic side; C3.ai addresses it from the enterprise systems side, providing the secure, model-driven platform on which it is built, governed, and sustained.



03 The Global Collection Network

A distributed collection and processing fabric built for billions of requests.

The GCN is a purpose-designed hierarchical file system (HFS) that can be sharded, geo-distributed, and hash-partitioned across one or many stores. It ingests more than 17 billion daily geolocation points from over 3 billion devices. The same structure runs in cloud object storage, on local disk, or in memory, and a single deployment can mix cloud and local storage through configuration, with authorisations issued by the Security as Code Service.

One structure at every scale
A laptop, an air-gapped server, and a multi-region estate share the same layout and behave identically.

One identity per request
A collision-resistant, time-ordered identifier is kept unchanged from incoming to results, status, errors, and logs.

No central index
Consistent hashing lets any client calculate where a file lives. There is no lookup service to overload or fail.

FIGURE 2 · GCN HFS LAYOUT

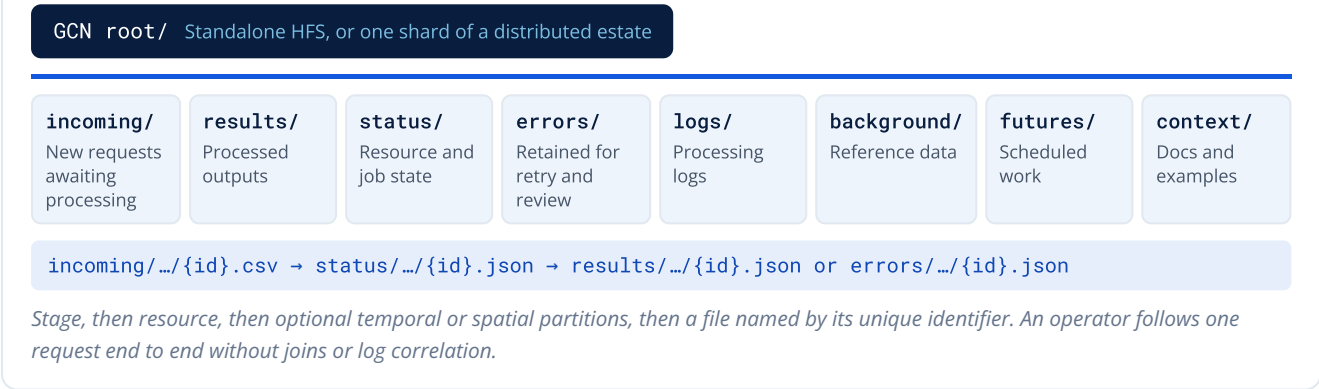
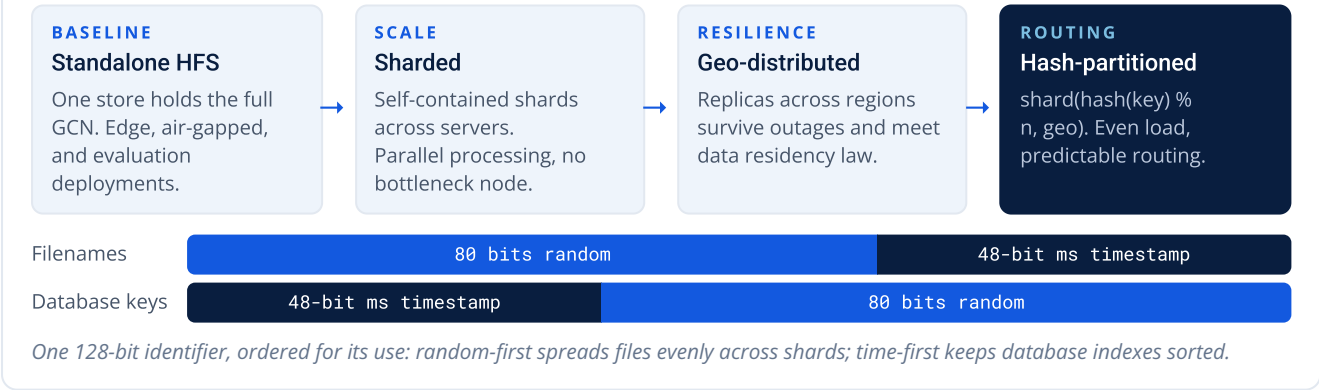


