



SMART: RECEPTION – PHYSICAL AI

SERVICE DEFINITION DOCUMENT

G-Cloud 15 Framework | Lot 2b: Cloud Software

SERVICE OVERVIEW

SMART Reception – Physical AI provides AI-powered, physical reception, front-of-house, estate management and patrol capabilities using kiosks, displays, humanoid interfaces, and quadruped robots. **Built on the ICS.AI SMART: Platform**, the service enables organisations to offer consistent, accessible, and governed services across physical locations.

The service supports two core use cases: Reception & Wayfinding (greeting, guidance, triage, signposting via kiosks, displays, and humanoids) and Patrol & Inspection (security patrol, infrastructure inspection, hazardous areas monitoring via quadruped robots). All operations are governed by SMART: Agentic Dome with strict permissioning and audit-ready logs.

SERVICE SCOPE

Reception & Wayfinding

- AI-powered reception via kiosks, displays, humanoids
- Greeting, guidance, and information provision
- Wayfinding and location-based assistance
- Enquiry triage and signposting
- Escalation and hand-off to human staff

Patrol & Inspection

- Scheduled and on-demand patrol routes
- Infrastructure inspection for buildings and structures
- Hazardous environment monitoring without staff exposure
- Security patrol for estates, car parks, perimeters
- Evidence capture with audit-ready logging

QUADRUPED KEY DIFFERENTIATORS

- All-terrain mobility – stairs, slopes, rough ground, obstacles (vs rolling robots)
- Hazardous area monitoring without staff exposure – reduces lone-worker risk
- Governed by SMART: Agentic Dome – consistent governance and safety controls
- Audit-ready logs – compliance focus for public sector requirements

The service is designed for public-facing and operational environments, operating within defined behavioural, safety, and governance boundaries with mandatory human oversight.

PHYSICAL INTERFACE TYPES

SMART Reception – Physical AI can be delivered through one or more of the following interface types:

Kiosk

- Touchscreen or voice-enabled reception points
- Self-service information and guidance
- Structured interaction flows

Display

- Digital signage with AI-driven interaction
- Contextual prompts and information delivery
- Assisted wayfinding and announcements

Humanoid

- AI-driven conversational interaction
- Voice and gesture-based engagement
- Clear escalation to human staff

Quadruped

- All-terrain patrol and inspection capability
- Hazardous area access without staff exposure
- Live video streaming with evidence capture
- Autonomous navigation with safety controls

All interface types are powered by the SMART: Platform and governed by the Agentic Dome security controls, ensuring safe operation with full audit trails across reception, inspection, and patrol use cases.

QUADRUPED: SECTOR-SPECIFIC USE CASES

Sector	Primary Use Cases	Key Differentiators
Local Government	Car park patrols, estate security, infrastructure inspection, void property monitoring	Council estates, housing areas, public spaces
Higher Education	Campus security, research facility protection, after-hours coverage	Multi-building campus, student safety
Further Education	College security, workshop safety, car park coverage	Workshop-safe modes, practical areas
Schools & MATs	Multi-site coordination, playground patrol, holiday security	Enhanced child safety controls
NHS & Healthcare	Hospital grounds, plant room inspection, hazardous clinical areas	Healthcare safety zones, CQC compliance
Emergency Services	Incident reconnaissance, hazardous environment entry, search support	Pre-officer entry assessment, evidence capture
Central Government	Secure perimeter patrol, critical infrastructure, sensitive site monitoring	Government security standards, MOD/defence

KEY CAPABILITIES

Reception & Wayfinding

- Greeting and welcome experiences
- Navigation assistance within buildings/sites
- Consistent, approved information delivery
- Understanding visitor intent
- Routing to appropriate services or staff

Enquiry Triage

- AI-powered intent classification
- Structured data capture
- Priority and urgency detection
- Handover with full context
- Reducing pressure on human teams

Patrol & Security (Quadruped)

- Scheduled and on-demand patrol routes
- Geofenced zones with boundary enforcement
- Anomaly detection with real-time alerts
- Visible deterrent presence
- Evidence capture for incidents

Infrastructure Inspection (Quadruped)

- Visual AI damage assessment
- Building condition surveys
- Hard-to-reach area access
- Maintenance record integration
- Timestamped inspection logs

Platform Integration

- Integration with SMART: Front Door services
- Access to SMART Data for AI-ready information
- Optional SMART: Agentic workflows
- Integration with estates/facilities systems

Hazardous Environment (Quadruped)

- Assessment without staff exposure
- Confined space entry capability
- Real-time video streaming
- Lone-worker risk reduction

KEY FEATURES

- AI-powered physical reception interfaces (kiosk, display, humanoid)
- Voice, visual, and touch-based interaction
- Role- and location-aware responses
- All-terrain mobility: stairs, slopes, rough ground, obstacles (quadruped)
- Scheduled and on-demand patrol mission configuration
- Real-time video streaming with governed evidence capture
- Agentic Dome safety controls for movement and actions
- Secure authentication where required
- Audit logging of interactions, patrols, and detections
- Multi-language support where configured

