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Unlocking the Benefits of Digital Signage in Life Sciences Facilities

ADVANCING MANUFACTURERS WORLDWIDE WITH DIGITAL SOLUTIONS

GRANTEK

WHITEPAPER

As a life sciences engineer, you know that effective communication is key to running a successful facility. Informing your Operations Team of the status of all cleanrooms accurately and in a timely manner is very important. Digital Signage can be an invaluable tool for improving communication and eliminating the paper method still used by so many manufacturers in their operations. Let's take a closer look at how Digital Signage can help your life sciences facility.

Benefits of Digital Signage in Life Sciences Facilities

Digital Signage provides many advantages to life sciences facilities. By replacing manual, often paper or whiteboard, signage at cleanroom entrances with automatically updated digital displays, your Operations Team is always up to date on the status of all cleanroom areas.

WHAT IS DIGITAL SIGNAGE?

Digital signage is a *technology* used world-wide across *multiple sectors of the economy*



- It is used to accomplish many goals:



INFORM

Display information from multiple sources, consolidated in one place



ADVERTISE

Help businesses influence and enhance customer experience



ASSIST

Help with navigation or to interact with a business

The information can come from several sources, including your MES, EMS, and ERP systems. Information that can be displayed can include ambient environmental data, production KPI's, room cleaning status, and products being produced. Here are some specific ways that digital signage can benefit your life sciences facility:

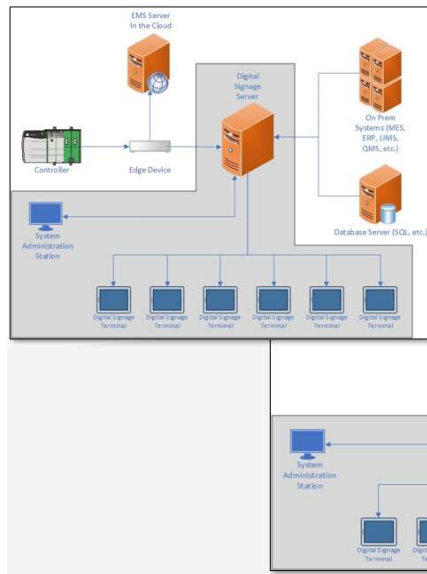
Better Visibility to Data

Digital Signage makes it easier for employees to view critical data quickly and easily. This allows them to make more informed decisions, which leads to increased productivity and efficiency in the workplace. It also helps reduce the need for manual paperwork by providing real-time updates on every digital display in every cleanroom area based on the rules and workflow your team specifies.

Improved Communication Between Departments

Digital Signage helps bridge the gap between departments by providing quick and easy access to relevant information across all departments within a facility. Information is also updated immediately and can be automated. Utilizing the principles of Pharma 4.0, this can help streamline processes like scheduling workflows or managing inventory levels, so everyone is on the same page when it comes to operational activities. This is especially key as it provides a secure way to display sensitive information, such as production schedules, current performance

KPI's, time/date of last cleaning or sterilization cycle, ambient temperature / relative humidity / and air pressure in a cleanroom. This ensures that no one can access or alter the information without permission and helps protect your facility from malicious actors.



DIGITAL SIGNAGE SYSTEM ARCHITECTURE:

WHAT DOES IT LOOK LIKE?

- It can be architected to connect to 1 data source OR multiple data sources
- It should be designed with scalability taken into consideration
- A network infrastructure is required
- GxP rated edge devices / displays

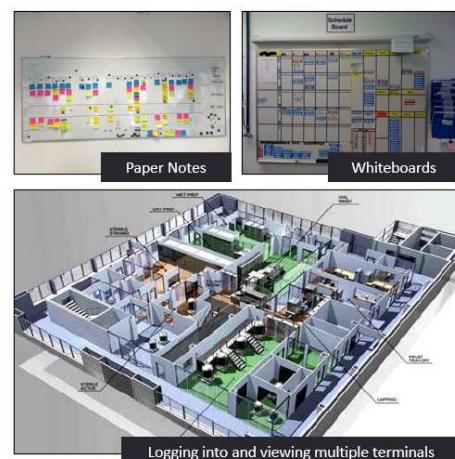
Improved Workflow Efficiency

By utilizing Digital Signage, you can automate many of your day-to-day processes and save time by eliminating manual paperwork or tedious tasks that require multiple steps. This helps reduce errors by automating certain processes such as sending out reminders about the status of cleanrooms. As well, you can use Digital Signage displays to communicate with staff members without interrupting their workflows by displaying messages directly on their workstations or other areas within the facility.

