



OVERVIEW

The IntelliKran Machine Access System is a smart access-control and usage-tracking solution for industrial equipment. The device gives you secure machine access and full operational visibility. It sends data to a local server, which forwards it to the cloud. Both approved and denied access attempts are logged, so your team can manage safety and performance with confidence.

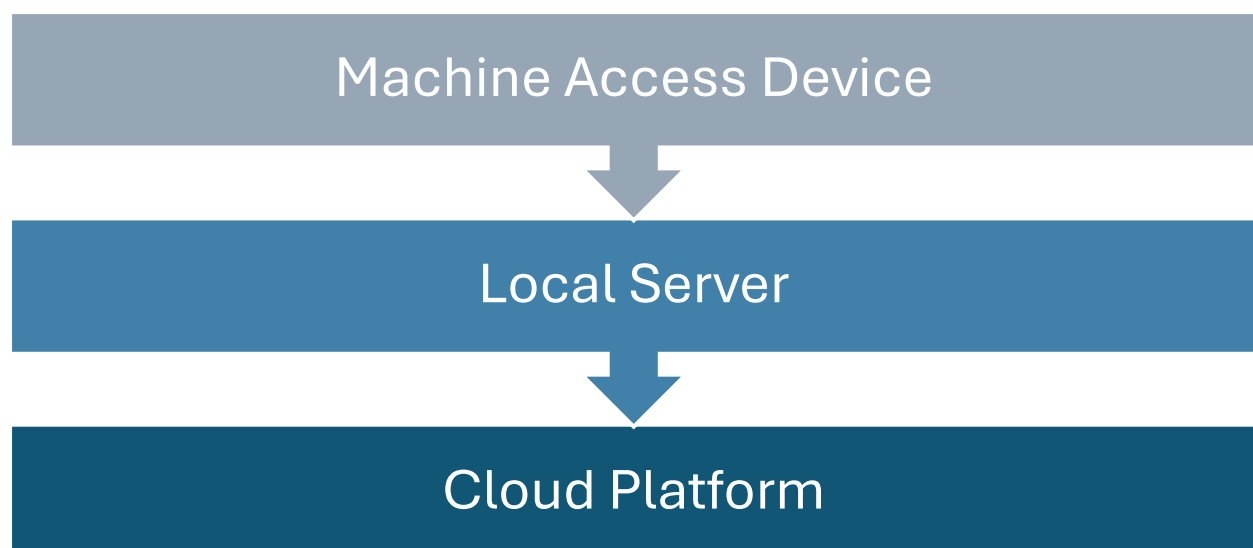
MA = "Machine Access" — These are industrial access control and monitoring devices integrated into your IntelliKran system. They track operator access via RFID authentication, monitor real-time events and faults, and work alongside your IKS hoist/crane devices. Each MA device is paired with an embedded controller device that handle the physical RFID scanning and event capture.

It combines:

- A Machine Access Device installed on the machine or the controller for RFID sensing
- A Local Server that receives machine activity data on site
- A Cloud Link that receives data from the local server for centralized visibility
- Optionally an IntelliKran Max / Mid / Mini for correlating Operator data with crane diagnostic data

Together, they help companies make sure the right operator uses the right machine, at the right time, with full visibility.

Data path:



VERSIONS

Radio Remote Control



The RRC Version is our proprietary built-in unit for Hetronic Radio Remote Control housing. The user must scan the Authorized RFID card at the back of the transmitter which activates the transmitter if the user is authorized to operate the machine such as overhead crane etc.

Cable Control Version



The cable control version can be mounted inside a housing of the cable controller and operates at various control voltages such as 24VDC, 48VAC, 110VAC and 220VAC. The mechanism is same as the radio remote version but the footprint and size is dependant on the cable controller. Currently we our unit is suitable for Schneider/Telemecanique cable pendants for EOT and Gantry Cranes

External Mounting Unit - Customization

Our PCB can also be modified for clients external mounting enclosures and can be installed on any device requiring RFID access and operator logs with similar functionality. This entails PCB customization for special applications such as existing control panels or handheld devices.

Local Server



The local server has to be mounted in a central location providing maximum coverage to the MA devices in the plant. It has a range of 100 Mtrs line of sight. In case of larger area, we can install multiple local servers. Each MA device can communicate with whichever local server is reachable to update the cloud.

WebApp Features

1. Device Management
2. Operator Management
3. MA Device Synchronization
4. Real-Time Monitoring & Events
5. Data Export & Auditing
6. Data Privacy & Security

Why Businesses Use It

1. Safety Improvement
2. Only approved operators can access critical machinery.
3. Misuse Reduction
4. Prevents unauthorized or accidental machine operation.
5. Accountability
6. Each machine interaction is tied to a known operator identity.
7. Operational Visibility
8. Real-time or near-real-time activity insights help track utilization and downtime.
9. Compliance Support

10. Useful for internal policies, audits, and operator authorization controls.
11. Fleet Management Efficiency
12. Makes it easier to manage multiple machines across yards, plants, warehouses, and remote sites.
13. Faster Policy Control
14. Operator permissions can be updated centrally and reflected in operations more quickly.

Applications

The Machine Access System is ideal for environments where equipment access must be controlled and tracked.

Examples include:

1. Overhead and Mobile Cranes (construction, ports, logistics yards)
2. Forklifts (warehouses, factories, distribution centres)
3. Generators (temporary power sites, rental fleets, backup systems)
4. Excavators and earthmovers
5. Loaders and compactors
6. Mobile service vehicles
7. Mining and heavy-duty machinery
8. Agricultural machinery
9. Municipal and utility equipment
10. Rental equipment fleets

Who Benefits

1. Operations Managers: Better visibility into machine usage and productivity
2. Safety Teams: Better enforcement of authorized operation rules
3. Fleet Owners: Better control over expensive assets
4. Project Managers: Better understanding of equipment deployment and usage
5. Maintenance Teams: Better data foundation for service planning

Technical Details

Specification	Description
Voltage	3.6VDC – RRC Version 24VDC, 48VAC, 110VAC, 220VAC – Cable Version
RFID Sensing Range	50 mm
Operating Temperature	0 to 60 Deg C
Storage Temperature	0 to 70 Deg C
Number of Outputs	2
Output Voltage Rating	60VDC – RRC Version 400V AC/DC – Cable Version

Output Current Rating	1A – RRC Version 3A – Cable Version
Connectivity type	MA Device and Local Server – Wi-Fi Local Server – Cloud Server – Ethernet
RFID Tag Type	ISO 14443A - 13.56 MHz
Wi-Fi Range	100 Mtrs
Certifications	CE, RoHS