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How Digital Paper eSignage Solutions Combine with IoT Computing to Revolutionize Healthcare

Healthcare is a constantly evolving field, bringing together the latest treatments, technologies, and best practices in an effort to achieve optimal results for patients. One of the key developments in recent years is IoT computing networks, which turn healthcare facilities into broad, interconnected spaces supported by real-time data transmission.

But IoT computing networks cannot support the healthcare industry all by themselves. By combining these networks with innovative digital paper and eSignage solutions, we can revolutionize the way healthcare is delivered across the world.
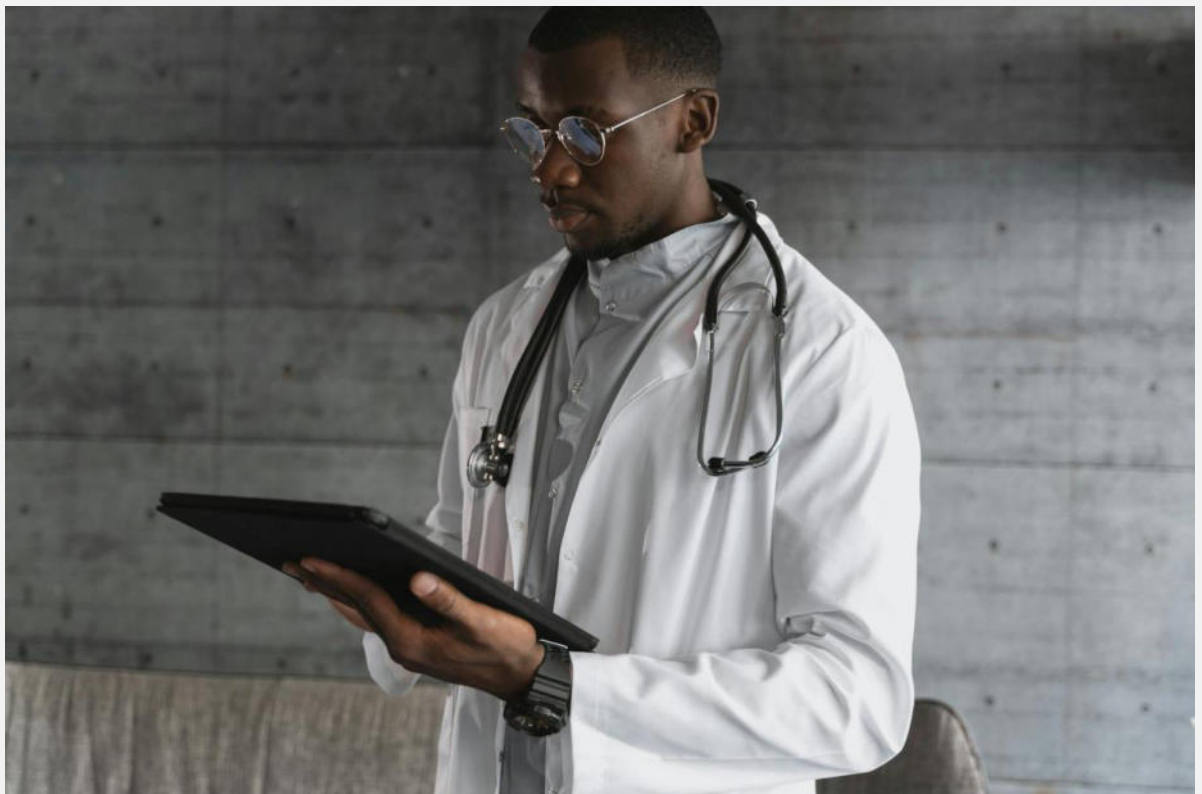
Understanding Digital Paper and eSignage Solutions

Digital paper, or ePaper, is a modern update on traditional notebooks and signing solutions in the healthcare space. Healthcare professionals need the ability to make notes and capture signatures while they go about their work in a hospital, clinic, or similar environment. The pen and paper solutions, utilized for decades and even centuries, are inherently imperfect. These are static solutions that do not connect with broader healthcare systems, and documents can become lost, damaged, or compromised in a busy working environment.

LCD or LED screens have been used in place of pen and paper notebooks, but these alternatives are also flawed. LED and LCD technologies require significant power to run and are not good substitutes for writing on paper. The experience of the user is not a good one, and this can result in fatigue over periods of prolonged usage, as well as the capture of incorrect or illegible data.

Digital paper is a major advance on these LCD or LED screens. It is designed to accurately simulate the appearance of ink on paper, making it much easier for professionals to record data as they make their rounds. It also offers higher contrast and better viewing angles, allowing all users to engage with the information they need while also reducing power consumption.

Deploying eSignage Solutions with an IoT Computing Network

eSignage solutions are an exciting development all by themselves, but they really come into their own when they are deployed within an IoT computing network. IoT, or the Internet of Things, basically means a network of connected devices that can capture data from their environment and respond to changes at other points in the network.

For example, a traditional thermostat can control a local heating system in order to maintain a consistent temperature. An IoT thermostat, on the other hand, can record temperature changes, update the network on its current status, and provide feedback on its operation. As well as serving its primary function, the IoT-enabled device becomes a valuable data resource.

So how do eSignage solutions fit within an IoT computing network?

• Digital paper captures patient signatures at the source and immediately updates records within the system.

• The solution captures a range of other data points, feeding this data back to a centralized system.

• Healthcare professionals receive the latest patient documentation at their remote terminals while they are working.

• Users can communicate with one another remotely, in real time, via their digital paper device.

• Professionals, patients, and other users can view and respond to the latest data, displayed across a handheld device or on a wall-mounted screen.

