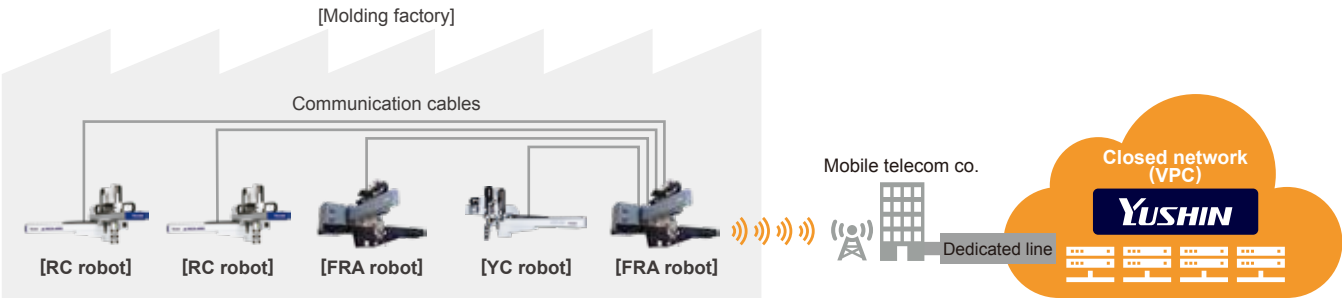# Equip even one FRA series robot
to change your facility into an Intelligent Factory

A single FRA can act as an IoT hub
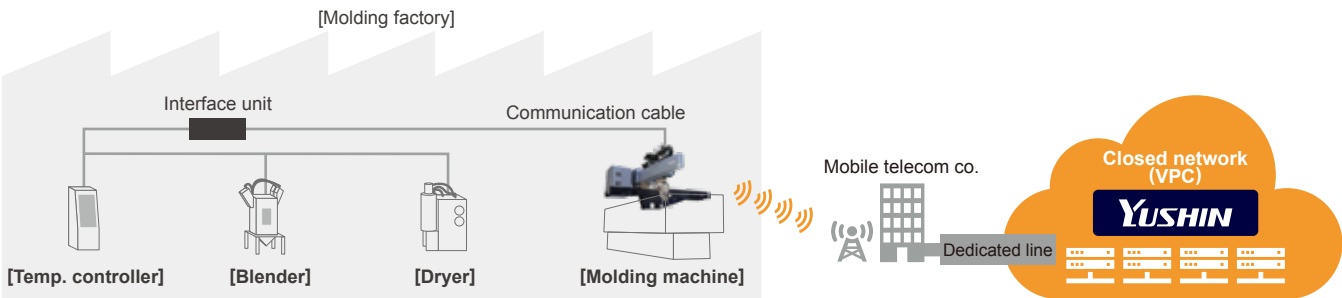where users can monitor up to 5 various devices in total.

Example 1

Connect one FRA robot with up to 4 other Yushin take-out robots
to make production data more visible.

[Molding factory]

Communication cables

[RC robot]　[RC robot]　[FRA robot]　[YC robot]　[FRA robot]

Mobile telecom co.

Closed network (VPC)
YUSHIN

Dedicated line

※ Yushin FRA series, RC series and YC series take-out robots have INTU LINE compatibility.
※ Factors like hardware version and custom motion programs may affect compatibility.
　Certain situations may require payable robot modifications including component replacements or additions.

Example 2

One FRA robot can connect with up to 4 auxiliary devices (molding machine,
temp. controller, etc) to monitor molding conditions.

[Molding factory]

Interface unit　　Communication cable

[Temp. controller]　[Blender]　[Dryer]　[Molding machine]

Mobile telecom co.

Closed network (VPC)
YUSHIN

Dedicated line

INTU LINE can display up to 6 metrics for each linked device.

NISSEI　Sumitomo　Sodick
KAWATA　**INTU LINE**　MATSUI
Futaba　USHIO　JSW　HORAI

Inj. Peak P　　Barrel Temperature (Nozzle)　　Drying temp

※ As of October 2018, we have been able to connect to devices of the above manufacturers.
※ Some molding machines and auxiliary devices cannot be connected to INTU LINE.
　Predictive maintenance and troubleshooting features may not be supported by some devices.
▲ To inquire about INTU LINE compatibility with your Yushin robot and other equipment, please contact your local Yushin sales agent.

INTU LINE

■Other Features

Operations Display
Highlights robots currently in operation, so
users can verify robot status at a glance.

FRA-1530D
10996　31.54sec　100%
FRA-1530D
16031　10.51sec　100%
RCII-250D

ECO Monitor (*planned release in Japan - Jan 2019)
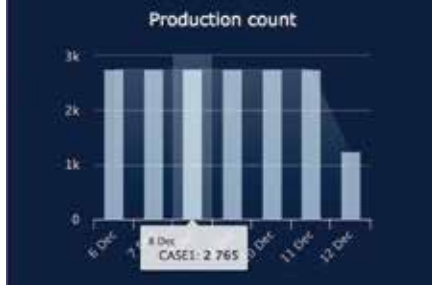Displays robot electricity and air consumption in
monetary figures, to help promote eco-friendly operations.

