The integrated patient engagement and clinical workflow solution from Oneview Healthcare* promotes customer satisfaction, efficiency, and a sound bottom line

Executive Summary
Engaging patients in their own care can improve health outcomes and increase their satisfaction while helping health systems expand market share and boost their margins. Oneview Healthcare* offers an open platform for implementing a comprehensive patient engagement strategy. Centering on the point of care, Oneview solutions help organizations:

• Engage patients through powerful communication, education, and entertainment capabilities
• Provide the care team with mobile, single-screen access to diverse clinical applications
• Enable workflow improvements that support process and quality initiatives
• Reduce costs for IT departments and hospital administrators

Building its platform on technologies from Intel and Microsoft*, Oneview allows seamless integration with a health network’s IT infrastructure along with the flexibility to support new requirements. Patients enjoy a responsive experience and an intuitive interface while remaining connected to their care team, friends, and family.

Oneview Healthcare* Patient Engagement Solution

- Order meals
- Complete goals and education
- Communicate with care teams
- Stay in touch with friends and family
- Access entertainment

Figure 1. Patients use an Intel® processor-based tablet to communicate with the clinical team, order meals, learn more about their condition, choose entertainment options, and more.

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Hospital systems are experiencing dramatic changes resulting from the decentralization of healthcare, the adoption of value-based compensation models, and the rise of the empowered healthcare consumer. With traditional business models disrupted, hospital systems must earn the loyalty of patients and clinicians, who often have choices regarding where to receive or deliver care.

Patients today have far higher expectations than even a few years ago. From the pediatric ward to the geriatric center, patients shaped by an always-connected lifestyle and customer-centric experiences with other industries expect the healthcare system to provide high-quality care tailored to their values, needs, and preferences. Even in the hospital, patients want to be entertained and in control—active participants in their care.

Yet despite the efforts of clinicians and staff, the in-patient experience is often frustrating. Patients may feel confused about their diagnosis and treatment plan, and cut off from their support system or even their favorite TV programs. These factors add stress to an already difficult situation and can make healing and cooperation more difficult.

Comprehensive Patient Engagement for a Better Bottom Line

A comprehensive patient engagement strategy, implemented through an open, scalable technology framework, can increase customer satisfaction and retention, producing benefits to health outcomes and hospital finances. A well-designed solution that integrates clinical workflows can help enhance clinician satisfaction and retention and improve important quality and performance indicators.

Health systems around the world are increasingly focused on the patient experience. In the United States, the Centers for Medicare and Medicaid Services requires health systems to survey patients on their in-hospital experience. Australia is establishing a national approach to measuring the patient experience. NHS England is giving patients and families a greater voice in evaluations of care. By measuring and publicizing satisfaction results, these approaches give hospitals clear incentives to optimize the patient experience. Leading hospital systems are creating the position of chief experience officer to elevate their patient engagement strategies.

Oneview Empowers Patients and Clinicians

Oneview has developed a next-generation platform that keeps patients connected, entertained, and engaged, helping increase patient satisfaction while improving the hospital’s margins. Patients access Oneview’s intuitive interface through an Intel® processor-equipped bedside tablet and a large-screen television enabled with content management and wireless screen sharing using an Intel® NUC mounted behind the television.

Using Oneview, hospitals provide capabilities such as:

- **Communications.** Patients can easily contact their nurse, communicate with their clinical team, and make service requests or order meals based on prescribed diets and language preferences. Friends and family are easily accessible through email, secure messaging, social media, videoconferencing, and other services.
- **Education and coaching.** Patients can receive educational content and coaching based on their diagnosis and treatment plan. Gamified content can help increase the likelihood that patients will participate.
- **Clinical collaboration.** Clinicians can display diagnostic images and other information on the patient’s television, guiding patients and families through shared decision making.
- **Entertainment.** Patients can access premium entertainment, watch movies, play video games, listen to their favorite music, and stream TV shows.
- **Customization.** Health systems can customize the Oneview experience to include the hospital's branding and tailor the interface to local needs. Patients can customize the user interface to include photos and other personal elements.
- **Clinician identification.** Using real-time location services (RTLS) and other capabilities, the solution can identify clinicians by name and role when they enter the patient’s room. This offers comfort and security, and facilitates collaboration.

Health systems can also use Oneview to help enhance workflow, clinical care, and operations through capabilities such as real-time patient status, enhanced nurse rounding, room-ready status, and a virtual desktop for information access, charting, and ordering at the point of care (Figure 2). Clinicians access the Oneview interface from a clinical tablet, television monitor, laptop, or patient tablet.

Health systems can extend the Oneview solution by adding new services and content. Oneview’s open architecture can integrate diverse information systems, giving clinicians HIPAA-compliant access to electronic medical records and other information systems, all from a single screen. Workflow capabilities can be integrated with the hospital’s RTLS, biometric authentication, radio-frequency identification, and unified communication services. Survey capabilities can gather valuable data to refine quality initiatives, improve operations, determine the effectiveness of educational content, and more. Hospitals can incorporate gamification to increase clinician and staff participation in quality initiatives.
Solution Value: Personalized Care, Better Outcomes, Higher Margins

By incorporating the Oneview solution into their quality improvement, workflow, and patient experience initiatives, health systems can gain:

- **Higher patient satisfaction.** Empowering patients and families with information, entertainment, convenient communications, and a greater sense of control can help reduce anxiety and increase satisfaction.

