

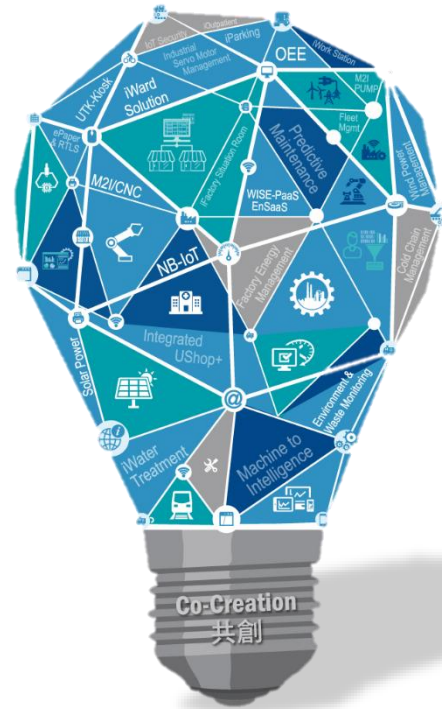


# DRIVING INNOVATION OF INDUSTRIAL IOT

# The Vision

*To Revolutionize the Industry & Lead the way to IoT Era by Co-Creation with our Clients & Partners*

DigiMac Hi-Technologies was established in February 2004, as a trading and high technologies enterprise with a vision to provide innovative products, services and highly reliable industrial solutions, and thus, become a trusted partner of our valued clients. Since then, DigiMac is proud to be associated with Advantech – the world leading company in Industrial Computing; as it's only Channel Partner in the region

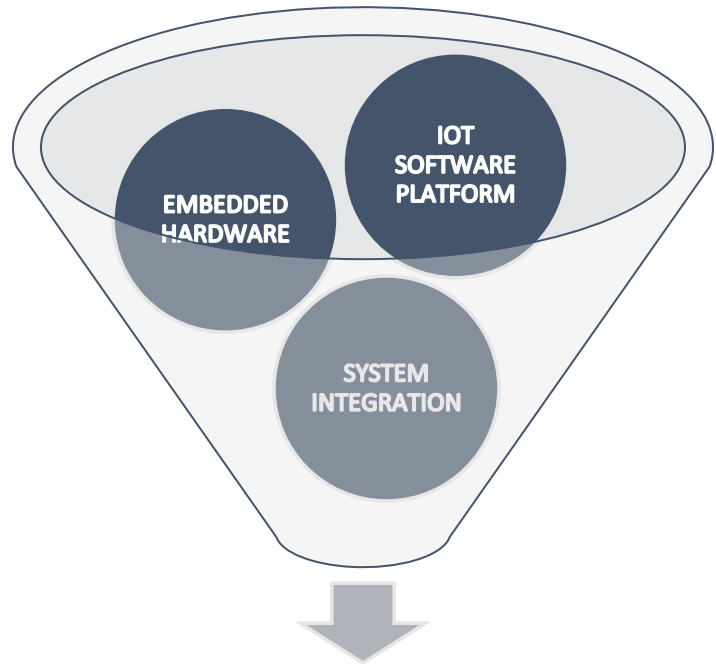


Together, Advantech and DigiMac, design & provide Solution-Ready Packages (SRPS) as well as customized automation solutions for variety of vertical markets of Pakistan. Offering a wide array of hardware and software solutions, ranging from Embedded Computing, Industrial Automation, Surveillance & Video Solutions, Network & Communications, Transportation & Logistics, Smart cities, Energy & Environment, Machine Intelligence, to Retail and Healthcare.

DigiMac is among the pioneers in providing cost efficient services for Integrated Cloud-based computing with Edge Intelligence hardware and software in Pakistan. Our Solution-Ready Packages can be tailored to best suit the specific needs of our valued clients and proficiently implemented to ensure minimal interruption in operations.

# IOT Solution-Ready Packages

The IoT solution age is here. Every device in today's world is a Smart Device, the edge. DigiMac provides Solution-Ready packages; total solution comprising embedded hardware and an IoT software platform (PaaS) with the system integration, offering versatile solutions for customers in different domains.