Image Upload
Add or update photos of your molded products
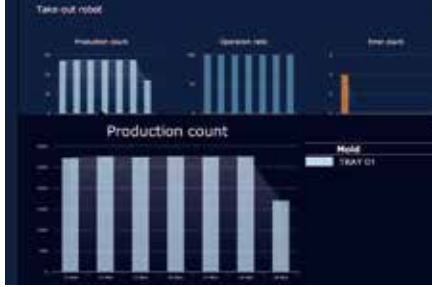and production equipment, for more intuitive navigation.

FRA-1530D
FRA-1530D
RCII-250D

Mouseover
Hover your mouse cursor over a graph to
display the numerical details.

Production count

Enlarge View
Click on a graph to zoom in for an enlarged view.

Production count

Help Feature
Displays the Help screen.

-Mold Name Display　Shows molds currently running, for easier supervision.
-Edit Name　Enter/edit custom names for production lines, machines, etc, for easier data management.
-Language Display　Users can select either English or Japanese display.
-Time Zone　Change your time display setting to match Japan or other time zones.
-Change Password　Change password to one of your choice.

※ To use INTU LINE service, please consult your Yushin sales agent before ordering your FRA robot(s).
※ INTU LINE coverage in select areas outside of Japan is planned to start at a later date.
※ All product, company, and system names and logos used herein are trademarks of their respective owners.

IoT Solution Service

High End Take-out Robot

FRA

High Precision Take-out　CONTROL
Shorter delay timers produce faster cycle times

Global Standard　SAFETY
Standard-equipped compliance with the world's highest safety standards

Greater Ease of Use　COMFORT
Faster, more accurate robot teaching and mold changes

⚠ Safety Warning

● The parts appearing in this catalog are for industrial robots defined by Japan's Ordinance on Industrial Safety and Health. Use them as stipulated in the safety provisions of that same ordinance.
● The photographs appearing in this catalog were taken without safety enclosures and other safety devices and equipment required by the aforementioned ordinance, in order to make product explanations easier to understand.
● Before using the product, prepare and install all required safety devices and equipment. Before using the products appearing in this catalog, carefully read all instruction manuals and other documentation provided with the product, to ensure proper use.

Yushin seeks a healthy coexistence with the planet throughout all of our business activities, including developing, employing, and promoting ergonomic and environmentally-friendly technologies.

＊The content of this catalog is subject to change without notice for improvement purposes.

YUSHIN

INTU LINE

YUSHIN PRECISION EQUIPMENT CO., LTD.

Yushin's INTU LINE application is ready to access anywhere, anytime after installation of your FRA take-out robot for injection-molded plastic parts.
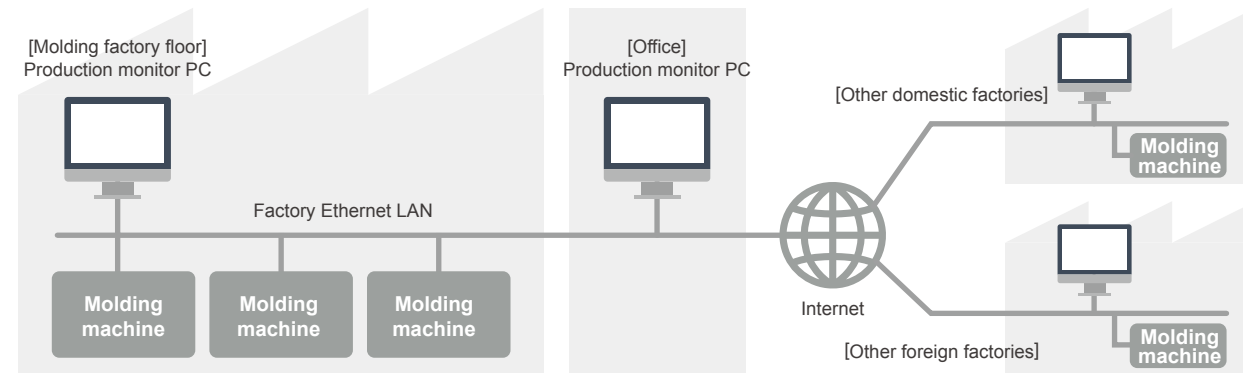
INTU LINE requires no expensive IT system integrators or expert knowledge of internet servers and security. The application uses a major cellular network for added reassurance.

