

# OpenSG | Overview

Hightech solution, Consulting and SI Service  
based on Microsoft .NET Technology For Automation

2021.04



### OpenSG Corporation

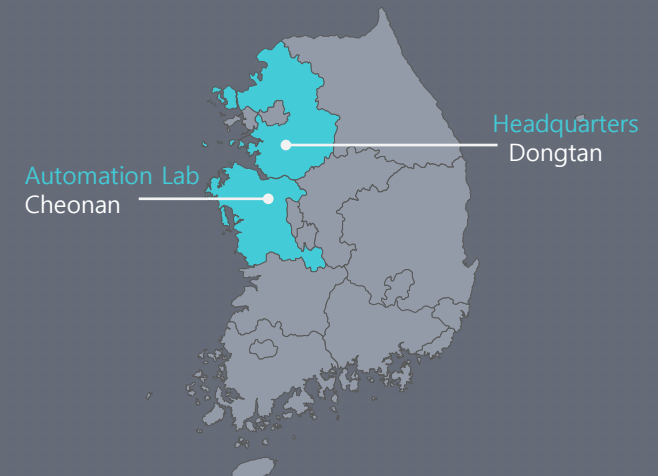
<b>CEO</b>	Younglae Chung
<b>Date of Establishment</b>	23, Jan, 2007
<b>Capital</b>	KRW ₩100,000,000
<b>Business Areas</b>	Manufacturing automation solution development/supply, Microsoft new technology consulting/education
<b>Number of Employees</b>	60
<b>'20 Sales</b>	KRW 6.5 billion
<b>Website</b>	<a href="http://www.opensg.net">http://www.opensg.net</a>

#### Headquarters

1201Ho, M Tower, 51-9, Dongtancheomdansaneop 1-ro, Hwaseong-si, Gyeonggi-do, 18469, Korea  
T. +82-31-373-2612 F. +82-31-377-2615

#### Automation Lab

406Ho, 10 Baekseokgongdan 1-ro, Seobuk-gu, Cheonan-si, Chungcheongnam-do, 31094, Korea  
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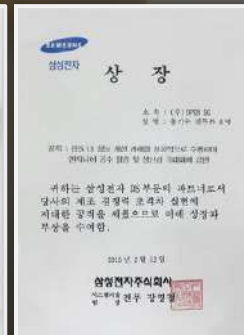


## History

- 2020 Relocate Headquarters to Dongtan
- 2017 Rename to OpenSG Corp.  
Establish OpenSG R&D Center in Seoul
- 2010 Relocate Headquarters to Asan
- 2009 Certified Venture Corporation by KOTEC
- 2007 Register Software Business by Software Association  
Register Microsoft Gold Partner  
Establish OpenSG.net Corp.

## Certificate

- 2019 Selection of exemplary taxpayer \_ Mayor of Asan  
Award of Business Partner \_ SK
- 2018 Award of the best business \_ Chungnam Technopark Association
- 2017 Certificate of Business Partner \_ SK
- 2015 Contribution of EES UI Performance Improvement Task \_ Samsung  
Appreciation Plaque[Industry-University Collaboration] \_ Hoseo University





