



AIRPORT ESTATE & REVENUE INTELLIGENCE SYSTEM

CORE PLATFORM

Technical & Feature Documentation

Architecture, security, integrations and the complete feature inventory of the AERIS core platform — written for airport IT and information security review.

DOCUMENT	Technical & feature documentation
PRODUCT	AERIS — Airport Estate & Revenue Intelligence System
AUDIENCE	Airport IT, security, finance systems
MODULES COVERED	14 core modules
CLASSIFICATION	Commercial in confidence

Trident Marketing & Technologies Inc. · Bridgetown, Barbados · Caribbean & emerging markets · info@tridentmarketing.tech · tridentmarketing.tech

INTRODUCTION

Scope of this document

This is the technical and feature documentation for the AERIS core platform — the commercial operating system licensed to airport authorities as a white-label system. It sets out the full feature inventory module by module, the architecture and hosting model, the security and data-protection controls, the integration surface, the operating commitments and everything an airport's IT function needs to complete an internal review.

For IT and security

- Architecture, tenancy and hosting model
- Authentication, roles and audit
- Encryption, backup and recovery
- Integration and export surface

For finance and commercial

- Feature inventory across 14 modules
- Reporting and export formats
- Approval and workflow controls
- Data migration and reconciliation

SYSTEM DESIGN

Platform architecture

AERIS is a managed, cloud-hosted web application. Each airport authority is provisioned on an isolated tenancy with its own database, storage and configured domain. There is no shared application database between clients, and no client data crosses a tenancy boundary.

Layer	Specification
Delivery model	Software as a service, fully managed and operated by the vendor. No airport-side servers, agents or installed software.
Client access	Browser-based. Responsive interface for desktop, tablet and mobile. No plugins, no Java, no desktop client.
Tenancy	Single-tenant database per airport authority, provisioned at implementation and isolated for the life of the licence.
Application tier	Server-rendered React application on an edge runtime, with server-side execution of all privileged logic.
Data tier	Managed PostgreSQL with row-level security enforced at the database, not only in the application.
File storage	Object storage for lease documents, invoices and attachments, with signed, expiring access URLs.
Email	Transactional email delivered through an authenticated sending domain that you own (SPF, DKIM and DMARC aligned).
Domain	Your own domain or subdomain, with TLS certificates issued and renewed by the vendor.

Layer	Specification
Environments	A production tenancy plus a staging tenancy for configuration and user acceptance testing during implementation.

SECURITY

Identity, roles and access control

- Email and password authentication with enforced password policy and rate-limited sign-in.
- Single sign-on available on request via SAML 2.0 or OpenID Connect against the airport's identity provider.
- Multi-factor authentication supported for staff accounts; enforced by policy where the airport requires it.
- Role-based access control: administrator, commercial, finance, operations, read-only and tenant roles as standard, with custom roles configurable.
- Permissions are evaluated server-side and again at the database through row-level security policies.
- Tenant portal users are scoped strictly to their own leases, invoices, documents and submissions.
- Sessions expire on inactivity; administrators can revoke a session or disable an account immediately.
- Every create, edit, delete, export and permission change is written to an immutable audit trail with actor, timestamp and before/after values.

ASSURANCE

Data protection and resilience

Control	Implementation
Encryption in transit	TLS 1.2+ on every connection, with HSTS enforced on the airport's domain.
Encryption at rest	AES-256 on database volumes, backups and object storage.
Cardholder data	Never stored, processed or transmitted by the platform. Card entry is handled entirely on the payment gateway's hosted page.
Backups	Automated daily backups with point-in-time recovery, retained on a rolling schedule and restore-tested.
Recovery objectives	Target RPO of 24 hours or better and RTO measured in hours, confirmed in the service schedule at contract.
Data residency	Hosting region agreed at implementation where the airport has a regulatory requirement.
Data export	Full estate export to CSV and XLSX at any time; a complete structured export is provided on termination.
Retention and deletion	Retention periods configured to the airport's records policy; deletion is soft by default and auditable.

Control	Implementation
Monitoring	Availability, error and performance monitoring with alerting to the vendor operations team.

Governance frameworks the platform is engineered against:

- NIST Cybersecurity Framework. Identify, protect, detect, respond and recover, mapped to real systems and risk tolerance.
- ISO/IEC 27001 & 27002. Information security management aligned to international standards, audit-ready from day one.
- SOC 2 Type I & II. Trust service criteria — security, availability, confidentiality — for platform operators.

THE FOURTEEN CORE MODULES

Feature inventory

Every module below is included in the annual platform licence. There are no per-seat charges and no metered record counts — all staff at the airport authority work in the same system, on the same data.

01 · Lease Register

Every commercial, concession, office and land lease in one register, from heads of terms to expiry.

- Full lifecycle: draft, active, renewal, holdover, terminated
- Rent schedules, escalations and indexation applied automatically
- Break clauses, options and obligations tracked against dates
- Document vault with version history on every agreement

02 · Smart Lease Reader

Upload a signed lease and have the commercial terms read out of it, each with a source quote.

