CORTEX
SERVICE

The cloud-based maintenance solution

Access, manage and complete critical tasks anytime, anywhere, even offline, ensuring seamless operations and data-driven decisions for the entire airside.



Why CORTEX Service?

Purpose-built for the Airside
From runway lighting, apron aircraft docking systems to airport weather systems, every feature is designed around the specific reality of airside asset management and maintenance

End-to-end maintenance management
Work orders, preventative maintenance scheduling, tracking, and reporting all in one platform.

Real-Time Collaboration
Link your on-site technicians, management team, and even external contractors with integrated notifications and shared dashboards.

Works the way your team works
Native iOS with offline mode, plus a responsive mobile WebApp for any browser.

Seamless Hardware Integration
Connect your compatible torque wrenches, location devices, and other specialized equipment to ensure precise data collection and reduce manual errors.

Real-time IoT intelligence
Live monitoring, instant alerts, and trend analytics for every connected airside device.

Enterprise integration ready
Public REST API connects to Maximo, Oracle and beyond with no VPN or firewall changes required.

Airside Intelligence AI
Embedded AI assistant delivers instant access to ADB SAFEGATE manuals, procedures and safety guidance in any language.

Cloud-native on Microsoft Azure
100% cloud-based with global support, dedicated service desk, and continuous software enhancements.

CORTEX
SERVICE

Subscription Packages

Scales with your Airport
Choose from two core packages with full mobile and on-site application access. Start with what you need today and expand as your airport grows.

Cn

CONNECT

Real-time IoT monitoring or your connected airside from anywhere in the world.

- Live status and GIS mapping of connected assets
- Email & MS Teams alerts and notifications
- Workspace with Cockpit-aligned asset colors
- Dynamic Issue Trend charts — click to filter assets
- Observations with photo capture & virtual pin drop

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MAINTENANCE

All the benefits of Connect, plus full preventive & corrective maintenance management.

- Work order creation, assignment & tracking
- Preventative Maintenance Scheduling
- Advanced audit and compliance reporting

Api

API INTERFACE (Add-on)

Real-time data exchange with any enterprise platform supporting RESTful API including IBM Maximo, Oracle and Microsoft Dynamic 365.

- **Asset Management:** Query, create and sync asset records.
- **Work Order Lifecycle:** Create, update and get status of work orders with full bidirectional sync.
- **Security:** Supports industry standard authentication, data encryption and publicly reachable with no VPN.



Features

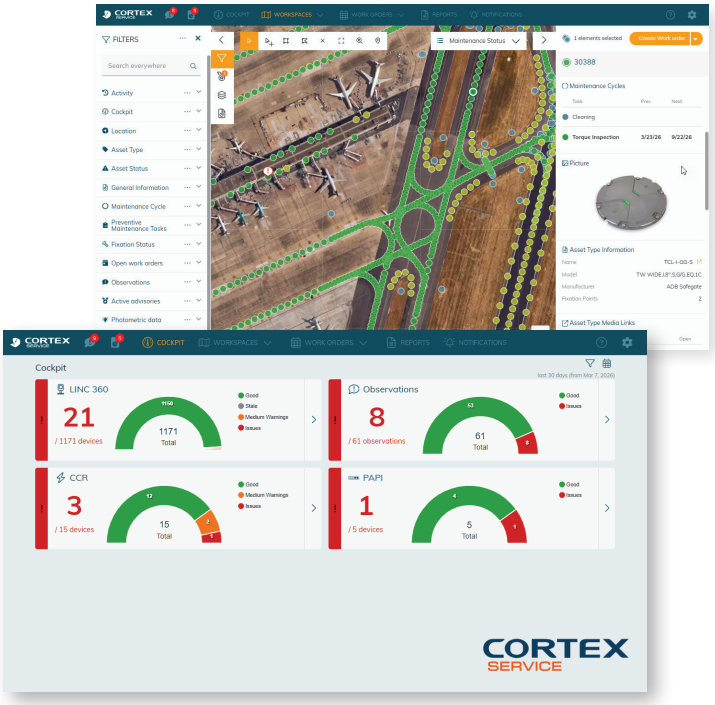
With CORTEX Service delivered as a cloud-based application, airports enjoy a modern solution that's always up to date. Security patches, updates, and new features are delivered seamlessly, with no IT intervention. By leveraging the cloud, airports benefit from a more secured environment, lower downtime, and faster access to improvements and features like these:

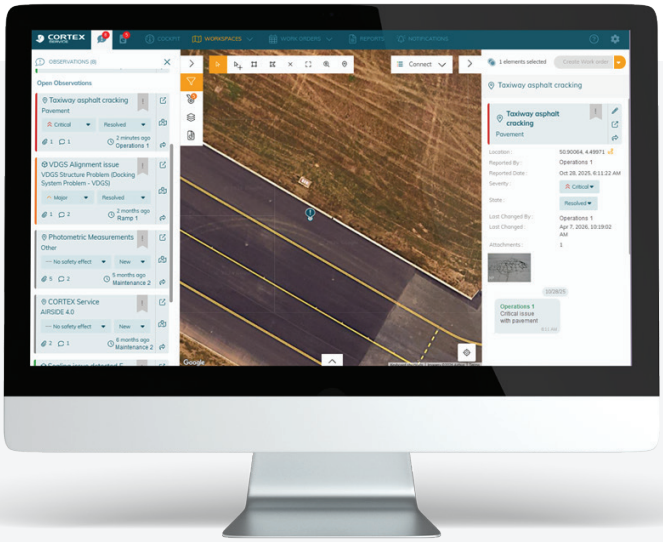
AI AIRSIDE INTELLIGENCE

- Embedded product assistant within the application
- Provides product manuals, wiring diagrams, and maintenance steps for the selected asset
- Delivers guidance in context (right where the work is happening)
- Available in any language

