

# Message Gateway System

## Automated alarm event reporting

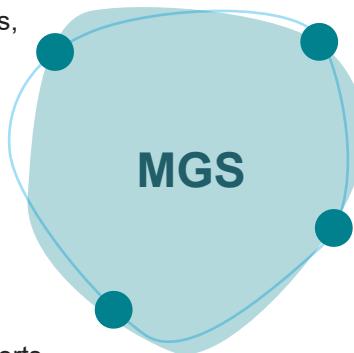
Real-time dispatch of plant-wide events and alarms, ensuring no critical notifications are missed.

## Effortless Alarm Management with MGS

MGS is an integrated real-time reporting system that handles all factory events and alarm notifications, suitable for various industries and systems. Choose from a range of notification methods such as LINE, SMS, voice calls, email, and more, guaranteeing timely and categorized alerts to the right individuals. No more scattered alarms or delayed responses—MGS ensures no important messages are missed!

## Benefits

Supports multiple data sources, easily integrating dispersed system events and alarms.



Real-time notifications through various channels significantly reduce the issue of missed reports.

All the notifications you want can be uniformly sent through MGS, offering flexibility in various application scenarios.

Automated alarm classification and group-based distribution enhance response efficiency and reduce the volume of notification.

## Key features

### Real-time Anomaly Notifications with MGS

MGS supports OPC UA communication protocols for real-time monitoring of data from diverse factory equipment systems. It automatically notifies operators in case of data anomalies, keeping them updated on the factory's status. Moreover, MGS also supports OPC AE Server, MS SQL Server, CSV, XML, FWT, and other data sources, facilitating notifications to ERP systems.

### Versatile Notification Options

MGS offers a wide range of notification methods, including LINE, WeCom, Email, mobile SMS, web SMS, voice playback, Microsoft Teams, Synology Chat, Discord, Telegram, Slack, WhatsApp, and more. This flexibility ensures users receive critical notifications promptly in various scenarios. Users can easily customize notification triggers and recipients, both individuals and groups.