- **Improved outcomes and reduced readmissions.** Patients become active collaborators, equipped with daily goals and compelling education content. The solution can also increase adherence to nurse rounding schedules, enabling a high-quality, proactive care experience.

- **Efficient operations.** Workflow improvements and automated communications can give clinicians more time to focus on patient care and make it easier for staff to respond promptly to patient needs.

- **Data-centered decision making.** Hospital systems gain information to evaluate and improve caregiver workflows, service levels, and the patient experience. Managers can create a more data-enabled organization, which helps to increase patient retention and the return on investment.

- **Higher margins.** Highly engaged patients contribute to higher scores on government and industry surveys, while helping hospitals avoid readmission penalties. Workflow efficiencies can help increase physician satisfaction, referrals, and retention.

- **Futureproofing.** The open, scalable platform and built-in data-gathering capabilities give hospital systems the flexibility to take advantage of new opportunities. Hospitals and third-party developers can use the Oneview platform to deliver new content and services without the expense of deploying and managing a separate device.

A hospital in Australia implemented Oneview as part of a patient-centered care initiative that used the solution’s nurse rounding application with a goal of assessing each patient every hour. The hospital also provided patients and families with video education, goal completion, and real-time collaboration with their care team as they prepared for discharge. Digital hourly rounding led to a 6 percent decrease in length of stay, a 6 percent reduction in pressure ulcers, and a 4 percent drop in patient falls. Patient satisfaction score rose to the 99th percentile.

Researchers have found that the most highly engaged patients are 31 percent less costly to care for than the least engaged. More engaged patients are less likely to be readmitted within 30 days, enabling hospitals to reduce cost penalties from preventable readmissions.

A comprehensive patient engagement solution can improve both fee-for-service and value-based revenue streams by increasing private-pay patient retention and federal reimbursement quality measures. Accenture Consulting found that offering a great patient experience is correlated with 50 percent higher hospital margins.
Solution Architecture: Oneview Patient Engagement and Clinical Workflow Solution

Oneview allows health systems to use feature packs, add-on solutions, and access to third-party content to create an integrated environment tailored to their clinical and operational priorities. The modular architecture also makes it easy to start with a single use case, such as electronic meal ordering or nurse rounding, and grow toward a comprehensive deployment.

The Oneview platform is based on Intel® architecture, the Microsoft .NET* framework, and Microsoft Windows* (see Figure 3). The platform is API-driven, allowing powerful integration with the health system’s existing application infrastructure. Intel® technologies deliver outstanding performance and reliability for patient engagement solutions. And because they are consistent with the hospital’s existing IT environment, Intel technologies help reduce complexity, increase manageability, and contribute to lower total cost of ownership.

Built-in Intel® security technologies help protect the integrity, availability, and confidentiality of data. To further strengthen security, the Oneview solution runs as a virtual segment of the hospital network and is isolated by firewalls. Data is encrypted using 256-bit Secure Sockets Layer encryption. Measures are taken to help avoid saving sensitive data onto patient devices.

An Intel NUC Mini PC with an Intel® Core™ processor acts as the command and control center for the patient’s room, turning it into a state-of-the-art entertainment and communications hub. Offering high performance in a compact platform, the latest Intel NUC Mini PCs are designed to handle everything from virtual reality gaming to media streaming.

Patients control their Oneview experience through an enterprise-class Intel Core processor-based tablet at the bedside. They can access entertainment and educational content on the tablet or through a large-format, wall-mounted display. Clinicians use a medically validated, enterprise-class tablet, and can screencast images to display as they engage and educate patients. Tablets powered by the 7th generation Intel® Core™ i5 processor helps provide superb graphics and performance, whether for patients who want to immerse themselves in movies and games or clinicians scrutinizing 3D PACS images. 7th gen Intel® Core™ processors deliver up to 12 percent faster productivity performance and up to 19 percent faster web performance over previous-generation Intel processors.

Application, database, and other server applications run as virtual machines on Intel® Xeon® processor-based servers in the hospital’s data center or private cloud. The latest Intel Xeon processors are designed for next-generation data centers running on software-defined infrastructure for agile services delivery across cloud-native and traditional applications. The Intel® Xeon® processor E5-2600 v4 product family offers an average of 27 percent more performance compared to previous-generation Intel Xeon processors on a variety of industry-standard workloads and applications.11

Figure 3. Health systems use the extensible architecture of Oneview Healthcare* and end-to-end Intel® technologies to create robust solutions customized to their patient population, workflow requirements, and clinician needs.
Conclusion
Forward-looking patient engagement strategies and the tools to enact them empower health organizations to succeed in today’s complex and competitive healthcare environment. These strategies and tools take on greater significance as health systems strive to offer sustainable, high-quality care in the face of rising demands.

Running on Intel technologies from the bedside to the data center, the Oneview solution can help health systems optimize patient engagement, clinician and staff workflows, and IT operations. The results can include higher patient satisfaction, improved health outcomes, reduced readmissions, increased clinician productivity, and greater market share.

Find the solution that is right for your organization. Contact your Intel representative or visit intel.com/healthcare.

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