



COMPANY PROFILE

Matrix for Internet of Things, Artificial Intelligence, and Digital Transformation

Interactive Index



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MATRIX COMPANY

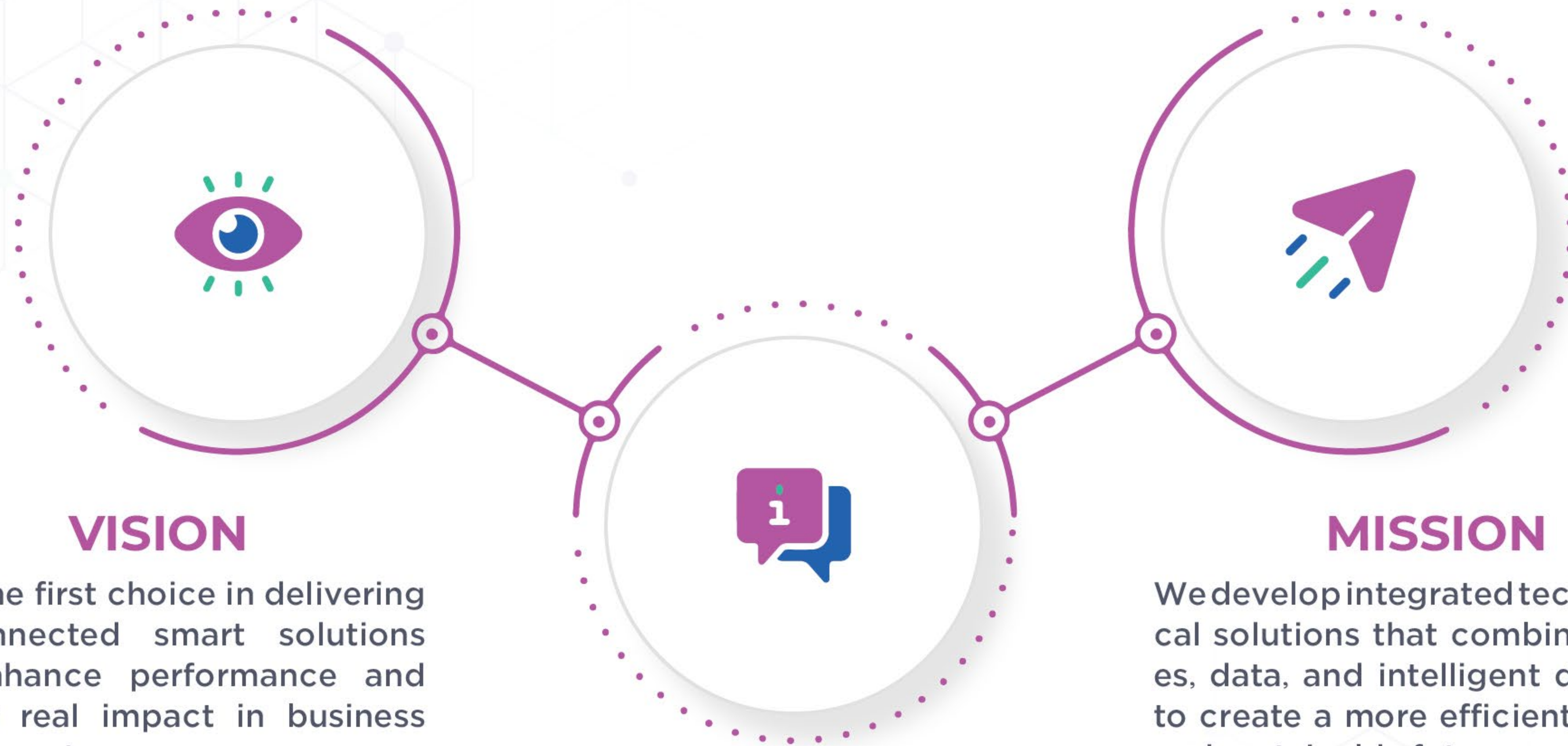
In a fast-changing world driven by data and intelligent connectivity, Matrix emerges as the digital transformation partner redefining how institutions operate, how cities live, and how resources are managed.