- Parties, term, rent, escalation and area extracted automatically
- Every field carries the clause it came from for verification
- Low-confidence values are queued for a human, never guessed
- Cuts a multi-day abstraction backlog to an afternoon

03 · Tenant Management

One record per tenant covering contacts, entities, documents and history.

- Trading names, legal entities and group structures
- Insurance certificates, licences and expiry monitoring
- Contact matrix for operations, finance and emergencies
- Complete interaction history across the estate

04 · Properties & Units

Terminals, piers, cargo sheds, offices and land parcels mapped to lettable units.

- Hierarchy from site to building to floor to unit
- Interactive floor plans with occupancy overlays
- Area schedules driving rent and service charge apportionment
- Vacancy, occupancy and rent-per-square-foot at a glance

05 · Payments & Ledger

Receipts, allocations and arrears against a single tenant ledger.

- Record cash, cheque, transfer and card settlements
- Part payments, credits, deposits and write-offs
- Ageing and arrears positions maintained in real time
- Late payment policy applied consistently across tenants

06 · Budgeting & Forecasting

Contracted income modelled forward, budget against actual by period.

- Forward rent roll from the live lease register
- Scenario modelling for renewals, vacancies and new lettings
- Budget versus actual variance by property and category
- Board-ready income projections without a spreadsheet

07 · Analytics

Occupancy, income, arrears and expiry exposure in one operational view.

- Live KPIs: occupancy, collection rate, arrears, WAULT
- Income concentration by tenant, category and terminal
- Expiry profile so renewal risk is visible years ahead
- Drill from any chart straight to the underlying leases

08 · Reports & Exports

Standard and scheduled reporting in PDF and Excel, branded for your airport.

- Rent roll, arrears, ageing, expiry and occupancy packs
- Scheduled distribution to executives and the board
- Excel exports for finance and audit
- Branded PDF output using your own identity

09 • Tenant Risk Scoring

A payment-behaviour score for every tenant so exposure is seen before it bites.

- Scoring from payment history, arrears age and volatility
- Watch list with recommended collection actions
- Exposure by tenant against deposits and guarantees
- Trend view showing deterioration early

10 • Critical Dates & Calendar

Nothing lapses silently — every date that matters is watched and escalated.

- Expiries, break options, rent reviews and insurance renewals
- Tiered reminders at 180, 90, 30 and 7 days
- Calendar view across the whole estate
- Escalation to a named owner when a date passes

11 • Workflows & Approvals

Renewals, applications and charge approvals routed through defined steps.

- Configurable approval chains per transaction type
- Tasks assigned with due dates and owners
- Status visible to everyone involved
- Every decision recorded against the record

12 • Communications Hub

Notices, announcements and tenant correspondence, sent and logged in one place.

- Broadcast announcements to the whole estate or a segment
- Templated notices for arrears, works and renewals
- Two-way messaging tied to the tenant record
- Delivery and read tracking on every message

13 • Maintenance & Requests

Tenant-raised issues and information requests tracked to resolution.

- Requests raised from the tenant portal with photos
- Priority, assignment and resolution SLAs
- Information request register for statutory responses
- Full history attached to the unit and the lease

14 · Access Control & Audit

Role-based permissions with an immutable trail of who changed what.

- Admin, finance, commercial, operations and tenant roles
- Field-level restrictions on commercially sensitive data
- Immutable audit trail on every create, edit and delete
- System health and notification monitoring for administrators

FEATURE MATRIX

Licence coverage at a glance

Module	Principal capabilities	Licence
Lease Register	Full lifecycle: draft, active, renewal, holdover, terminated; Rent schedules, escalations and indexation applied automatically; Break clauses, options and obligations tracked against dates.	Core licence
Smart Lease Reader	Parties, term, rent, escalation and area extracted automatically; Every field carries the clause it came from for verification; Low-confidence values are queued for a human, never guessed.	Core licence
Tenant Management	Trading names, legal entities and group structures; Insurance certificates, licences and expiry monitoring; Contact matrix for operations, finance and emergencies.	Core licence
Properties & Units	Hierarchy from site to building to floor to unit; Interactive floor plans with occupancy overlays; Area schedules driving rent and service charge apportionment.	Core licence
Payments & Ledger	Record cash, cheque, transfer and card settlements; Part payments, credits, deposits and write-offs; Ageing and arrears positions maintained in real time.	Core licence
Budgeting & Forecasting	Forward rent roll from the live lease register; Scenario modelling for renewals, vacancies and new lettings; Budget versus actual variance by property and category.	Core licence
Analytics	Live KPIs: occupancy, collection rate, arrears, WAULT; Income concentration by tenant, category and terminal; Expiry profile so renewal risk is visible years ahead.	Core licence
Reports & Exports	Rent roll, arrears, ageing, expiry and occupancy packs; Scheduled distribution to executives and the board; Excel exports for finance and audit.	Core licence
Tenant Risk Scoring	Scoring from payment history, arrears age and volatility; Watch list with recommended collection actions; Exposure by tenant against deposits and guarantees.	Core licence
Critical Dates & Calendar	Expiries, break options, rent reviews and insurance renewals; Tiered reminders at 180, 90, 30 and 7 days; Calendar view across the whole estate.	Core licence
Workflows & Approvals	Configurable approval chains per transaction type; Tasks assigned with due dates and owners; Status visible to everyone involved.	Core licence