As INTU LINE operates independently of your company's IT system, it does not complicate your network infrastructure or burden your IT personnel.
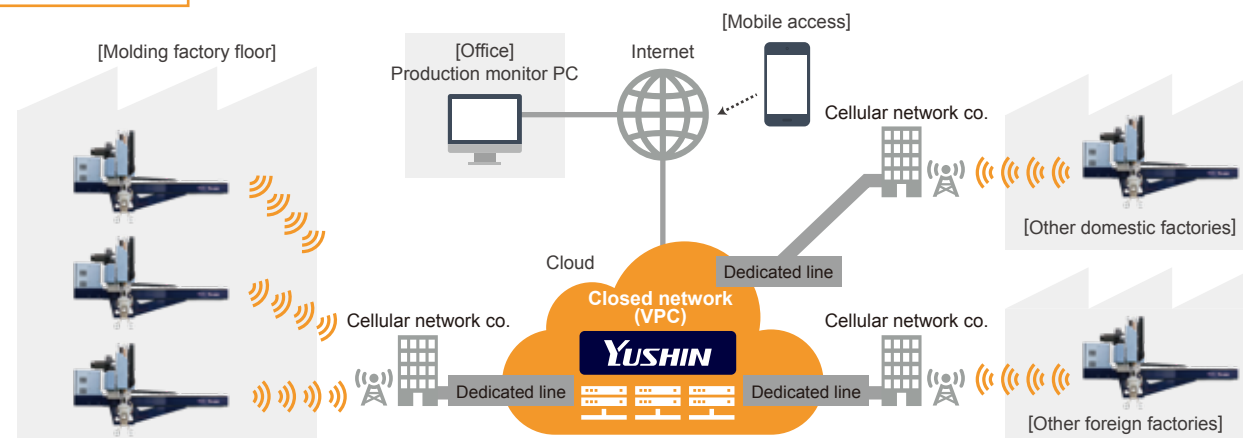
Plus, there are zero start-up costs for such things as system integration and running LAN cables.

The JPY60,000 annual service fee covers all maintenance and network costs -- a very low cost of entry.

Traditional System — Mainly relies on your company's IT network.

[Molding factory floor] Production monitor PC
[Office] Production monitor PC
[Other domestic factories]
Molding machine
Factory Ethernet LAN
Internet
Molding machine
[Other foreign factories]
Molding machine
Molding machine
Molding machine
Molding machine

INTU LINE — Fully independent of your company's IT network, and ready for immediate use.

[Molding factory floor]
[Office] Production monitor PC
Internet
[Mobile access]
Cellular network co.
[Other domestic factories]
Cloud
Dedicated line
Cellular network co.
Closed network (VPC)
YUSHIN
Cellular network co.
Dedicated line
Dedicated line
[Other foreign factories]

Check Production Status Whenever & Wherever You Choose

● Check production counts, cycle times, etc. on your mobile device or PC.

| Have the freedom to check your production status whenever, wherever. | Learn of production problems in real time. | Helps grow higher productivity and quality. |

Get factory floor updates at a glance while out of the office or away on a trip.

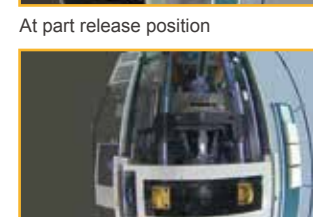Check on operations whenever you like - at night, during holidays, or after adverse weather events.

● INTU LINE enables users to collect data without relying on people's handwritten daily reports or gathering data from molding machine memory.

No more headaches over data with human errors and omissions.

Review data from robot, molding machine, and auxiliary device all together to improve quality and molding know-how.

● Collects a wide range of info on one screen, with easy controls and quick access to detailed data.

Press the "Take Photo" button to capture the latest shop floor images.

At part release position

At wait position

Export daily, weekly, or annual operation reports as PDFs or as raw data in CSV file format.

Check data such as production count, average molding cycle times, uptime, operation status, and short stoppages in graph or image form.

Maintenance and error information

Decrease Downtime

Monitor robot operations via the cloud.
INTU LINE connects directly with Yushin's AI trouble diagnostics system, to find solutions smoothly.

● Predictive Maintenance
Detects irregular belt tension, condenser life, air pressure, etc, while AI predicts possible breakdown risks so users can take early preventative action.
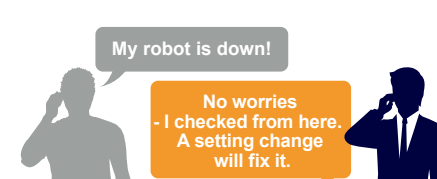
FAILURE RISK DETECTED
Whoa, thanks for the warning!
Customer

● Automatic Maintenance Reports
Automatically generates itemized inspection checklists at regular intervals to help organize PM efforts.

Looks good, but we can improve.
Customer

● Troubleshooting
If trouble occurs, Yushin tech support can access the robot's data to help reach solutions quicker.

My robot is down!
No worries - I checked from here. A setting change will fix it.
Customer
YUSHIN

Reduce Defects

● INTU LINE combines data from robot, molding machine, and auxiliary device to help improve product quality and molding know-how.

● If defect parts start occurring late at night, etc, off-site operators can use INTU LINE to command their robot to cycle stop.
※ Planned release of feature in Japan: Jan 2019.

● Production data and photos are saved to the cloud for 3 years, useful for traceability.

STOP!
defects
Customer

Email Notification Feature

● "Production Run Complete" Email
Users can opt to receive email notification upon or slightly prior to production run finish, to better prepare for mold changes.

● "Breakdown Alert" Email
Users can set conditions where they receive notification if the robot stops during production.

● "Routine Report" Email
Regular status report, emailed weekly.