**A SMART VISION FOR
SMART SOLUTIONS**



**LEADERSHIP IN THE INTERNET OF
THINGS, ARTIFICIAL INTELLIGENCE,
AND DIGITAL TRANSFORMATION**



VISION

To be the first choice in delivering interconnected smart solutions that enhance performance and make a real impact in business environments.

MISSION

We develop integrated technological solutions that combine devices, data, and intelligent decisions to create a more efficient, secure, and sustainable future.

WHO WE ARE

Matrix is a Saudi company specialized in delivering smart solutions based on the Internet of Things (IoT) and Artificial Intelligence (AI), empowering organizations to build more efficient, sustainable, and secure environments.



STRATEGIC OBJECTIVES

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INTERNET OF THINGS & AI

STRATEGIC OBJECTIVES

1 ENABLING SMART TRANSFORMATION ACROSS SECTORS

Matrix aims to support both public and private sector institutions in their journey toward full digital transformation by providing smart, practical, and scalable solutions that simulate reality and serve strategic and operational goals.

2 ENHANCING OPERATIONAL EFFICIENCY AND REDUCING COSTS

By integrating the Internet of Things and Artificial Intelligence, we help organizations monitor their resources in real time, analyze data intelligently, and make more accurate operational decisions leading to waste reduction and sustainable efficiency.

3 RAISING SAFETY AND QUALITY STANDARDS IN TECHNOLOGICAL ENVIRONMENTS

We are committed to implementing the highest standards of cybersecurity and data protection, while developing reliable systems that are stable, responsive, and easily integrated with other platforms.

STRATEGIC OBJECTIVES

4 DEVELOPING SCALABLE AND CUSTOMIZABLE SOLUTIONS

We focus on building flexible solutions that can be adapted and expanded as client needs evolve or projects grow, ensuring service continuity and long-term value.

6 EMPOWERING AND TECHNICALLY QUALIFYING NATIONAL TALENT

We invest in training and employing promising Saudi talent, integrating them into advanced tech projects to qualify them as leaders in the smart solutions industry regionally and globally.

5 BUILDING STRATEGIC LOCAL AND GLOBAL TECH PARTNERSHIPS

We believe that collaboration with global strategic partners and major technology providers enables us to offer the best solutions in line with market trends and customer needs.

7 ESTABLISHING NEW STANDARDS FOR END-USER EXPERIENCE

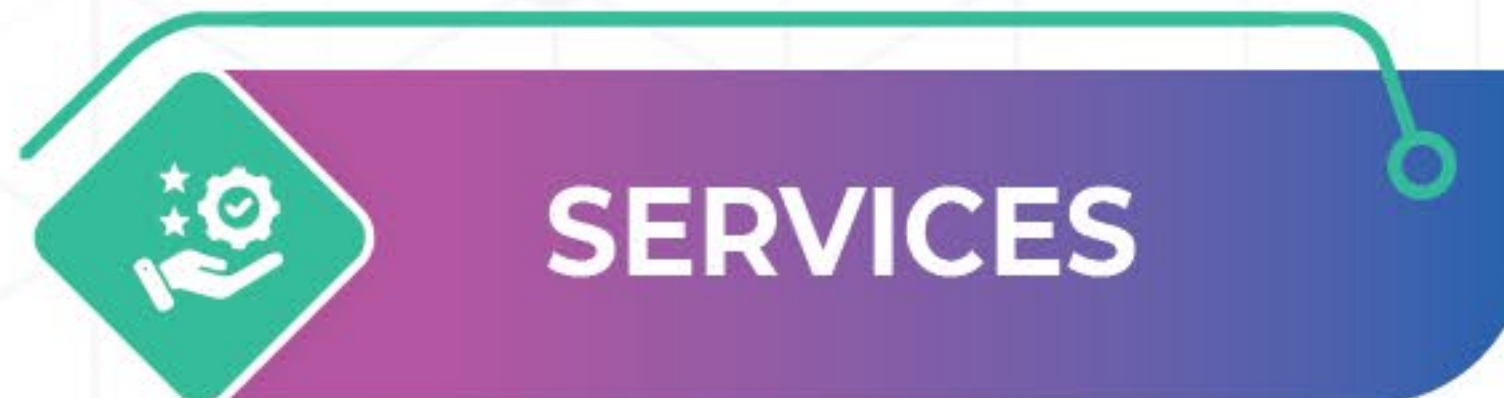
We go beyond backend systems, placing strong emphasis on the end-user experience by designing smart, simplified, and integrated interfaces that enhance comfort, productivity, and usability.