**SOLUTION-READY PACKAGE**

## Assembly Line iWorkstation Solution

Real-time Data Acquisition and Visualization for Assembly Operation Optimization



Assembly Workstation Management  
Automated eSOP Management  
ESD Real time Monitoring





## Integrated iFactory Cloud Solution

Digitalization and Dashboard Visualization for Smart Factory Management



- ✔ Cloud services platform to enable industrial APPs
- ✔ Data visualization for effective decision making
- ✔ Total factory operations management

## Factory Energy Management Solution

Centralized Monitoring and Data Acquisition for Energy Efficiency Optimization



- Intuitive browser-based graphics dashboard
- Energy consumption statistics and analysis
- Smart management platform for easy maintenance

## Overall Equipment Effectiveness Solution

Real-time Machine Availability Management for Maximizing Operational Excellence



- ✔ Rapid configuration of OEE solution
- ✔ Cloud platform to improve machine availability
- ✔ Easy data management to optimize production efficiency

## Cold Chain Management

Uninterrupted Monitoring of Temperature-Controlled Supply Chain

Ensures Food Safety & Reduces Food loss by 30%  
 Secures Pharmaceutical Quality  
 Unified Platform

## Integrated UShop+

Integrated iRetail Cloud Solution for Smart Retail Management

Sales Revenue

- One Stop Service for Retailing Business
- Cross-Solution Integrated Retail Platform
- Improving Operational Efficiency with Retail BI

## Hospital iWard

Innovating Nursing Care and Patient Experience

- Quality Inpatient Care
- Inpatient Data Visualization
- Excellent Nursing Practice Redesign



## Intelligent CNC Machine Management Solution

Visual OEE and Cross-Factory CNC Management Powered by Cloud Services



## Solar Power Management Solution

Transforming Renewable Energy Operations with IoT Innovation



## Intelligent Water Management Solution

Cloud-Enabled Remote Equipment Management for Water and Wastewater



## Wind Power Monitoring & PHM Solution

Optimized Operational Efficiency with IoT Edge Computing



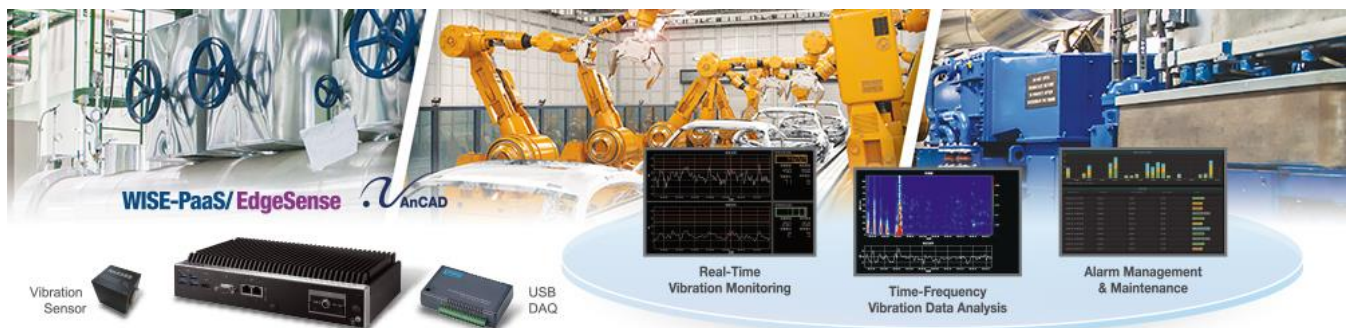
## Equipment Edge Connectivity Solution

Enable Equipment Intelligence and Asset Management



## Equipment Vibration Monitoring Solution

Facilities Equipment Status Monitoring and Maintenance





## Smart Street Lighting Control Solutions

### The Fundamental Infrastructure Enabling Smart City Expansion

**WISE-PaaS/ EdgeSense**

- Street light management & event alert
- Multiple protocol support with pre-integrated devices
- Data pre-processing with edge computing

**WISE-PaaS/ EnSaaS**

## Equipment Real-time Control Solution

### Cloud-Based Real-Time Connection and Control Platform

- ✔ Cloud Connection
- ✔ Real Time Communication
- ✔ Industrial Fieldbus

**WISE-PaaS/ EnSaaS**

**WISE-PaaS/ EdgeSense**

## NB-IoT Smart Meter Solutions

### Enabling Remote Monitoring and Control for Energy Infrastructure and Utilities

**Arm Pelion Device Management**  
Remote device management & OTA

**arm PELION**

**NB-IoT**

**Azure**

**WISE-PaaS/ EnSaaS**

**Smart Meter Management System**  
For energy and utilities

- ✔ Secure data transmission & provisioning
- ✔ Easy & massive deployment
- ✔ Smart meter management for energy and utilities
- ✔ Long battery life

Gas Meter, Power Meter, Water Meter, Street Lighting, Parking Sensor



# Situation Room for IoT Solutions

## Visualizing Structured IoT with Dashboards

- ✔ Evaluating Efficiency
- ✔ Optimizing Management
- ✔ Visualizing the IoT World



## WISE-PaaS

DigiMac, in collaboration with Advantech, provides Edge-to-Cloud software and services to help the Manufacturers, Industry & Partners, enabling Real IOT-powered Cloud Business Models in various vertical markets.