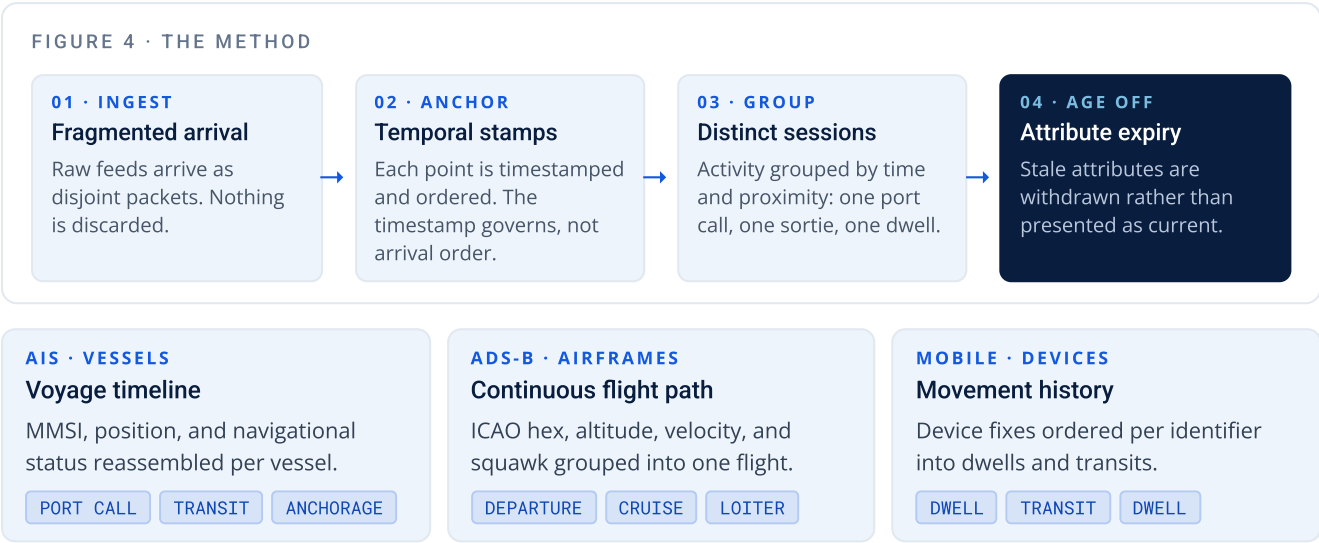
FIGURE 3 · DEPLOY ANYWHERE, SCALE OUT BY CONFIGURATION



CAPABILITY	WHAT IT MEANS FOR AN EVALUATOR
Sovereign by configuration	Data can be pinned to a region, a customer data centre, or a disconnected network without a separate product.
Same system, any footprint	Pilots and production share one architecture, which shortens accreditation and removes migration risk.
Resilience	Replicated shards survive node and regional failures. Requests queue rather than drop during outages.
Full auditability	One identifier per request across every stage gives chain-of-custody style traceability.

04 Aurora:GeoStudio® Sessionization

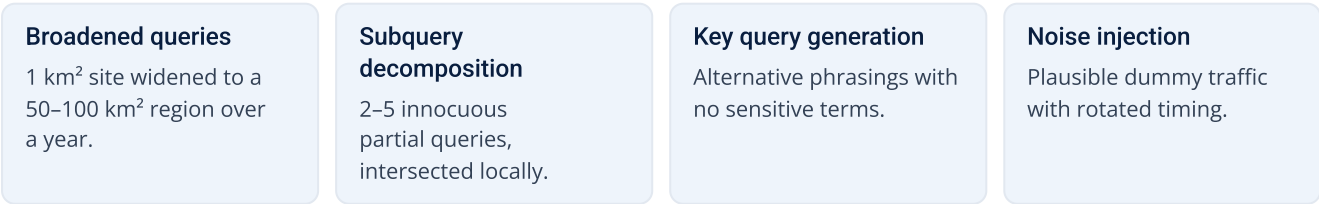
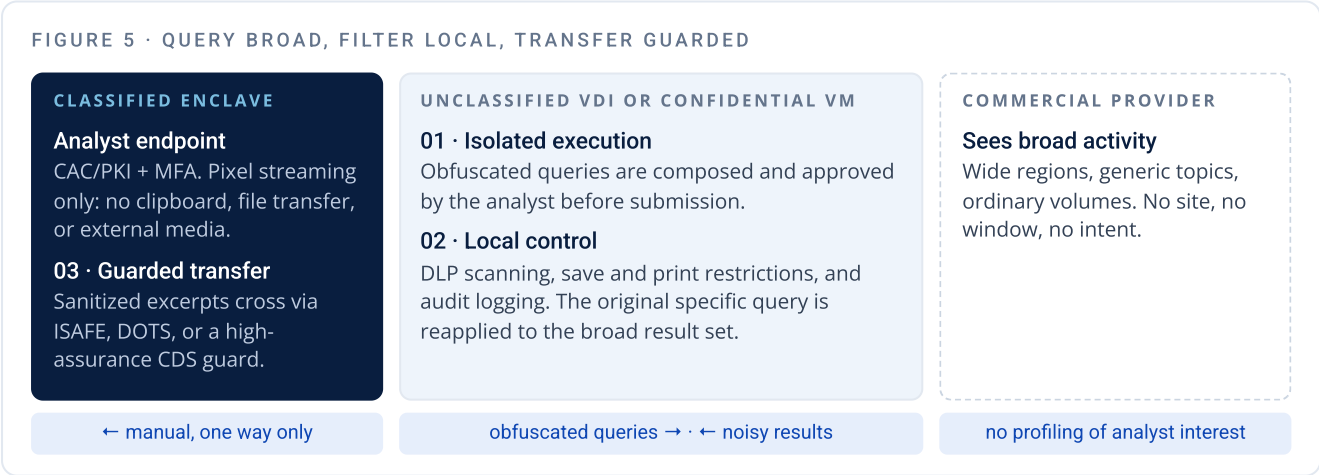
Sessionization organises raw data points into a coherent timeline, grouping related activity into distinct sessions on time-based criteria. It is the step between a feed and an answer: without it, an analyst holds packets; with it, they hold a voyage, a sortie, or a pattern of life.