SERVICES

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FIRST: SMART BUILDING AND REAL ESTATE SOLUTIONS



We provide a comprehensive suite of intelligent systems that transform buildings into interactive entities that respond to movement, behavior, and the surrounding environment aiming to enhance comfort, safety, and reduce energy consumption.



SMART BUILDING MANAGEMENT (BMS)

- Integration of all building facilities into a centralized smart system.
- Automated control of lighting, air conditioning, elevators, and ventilation systems.
- Remote control of any part of the building through cloud-based interfaces.



ENERGY CONTROL AND CONSUMPTION EFFICIENCY

- Real-time monitoring of electricity and water consumption.
- Scheduling device operation based on occupancy.
- High-consumption alerts and analysis of unusual usage patterns.



ACCESS AND SECURITY SYSTEMS

- Biometric gates (fingerprint, card, facial recognition).
- Connected smart locks with remote control capability.
- Surveillance cameras with motion and behavior recognition technology.



PREDICTIVE MAINTENANCE

- Use of sensors to monitor equipment performance.
- Automatic alerts before malfunctions occur.
- Maintenance scheduling based on data, not just time intervals.



USER EXPERIENCE AND SMART APP

- Unified app connecting all building elements for the user.
- Facility booking, fault reporting, and mobile control of AC and curtains.
- Real-time consumption and user comfort reports.





SECOND: SMART FACTORY SOLUTIONS AND INDUSTRIAL TRANSFORMATION

We empower factories to enter the era of “Smart Manufacturing” by connecting every element of the production process to digital systems that monitor, interact, and control automatically.



MACHINE AND PRODUCTION SYSTEM INTEGRATION

- Installation of sensors for temperature, pressure, vibration, and rotational speed.
- Transmission of performance data to centralized monitoring systems.
- Instant reports that detect faults before they occur.



PREDICTIVE MAINTENANCE AND COST REDUCTION

- Performance data analysis using Artificial Intelligence.
- Prediction of weak points before machine failure.
- Reduced downtime and increased productivity.





INVENTORY AND SUPPLY CHAIN MANAGEMENT SYSTEMS

- Automatic monitoring of raw material and product levels.
- Real-time inventory updates via weight sensors or RFID.
- Reorder alerts before materials run out.



WORKER SAFETY AND WORK ENVIRONMENT QUALITY

- Sensors for detecting harmful gases, excessive heat, or leaks.
- Automated emergency response systems linked to control rooms.
- Movement monitoring in hazardous areas with instant alerts.

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THIRD: SMART CITY SOLUTIONS

We assist government entities and municipalities in building cities driven by data and real-time interaction, managed intelligently through integrated platforms that connect services and infrastructure with citizens and residents.



PUBLIC FACILITY MANAGEMENT

- Smart systems for managing street lighting based on traffic flow or ambient light levels.
- Waste bin monitoring with prioritization of emptying routes.
- Flexible water distribution systems based on actual consumption levels.



ENVIRONMENTAL MONITORING AND URBAN ANALYTICS

- Sensors measuring air quality, CO₂ levels, and noise pollution.
- Analysis of vehicle and pedestrian movement to improve traffic infrastructure.
- Urban analytics platforms displaying real-time indicators of city life.



CENTRALIZED MANAGEMENT PLATFORMS

- Unified control room to monitor the entire city.
- Integration with all departments: sanitation, traffic, emergency services, and energy.
- Interactive dashboards for decision-makers.



FOURTH: SMART HEALTHCARE SOLUTIONS

We develop safe and efficient medical environments that help hospitals and medical centers improve service quality, reduce human error, and respond instantly to emergency cases.



REMOTE PATIENT MONITORING

- Vital sensors for measuring heart rate, blood pressure, and respiration.
- Alerts when values rise above or fall below normal levels.
- Integration with the electronic medical record system.