Leveraging Advantech’s extensive hardware portfolio, WISE-PaaS integrated diverse software services, including

**WebAccess,**

**WISE-PaaS/EdgeLink,**

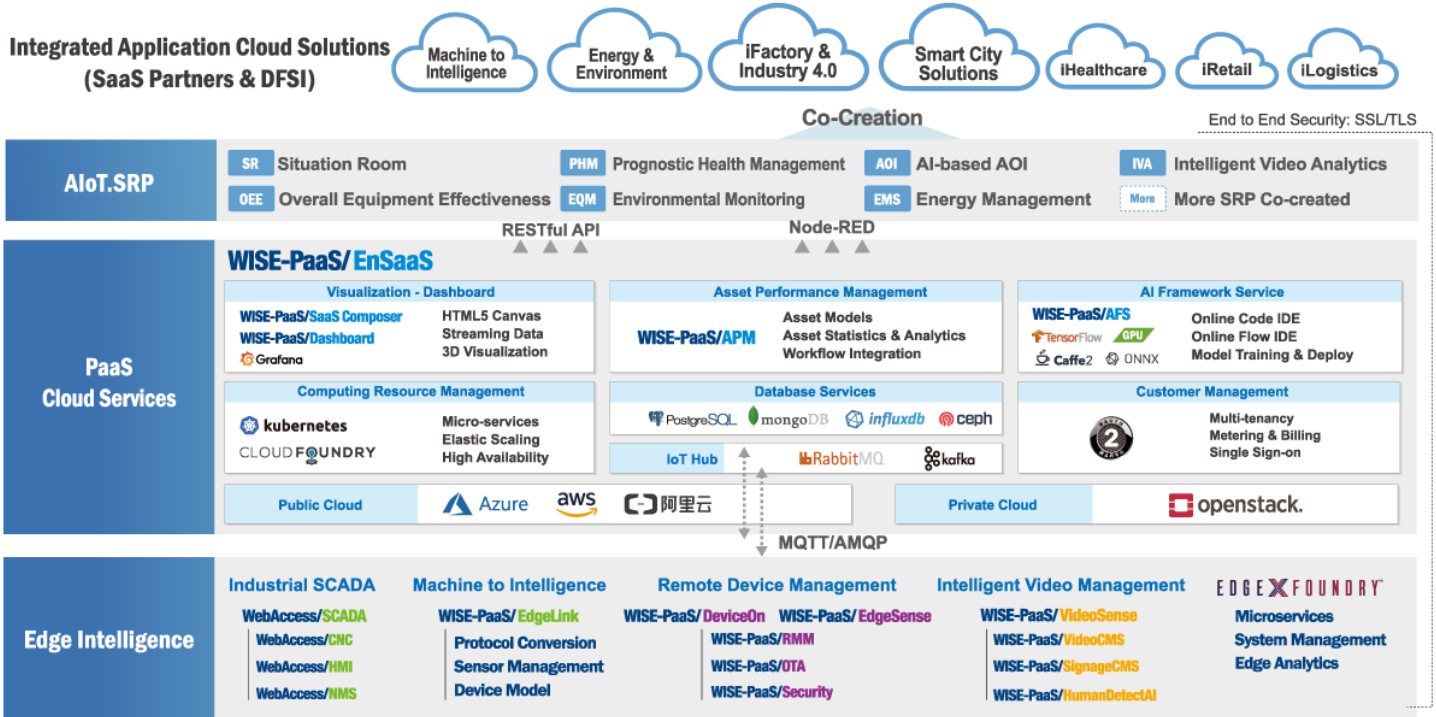
**WISE-PaaS/EdgeSense**

and **WISE-PaaS/VideoSense.**

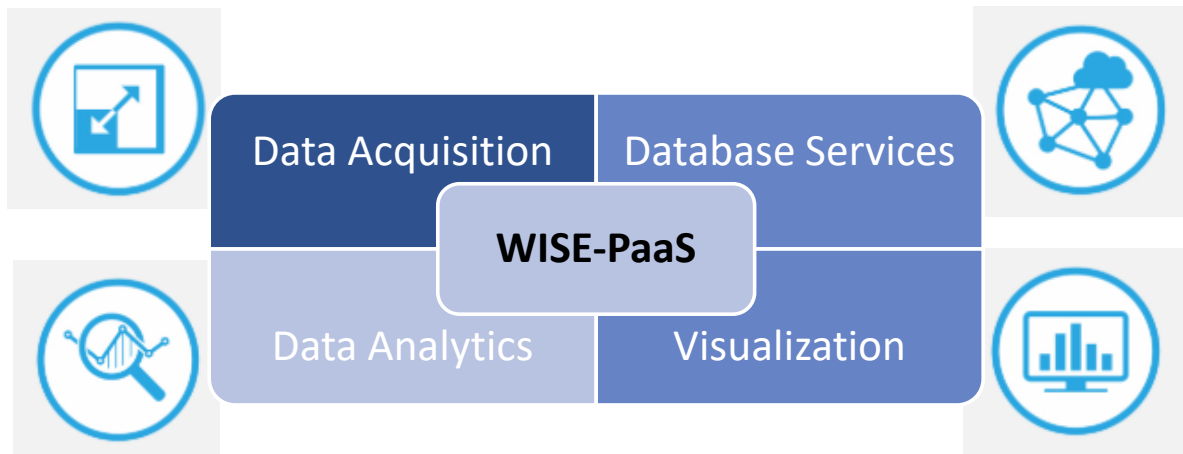
Data collected to the **WISE-PaaS/EnSaaS** IOT cloud platform enables us to quickly develop SaaS and domain-specific IOT solutions for our customers.



