



# InterComponentWare AG

Your partner for a modern health care system

*“There are so many communication options today. It’s finally time for seamless patient medical histories.”*



# eHealth solutions by ICW

## So that health has a future

**InterComponentWare AG in Walldorf, Germany, offers intelligent IT solutions to provide comprehensive networking for all sectors of the health care community. ICW technology and solutions simplify and improve data sharing and communication between providers of medical services in clinics and medical practices, and with patients and payers. This helps to improve the quality of medical care while optimizing cost structures.**

*Improve quality of medical care while mobilizing reserves of efficiency.*

ICW concentrates on four performance areas that have significant potential to improve the flow and sharing of information. All of ICW's solutions are based on a highly secure eHealth infrastructure that enables networked data management so that relevant information can be provided to all relevant involved parties at the right place and time. Additionally, strategic partnerships, especially with GE Healthcare, will add additional impetus to joint integration and improvement of health information exchange services.

*Expanded strategic partnerships – notably with GE Healthcare.*

### **Expanding cooperation with GE Healthcare**

Our cooperation with GE Healthcare is one of ICW's most important growth drivers. ICW is focusing all of its efforts to further expanding and intensifying cooperation with GE Healthcare. In the first place, ICW will be investing more of its resources in improving its networking solutions (Professional Exchange Server, PXS). But ICW is also reacting to promising developments in the health care market by strengthening its sales force and building up its EMEA sales team. At the same time, sales opportunities in North America are being pursued aggressively.

### **Intersectoral communication**

Recent studies indicate that up to 1.5 billion Euros could potentially be saved annually through the more intensive application of IT solutions to improve networking in hospitals. In this context, the linking of data across institutional boundaries plays a central role. ICW offers solutions that satisfy the need for secure and reliable communication between different departments in hospitals, between different hospitals in a hospital chain, and with office-based physicians and – in the case of administrative data – with payers. The goal is to gain control over the enormous flood of data. ICW's comprehensive networking solutions are the right tool for the job, unlocking unused potentials for savings. They support hospital processes across the whole spectrum of treatment cases, from admission and patient identification through treatment, administration and finally discharge. They also facilitate the exchange of data and communication with individual patients.

**Care management**

The constraints imposed by public policy decisions compel health insurers to find strategies and control mechanisms that will enable them to fulfil their mission to provide a high standard of care under conditions of growing cost pressure. Payers are looking for intelligent solutions that will ready them to fulfill ready to fulfil the tasks that will be confronting them in the future. For many years, ICW's customers have been using solutions of this kind to provide tailored care management. For example, specialized software programs can help to recruit and actively manage insurance members for enrollment in disease management programs (DMP). The results are better quality of care, coupled with an improved cost structure. Telematic applications for preventative health and to provide monitoring for patients who suffer from chronic illnesses, together with with interfaces for communication with care providers, round out ICW's care management portfolio.

**Integrated care**

New forms of integrated care present office-based physicians with new and hitherto unknown challenges. The option to contract individually with health insurers or to participate in corresponding framework agreements results in changing networking requirements accounting procedures. Our Web-based solutions provide secure and simple accounting procedures and supply the underlying infrastructure that makes highly secure communication and data exchange between other office based physicians, hospitals and patients possible at all. The infrastructure is designed in such a way as to accommodate other schemes of care, such as for medical specialists or other models of care.

**Personalized health management**

The public's demand for modern medical care is constantly growing in the direction of more autonomy, quality of life, safety, and the greatest possible degree of mobility. ICW offers users a Web-based, personal health record as an option for collecting, storing and managing all of an individual's personal health information. Users can authorize providers of medical or other services to access this information when needed. This simplifies and improves communications options between office-based physicians, hospital doctors, and other providers of medical services. But personal health records can also be provided by providers of medical or other health-related services to individuals who are enrolled in their programs.