## Certificate

Registered Microsoft Gold Certified Partner(Application Development) since 2007

# Microsoft Partner

Gold Application Development

(주)오픈에스지

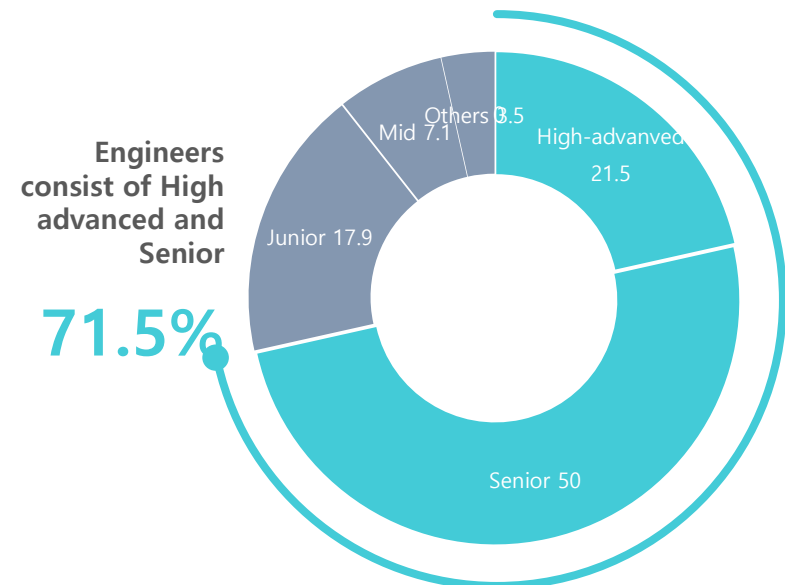
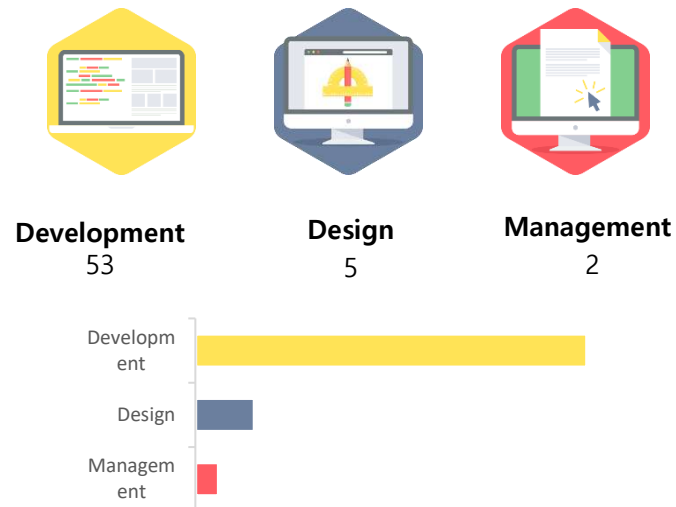
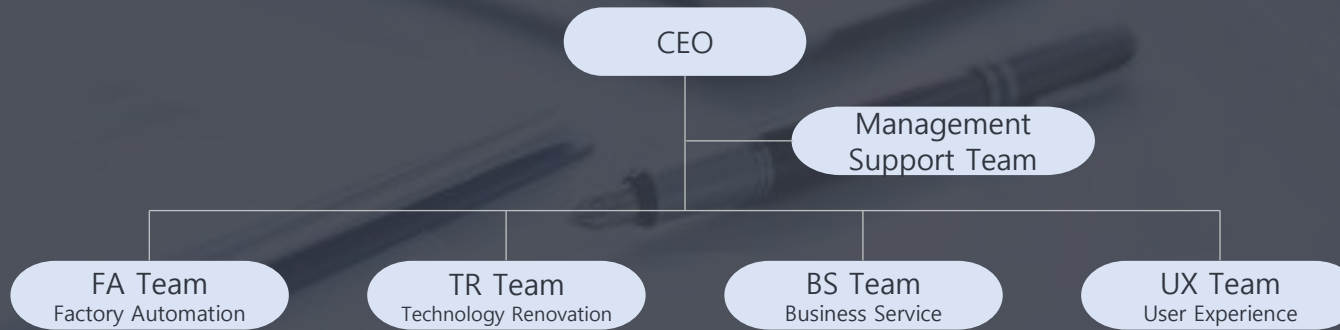
MPN Partner ID: 1932640

귀사는 마이크로소프트의 제품과 기술력을 공급하는 업체 중  
탁월한 비즈니스 솔루션 개발 및 전문 기술력과 고객에 대한 사입 추진력이  
입증되었기에 Microsoft Partner로 인증합니다.