WHAT IS IT REPLACING?

- Manual tools like whiteboards and sticky notes
- Accessing HMIs and PCs in various areas of the facility to check for statuses on multiple systems

- | | | |
|--------|-------|-------|
| • ERP | • EMS | • MES |
| • CMMS | • QMS | • PCS |



Data Collection & Analysis

This Digital Signage solution from Grantek utilizes the MODI from Systec & Solutions. The MODI is a fitted unit for flush-mounted installation that features a screen with a 170-degree viewing angel, and very high resolution which allows for long distance screen clarity.

MODI: INSTALLATION AND REMOVAL



Grantek is a North American distributor for Systec & Solutions. Systec & Solutions products meet challenging and harsh environments in pharmaceutical and life sciences facilities that require regulatory and design requirements such as 21CFR Part 11, GMP, Cleanroom and IP65 to be met. Cross-contamination and failure to follow required protocols can result in serious problems.

COMPONENTS OF A DIGITAL SIGNAGE SYSTEM



SINGLE PLATFORM

- Built in COTS Platform or
- Custom Web Application



SYSTEMS ADMINISTRATOR STATION

- Configuration
- Management



MIDDLEWARE (Not Shown)

- Enables Connectivity



DATA SOURCE

- On Premises or
- In the Cloud



TERMINAL DEVICES

- Displays Information

Digital Signage is an Industry 4.0 technology that involves consolidating and displaying essential information from multiple sources. Within the Life Sciences industry, Digital Signage options improve cleanrooms and other GxP facilities by communicating the status of the area in a protected and efficient

way. All that is needed is an existing virtual or physical server infrastructure. The Digital Signage solution from Grantek features Power over Ethernet (PoE), which eliminates the need for excess wiring. In fact, it reduces the wiring requirement by 50%, while also eliminating the need to set up DC power.

EDGE DEVICES / DISPLAYS:

MODI 107 FEATURES



VARIANTS

- IoT PC
- Remote Display
- Monitor
- DC or POE



DESIGN

Fitted unit for flush-mounted installation; optionally: encapsulated in stainless steel housing




OPERATING SYSTEM

Linux (Raspbian), optional: Windows® 10 (Pro or IoT Core TM), Android, emteria.OS

Digital Signage Solutions


Digital Signage helps life sciences facilities streamline their operations by providing real-time data that can be used to monitor machines and equipment, as well as gaining insights into how their operations are functioning. This data can also be used to quickly identify any problems or inefficiencies that may be present in the facility's operations. This provides a platform for efficient communication between managers and personnel. Through Digital Signage, managers can quickly relay operational updates or safety protocols to personnel without having to disrupt their workflows.

WHAT TYPES OF INFORMATION CAN BE DISPLAYED?



PRODUCTION STATUS

- Product information
- Batch and Lot information
- Production KPI's
- OEE, etc.



STATUS OF THE CLEANROOM / GXP AREA

- Clean
- Waiting for cleaning
- Cleaning in process
- In operation
- Awaiting line clearance, etc.

In conclusion, Digital Signage offers numerous benefits for life sciences facilities looking to improve communication and annunciation of Operational Metrics for their cleanrooms. By leveraging Digital Signage solutions within your facility, you will ensure that your operations are running smoothly while also ensuring that your staff is safe and secure at all times. Investing in a comprehensive Digital Signage solution is sure to help your life science facility reach its full potential.

For over 40 years, top manufacturers in Food & Beverage, CPG and Pharmaceuticals have called upon Grantek to solve their most complex business and manufacturing challenges. Grantek automates Pharmaceutical and Food & Beverage manufacturing operations, including integration with business systems for seamless solutions. Grantek helps customers meet the stringent requirements and challenges of the 4th Industrial Revolution. Grantek's team of professionals located in 9 offices across the globe deliver solutions in Smart Manufacturing, Manufacturing Automation and Industrial IT/Cybersecurity as well as Manufacturing Consulting services. Call 866.936.9509 or email info@grantek.com to learn more.