Workspace & Cockpits

- Visualize exact location of connected assets from anywhere
- Drill into details via 'Digital Twin' asset data
- Cockpits provide powerful analytics and dashboarding for intuitive diagnostics
- Review historical data and optimize maintenance cycles via dynamic trend bar charts





Observations & Alerts

- Attach photo(s) and log an observation anywhere on the airside
- Drop a virtual pin on the airside map to mark location of report
- Configure automated alerts for new or updated observations
- Maintain real-time communications with key stakeholders

CORTEX SERVICE

Airside Integrations

CORTEX Service integrates seamlessly with a wide range of airside assets including airfield, apron, and weather systems enabling airports to consolidate vital data in one centralized platform. Flexible integrations allow you to start with what you need now and easily expand as your airport's requirements grow.

Cn CONNECT



AXON EQ Inset Light Monitoring

Real-time status, LED fault, fixture sealing and brightness calibration



PAPI Connect

Monitor glide and horizontal angle settings, operational status, remote alerting



CCR Connect

Real-time status, alarms, insulation resistance and communications.



AXON EQ Elevated Light Monitoring

Real-time status, tilt angle, rotation angle and brightness calibration



LINC 360 Performance Monitoring

Real-time circuit health via heatmap, insulation resistance diagnostics

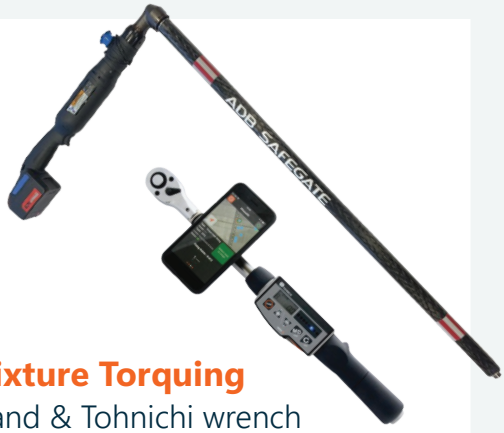


Performance Monitoring Safedock

Real-time status of the SDK X or FleX scanner, internal sensors and the Pilot displays*

** In development for future release*

Mn MAINTENANCE



Airfield Fixture Torquing

Ingersoll Rand & Tohnichi wrench Bluetooth connectivity and automatic torque value logging & reporting

Airfield Lighting Photometric Data

Import photometric data and track illumination levels of light fixtures; visualize runway & taxiway light performance with color-coded map.

- Photometry thresholds are set according to local regulations
- View compliance details and trending



Implementation

CORTEX Service deploys quickly with minimal airport disruption. It includes a compact on-site gateway for connected assets, pre-configured web applications, and seamless cloud integration for fast, hassle-free implementation.

AIRSIDE CLOUD

Powered by Microsoft Azure

Airside CLOUD™

- ADB SAFEGATE's private cloud platform using Microsoft Azure
- Provides the computing power, data storage and analytics that support CORTEX Service



iOS Native App

- CORTEX Service app on iOS devices for iPad and iPhone
- Multiple devices can work in real time



Desktop and Mobile Web App

- Secured multi-factor authentication.
- Cloud-based web application
- No software to download
- Fully responsive on any modern mobile browser (iOS and Android)

{ REST:API }

Enterprise Asset Management Systems (EAMS)*

ArcGIS

Enterprise Resource Planning (ERP)*

ORACLE

Microsoft Dynamics 365

IBM maximo

3rd Party Enterprise Level Platforms

- Standardized Public API scalable with airport's enterprise platforms
- Simple integration without custom development

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CORTEX SERVICE

Specifications

Robust, secure platform for seamless asset and maintenance management.
Flexible integrations for the entire airside.

Specification	Detail
PLATFORM	
Deployment	100% cloud-based Microsoft Azure in a datacenter of your region
Security	Standard TLS encryption and MS Azure data encryption
API	RESTful JSON – OAuth2 / JWT / Basic Auth
APPLICATIONS	
Web app	Desktop & mobile browser — all modern browsers supported (responsive)
Mobile app	iOS native app for iPad & iPhone — see release notes for current iOS requirements
Offline mode	Full iOS offline; auto-sync on reconnect
NOTIFICATIONS & REPORTING	
Notifications	Email · Microsoft Teams · Webhook
Reporting	PDF & Excel export
INTEGRATION	
API	RESTful JSON — OAuth2 / JWT / Basic Auth
Endpoints	Assets · Work orders · Observations · Maintenance tasks
Integrations	Maximo · Microsoft Dynamics 365 · and more
API rates	60 req/min · 3,000 req/day (configurable) · scales to 30,000+ assets

Ready to elevate your airside maintenance?

Contact your ADB SAFEGATE representative or visit the product page to request a live demonstration and discuss the right package for your airport.

▸ Request a Demo ▸ CORTEX Service

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