## Company and Personnel Status

Experts with sufficient experience and enhanced skills

Group of professional software engineers to provide the best technical service to customers





## Business Areas



**Production Automation  
Solution**

Provision of customized Smart Factory  
Solutions based on Technology and  
Experience of OpenSG

### **Monitoring Solution**

AIMS®

### **Equipment Control Solution**

IDX Controller®

SCS®

ACS®



**App Development  
Framework based UI/UX**

Provides personalized User Interface  
and ensures fast performance and reliability

### **App Framework**

Smart-Wox®

CCF®

Map Designer®



**Microsoft Technology  
Consulting and SI**

System Construction and Education Services  
based on Microsoft New Technology

.NET Technology Consulting

SI related Manufacturing

MES/Automation

.NET Technology

Education/Technical Support

# Major Achievements

## Control/Collection/Analysis

- 2020** SK Hynix M16 Production information System  
SK Hynix Non Fab Space Planning  
Rorze Systems A2 Index Standardization Program  
Samsung Electronics STAR 5.0  
SK siltron MCC
- 2019** SK Hynix Cloud Application Platform development  
SK Hynix User-focused Engineer Workplace  
Samsung STAR 4.0  
Samsung OCS 4.0 Patch Automation System development
- 2018** Samsung TPSS-BEST Efficiency Improvement  
Samsung Automatic Return OCS UI development  
Samsung Production linked Return Simulator development  
Samsung i-TTMM Function Enhancement development  
Samsung STAR System Standardization and Optimization  
Samsung ACS Function Efficiency
- 2017** AMHS Layout Automation of Design Verification  
Samsung Electronics: Semi. MCS/OCS Management Tool  
SK Hynix smartMCC Equipment Operational Condition Optimization- Analysis  
SK Hynix FDC long-term Data Analysis  
Mars Prime Equipment Data Utilization System Standardization
- 2016** Samsung Display : Hightech eMAS System  
Samsung Electronics: Logistics Automation(MCS, OCS) System  
Samsung Display : Cell Repair Reverse Stage CIM System
- 2015** Samsung Electronics: OHT Control & Monitoring System  
Samsung Electronics: MCS Test Automation System  
Samsung Display : Conveyor CIM System
- 2014** Samsung Display: Stocker Control System  
Samsung Electronics: Self driving AGV Control System  
Samsung Suzhou LCD: Robot & Automation Portal
- 2013** Samsung Suzhou LCD: Sensor EDA  
Samsung Display: Robot & Automation Portal  
Samsung Suzhou LCD: Indexer Control System
- 2012** Samsung Display: Sensor EDA System
- 2011** Samsung Display: Equipment Event Verification System

## Monitoring

- 2020** IMS(FAB/MOD Monitoring System Improvement)
- 2019** SK Hynix Wuxi WT Standards environment  
SK Hynix Chongqing SSD line
- 2018** SDV AIMS Monitoring System
- 2017** SK Hynix FAB Automation Identical Environmental Condition Phase-II  
SK Hynix CMS Fab Safety Monitoring System  
SK Hynix FAB Real-time Emergency Detection System
- 2016** SK Hynix P&T FMS
- 2015** SK Hynix WT Monitoring System  
Samsung Display: SSL integrated monitoring Acceleration-development
- 2014** Samsung Display Control Acceleration System  
Samsung Display Module line Monitoring System
- 2013** Samsung Tianjin LED: AIMS integrated Monitoring System  
Samsung Heavy Industry: Ocean wind power generator Monitoring System  
Samsung Suzhou LCD: Integrated Monitoring System
- 2012** Samsung Electronics TP Center: AIMS integrated Monitoring System  
Samsung Display: Integrated Monitoring System  
Samsung Electronics: FC Inline Equipment Monitoring System
- 2011** Samsung Electronics TP Center: AIMS  
Samsung Display: Alarm Monitoring System
- 2010** Samsung Display: Automation Monitoring System  
Samsung Heavy Industry: Wind power generator Monitoring System
- 2009** Samsung Display: UV fluorescence automation Monitoring System
- 2008** Visual Monitoring Toolkit Development