KEY BENEFITS

Reception & Wayfinding Benefits

- Improves accessibility to services and buildings
- Extends reception availability beyond staffed hours
- Improves consistency of visitor information
- Reduces pressure on frontline reception staff
- Enhances user experience in physical spaces
- Enables scalable, repeatable reception models

Patrol & Inspection Benefits (Quadruped)

- Extends patrol coverage to nights, weekends, and holidays
- Reduces lone-worker risk in isolated or hazardous areas
- Detects incidents faster with continuous monitoring
- Improves deterrence with visible autonomous presence
- Accesses terrain wheeled robots cannot reach
- Reduces infrastructure inspection costs and delays
- Provides consistent evidence quality for incidents
- Frees security staff for response and complex tasks
- Supports compliance with full patrol audit trail
- Maintains safety with Dome governance and permissioning

TECHNICAL ARCHITECTURE

Built on the ICS.AI SMART: Platform, providing:

- Microsoft Azure deployment with UK data residency
- Secure APIs for kiosk, display, humanoid, and robot integration
- AI orchestration for speech, language, navigation, and detection
- Retrieval-augmented generation (RAG) over approved knowledge
- Identity integration via Microsoft Entra ID with RBAC
- Central telemetry for usage, quality, coverage, and risk
- Terrain mapping and autonomous navigation capabilities
- Battery and maintenance monitoring with alerts

GOVERNANCE, SECURITY & COMPLIANCE

- SMART Agentic Dome governance for all Physical AI operations
- Role-based access control for configuration and content
- Policy controls governing interaction and movement behaviour
- Strict permissioning with zone-based access controls (quadruped)
- Safety protocols with emergency stop and recall
- Approved knowledge sources with review and version control
- Mandatory escalation paths to human staff
- Full audit logging of interactions, patrols, detections, and actions
- Sector-specific compliance modes (child safety, healthcare, defence)
- Evidence handling with chain-of-custody compliance
- Safeguards against inappropriate or misleading responses
- GDPR compliant with UK data residency

IMPLEMENTATION APPROACH

- **Discover & scope** – identify locations, reception needs, and patrol areas
- **Select interfaces** – kiosk, display, humanoid, quadruped, or combination
- **Terrain assessment** – survey deployment areas for quadruped capability
- **Configure governance** – behaviours, escalation, content, zones, permissions
- **Map patrol routes** – define schedules, geofences, and priorities (quadruped)
- **Integrate systems** – directories, services, estates, security, workflows
- **Test & assure** – accessibility, safety, usability, and patrol route validation
- **Deploy** – phased rollout by site or zone
- **Operate & optimise** – monitoring and continuous improvement

SUCCESS MEASURES

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|--|--|
| • Visitor satisfaction and accessibility | • Patrol coverage and completion rates |
| • Reduction in reception wait times | • Incident detection response times |
| • Volume handled by Physical AI | • Inspection frequency and findings |
| • Successful escalation rates | • Staff risk reduction metrics |
| • Governance and audit outcomes | • Operational uptime/availability |

DEPENDENCIES & PREREQUISITES

- SMART: Platform Core (included with any SMART: product)
- Compatible kiosk, display, humanoid, or quadruped hardware
- Microsoft Azure subscription (UK or EU hosted)
- Microsoft Entra ID for identity management
- Suitable physical environments
- Terrain assessment for quadruped deployment areas
- Network connectivity across reception points and patrol routes
- Charging infrastructure at designated locations (quadruped)

Hardware devices are supported where compatible. Procurement and physical installation are out of scope unless explicitly agreed.

USER SUPPORT

The response time is 24 hours, depending on the contract signed by the client and applies during working hours from Monday to Friday. The Support levels are as follows:

Level	Description	Response
Level 1: Urgent	System not responding or critical function loss that affects all users.	24hr fix/workaround
Level 2: High	A function loss that causes significant disruption to business and users.	Priority response
Level 3: Normal	Function loss that affects some users but will not stop them from being able to do other tasks.	Standard response
Level 4: Low	A cosmetic issue or a minor function loss that affects some users.	Scheduled response

This service, up to an agreed number of hours per month, is included in the cost of the Licence for the SMART: Reception. Additional support hours can be purchased if required.

DISCLAIMER

This service description was prepared for G-Cloud 15 and will remain on the Digital Marketplace for the duration of the framework period (up to 24 months). As AI technology and our platform capabilities evolve rapidly, specific features, integrations, or functionality described in this document may have changed since publication.

Before purchase, we recommend contacting ICS.AI to confirm current capabilities and any new features that may have been added since this description was published.

CONTACT



VISIT OUR WEBSITE

Learn more about ICS.AI, our services, and how we support the UK public sector with responsible AI

<https://www.ics.ai/>



EMAIL US

Contact our team with questions about our services, G-Cloud offerings, or to start a conversation

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BOOK A MEETING

Schedule a call with our team to discuss your requirements or learn more about our services

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