# WISE-PaaS 3.0 IoT Edge-to-Cloud Architecture



## WISE-PaaS Features



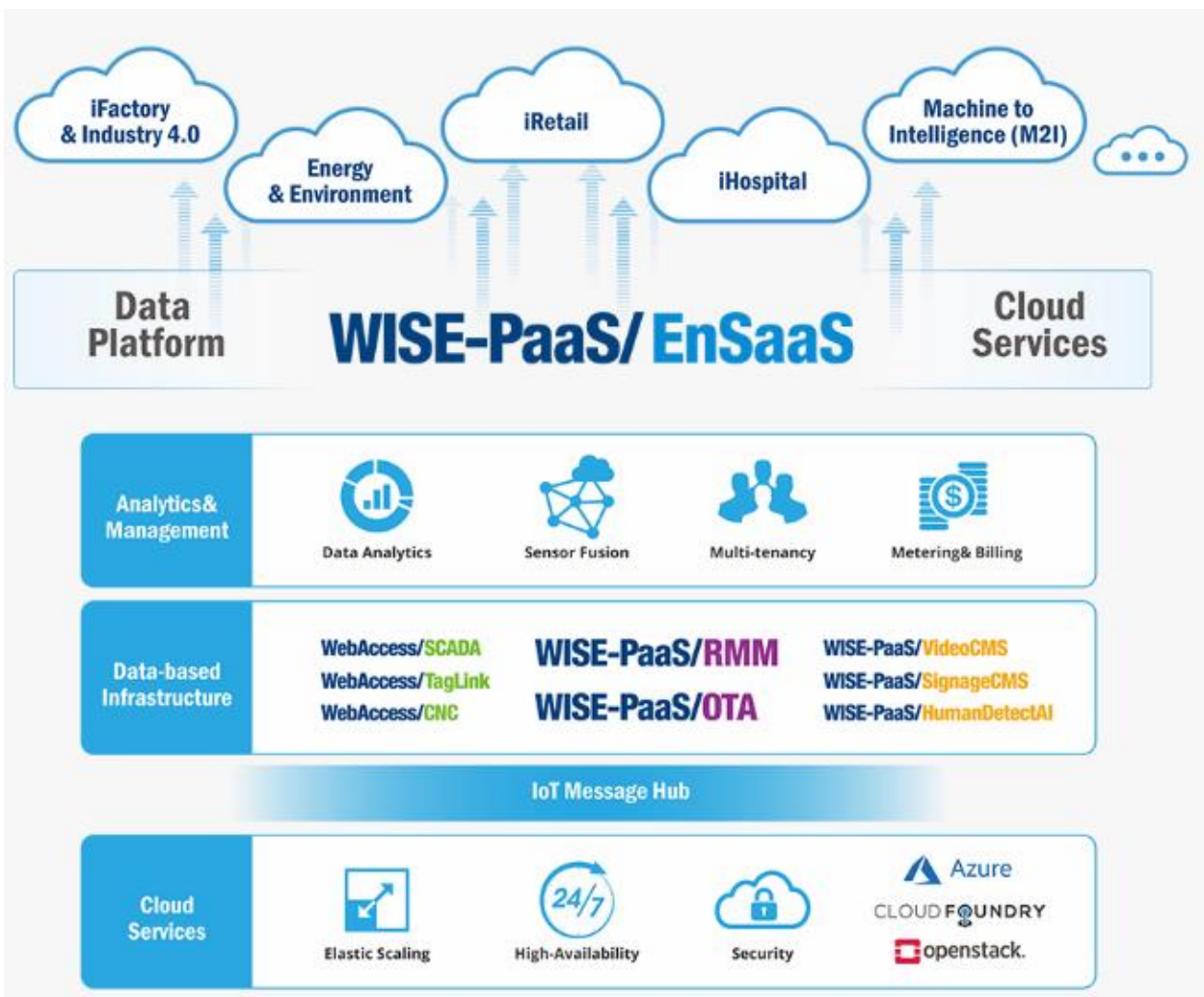


## WISE-PaaS Services

# IoT Cloud Services

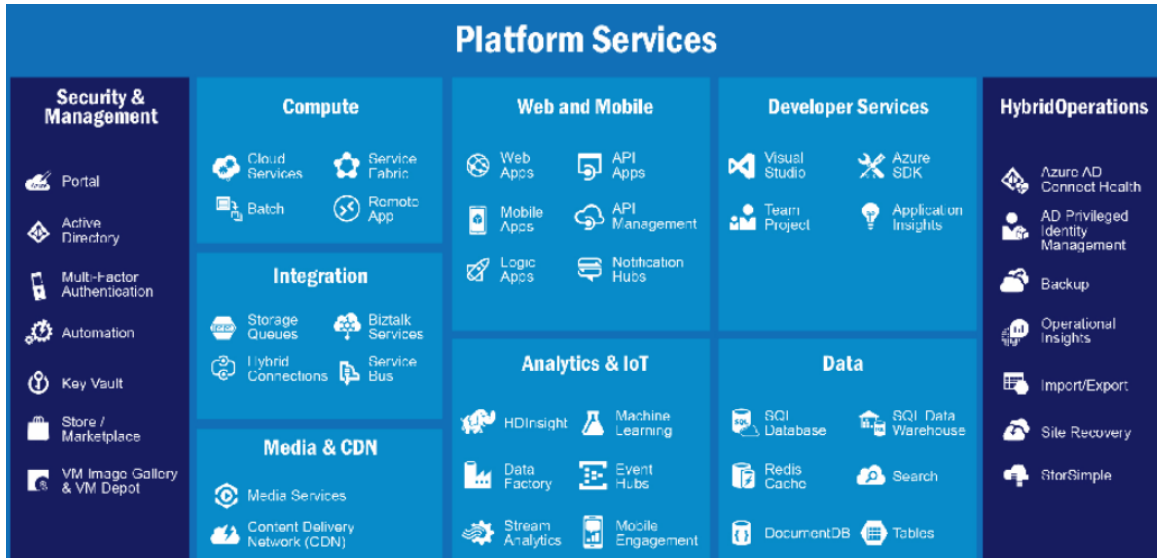
## WISE-PaaS/EnSaaS – Edge to Cloud services

An Industrial PaaS Solution for the Edge to Cloud Service. WISE-PaaS/EnSaaS is a cloud-based software platform designed to empower cloud services. It