



## Who We Are

Giza Systems is the number one systems integrator in Egypt and the Middle East providing a wide range of industry specific technology solutions in the Water, Power, Telecom, Oil & Gas, Real Estate, Hospitality and Manufacturing industries.

We have been shaping the IT industry and corporate agendas since 1974. Our consultancy practice provides industry focused services that enhance value for our clients by streamlining operational and business processes.

Operating in the Middle East through our offices and group of companies we are focused on contributing to the local and regional development with our technology solutions, commitment and outstanding customer service.

Our team of 600 professionals enables us to extend our geographic footprint delivering diverse projects and connecting us with clients in the Middle East, Africa, Europe, Latin America and Russia.

## What We Do

We deliver a comprehensive scope and range of end-to-end industry specific solutions that meet customer demand for streamlining operational and business efficiencies.

Our technical capabilities, extensive experience and knowledge of the market, as well as our partnership with global leaders in the areas of automation systems, communication solutions and metering infrastructure enable us to develop integrated solutions that can work with and build on the evolving technologies, as well as meet the dynamicity of our customers' needs. In our pursuit to constantly enhance existing resources and create new capabilities, we drive forward the growth of our company, our customers, our people, and our communities.

## Capabilities

With a steady growth in our client base all over the Middle East, we have established local and regional offices to respond to the demands of our clients, as well as leverage the company's success and proven track record in the different sectors.

# Target Sectors

Working with over 1,500 satisfied customers, Giza Systems is uniquely positioned to fulfill the needs of the local and regional markets due to our diversified integration and automation solutions that fulfill the various needs of the following sectors:

- Water
- Power
- Telecommunications
- Oil and Gas
- Manufacturing
- Real Estate and Hospitality
- Transportation

# Offices

- Headquarters: 5th Settlement, New Cairo, Egypt
- Local Branches: Alexandria, Assiut, Ismailia
- KSA branches: Riyadh, Al-Khobar and Jeddah
- UAE branch: Dubai
- Qatar branch: Doha

# Quality

Giza Systems strives to integrate quality in all its processes to ensure adherence to the best standards and practices. Giza Systems has received the ISO 9001:2008, ISO 14001:2004, and OHSAS 18001:2007



“Solving water-related problems requires technical and scientific expertise, and greater understanding and integration of environmental, social and political factors.”



# Water Sector Offerings



With international calls to manage resources more carefully and effectively, up-to-date technologies have become necessary to aid water companies in reaching the optimum levels of performance required. Giza Systems offers water companies integrated solutions that provide management and operators with the right tools and real-time data to optimize operations all across the phases of the process.

Giza Systems offers solutions that improve the efficiency of water companies by providing the sufficient infrastructure for market stabilization and improved coordination of supply resources. These solutions serve in areas such as water treatment, distribution and irrigation.

Our solutions for the Utilities sector include: Field Instruments, Programmable Logic Control (PLC), Distributed Control System (DCS), Water Management Systems, Automatic Meter Management (AMM), Hydraulic Modeling, Geographic Information Systems (GIS), Supervisory Control and Data Acquisition (SCADA), Billing and Meter Data Management, Energy Management, Leak Detection Equipment and Leakage Management Systems.

Customer Relationship Management

Wireless Communication Solutions

Field Instruments

Knowledge Management

Geographical Information System



# WATER Solutions

Leak Detection Systems

Solutions

Supervisory Control And Data Acquisition

Smart Metering

Distributed Control Systems

Programmable Logic Controller

Field Force Management

# Water Solutions

## Supervisory Control and Data Acquisition (SCADA)

Real-time industrial process control system that is used to centrally monitor and control remote or local industrial equipment such as motors, valves, pumps and sensors. It represents the system of hardware and software through which the operation team of any plant can acquire and control all the process data about the operations of the plant. It is a platform or gateway on which many managerial systems can be built such as ERP, Billing, GIS and Asset Management.

## Distributed Control Systems (DCS)



Our Distributed Control Systems (DCS) are equipped with state of the art technologies and user-friendly interfaces that aid plant operators in managing industrial process through the control of all physical variables, while connected to advanced monitoring platforms.

Our extensive experience in DCS engineering has enabled us to specialize in developing and applying control technology to various desalination plant areas.