SMART MEDICAL EQUIPMENT MANAGEMENT

- Tracking the movement of devices within the facility.
- Monitoring equipment performance with alerts for malfunctions or calibration issues.
- Notifications for scheduled maintenance or replacement.



FACILITY ENVIRONMENT CONTROL

- Precise management of lighting, ventilation, and temperature in isolation or operating rooms.
- Secure access systems for authorized medical staff in sensitive areas.
- Real-time environmental reports for each treatment unit.



FIFTH: SMART EDUCATION SOLUTIONS

We contribute to transforming schools and universities into interactive, secure environments that rely on student behavior data and promote effective learning.



ATTENDANCE AND BEHAVIOR TRACKING

- Automatic student check-in and check-out via fingerprint or card.
- Monitoring movement within the facility and tracking time spent on-site.
- Attendance and departure reports linked to academic performance.



CLASSROOM AND BUILDING MANAGEMENT

- Automated control of lighting and air conditioning based on occupancy.
- Remote management of audio systems and screens in classrooms.
- Smart alarm systems for emergency situations.



FACILITY SECURITY

- Surveillance cameras equipped with behavior analysis.
- Automated access control at entry gates.
- Continuous monitoring of hallways and open areas.





SIXTH: ENERGY AND WATER SOLUTIONS

We help energy and water providers and consumers improve resource management, reduce losses, and achieve sustainable operational efficiency.



SMART METERS

- Real-time measurement of electricity, water, and gas consumption.
- Automatic data transmission to monitoring and billing platforms.
- Detection of leaks or abnormal usage.



RENEWABLE ENERGY

- Integration of solar and wind energy systems with building management platforms.
- Monitoring performance, efficiency, and production rates.
- Smart switching between public grid and renewable cells.



RESOURCE MANAGEMENT AND NETWORK OPTIMIZATION

- Network data analysis to identify weak points or high-pressure zones.
- Scheduled operation and supply based on smart load distribution.
- Monitoring of transmission and distribution lines with high-precision sensors.





SEVENTH: SMART TRANSPORTATION SOLUTIONS

We offer intelligent systems for managing and tracking the movement of vehicles and equipment in real time, enhancing operational efficiency and reducing transportation and maintenance costs.



FLEET TRACKING

- Real-time location tracking of vehicles and heavy equipment.
- Monitoring speed, fuel, operating hours, and driving behavior.
- Instant alerts in case of route deviation or speeding.



SMART TRAFFIC SYSTEMS

- Traffic light management based on vehicle flow density.
- Analysis of accidents and congestion zones.
- Integration of traffic signals with municipal control centers.



PREDICTIVE VEHICLE MAINTENANCE

- Performance data analysis to predict malfunctions.
- Smart maintenance scheduling based on operational condition rather than time.
- Monthly reports on fleet performance and efficiency.

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EIGHTH: SMART HOSPITALITY SOLUTIONS

We reshape the guest experience through smart rooms that interact with visitors, meet their needs automatically, and offer hotels tighter control over cost and operations.



CONNECTED, SELF-CONTROLLED ROOMS

- Control of air conditioning, lighting, curtains, and TV via a dedicated app or voice commands.
- Automatic room setting customization based on guest preferences.
- Occupancy sensors to save energy when the room is vacant.



OPERATIONAL MANAGEMENT

- Automated tracking and handling of room service requests.
- Monitoring of material consumption and service inventory.
- Guest data analysis to enhance services and promotional offers.



SECURITY AND PRIVACY SOLUTIONS

- Smart access systems via phone or card.
- Automated check-in/check-out.
- Privacy protection with operations recorded in central logs.





NINTH: SMART SECURITY AND SURVEILLANCE SOLUTIONS

We provide proactive security systems capable of analyzing, responding, and self-alerting protecting lives and property using advanced intelligent technologies.



VISUAL SURVEILLANCE SYSTEMS

- Cameras equipped with visual analytics to detect abnormal behavior.
- 24/7 monitoring with direct connection to control rooms.
- Real-time recording and analysis of incidents.



ACCESS CONTROL SYSTEMS

- Fingerprint, facial recognition, smart card, or mobile phone access.
- Entry permissions based on user category or time.
- Full logging of staff and individual movements.



