Smart city video analytics tender specification for agencies and integrators.

This smart city video analytics tender specification gives vendor-neutral clauses to copy into a bid.

Functional requirements

CLAUSE	REQUIREMENT	SPECIFICATION
R1	Camera input	Works with existing IP cameras over RTSP and ONVIF, directly or through the agency's VMS or NVR, with no camera replacement.
R2	Use cases	Detects the use cases listed in Annex A, each switched on per camera and per time of day.
R3	Alerts	Alerts named roles by mobile app, SMS, Microsoft Teams, email, dashboard and API, with the clip and camera. At the 95th percentile, an alert arrives within [ ] seconds of the event.
R4	Escalation	Escalates unacknowledged alerts on a schedule the agency sets per case type.
R5	Case routing	Creates a case for each event and routes it to the team or contractor that owns the place and issue, by API into the work-order system.

Closure and record requirements

CLAUSE	REQUIREMENT	SPECIFICATION
R6	Case closure	Re-checks the same camera view and closes the case only when it shows the issue resolved, storing the closing photo.
R7	Privacy	Performs no biometric identification and stores no face templates. Exports blur faces and plates by default; only an authorised role can export unblurred, with the purpose logged under R9.

CLAUSE	REQUIREMENT	SPECIFICATION
R8	Reporting	Produces weekly reports per contractor with cases raised, closed on camera and days to close, approved by an officer.
R9	Audit	Logs every view, search and export with user, time and purpose.
R10	Resilience	Detection, recording and on-site alerts continue through a network outage, and remote alerts send when the link returns.

Deployment options

Bidders price all three options.

OPTION	WHERE PROCESSING RUNS	FITS
On premises	Servers in the agency's data centre	Sovereign data, large camera counts
Edge	Small servers near camera clusters	Limited network links, remote sites
In-country cloud	A partner's government-approved cloud	Fast start, opex budgets

Data handling

TOPIC	CLAUSE
Data location	Video and case data stay in-country, on infrastructure the agency approves.
Retention	The agency sets retention per data type; case clips are deleted when it expires.
Access	Role-based by area and camera; contractors see their own cases only.
Encryption	Encrypted in transit (TLS 1.2 or higher) and at rest (AES-256).
Law	The bidder complies with the agency's data law, such as Singapore's PSGA or Saudi Arabia's PDPL.

Acceptance tests

Every test runs on the agency's own cameras or footage. The agency sets each value marked [ ] before the tender is issued.

TEST	NAME	METHOD	PASS CONDITION
T1	Detection on agency footage	Bidder runs on 20 hours of agency footage with events pre-counted by the agency.	For each Annex A use case, recall of at least [ ] % and at most [ ] false alerts per camera per day
T2	Alert time	[ ] staged events on three live cameras.	At the 95th percentile, the named role receives the alert within [ ] seconds of the staged event
T3	Case closure	Staged event cleared on camera.	Case closes with the photo from the same camera
T4	Offline operation	Link to the dashboard cut for 2 hours.	Behaves as clause R10, with no events lost and the alert backlog delivered within [ ] minutes of the link returning

TEST	NAME	METHOD	PASS CONDITION
T5	Privacy	Five clips with people and vehicles exported by a standard user and the authorised role.	Standard exports blurred; only the authorised role exports unblurred; every export logged with its purpose

Annex A use cases

The agency sets each marked value and deletes unused rows.

USE CASE	EVENT DEFINITION	CONDITIONS	CLOSURE CONDITION
Traffic incidents	Vehicle stopped in a live lane or keep-clear box over [ ] seconds, or debris in a lane	Day and night	Lane clear
Illegal parking	Vehicle in a no-parking zone, bus lane or loading bay over [ ] minutes	Hours set per zone	Zone clear
Crowd density	Over [ ] people per m^2 in a marked area for [ ] minutes	No identification	Density below the level
Public safety	Person on the ground over [ ] seconds, or entry to a closed area	Hours set per zone	Officer closes with a note
Illegal dumping	Waste of [ ] m^2 or more outside a bin point over [ ] minutes	Hotspots drawn per camera	Area clear

Annex A use cases, continued

USE CASE	EVENT DEFINITION	CONDITIONS	CLOSURE CONDITION
Overflowing bins	Waste above the rim or beside a bin point over [ ] minutes	Bin points drawn per camera	Bin point clear
Drains and flooding	Standing water over [ ] % of a marked area for [ ] minutes	Day, night and rain	Water gone
Road damage	Pothole or crack [ ] cm or more across, or a works barrier down	Daylight	Repair shown
Visual pollution	Graffiti, fly-posting or abandoned items over [ ] m^2	Daylight	Item removed
Parks	Closed area entered after hours, litter or a damaged fixture	Hours set per area	Area clear or fixture repaired

Revisions

VERSION	DATE	CHANGE
1.0	7 Nov 2026	First issue.
1.1	8 Nov 2026	Pass values in R3, T1, T2 and T4; export blur in R7 and T5.
1.2	8 Nov 2026	Annex A definitions; Annex B background.

Annex B background for the agency

The agency removes this sourced context before the tender is issued.

Saudi government tenders can weight local content in the financial evaluation, and supply and support through an in-Kingdom integrator count toward it.

Source: Saudipedia, May 2023

Under Singapore's January 2026 Public Sector (Governance) Act amendments, external partners receiving shared government data take on duties equivalent to agencies.

Source: Hogan Lovells

Saudi Arabia's Personal Data Protection Law has been enforceable since September 2024, with SDAIA as regulator.

Source: Clyde & Co