Giza Systems is currently employing the latest cutting-edge DCS technology. Our team's in-depth knowledge of desalination processes covers a complete service spectrum including project management, procurement, engineering, panel building, FAT, training, commissioning, start-up and fine-tuning to optimize desalination plant operations.

## Leak Detection Systems (LDS)

Leak Detection Systems aid in the detection of a leak, estimation of its location, and determination of its magnitude and possible effects. Leak Detection Systems are vital in controlling leakages and their effects, including the loss of energy, hindered transmission, environmental disasters and human injuries.

**When choosing a Leak Detection System, operators look for a solution that is:**

- Easy to implement
- Detects small leaks under all operating conditions
- Responds in real time and without lags
- Alerts only when there is a real leak
- Clear alarm annunciation
- Does not distract controllers from core duties
- Works with minimum instrumentation
- Low cost of ownership (installation and maintenance)



## Field Instruments

Field instruments are essential for measuring the different parameters on-site in order to ensure accurate monitoring and control. Reporting to the central control room, these solutions include the installation of field instruments, transmitters, sensors, liquid and gas analyzers, control valves and actuators. The aim is to monitor and measure all ongoing plant processes so that the information can be transmitted to the control center. Our instrumentation teams are experts in programming and installing testing instruments, as well as integrating them with new and existing automation systems installed to enhance process solutions.

To offer the best and most suitable solutions to meet the needs of our clients, Giza Systems has partnered with a broad range of leading companies specialized in field instruments.

# Programmable Logic Controller (PLC)

PLC technology is generally employed for some applications, which are necessary in many areas of desalination plants.

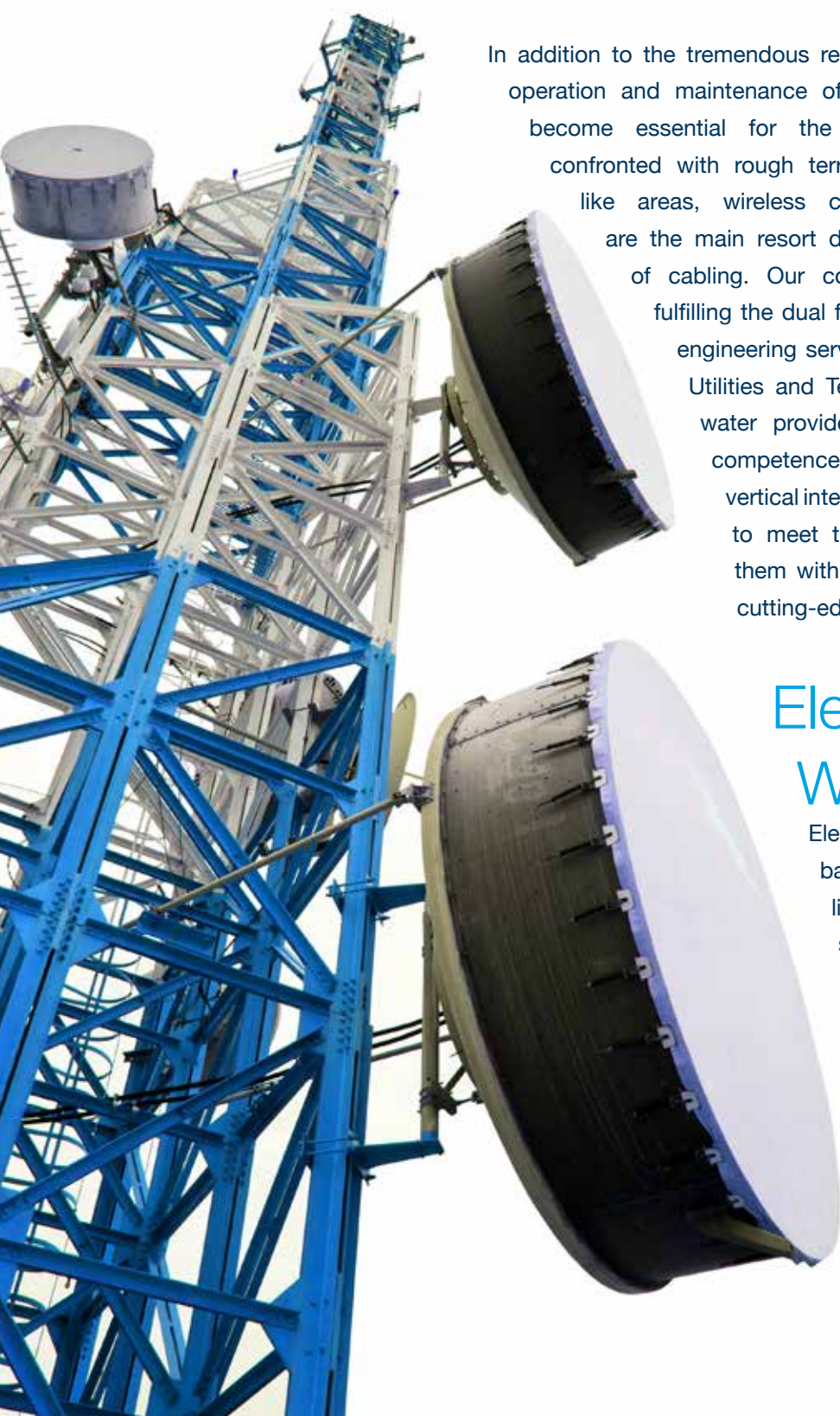
Our programming varies based on the requirements needed for the application, testing, commissioning and start-up. We also offer a wide range of services for already installed systems in desalination plants.