RISK AND FIRE DETECTION

- Smoke, heat, and gas sensors.
- Instant alerts to concerned authorities.
- Automatic integration with fire suppression and emergency systems.



TENTH: PUBLIC FACILITIES MANAGEMENT SOLUTIONS

We provide smart solutions for managing and operating building facilities and infrastructure in a way that reduces operational costs and enhances service continuity.



AUTOMATED FACILITY MONITORING AND OPERATION

- Elevators, generators, pumps, irrigation systems.
- Operation schedules based on time, usage, or occupancy.
- Automatic start/stop to reduce energy consumption.



OPERATIONAL REPORTS AND ANALYTICS

- Performance indicators for each facility.
- Performance comparison across branches or locations.
- Technical recommendations for improvement.



FAULT DETECTION AND MAINTENANCE

- Instant alerts for unexpected malfunctions.
- Historical performance logging and device behavior analysis.
- Integration with centralized platforms to issue maintenance orders automatically.





TOOLS AND TECHNOLOGIES USED

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TOOLS AND TECHNOLOGIES USED



1 SMART SENSORS

The foundation of IoT solutions, collecting environmental data to feed analytical systems:

- ◆ Sensors for temperature, humidity, pressure, motion, vibration
- ◆ Sensors for air quality, harmful gases, noise, and lighting
- ◆ Sensors for energy, water, and gas consumption



2 CONTROL AND MANAGEMENT PLATFORMS

Allow users to monitor and analyze data from anywhere:

- ❖ Cloud-based or on-premises dashboards
- ❖ Custom mobile apps for end users or administrators
- ❖ Customizable reports, alerts, and scheduling capabilities



3 IOT GATEWAYS

Connect sensors and devices to cloud or on-premise platforms:

- ❖ Translate different protocols and unify data into a single interface
- ❖ Manage data transmission and validation before sending
- ❖ Suitable for remote locations or complex industrial environments



4 ARTIFICIAL INTELLIGENCE & DATA ANALYTICS

Enable systems to make intelligent decisions automatically:

- ✦ Machine learning systems for predicting faults or demands
- ✦ Real-time analytics for device and user behavior
- ✦ Automated operational recommendations based on recurring patterns



5 CLOUD COMPUTING

Allows secure and flexible data storage and processing:

- ✦ Integration with AWS, Microsoft Azure, Google Cloud
- ✦ Scalable without requiring large physical infrastructure
- ✦ Remote access with advanced layered security



6 COMMUNICATION NETWORKS

Varies based on project type and environment:

- ❖ 5G: High-speed data transmission for cities and factories
- ❖ NB-IoT / LoRaWAN: Long-range, low-power device connectivity
- ❖ Zigbee / BLE / Wi-Fi: Local connectivity within facilities



7 CYBERSECURITY SYSTEMS

An essential part of every solution we provide:

- ❖ End-to-end data encryption
- ❖ Intrusion and threat detection systems
- ❖ Compliance with local and international data protection regulations (e.g., GDPR, NCA)





TARGET SEGMENTS

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TARGET SEGMENTS



1 REAL ESTATE DEVELOPMENT COMPANIES

Seeking smart solutions to enhance the value of their projects and increase building appeal through intelligent control systems, energy efficiency, and superior resident experience:

- ◆ Smart residential and commercial complexes
- ◆ Connected office towers and hotels
- ◆ Smart shopping centers with unified user interfaces



2 FACTORIES AND INDUSTRIAL FACILITIES

In need of production process automation, fault reduction, and improved operational efficiency using sensors and real-time analytics:

- ◆ Food, chemical, and metal factories
- ◆ Automated production and processing workshops
- ◆ Facilities relying on predictive maintenance and reduced downtime



3 GOVERNMENT ENTITIES AND MUNICIPALITIES

Aiming to improve urban quality of life and implement smart city concepts:

- ◆ Public facilities and street lighting management
- ◆ Waste tracking, air quality, and traffic flow monitoring
- ◆ Central platforms for city control and urban performance monitoring



4 HEALTHCARE SECTOR

Hospitals, medical centers, and health complexes seeking:

- ◆ Accurate and responsive patient monitoring
- ◆ Medical equipment and tool tracking
- ◆ Medical facility security through smart systems