# Proven in practice: Solutions from ICW

Solutions and products from ICW have been in use in all the areas described above, in some cases for years now. Here are just a few practical examples. They show how ICW's solutions can be tailored exactly to fit the requirements of the healthcare market and the needs of the customer. Let yourself be convinced by practical examples from the areas of intersectoral communication, care management, integrated care, and personal health management.



# Intersectoral communication

## Heidelberg University Hospital

*Continuous patient care with no media breaks.*

### **Task**

As part of the Intersectoral Information System (ISIS) project, the Heidelberg University Clinic was seeking to create a personal, cross-facility patient record. The goal is to provide continuous care to patients across multiple institutions without media breaks or information loss. Existing hospital information systems (HIS) had only limited capability to guarantee this level of information transfer. The result was long transmittal times, media breaks and loss of important information.

### **Solution**

The concept involved the use of Professional Exchange Server (PXS) from ICW to provide for the seamless flow across the boundaries between institutions of complete information pertaining to the patient and the results of any examinations or tests. This is of vital importance, because the Heidelberg University Clinic is one of the largest medical centers in Germany, from which patients are routinely referred to other hospitals and medical practices in the region that are closer to where they reside.

The solution involves the use of by cross-institutional electronic records containing patient information that is accessible to everyone who is involved in the treatment process. The Heidelberg University Clinic and the hospitals of the Rhein-Neckar Health Centers are employing networking solutions from the Professional Suite of eHealth specialist ICW for their Intersectoral Information System ISIS.

Prof. Dr. Björn Bergh, Director of the Heidelberg University Clinics Center for Information and Medical Technology: “With ISIS we are pursuing two main goals: To make accessing treatment-specific information of patients who are being jointly treated easier, and to get the patients themselves more actively involved. In ICW we found an ideal partner to help us achieve these goals.”

# Intersectoral communication

## Hirslanden Private Hospital Group

### Task

The networking and integration of existing, but isolated information systems is a major issue within Switzerland's Hirslanden Private Hospital Group. That is because the Group's 13 private hospitals and over 100 competency centers and specialized institutes offer a very wide spectrum of medical services. Despite the use of state of the art IT systems it had not yet proved possible to ensure unique identification of patient data sets to individual patients across all of the existing systems. Sought was a solution that would also ease the comptroller's workload.

### Solution

The Master Patient Index (MPI) from ICW, a component of Professional Exchange Server (PXS), was the chosen solution. MPI brings order to the patient data contained in the systems of the various individual clinics by assigning each piece of data uniquely to a specific individual patient. It aligns master data from the different systems of connected hospitals, assigning it when it matches directly to a unique patient. There is no need to replace existing software to use MPI: It connects existing hospital information systems (HIS) and their subsystems with each other and ensures the flow of information is seamless. Doctors, nurses and administrators continue to use the systems they are familiar with. So no costs for replacing or adjusting systems are involved.

*Seamless data flow with  
no need to replace or  
modify existing systems.*

Magnus Oetiker, Head of Hospital Services: "We decided to take the solution from ICW, not just because it improves the quality of our master data and supports our framework architecture, but also because it offers solutions for the exchange of medical data the can support the national eHealth strategy."

# Intersectoral communication

## Memorial Hospital of Rhode Island

### Task

At the Memorial Hospital of Rhode Island, intensive work is ongoing to create a secure infrastructure to provide data sharing and communication between the hospital information system and the personal health record. The goal is to optimize communication between patients and medical service providers. One special goal is to empower the patient by enabling them to access and have control their own health data. This hospital is a county hospital with 294 beds. It services the Blackstone Valley in Rhode Island and southwest Massachusetts.

*Optimizing communication between patients and the providers of medical services.*

### Solutions

ICW as technology partner helps to create of a patient-centered care model that improves the conditions for providing quality care while cutting costs. A joint project was initiated in close cooperation between Memorial Hospital, the Center for Primary Care and Prevention and ICW.