# Communication Solutions

These types of solutions include Microwave and Radio solutions, as well as WiMax and GPRS. They are employed as wireless media in order to provide and relay control and monitoring information to control centers.

In addition to the tremendous relevance of Radio for the operation and maintenance of crews, these solutions become essential for the water industry. When confronted with rough terrain, such as mountain-like areas, wireless communication solutions are the main resort due to the difficulty level of cabling. Our competitive advantage in fulfilling the dual functions of IT-based and engineering services geared towards the Utilities and Telecom industries enable water providers to benefit from our competence and our experience in vertical integration. We enable utilities to meet their needs by providing them with the most advanced and cutting-edge solutions.



# Electrical Works

Electrical work on turnkey basis, including but not limited to medium voltage switchgears; low voltage distribution panels; motor control centers; transformers; and a generator to distribute power around the plant in a safe and efficient way. In addition to lighting, earthing, etc.

# Geographical Information Systems (GIS)

Geographical Information Systems are capable of capturing both spatial and non-spatial information of the network assets. This solves problems related to the selection of the best locations for laying new pipes/lines, optimization of field crew travel routes for efficient operations, and visualization of data volumes with respect to the location of corresponding assets on field. These solutions keep track of the network and update information of transformers, switch gears, cables, etc.

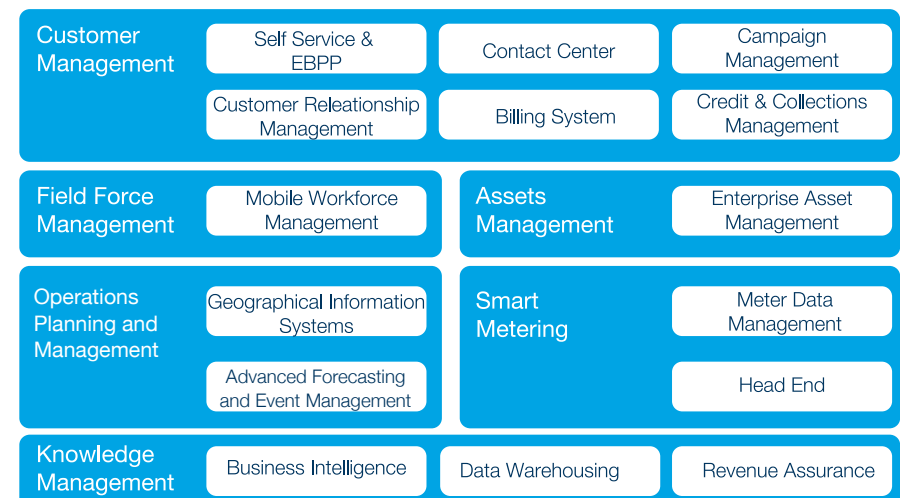
They are also used to design and plan future network expansions. To ensure that water providers achieve operational and business efficiency, our GIS solutions will ensure high quality and reliable information to assist in better operational and business decision making.