5 EDUCATIONAL INSTITUTIONS

Universities and schools adopting a smart and safe learning environment:

- ◆ Smart attendance and student behavior tracking
- ◆ Centralized classroom environment control
- ◆ Monitoring of facility entrances and exits



6 TRANSPORTATION AND LOGISTICS

Require real-time fleet and vehicle tracking and optimized scheduling:

- ◆ Location and consumption tracking
- ◆ Smart vehicle maintenance
- ◆ Load and route control





7 ENERGY AND WATER COMPANIES

Seeking to reduce waste, improve performance, and ensure distribution stability:

- ❖ Network and distribution line monitoring
- ❖ Smart meters and automatic alerts
- ❖ Renewable energy source management



8 HOSPITALITY AND TOURISM SECTOR

Hotels and resorts aiming for a smart guest experience and reduced operational costs:

- ❖ Customizable connected rooms
- ❖ Smart access and room service systems
- ❖ Guest data analysis to improve services



9 TECH AND DIGITAL TRANSFORMATION INVESTORS

Entrepreneurs and investment funds looking for high-return tech-operational projects:

- ❖ Ready-to-deploy B2B and B2G solutions
- ❖ Licensable or integratable platforms
- ❖ Business collaboration opportunities in smart city and building projects



COMPETITIVE ADVANTAGES

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COMPETITIVE ADVANTAGES

COMPREHENSIVE TECHNOLOGICAL INTEGRATION

We deliver fully integrated solutions that combine the Internet of Things, Artificial Intelligence, Cloud Computing, and Cybersecurity into one seamless and interconnected ecosystem.

SMART INTERFACES AND EXCEPTIONAL USER EXPERIENCE

We focus on delivering professional, user-friendly dashboards that enable clients to manage their systems efficiently without the need for advanced technical skills.

DEEP UNDERSTANDING OF SECTOR NEEDS

We don't offer one-size-fits-all solutions. Instead, we analyze the nature of each sector and design tailored solutions that align with the client's environment, budget, and goals-technically and operationally.

RAPID EXECUTION CAPABILITY

Our engineering and technical teams can implement projects within precise timelines without compromising quality, ensuring a fully delivered and operational solution.

ONGOING TECHNICAL AND ADVISORY SUPPORT

Our role doesn't end with project delivery. We offer after-sales services including maintenance, updates, training, and technical consultation to ensure solution continuity and ROI.