## Major Achievements

### SI

- 2020** SK Hynix Infra MA  
SK Hynix smartATLAS
- 2019** SK Hynix FSM System  
Samsung semiconductor CTTM  
SK Hynix Integrated R&D Production Automation Operation  
Samsung MCTS FrameWork Standards
- 2018** Samsung Memory Test Process Overseas Site  
Production Control Framework  
SK Hynix P&T Smart Factory Pilot  
Samsung Tool Drawing Design Verification System Development  
Samsung MCS Patch Automation System Development  
SK Hynix P&T Reporting System Advancement  
SK Hynix FSM System
- 2017** SK Hynix Renovation of based Biz.Process System  
SK Hynix Manufacture Visibility Assurance and Decision- Support  
System Ph2(PT)  
Samsung Electronics TP Center Upward of quality System(YMS)  
Samsung Electronics TLM System Development  
SK Hynix M14 Equipment PM Automatic Computerization-Spread
- 2016** Samsung Electronics TTTM System  
Samsung Electronics EES RMS UI Development  
Samsung Electronics EES FDC, APC UI Development  
Samsung Heavy Industries Remote Maintenance System  
Steco eMonitoring System
- 2015** Yonsei Medical Center u-Severance 3.0  
Samsung Electronics EES UI 2.0 Renovation  
Samsung Electronics TP Center: QM System
- 2014** Samsung Electronics ME/LSI integrated TPSS  
Samsung Electronics EES UI Renovation  
Samsung Electronics Xian, China: QM(Quality Management System)  
Samsung Electronics TP Center: MOS(Machine Operating System)  
Samsung TP Center: Production/standard information system
- 2013** Samsung Electronics TP Center: IOC 2.0 for TP Center  
Samsung Electronics TP Center: EES  
Samsung Electronics TP Center: QM System  
Samsung TP Center: TP Tool improvement for Verification/Management

### Consulting

- 2017** SESS Manufacture Workplace upward leveling
- 2016** Samsung Display: Module Manufacture Innovation  
Competition(Suzhou, China SSM) - Exhibition of Automation  
Solution
- 2014** Samsung Electronics: Smart-Wox® Framework
- 2013** Samsung Electronics TP Center: Smart-Workplace Framework
- 2010** Samsung Electronics: Injection molding standard web platform
- 2008** Bistel Inc.: Fab Automation Framework Consulting



## Main Product

### Monitoring



**AIMS®**  
Integrated  
Monitoring Solution

### Equipment Control



**IDX Controller®**  
INDEXER Control  
System

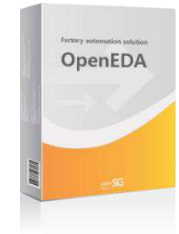


**SCS®**  
Stocker Control  
System



**ACS®**  
AGV Control  
System

### Data Acquisition



**OpenEDA®**  
Realtime EQ/Sensor  
Data Acquisition System

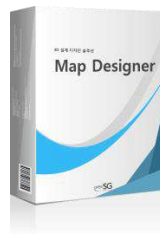
### App Framework



**Smart-Wox®**  
Microsoft .NET  
WPF & WCF based  
General Application  
Development &  
Managing Framework



**CCF®**  
CIM Control  
Framework



**Map Designer®**  
Map design  
Solution for OHT  
and AGV

### Mobile



**Open vTalk®**  
Mobile Walkie-talkie  
Solution

### Comm Driver



**OpenHSMS®**  
SECS/GEM Driver

# Product Descriptions

## Monitoring



**AIMS®**

### Integrated Monitoring Solution for Facilities and logistics Equipment

- Plug-in format layout
- Easy Visual Components
- Integrated monitoring for per-user needs
- Verified monitoring engine of performance
- Extend various systems of open architecture
- Multiple Protocol Responses of various Equipment