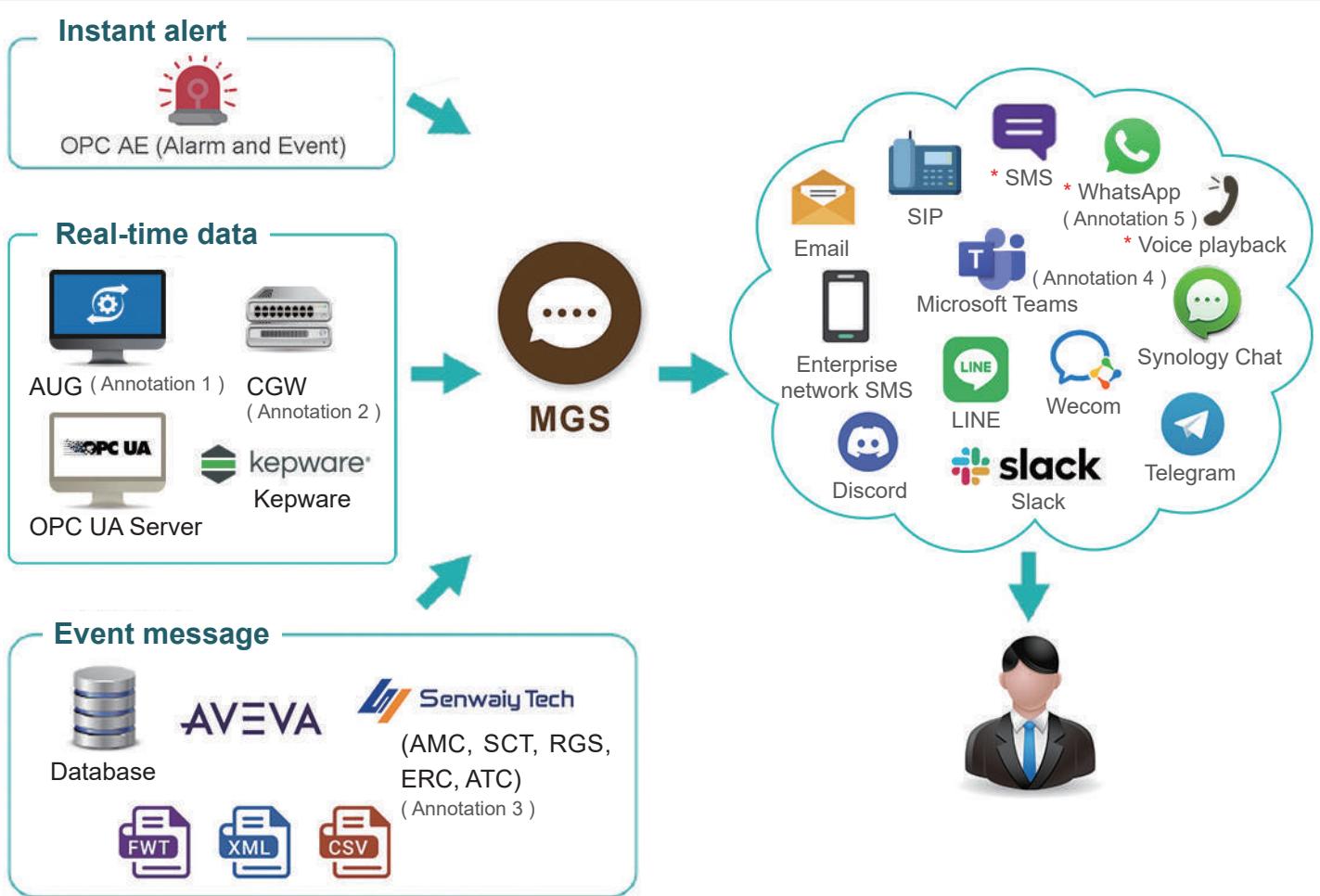
### Customized User Permissions

MGS enables role-based operation permissions with various levels. It supports tiered and group-based notification sending, allowing users to tailor notification content and delivery methods for different groups and individuals. MGS also supports hierarchical notifications, allowing alerts to be sent according to organizational levels. If a lower-level recipient does not respond, the notification will be escalated to higher-level personnel.

### Reply and resend notifications

Recipients can respond to alerts, making it easy to track who has received and acknowledged the notifications. This helps confirm the status of information delivery, and for those who haven't responded, messages can be resent.

# System architecture



( Annotation 1 )

AUG is a software that supports the conversion of over 20 industrial communication protocols. It assists in integrating data communication between various devices and systems and can insert the data into the database.

( Annotation 2 )

CGW is an intelligent gateway that supports the conversion of over 15 industrial protocols. It assists in integrating data communication between various devices and systems and can establish an industrial IoT foundation through OPC UA.

( Annotation 3 )

AMC:

AMC is a digital twin solution designed to integrate your factory's 3D models, 2D drawings, equipment engineering data, work orders, and both historical and real-time operational data — all within a single platform.

SCT:

The Shift Change Tracking System (SCT) is a digital shift handover management solution that designed to help you address issues of chaotic, hard-to-track, and missing shift handover information.

ATC:

The Automatic Trend Chart System (ATC) allows you to visualize historical database data and schedule automatic generation of trend analysis charts.

RGS:

RGS is a reporting platform specifically designed for the manufacturing industry, addressing both IT and OT reporting needs. It efficiently consolidates complex data and automatically generates clear, visualized reports, such as production exception reports, daily production summaries, ERP reports, and other essential reports required by industrial organizations on a daily basis.

ERC:

The Emergency Response Center (ERC) is a solution designed specifically for factories with high-risk processes or those involving high-value processes. It integrates factory-wide alarm display, notification sending and receiving, statistical analysis, and patrol handover, providing a streamlined, user-friendly integrated management platform.

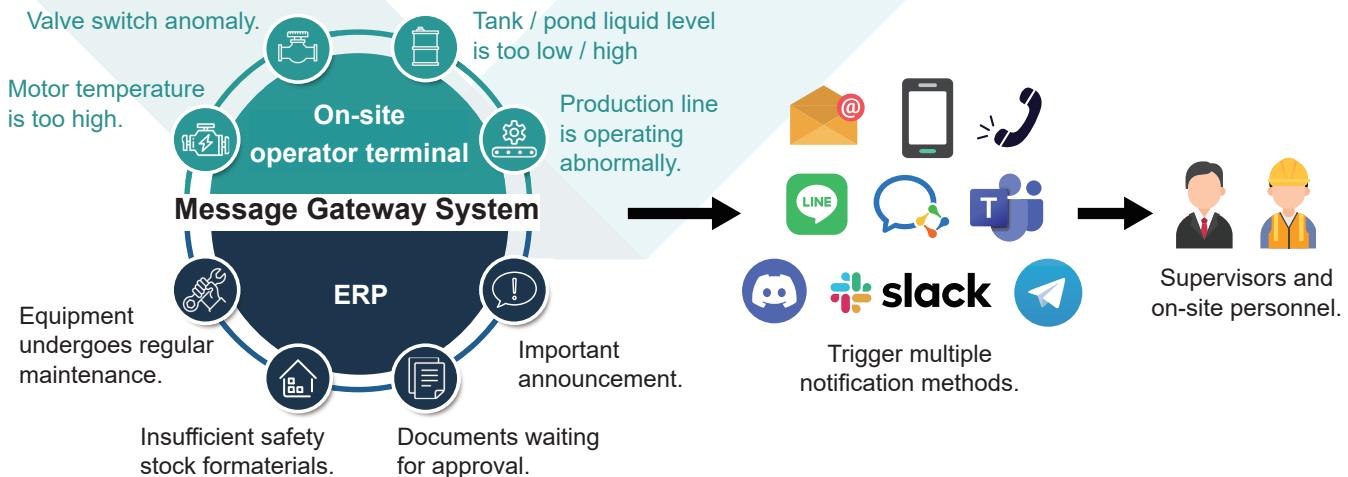
( Annotation 4 )

Only applied to Microsoft 365 Business Standard or Microsoft 365 Business Premium.