STRATEGIC PARTNERSHIPS WITH LEADING TECH PROVIDERS

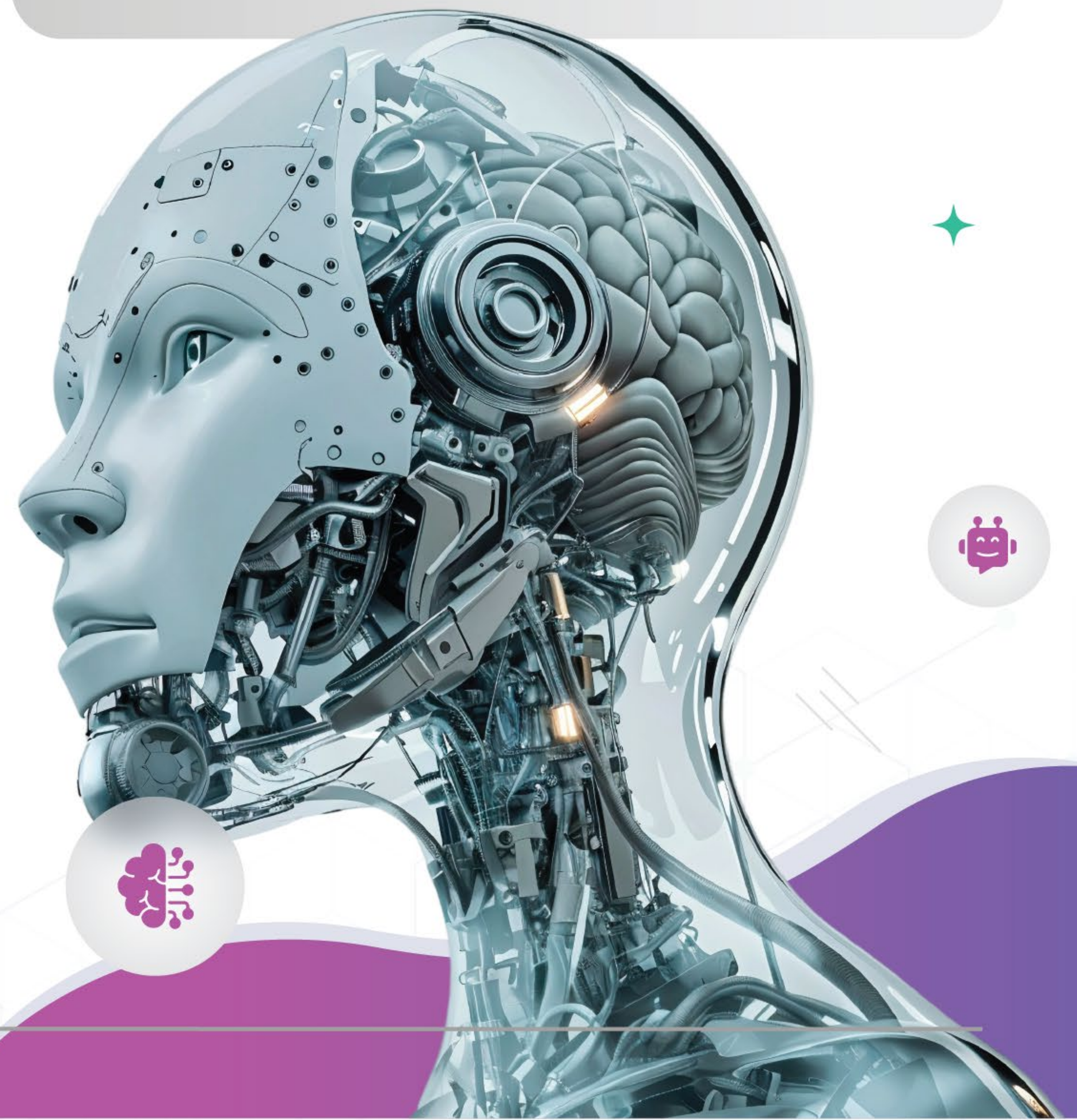
We implement our projects in collaboration with top global platforms such as: (Amazon AWS – Microsoft Azure – Cisco – Siemens – Google Cloud)

BUILT-IN CYBERSECURITY FROM DAY ONE

Every system we develop includes a security architecture featuring encryption, permission management, and threat monitoring points all in strict compliance with Saudi and international standards.

FLEXIBLE AND SCALABLE DESIGN

Our technical designs support future scalability whether in device count, service types, or data volume ensuring systems can grow alongside the organization.





CORE VALUES

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CORE VALUES



INNOVATION

We consider innovation the cornerstone of everything we offer. We don't settle for repeating existing solutions we constantly strive to develop future-ready technologies that make a real difference in users' lives.



PROFESSIONALISM

We adhere to high execution standards and work with well-structured methodologies that ensure quality deliverables, timely delivery, and client satisfaction at every stage of the project.



FLEXIBILITY

Our solutions are designed to adapt to various work environments and market changes, whether for startups or large-scale enterprises.



SECURITY & TRUST

Data protection and system reliability are top priorities. We commit to transparency and responsibility in all our technical and commercial dealings.



PARTNERSHIP

We believe our relationship with clients is not a transaction but a long-term partnership built on continuous collaboration, knowledge sharing, and achieving mutual goals.



SUSTAINABILITY

We develop solutions that reduce resource consumption, minimize waste, and create sustainable environmental and economic impact aligned with smart development principles.

AT MATRIX, WE DON'T JUST PROVIDE TECHNOLOGY...WE REDEFINE IT.

- ◆ We transform traditional environments into smart systems that can understand, interact, and evolve empowering our clients with the tools of tomorrow, today.
- ◆ Every solution we deliver is an investment in operational efficiency, resource sustainability, and user comfort.
- ◆ We don't aim for success alone we build it with our partners, hand in hand, on a foundation of trust, innovation, and clear vision.
- ◆ If you're looking for a partner who understands technology deeply, implements it skillfully, and engages with you professionally...

You're looking for Matrix.

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