provides a highly secure, multi-tenancy architecture with automatic expansion to create a highly robust data platform for Advantech's domain-focused cloud services or customer's own cloud services.



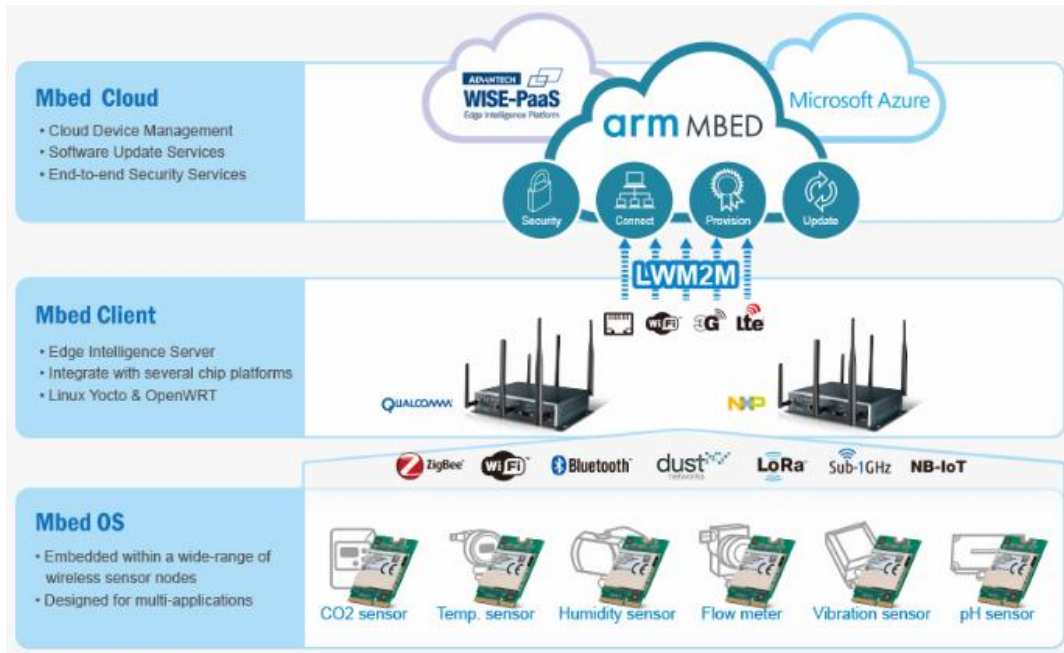
# Azure - Microsoft Azure Pay – As – You - Go

Cloud services that provide tools, services, and more for building Internet of Things (IoT) solutions.