Module	Principal capabilities	Licence
Communications Hub	Broadcast announcements to the whole estate or a segment; Templated notices for arrears, works and renewals; Two-way messaging tied to the tenant record.	Core licence
Maintenance & Requests	Requests raised from the tenant portal with photos; Priority, assignment and resolution SLAs; Information request register for statutory responses.	Core licence
Access Control & Audit	Admin, finance, commercial, operations and tenant roles; Field-level restrictions on commercially sensitive data; Immutable audit trail on every create, edit and delete.	Core licence
Invoicing & Billing	Raise, issue and track every tenant invoice from one register.	Add-on module
Online Payments	Tenants settle invoices online by card, straight from the portal.	Add-on module
Revenue Intelligence	Tenant sales statements read automatically, percentage rent calculated against the lease.	Add-on module

INTEROPERABILITY

Integration surface

- Finance systems. Scheduled and on-demand exports of invoices, receipts and ledger movements in CSV or XLSX, mapped to your chart of accounts.
- Payment gateway. Hosted payment page integration for card settlement into the airport's own merchant account (Online Payments add-on).
- Email. Transactional delivery through your authenticated sending domain, with delivery and bounce logging.
- Identity provider. SAML 2.0 or OIDC single sign-on against Entra ID, Google Workspace or an equivalent directory.
- Documents. Bulk import of existing lease documents, with the Smart Lease Reader extracting key terms for review.
- Reporting. Board and management packs exported as PDF or XLSX; scheduled distribution by email.
- Webhooks and API. Read endpoints and event webhooks available where an airport needs to feed a data warehouse or BI tool.

DELIVERY

Implementation and onboarding

- 01. Discovery (week 1). Estate walkthrough, lease inventory, chart of accounts, user roles and approval chains agreed and documented.
- 02. Configuration (weeks 2–3). Properties, units, tenants and lease terms loaded; branding, domain, certificates and sending domain applied.
- 03. Data assurance (week 4). Rent schedules, balances and arrears reconciled line by line against your finance records and formally signed off.

- 04. Training (week 5). Role-based sessions for commercial, finance, operations and executive users, with written guides retained by the airport.
- 05. Go live (week 6). Parallel run against the previous process, tenant portal invitations issued, hypercare through the first full billing cycle.

Responsibility	Detail
Airport inputs	A named project owner, access to current lease documents and balances, branding assets, DNS records for domain and email.
Vendor inputs	Provisioning, configuration, data load, reconciliation support, training delivery and go-live hypercare.
Typical duration	Six weeks from kick-off, subject to the completeness of the source lease records.
Change control	Configuration changes after go-live are raised through support and applied to staging before production.

SERVICE

Operating and support commitments

Commitment	Detail
Availability	Managed hosting with monitored uptime; the target service level is confirmed in the service schedule.
Support channel	Named support contact by email with an escalation path to the delivery lead.
Incident response	Prioritised triage: service-down incidents are worked continuously until resolved.
Maintenance	Updates applied by the vendor with no airport-side action; disruptive work is scheduled and notified in advance.
Product updates	Continuous improvement to the core platform is included for the term at no additional cost.
Documentation	This document, role-based user guides and configuration records are maintained and reissued on material change.

FAQ

Questions IT reviewers ask

Do we have to host or maintain anything?

No. AERIS is fully managed. There is no airport-side server, agent or installed software; staff use a browser.

Is our data separated from other airports?

Yes. Each airport authority runs on its own isolated tenancy and database. Nothing is co-mingled and no cross-tenant query is possible.

Can we use our own single sign-on?

Yes. SAML 2.0 and OpenID Connect are supported against your identity provider; this is configured during implementation.

What happens to our data if we stop the licence?

You receive a complete structured export of the estate — leases, tenants, invoices, payments and documents — in open formats.

Is any cardholder data stored?

No. Card details are captured on the gateway's hosted page and never touch the platform. AERIS stores only the transaction reference and result.

Can the system be branded as ours?

Entirely. Identity, domain, sending domain and document templates are yours; nothing in the running application refers to the vendor.

This document is written for airport IT, information security, finance systems and procurement reviewers. Commercial terms are issued separately on a formal quotation and are visible to verified airport accounts in the AERIS client portal.

Prepared by Trident Marketing & Technologies Inc. · info@tridentmarketing.tech · tridentmarketing.tech