# Customer Relationship Management (CRM) and Billing

CRM and Billing Systems orchestrate and manage the meter-to-cash process. Our solutions allow utilities to differentiate themselves on the grounds of customer service, accurate billing, and efficient collections activities.

Management of customer applications, meter work orders and installation activities, regular meter reading, readings validations and estimations, billing, payments and aging of debts constitute the high level mandates of billing and revenue management systems.

# Smart Water Enterprise Solutions

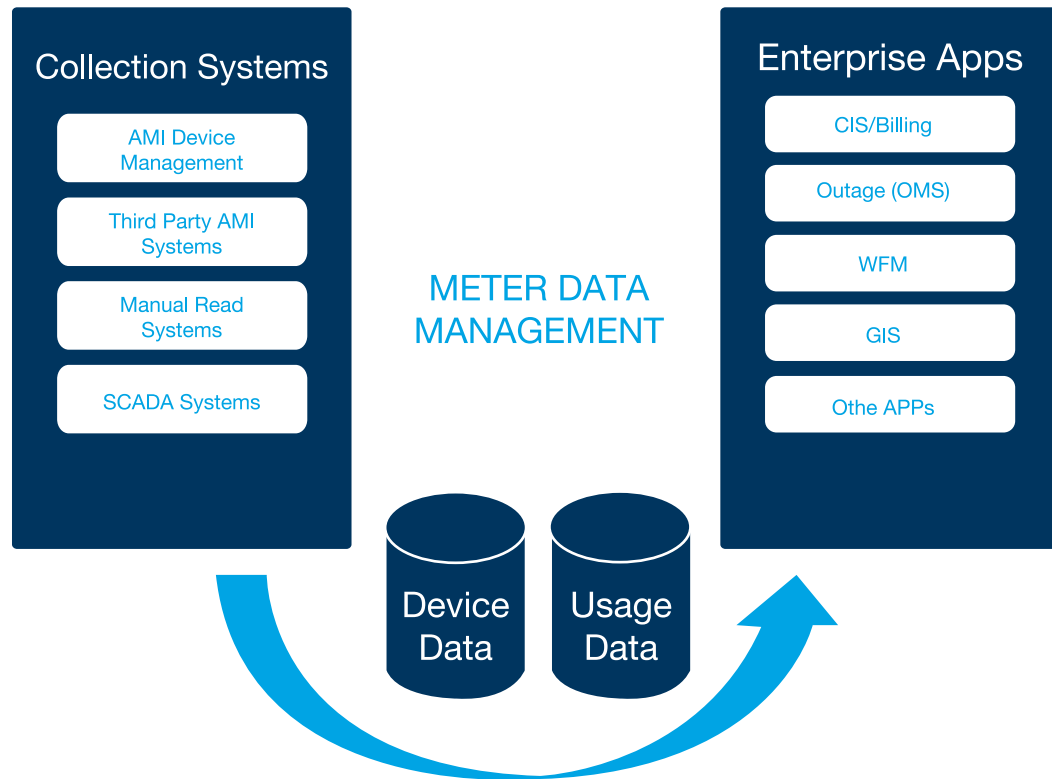




# Smart Metering

Meter Data Management System (MDMS) is the core system for successful smart metering programs. MDMS supports all aspects of smart meter deployment including rollout support, validation, analysis, balance reports, settlement and preparation of data for billing. It decouples the handling of meter data from other mission-critical utility operations. As utilities increasingly move toward interval billing, MDMS permits all applications to receive the metering information they need in the format that suits their unique requirements.

Many utilities struggle today to reconcile their traditional organizational structures with the prospects and possibilities of smart metering. On the one hand, the organization's metering division is adept in measuring consumption, but relies on a manual process consisting of one-at-a-time readings. On the other hand, their IT division understands data and meter management; however, has not needed to handle communications to millions of consumer devices. Our expertise and technological know-how in communication networks and IT systems, as well as our experience with utilities and meter manufacturers, enable us to fully assist internal teams to effectively engage with the new smart metering reality.