# arm MBED - Arm Mbed Device Management

A centralized web-based console to remotely monitor and manage devices with LWM2M standard.





## IoT Security Services

### Acronis Backup and Recovery Solutions **Acronis**

Acronis provides a quick, effective and easy-to-operate backup and recovery solution. Acronis can back up the operating system, applications, settings and all of your data.

### McAfee – Endpoint Security

Endpoint Security 10 is the newest, best-performing, most effective, collaborative protection for customers.

### McAfee – Integrity Control

McAfee Integrity Security unifies the management of endpoints, networks, data, and compliance for all the McAfee products.

### McAfee – Embedded Control

McAfee Embedded Security provides complete whitelisting security function to protect your device

### McAfee – Application Control

McAfee Application Control protects your system by only allowing authorized code to run.

### McAfee- Application Control with ePO

McAfee Application Control with ePO protects your system by only allowing authorized code to run

## IoT PaaS Software Services

### CNC Machine Monitoring Solution

**WebAccess/CNC**

WebAccess/CNC is CNC networking software designed specifically for the machine tool market. Based on the 100% web based WebAccess/SCADA software structure, WebAccess/CNC provides major CNC networking functions and provides the advantages of SCADA software to the CNC market.

## IoT Application Software Platform

### WebAccess/SCADA

WebAccess/SCADA is 100% web-based SCADA software, users can monitor and control their projects simply through a web browser, it acts as an IIoT Platform providing open interfaces for partners to develop IoT applications for different vertical markets. For the device layer of IoT, WebAccess/SCADA supports ample protocols and drivers to connect to more than 450 controllers and devices. With intelligent dashboard, to provide users with cross-platform, cross-browser data analysis and user interface using HTML5 technology.

## HMI Runtime Development Software

### WebAccess/HMI

WebAccess/HMI is powerful yet intuitive software to create total solutions for HMI (Human Machine Interface) products. The features include solution-oriented screen objects, high-end vector graphics, Windows fonts for multi-language applications, a data logger and operation logging.

## WebAccess/MCM Machine Condition Monitoring software

### WebAccess/MCM

WebAccess/MCM is Machine Condition Monitoring software that provides easy sensor signal acquisition, signal analysis, feature extraction, data management and interpretation, and sends alerts. Engineers or system integrators can configure settings to meet the needs of different applications.

## A web browser-based software package for networking management system

### WebAccess/NMS

WebAccess/NMS is a web browser-based software package for networking management system (NMS) designed with SNMP and ICMP communication standards for managing all Ethernet-Enabled Advantech products and third - party devices

## Web-based Digital Signage Content Management System

### WISE-PaaS/SignageCMS

Advantech interactive multimedia software WISE-PaaS/SignageCMS, provides the platform for editing and dispatching digital signage programs. WISE-PaaS/SignageCMS allows users to manage and display dynamic, tailored messages which increases sales in real time



## Remote device monitoring and management software with open and standard software development kits **WISE-PaaS/RMM**

Web based remote device monitoring and management software with open and standard software development kits, following standard M2M protocol MQTT and providing RESTful API for function and data access

## Centralized remote software upgrade server which supports application, patch, firmware, driver and BSP update **WISE-PaaS/OTA**

Provides one-stop remote software updates for application, firmware, driver and BSP. Supports Cross-platform, such as Windows 7/8/10, CentOS6.5, Yocto x86 and Yocto RISC, Android etc. Offers RESTful API web service which allows user to integrate OTA functions with other applications

## WISE-PaaS/Security, empowered by McAfee, provides a centralized IoT security management console on Azure to deploy security policies for data and device protection **WISE-PaaS/Security**

WISE-PaaS/Security is an IoT security management platform, which can be tailored with McAfee function modules to protect data and devices in the IoT system

## Protocol Converter **Protocol Converter**

All-in-one message broker service which collects sensor data via various industrial protocols and then uploads to cloud

## OpenR8 Professional Edition

OpenR8 Professional Edition is AI software for everyone. AI algorithms are modularized and presented in an intuitive graphical user interface (GUI). Non-software background users can adjust and design algorithms with ease by using this software



## UShop+ Store BI

UShop+ Store BI is a store business intelligent service designed for store management. It integrates several store analytic solutions, includes store traffic and store heatmap analysis for a better and efficient retail management. The UShop+ Store BI has several statistic widgets which include people counting, conversion rate, shopper's heatmap and



dwelling time. Users can even pin or create user-defined widgets in cross region or cross periods report. The service is offering both public cloud subscription and private cloud on-premises installation

## Industrial Cloud Solution Services

### WISE-PaaS/DeviceOn - IoT Device Management App

Zero-touch onboard, visualized operations, real-time actions, and remotely manages connected devices at scale.