( Annotation 5 )

When sending messages via WhatsApp, system integration must be done through the third-party platform Twilio, and the related service fees will be charged separately.

## Application scenario



## Supported devices

Voice Playback	SMS	SIP	PC speaker
<ul style="list-style-type: none"><li>ICPDAS GTM-204M-4GE</li></ul>	<ul style="list-style-type: none"><li>ICPDAS GTM-204M-4GE</li><li>Oring IMG-4312-4G</li></ul>	<ul style="list-style-type: none"><li>Grandstream UCM6302A</li><li>Yeastar P520</li><li>NEC SL2100</li><li>NewRock OM20G</li></ul>	<ul style="list-style-type: none"><li>Any PC</li></ul>

## System compatibility



### Operating system

- Windows 10 / 11 Pro or above
- Windows Server 2016 or above; Standard / Data Center



### Supported browsers

- Microsoft Edge
- Google Chrome
- Mozilla Firefox
- Safari



### Database

- Microsoft SQL Server 2016 or above; Express / Standard / Enterprise



### Hardware requirements

- CPU : 4 cores or higher · 2.4 GHz or above
- RAM : 16 GB or above
- SSD with at least 500 GB
- Network : 1 Gigabit Ethernet
- Display : 1920 × 1080 or higher

※ Content may change without prior notice; Senwai Tech reserves the right to modify at any time. 2025.11

**SMC**  
Senwaiy Management Console



## 1. Centralized Management

Senwaiy management console provides an integrated interface to view the status of all hosts and installed software, making management and maintenance more convenient.

## 2. Message Broadcasting System

When system issues occur — such as license problems, critical alarms, device disconnections, or excessive host load — the system proactively notifies administrators and relevant personnel.

The screenshot shows the Senway Management Console interface. At the top, there's a navigation bar with 'Senway Management Console' and a 'Logout' button. Below it is a search bar with placeholder text 'Search...'. The main area is titled 'Servers' and displays a summary for 'RD-DEMO-1' (Windows Server 2012). It includes a CPU usage chart (4%), memory usage chart (59%), disk usage chart (44%), and network usage chart (192.168.80.54). Below these charts is a row of buttons for 'ATC', 'ERC', 'MOS', 'RGS', 'AMC', 'CMG', 'CGW', 'CTC', 'MQG', and 'SMS'. In the top right corner, there's a 'Licenses' section with a yellow warning icon, showing a license for 'RD-DEMO-1' with details like Product ID, License ID, and Expiration date. A 'Licenses Management...' link is also present.

### **3. Information Security**

Equipped with multiple security mechanisms to safeguard information, including:

- Password
  - CAPTCHA verification
  - 2FA authentication
  - Access control
  - User whitelist / block

**Login**

**LoginMode**

Verification Mode:

AD Authentication

**AD Authentication Information**

DomainUsed in AD verification mode)

192.168.0.40

AD Account  AD Password

beesources

**Manually synchronize AD**

**AD Automatic Synchronization**

On

AD Automatic Synchronization Time(Unit: Minutes, Default value: 10)

60

**Security**

**Password Security**

Passed Complexity(Uppercase, lowercase, digits, special characters: select 3 out of 4)

Off

Minimum Password Length

Login Failure Count(1: Not Enabled)

Failed Login Lockout Duration(Unit: Minutes, Default value: 5)

**Verification**

**Graphic Verification**

**2FA Verify**

Off

Authentication Method

Google Authenticator

2FA IssueTitle

2FA AccountTitle

2FA AccountSecret

## 4. Maintenance System

Optimize system performance through comprehensive maintenance features:

- Scheduled cleanup of historical data
  - Automated database maintenance
  - Automatic Active Directory (AD) synchronization
  - Service status monitoring (WatchDog): auto-recovery and restart in case of system failure
  - Diagnostic tools: detect system anomalies
  - System logs: record updates and changes
  - Backup and restore mechanism: protect system data and prevent data loss

The screenshot shows the 'Record' tab in the System Center Configuration Manager console. The 'Performance Log' section displays a log entry for 'Log Interval(100ms, Default value: 100)' with a value of '10'. The 'Scheduled Log Cleanup' section shows a cleanup interval of '100ms'. The 'Scheduled Database Compression' section lists a task scheduled for 'Time: 10:00' on 'Date: 2013-01-10' with a compression threshold of '100'. On the left, the 'Operations' pane shows tasks like 'Run DMRD-1', 'ADC-19', 'AnvManagementCenter', 'ATC', 'BRC', 'RunReconcileSequence', 'LogMessage', 'MessageDeliveryService', 'ReportManagementService', and 'RunSUSchedule'. On the right, the 'Status' and 'Working' panes show the status of various services.



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