The first successes came early: Over Professional Exchange Server (PX), patient data about prescriptions, health complaints and the corresponding laboratory data could be seamlessly filed directly from the hospital's GE Centricity hospital information system to the Web-based LifeSensor health records of the patients. Patients on the other hand can now view their data online or add information of their own, such as blood sugar values, their weight, exercise or other data, making this information available to their doctors. All data transfers occur safely and protected.

Dr. Charles Eaton, Director of the Center for Primary Care and Prevention at Memorial Hospital declared himself highly satisfied with ICW as a partner: "Their technological expertise and knowledge about medical processes were ICW's unique selling points."

# Care management

## BKK Hoesch

### **Task**

With more than 100 thousand members, BKK Hoesch is one of Germany's largest health insurers. To manage large membership populations efficiently, health insurers need a solution that can apply automated processes to provide individualized care services to its members. The goal is to optimize care management while reducing costs.

### **Solution**

ICW's Care and Disease Manager (CDM), a Web-based solution for managing disease management programs (DMP), has already been in use at BKK Hoesch for the past three years. It is used to provide effective management for patients who are enrolled in programs for asthma, breast cancer and diabetes, as well as in programs for patients with coronary heart disease. The solution provides BKK Hoesch with an expansible platform for innovative forms of care management. Integration with LifeSensor, the personal health record, opens up prospects for telemedical care and intensified case management.

Thorsten Kellermann, BKK Hoesch project lead: "We liked the Care and Disease Manager concept right from the start. The tool provides for the degree of transparency needed in order to provide effective care management for our chronically ill members while enabling us to react to changes in the health care system."

## R+V Betriebskrankenkasse

### **Task**

With the launch in 2009 of the so-called Health Fund in Germany and the introduction of morbidity-oriented risk structure compensation (Morbi-RSA) between statutory health funds, the R+V Betriebskrankenkasse needed appropriate strategies and control mechanisms to provide for the many challenges involved in providing for comprehensive case management. Goal is to maximize contract potential while achieving a positive coverage balance.

### **Solution**

Initially, ICW's Care and Disease Manager (CDM) from ICW helped R+V Betriebskrankenkasse to manage its DMP programs efficiently. The solution helps case workers to register and enroll members in programs for the chronically disease and to manage their care over the long term. In the mid-term, Care and Disease Manager will

# Care management

also In the mid-term, the new CDM Health Management (CDM-HM) will also be used to support the successful management and presentation of the whole spectrum of care products: From integrated and family doctor-centered health care contracts to preventative health programs and case management, to optional tariffs and bonus programs. Using solutions from ICW, case managers assigned to acquisition and care management save valuable time - time they can use for more individualized, focused and confidential customer service. That enhances member autonomy and contributes significantly to better compliance. This makes successfully care management measurable.

“We chose ICW Care and Disease Manager, because of the wide variety of functions this solution offers and because it’s very user-friendly. Also, it makes us ready to meet future health care challenges.”

## AOK Plus – The Health Fund for Saxony and Thuringia

### **Task**

In the federal state of Saxony, AOK Plus is building a telemonitoring system to care for patients with coronary heart failure. The goal is to be able to see the signs of deteriorating symptoms while increasing quality of life and reducing the rate of hospitalization, all the while also increasing the cost-effectiveness of treatment.

### **Solution**

Since early 2005, AOK PLUS has been offering their members in the federal state of Saxony who suffer from chronic heart failure a cross-sector, coordinated treatment that goes by the name of CARDIO Integral. CARDIO Integral is one of the largest regional managed care contracts for in Germany. From July 2008 this integrated care program was one innovative module richer: Care and Disease Manager - Telemonitoring (CDM-TM) from ICW provides an early warning system to improve care for patients suffering from coronary heart failure. Along with its project partners Sanvartis and Saxonia Systems, ICW ensures comprehensive, around the clock telemedical care for these patients on behalf of AOK PLUS.