**WISE-PaaS/ DeviceOn**

### Equipment Vibration Monitoring Solution

Facilities Equipment Status Monitoring and Maintenance

**E2I/Vibration Monitoring**

### M2I/CNC Machine Management Service v1.1

Industrial Cloud Solution for Machine Management

**M2I/CNC**

### OEE/A - Overall Equipment Effectiveness Solution

An Industrial Cloud Solution for Real-time Machine Availability Management for Maximizing Operational Excellence

**iFactory/OEE**

### Equipment Edge Connectivity Solution

Enable Equipment Intelligence and Asset Management

**E2I/Edge Connectivity**

### FEMS - Factory Energy Management Solution

An Energy Management Solution Cloud Service for Optimizing Energy Efficiency in various aspect of Factory.

**iFactory/FEMS**

## Cloud SRPs

## WISE-Stack Fully Integrated Edge Intelligence Private Cloud

Enjoy the Experience of a Public Cloud, with the Confidentiality of a Private Cloud



# WISE-PaaS Visualization

## Visualizing structured IoT with Dashboards



## WISE-PaaS Services





# Products

## Embedded Computing

Computer on Modules

Embedded PCs

Embedded Single Board Computers

Fanless Embedded Computers

Industrial Display Systems

Embedded Software

Gaming Platform Solutions

RISC Computing Platforms

Semi-Industrial Motherboards



## Industrial Automation

Embedded Automation Computers

Human Machine Interfaces

Building Automation Systems

Machine Automation

Power & Energy

Remote I/O & Wireless Sensing Modules

WebAccess Software & Edge SRP

## Intelligent Connectivity

- Cellular Routers & Gateways
- Ethernet/Serial Device Servers
- Industrial Protocol Gateways
- Industrial Wireless Gateways
- Intelligent Connectivity Software
- Serial Converters, Isolators & Repeaters



## Intelligent Systems

- Data Acquisition (DAQ) & Communication
- Industrial Computer Chassis
- Industrial Motherboards
- Industrial Servers & Storage
- Intelligent Video Platforms
- Modular IPC



## Network & Communications

- Advanced Video Solutions
- CPCI & VPX Blades & Boards
- Network Platforms, Blades & Adaptors



## iHealthcare

- Healthcare Infotainment Terminal
- Intelligent Power System
- Medical Carts
- Medical Computers
- Medical Monitors
- Medical Tablets



## Intelligent Retail

All-in-one Service Touch Computers

Mobile POS Tablets

Point of Service Terminals

UShop Terminals



## Intelligent Logistics

Industrial Mobile Computers

Industrial Portable Computers



## Applied Computing

Medical Computing Platforms

Mobile Computing Platforms

Rugged Computing Platforms





# Solutions

Our Solution domains at a glance



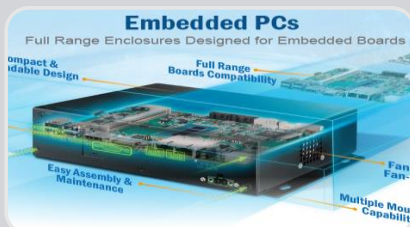
## INDUSTRY 4.0

- iFactory
- Industrial Equipment Management
- Industrial & Telecom Services



## SMART CITY

- Energy & Environment
- Transportation



## EMBEDDED & WIRELESS

- Embedded Modules
- IoT Edge Intelligent Software Services



## SERVICE IOT

- iLogistics
- iHealthcare
- iRetail
- Video Solutions
- AI in IOT Applications

# Design-to-Order Services

DigiMac offers a DTOS which promotes tailor-made systems or boards to meet specific application requirements. We offer advanced, innovative and world leading technologies, diverse levels of customization, flexibility of manufacture and technical and logistical support; with the help of our partner Advantech. DigiMac successfully helped PAC, Kamra to indigenously develop first version of DVR for JF-17 platform.



## 50 – day DTOS



# Projects

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DigiMac is a local leading solution provider, comprising of highly professional and experienced team which has successfully developed and accomplished variety of projects.