## Equipment Control



**IDX Controller®**

### INDEXER Control Logistics Equipment Integrated System

- Standardized Unified UI Configuration
- Cope with IO Module various of INDEXER product
- HSMS Driver comply with standardization SECS
- Support of communication protocol between INDEXER and Equipment
- Support of various Robot Control
- Support of various Log Format



## Equipment Control



**SCS®**

### Stocker Control Remote UI System

- Various SCS Responses(Shuttle, STK, Mask)
- Remote control and monitoring via the Remote UI
- HSMS Driver comply with standardization SECS
- Organized active of Layout by XML configuration
- SCS Optimization through configuration



## Equipment Control



**ACS®**

### A.G.V Control System

- AGV Concurrent Control and Monitoring
- Change and transmission of Real-time routing path
- Support of settings and parameter change Reload



# Product Descriptions

## Data Acquisition



**OpenEDA®**

**Real-time Sensor Data Acquisition and FDC Report**

- Collection of various Sensor Data
- Monitoring of Field-bus status
- Independent Data Collection and FDC Reporting
- EDA Manager for Management and Monitoring of your entire system
- Support of settings and parameter change Reload



## App Framework



**Smart-Wox®**

**Development/Operation Standard Application**

- Provision of personalized user interface
- Integrated Delivery of comprehensive information and contents
- Integrated login environment in conjunction with Single Sign On (SSO)
- Verified monitoring engine of performance
- Extend various systems of open architecture
- Multiple Protocol Responses of various Equipment



## App Framework



**CCF®**

**CIM Communication Framework between HOST and EQ**

- HSMS Driver comply with standardization SECS
- Flexible Layout Extension
- CIM Optimization with Configuration
- Extension of Data Integration Module
- CIM Monitoring



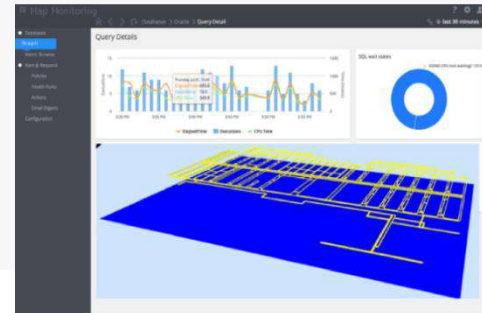
## App Framework



**Map Designer®**

**Solution to design production site**

- Design of various production sites and Equipment layouts
- Import CAD file to base design file
- Define communication formats for each Equipment
- Function of Equipment CSV, CAD Export



## Product Descriptions

### Mobile



## Open vTalk®

### Mobile Walkie-talkie Solution

- Voice wireless Function provided using smart phone without additional cost of network deployment
- Real-time messages of 1:1 and 1:N
- Support of Functions Text-to-Speech(TTS)
- Device behavior control (vibration, sound) by message type received
- Chat List Information History Management
- Monitoring and Legacy System



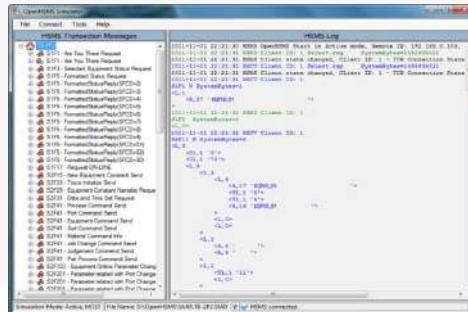
### Comm Driver



## OpenHSMS®

### SECS/GEM Communication Driver between host and Equipment

- SECS/GEM Driver based on Microsoft .NET
- Various operation Log such as Binary, SECS-II etc.
- Compliant with SEMI communication standards
- Optimized User Needs
- Cooperative Support



## Customer & Partners

As a leader in the Microsoft.NET platform of solutions development and consulting,  
We'll be the best partner to help you create the business you want.

### Major Customers

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### Major Partners

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