# Knowledge Management

Knowledge management efforts focus on organizational objectives such as improved performance, customer satisfaction, quality of service, cash flow, and other performance metrics. Business Intelligence technologies provide historical, current, and predictive views of business operations. Common functions of business intelligence technologies involve reporting, online analytical processing, analytics, data mining, business performance management and predictive analytics. The aim of knowledge management is to support better business decision-making through the transformation of raw data into meaningful and useful information. Such information is imperative to enable organizations attain more effective, strategic, tactical and operational insights, as well as make informed decisions.

# Enterprise Asset Management (EAM)

EAM puts built-in predictive maintenance (PdM) and condition-based maintenance (CBM) to work, along with intelligent operations and asset sustainability capabilities - without incurring the costs, complexity, and uncertainty of third-party software. It delivers equipment alarms, as well as data and real-time intelligence the client needs to take quick and precise action, and escalate problems, when necessary, to the appropriate resources.

#### Enterprise Asset Management offers:

1. Asset hierarchy management: To keep track of where assets are located and their cost with the help of a “family tree” that connects equipment, systems, and locations.
2. Budget management: To automate everything related to budgets - from budget setup to budget maintenance.
3. Inspection management: In the event of an asset problem where an inspection exceeds a preset limit, automatic notifications are generated with instructions on how to fix and address problems..
4. Purchasing management: To facilitate ordering the right parts and staying on top of delivery times, vendor payments, and receipt of goods.
5. Work management: To track and manage all asset work requests, labor, planning, and scheduling.
6. Materials management: To monitor and control storeroom inventories by employing tools that include economic order quantity with class calculations and assignments, support parts receipts, issues, returns, and cycle counts.
7. Water asset management: To create a comprehensive inventory of assets for managing water, sewer, stormwater, reservoirs, and industrial water.
8. Assistance in the management of assets such as mains, manholes, service lines, treatment plants, lift stations, pumps and valves.

## Field Force Management / Mobile Workforce Management Systems (MWMS)

Day-to-day maintenance, repairs of existing assets and installation of new equipment are carried out by utility staff. These mobile personnel who manage the assets dispersed across vast areas are generally referred to as the ‘Field Force.’ The IT system that helps utilities schedule and dispatch work orders to such engineers is known as the Mobile Workforce Management System (MWMS).

**Our MWMS optimizes and automates processes and information needed by companies that send engineers to the field. Moreover, it assists utilities in the following:**

- Routing, dispatch tracking and reporting the status of utility field personnel
- Managing installations, service or repairs of equipment and meter reading
- Carrying out planned maintenance, unplanned maintenance and resolving service outages

## Egypt

### Head Office

Plot No. 176, Second Sector,  
City Center, P.O. Box 157  
New Cairo 11835,  
Egypt  
☎ +202 26146000 / 6111  
📠 +202 26146001  
✉ info@gizasystems.com  
Call Center: 16492

## Qatar

### Giza Systems

Majlis El Taawon St.,  
Palm Tower, Tower B,  
Area 60, Floor 40,  
Office no. 4005  
Doha,  
Qatar  
☎ +974 4482 0271  
📠 +974 4482 0264

## Saudi Arabia

### Riyadh

#### Giza Arabia

Rosayes Business Center,  
P.O. Box 67765,  
Riyadh 11517,  
KSA  
☎ +966 1 460 2890  
📠 +966 1 460 2892

## UAE

### Dubai

#### Giza Systems JLT

Fortune Tower - Office  
No. 1306 - 13th Floor,  
Jumeirah Lake Towers  
Dubai,  
UAE

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Giza Systems [www.gizasystems.com](http://www.gizasystems.com) is the number one systems integrator in Egypt and the Middle East providing a wide range of industry specific technology solutions in the Telecom, Utilities, Oil & Gas, and Manufacturing industries. We have been shaping the IT industry and corporate agendas since 1974. Our consultancy practice provides industry focused services that enhance value for our clients by streamlining operational and business processes. Operating in the Middle East through Giza Arabia [www.gizaarabia.com](http://www.gizaarabia.com), our group of companies is focused on contributing to the local and regional development with our technology solutions, commitment and outstanding customer service. Our team of 600 professionals enables us to extend our geographic footprint delivering diverse projects and connecting us with clients in the Middle East, Africa, Europe, Latin America and Russia.

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