**PLC/DCS services** comprise of sensors for data acquisition, gateways for data accumulation and communication layers. While working out engineering design of the solution, hardware is selected from the renowned and reliable brands which comply with the required industrial automation standards, and the best suited to the specific requirements of our clients. Our team has delivered solutions based on wide range of renowned brands such as:

- a. Advantech PACs and PLCs
- b. Modicon QUANTUM [Schneider Electric France]
- c. PLC Direct 205/305/405 Series [Direct Automation USA]
- d. GE FANUC 90-30 [General Electric]
- e. Simatic S7 PLC [Siemens]
- f. ABB T200 Procontic [ABB]
- g. Allen Bradley SLC 500, 540E [Rockwell Automation]
- h. Melsec AnS series PLC [Mitsubishi Electric]
- i. Toshiba T2/T3 series PLC [Toshiba]
- j. Eurotherm TCS loop controllers [Eurotherm U.K]
- k. Multilopp Process loop controller [Desin Instruments]
- l. Phoenix Contact PLCs

**Human Machine Interface - HMI / SCADA** is integral part of the PLCs, DCS and data acquisition systems, and the operators monitor the whole process of the automated plant in the situation room on touch screen computer panels by using HMI software. HMI software are linked with the PLC/DCS systems and sensors layer through gateways, communication drivers, DDE and OPC servers. Being the system integrators, following services are provided in the area of HMI development and process screens development:

- o Designing of process diagram in different layers both for the operator and technical levels using Advantech and other brands of HMI / SCADA.
  - I/O tag development in HMI software
  - I/O lists
  - Equipment lists
  - Designing of symbols in HMI software
  - Designing of different types of screens as per customer requirement
  - Designing of process diagrams in HMI software



- Designing of trends, alarms, alerts, logging, historian etc.

**Instruments & Flow Control** We provide complete design, engineering, supply and commission solutions for:

- m. Liquid lines like test bed for Pumps Manufacturing Industries.
- n. Complete solutions to fill liquid products into containers, plastic ampoules or pouches. Our liquid filling lines can handle wide range of liquid products with high accuracy of filling including special products containing chemicals, acids, flammable and explosive materials/liquids.

**Drives and Motion Control System Solutions** We deal with drives and motion control system solutions comprising of servo, stepper and vector drives, which guarantee higher speed and accuracy besides motor control and electrical panels. We offer full technical support from selection of products/component to system integration, installation, commissioning and after sales support.

# Partners

DigiMac believes in Co-Creation & Teamwork. We have partnered with companies to bring out the best solution for our clients.



# Clients

<b>S. No</b>	<b>Company Name</b>	<b>S. No</b>	<b>Company Name</b>
1	ABB	35	Industrial Process Solution
2	ABN Amro Bank	36	Innovative Pvt. Ltd.
3	Alcatel – Lucent Pakistan	37	Irfan Textiles Ltd.
4	Ali Institute - Lahore	38	Leisure Textiles Ltd.
5	Angora Textiles Ltd.	39	Lucky Cement
6	Associated Group	40	Madina Sugar Mills
7	Azam Knits & Yarn Dyeing	41	McDonald
8	Azgard 9 Ltd.	42	Michelle's Fruit Farm
9	Bannu Sugar Mills	43	Nimir Chemicals

10	Bank Alfalah	44	Nishat Group
11	British Petroleum	45	Nishat Mills Ltd.
12	Cherat Cement	46	OGDCL Pakistan
13	Chaudhry Sugar Mills	47	OMV Pakistan
14	Cherat Cement	48	Package Lahore
15	China Mobile	49	Pakistan Tobacco Company
16	Citibank	50	Pepsi Cola
17	CNBC Pakistan	51	Pak Electron (PEL)
18	Coca Cola Beverage Pakistan	52	Pharmagen Limited.
19	Combined Fabrics Ltd.	53	Ramzan Sugar Mills
20	Comfort Knitwear Ltd.	54	Serena Textile
21	CWG Water Technology	55	Shahbaz Garments
22	DDFC (Pvt) Ltd.	56	Shakar Ganj Sugar Mill
23	DESCON Engineering	57	Siemens Pakistan
24	Engro Food	58	Sitara Chemical
25	ENGRO Foods	59	Sitara Group
26	Engro Innovative Automation	60	Tariq Glass (Toyo Nasic)
27	Ericsson Pakistan	61	Umar Spinning Mills
28	Gain Control	62	Uni-Lever Ltd.
29	Getz Pharma	63	Vita Pakistan Ltd.
30	Haleeb Foods Ltd.	64	Warid Telecom
31	High noon Laboratories Ltd.	65	Z-cap (Pvt) Ltd.
32	HSBC	66	Zephyr Textile Pvt. Ltd
33	ICI Pakistan Ltd.	67	Punjab Police
34	DESCON Engineering	68	Various Govt Organizations (PAF & SPD Organizations)





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