Rainer Striebel, AOK Plus general manager: “The telemonitoring system will increase help to increase patient safety and reduce the number days in hospital – an important step towards more self-sufficiency and quality of life.”

# Integrated care

## Family practice-centered care contract in Baden-Wurttemberg: Software solution and telematic infrastructure

### **Task**

A consortium of health insurer AOK Baden-Wurttemberg, family medical practitioners (HÄVG), and the MEDI Verbund, joined to form the first national level scheme to provide family practice-centered medical care under the reformed German Social Code. Participating doctors were obligated to use certified contract software provided by the HÄVG for the purpose of online billing. At the same time, the underlying telematic infrastructure to make the online invoicing procedure possible needed to be created in the first place.

### **Solutions**

Hausarzt+ from ICW is a contract software that in addition to invoicing also provides contract management, patient enrollment and service cataloging functions. The solution also helps in writing out prescriptions by informing doctors about rebated medicines. Hausarzt+ developed jointly between ICW and the HÄVG and was one of the first solutions to be used in connection with family practice-centered contracts in the federal state of Baden-Wurttemberg. Systems of this kind meanwhile are now being offered by all major producers of management systems for medical practices.

ICW also supplies the entire telematic infrastructure, realizing the necessary highly secure online connection by means of a connector solution. It is this infrastructure that makes transmission of the necessary invoicing data to the HÄVG accounting center online possible in the first place. ICW's connector solution complies with the recommendations of the Federal Association of Statutory Health Care Physicians and the German Medical Association. Health insurer AOK Baden-Wurttemberg, the HÄVG, and MEDI all recommend this solution.

The infrastructure is designed not only to support care modules under the family physician contract, invoicing is also possible for medical specialist-centered schemes. Doctors, pharmacists and other medical service providers can be networked safely and reliably with health insurers, medical associations, statutory health insurance physicians associations, or hospital groups, but also with individuals and patients. Because the infrastructure complies at all times with the newest gematik specifications it can also be used with the Electronic Health Card, once this is introduced.

The telematic infrastructure has already proven itself in practical use in the state of Baden-Wurttemberg. Dr. York Glienke, specialist for general medicine in Böblingen: "With Hausarzt+, invoicing is much simpler and more transparent. It's fun to be able to report performance data online to the HÄVG data center right after providing services. The connection is stable and works around the clock. Now I have a plannable and higher fee, so I can better calculate necessary practice investments." Currently, 3100 doctors and 650 thousand patients are voluntary participants in the AOK program.



*“With a personal health record, all relevant findings would be archived right from the start, giving a complete medical history.”*

# Personalized health management

## HSK, Dr. Horst Schmidt Clinics

### Task

As a tool for sustained, self-responsible health promotion for the employees of the Dr. Horst Schmidt Clinics in Wiesbaden and their families, an instrument would be introduced that would enable comprehensive, personal health management. As an add-on to mcplus, a health package that the HSK Clinics provides to its employees to provide for preventative health measures and additional benefits in case of hospitalization, an electronic personal health record was also to be offered.

### Solutions

HSK employees can file their relevant health data in the LifeSensor health record. These include for example examination findings, diagnoses, medications, courses of therapy or allergies are accessible anytime and anywhere online. With the employee's permission, doctors from the HSK group and physicians in private practices can use that information to make more precise diagnoses faster and to plan a suitable course of therapy. This helps to avoid redundant tests and examinations. Also, with the HSK employee's permission physicians performing treatment can access the information contained in the record or add medical information to it. As a result, treatments can be streamlined to the employee's current health status.

*Important health-related data available anytime online.*

### Outstanding Data Protection

With LifeSensor the health data of HSK employees is kept safe. This has been certified by a number of data protection organizations. TÜV Rheinland certifies that LifeSensor's level of data protection and information security is far beyond that required by law. LifeSensor has been certified by the award of the ips data protection certificate, and it was also recognized by dataschutz nord GmbH for its the exemplary way in which it handles sensitive personal information.