The Key Benefits of Digital Paper and IoT Computing in Healthcare

Digital paper solutions, coupled with IoT networks, have the potential to transform the healthcare industry for the better. Let's take a look at some of the key benefits:

**More Efficient Patient Care**

Patient care is always the priority in the healthcare space, and eSignage and IoT solutions support this in an effective and efficient way.

• Patients can approve treatment procedures and sign insurance documentation remotely, with no latency period.

• Healthcare professionals are working with the latest data, wherever they are within the healthcare facility.

• With wider networks, professionals can even utilize real-time data and make adjustments from outside of the facility.

Improved Confidence in Data Integrity

This efficient care and operation depends on data integrity. In other words, all stakeholders must have confidence in the data they are working with. eSignage and digital paper solutions enhance this confidence.

• Remote screens and terminals display the latest data, updated in real time, with no latency period.

• The central data storage solution is also updated in real time, following updates from the remote screen or terminal, so everyone is on the same page.

• Digital paper technology makes it easier to record data legibly while also making it easier for users to read data updates as they occur.

• RENITY ARTEMIS IoT technology supports location tracking accurate to within 30cm, achieving optimal data precision.

• RENITY ARTEMIS's geofencing technology also allows all authorized users to use and input data, while preventing unauthorized access.
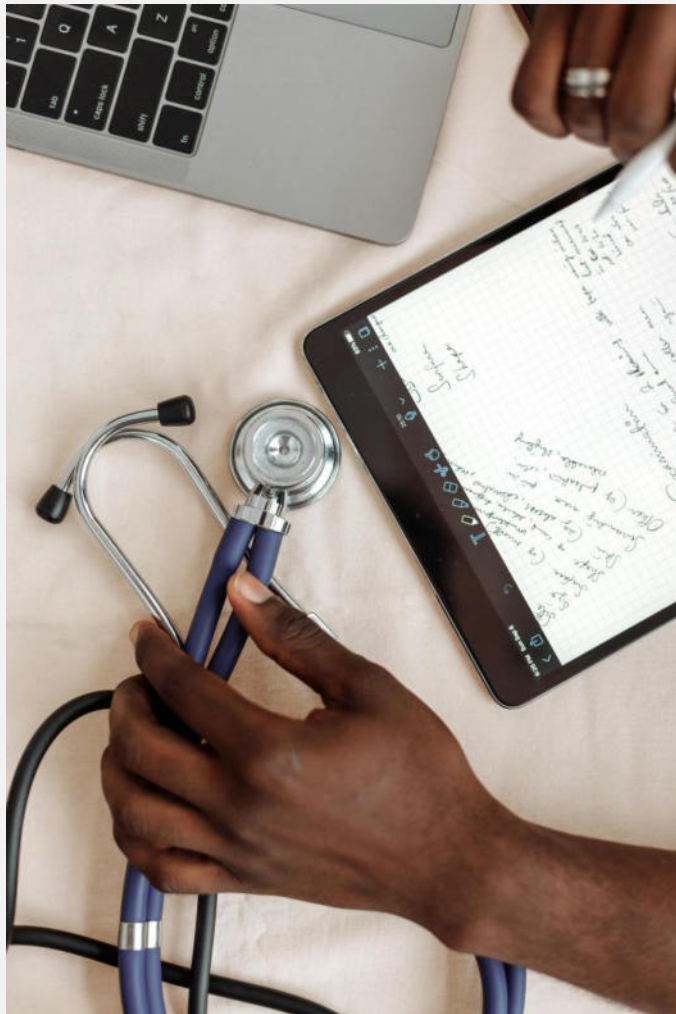
A Better Experience for Healthcare Providers and Users

Healthcare providers have an important job to do and must remain alert and effective even over longer shifts. Patients and other users also need to be supported, with solutions that reduce their fatigue and discomfort.

• By simulating paper and ink, eSignage solutions reduce fatigue for healthcare professionals across the working day.

• The simulation of paper and ink also improves the patient experience when providing signatures or other data inputs.

• High contrast, wide angles, and brightness controls make it easier for all users to view and understand data on the screen – even in outdoor spaces.

• Blue light reduction limits disruption of patient sleeping patterns and rest cycles.

• Lightweight technology means healthcare professionals can carry digital paper devices for long periods of time, as handheld screens tend to be lighter than smartphones.

Reduced Costs and Carbon Footprint

Budget and bottom line are key considerations for healthcare facilities. The carbon footprint is another important concern, as healthcare providers seek to support patient well-being without harming the environment.

• eSignage solutions consume much less power than LCD and LED technology – a digital notepad can be used for up to three weeks on a single charge.

• Wall-mounted digital paper screens, plugged directly into mains power outlets, also draw less power than more traditional screen devices.

• Energy costs are reduced, while the entire facility becomes more eco-friendly.

Explore the Advantages of eSignage Solutions and IoT Computing Networks in the Healthcare Environment

Here at Avalue, we provide leading-edge solutions that support today's healthcare industry. By combining state-of-the-art digital paper solutions with world-leading IoT computing networks, we are helping healthcare professionals and facilities achieve more for the patients they serve.

Related Products

Avalue EPD-42T

- 42" E Ink Monochrome ePaper Display
- Built-in Touch Screen
- High Performance i.MX 7Dual Processor
- Ultra-Low Power Consumption
- Ultra-Wide Viewing Angle
- No Power Needed to Maintain Display Image
- Sunlight Readable and Doesn't Require a Backlight

Avalue EPD-4200-B1

- Outdoor ePaper Display Kit
- 1 USB / 1 12V DC-in as an Extended USB Display
- Front IP65, back IP64, designed for outdoor.