In one session set, 10,795 fixes resolved to a single ordered path over 30 days. Once sessionized, duration, dwell, gap, and change over time become measurable properties. Where a feed goes quiet, the session records a gap; no positions are interpolated.

05 Unclassified Access Strategy

Classified programs need commercial analytics and GenAI, but querying a commercial provider reveals the site, the window, and the intent. Aurora resolves this with an isolated consumption layer. No classified data ever reaches the provider, 80–90% of results are discarded locally, and 100% of transfers are human-reviewed.

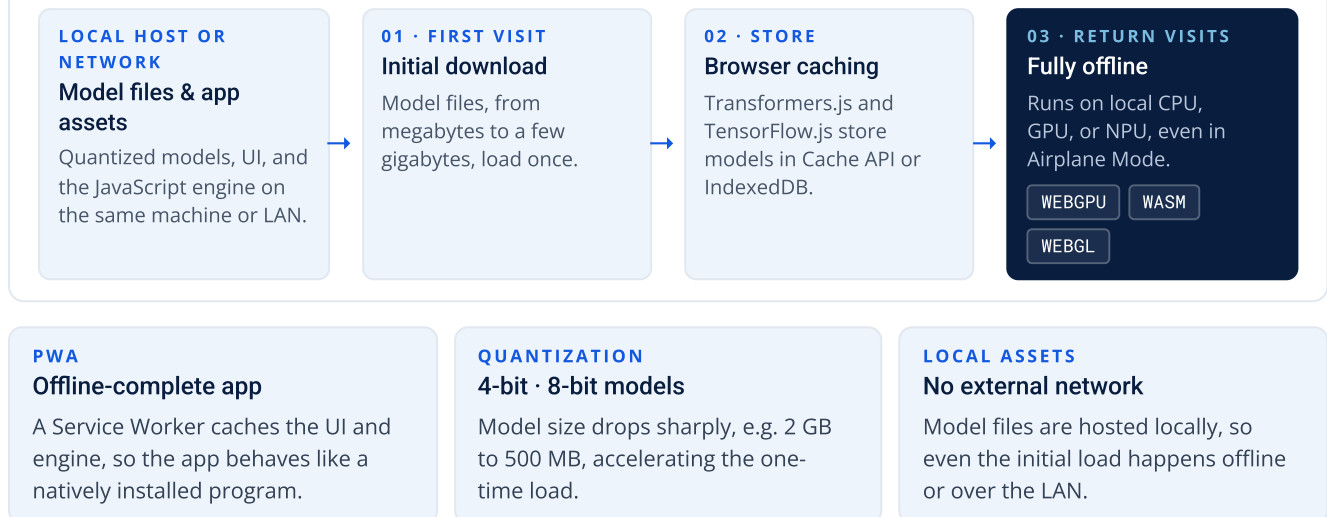


The same pattern applies to GenAI: prompts are reviewed before submission, responses are filtered in-session, and only sanitized excerpts move across, never raw prompts or full model outputs.

06 Aurora™ Inference Engine

A zero-installation, browser-based solution that runs AI models on the user's own hardware using WebGPU, WebAssembly, and WebGL. Mission data never leaves the device, no persistent cloud connection is needed after the first load, and there are no inference servers to operate.

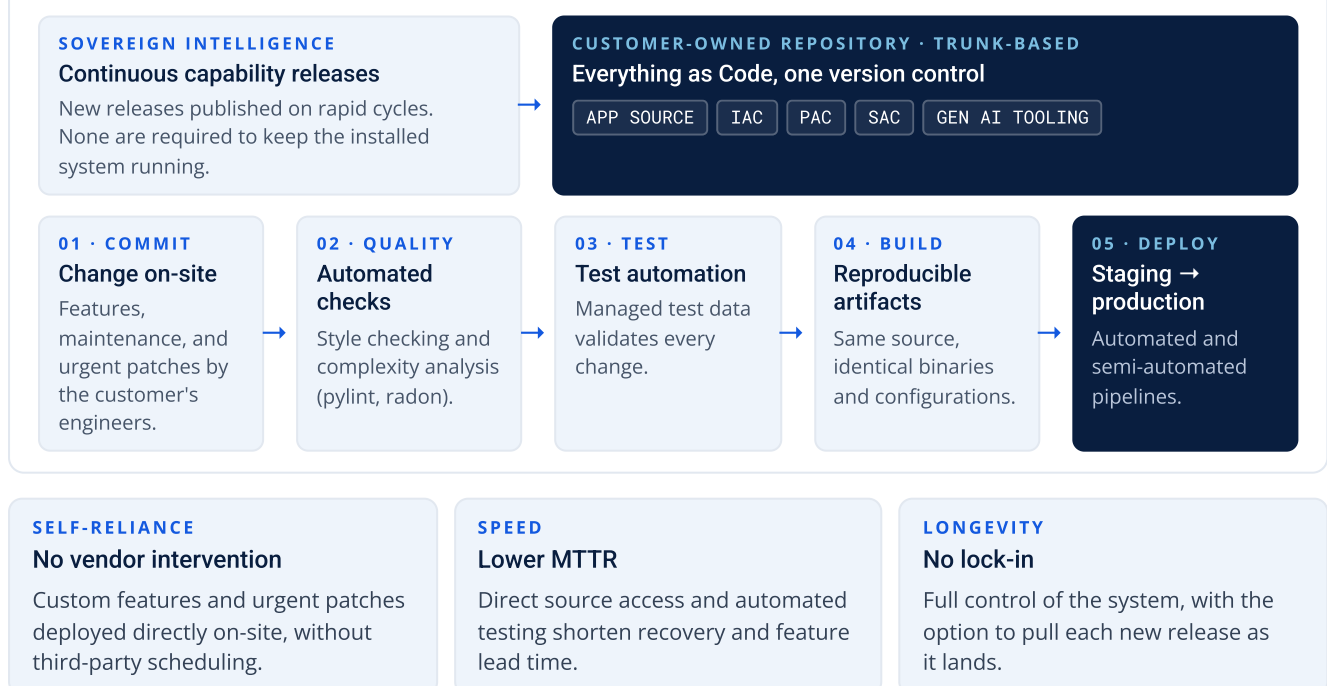
FIGURE 6 · HOW OFFLINE MODE WORKS



07 Source Code Strategy · On-Site Installations

Every on-site installation ships with its source code alongside Infrastructure as Code, Pipeline as Code, Security as Code, Everything as Code, and Gen AI tooling for mission, workflow, and application creation. Customers operate, maintain, and develop their systems independently. Sovereign Intelligence retains its core IP and keeps its advantage through continuous delivery rather than code lock-in.

FIGURE 7 · DELIVERY MODEL AND ON-SITE PIPELINE



08 Operational Use Cases

The value of a fused Aurora™ and C3.ai environment is best understood through realistic mission scenarios.

6.1

Counterterrorism and pre-operational surveillance

With no named suspect, CCTV metadata, access-control events, extremist rhetoric, policing reports, and movement indicators around symbolic targets are correlated to surface hostile reconnaissance.

6.2

Border and maritime domain awareness

Intermittent transponder loss, route deviation, and proximity behavior become suspicious when compared against normal merchant patterns and infrastructure geography.

6.3

Critical infrastructure protection

Physical presence, cyber activity, sensor anomalies, maintenance irregularities, and unusual procurement at energy, telecom, transport, or water sites are evaluated together.

6.4

Military force protection

Perimeter movement, shifts in social-media messaging, altered traffic routes, and supply anomalies are compared against baselines before they harden into attacks.

6.5

Urban security and unknown actors

Vast volumes of mostly benign movement, commercial, and open-source data are filtered to identify the few actors whose patterns warrant attention.

6.6

Counterintelligence and hostile networks

Weak signals such as unusual access, repeated proximity to sensitive facilities, and anomalous digital behavior are assessed together to reveal emerging networks.

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