The Schweizerische Vereinigung für Qualitäts- und Managementsysteme (the Swiss Association for Quality and Management Systems), SQS, also confirms consistent data protection in LifeSensor with the internationally acclaimed Good Priv@cy Data Protection Seal.

Holger Strehlau, spokesman for the Board of HSK Rhein Main GmbH: "The LifeSensor health record empowers our employees to take charge of their own health." With LifeSensor HSK employees always have an eye on their health. "One advantage that I see with LifeSensor is that employees have total control over their health data."

# Facts and Figures

- Name:** InterComponentWare AG
- Legal form:** Aktiengesellschaft (stock corporation), Commercial Register (HRB Mannheim 351761)
- Corporate headquarters:** Industriestr. 41, 69190 Walldorf, Germany  
Tel.: +49 (0) 6227 385 100, Fax: +49 (0) 6227 385 199  
Mail: info@icw-global.com, Internet: www.icw-global.com, www.lifesensor.com
- Branch offices:** InterComponentWare AG, Cologne, Germany  
InterComponentWare Deutschland AG & Co. KG, Walldorf and Cologne, Germany  
InterComponentWare, Inc., Wayne, PA, USA  
InterComponentWare GmbH, Vienna, Austria  
InterComponentWare (Schweiz) AG, Zurich, Switzerland
- Executive board:** Peter J. Kirschbauer, CEO; Jörg Stadler, CPO
- Supervisory board:** Prof. Dr. Christof Hettich (President)
- Investors:** Dietmar Hopp (co-founder of SAP), Santo Holding (Deutschland) GmbH (Dr. Andreas and Dr. Thomas Strüngmann, co-founders of Hexal ), EnBW Energie Baden-Württemberg AG, Executive board, Supervisory board and employees of ICW
- Products and services:**
- **Intersectoral communication:** Solutions for highly secure communication between medical care providers in hospitals with office-based physicians and payers
  - **Care management:** Tailored care and prevention management for payers (health insurers, etc.)
  - **Integrated health care:** Secure billing and communication for office-based physicians in connection with new concepts of health care
  - **Personalized health management:** Simplified and improved options for communication between patients and care providers (LifeSensor)

**Company timeline:**

**1998** – ICW founded

**2000** – Branches opened in Bulgaria and California, USA

**2003** – ICW wins the bid for the “Telematik-Gesundheitskarte” project for the German Federal Ministry of Health and Social Security: Co-developer of the framework architecture and solution outline of the electronic health card as part of the industry consortium bit4health

**2004** – ICW participates in the development of the solution architecture for the electronic health card as part of the R&D initiative of the Fraunhofer institutes

**2004** – ICW participates in the Austrian eCard project

**2005** – ICW’s branch office in Austria is established

**2006** – ICW’s branch office in Switzerland is established

**2007** – ICW wins the bid for the national health card pilot project in Bulgaria

**2008** – ICW establishes the Open eHealth Foundation together with Agfa HealthCare and Sun Microsystems

**2009** – ICW forms worldwide partnership with GE Healthcare IT

**Employees:**

More than 500 employees worldwide

**Memberships:**

- Verband der Hersteller von IT-Lösungen für das Gesundheitswesen (VHitG)
- Arbeitsgemeinschaft SCIPHOX GbR mbH
- Bundesverband Managed Care e.V. (BMC)
- HL7 Benutzergruppe Deutschland e.V.
- Federal Association for Information Technology, Telecommunications and New Media (BITKOM)
- Cooperative member of the German Society for Internal Medicine (DGIM)



Do have any other questions?

We'll be happy to answer them! Just contact us:

Tel.: +49 (0) 62 27 385 100 or [www.icw-global.com](http://www.icw-global.com)

## Headquarters

### Corporate headquarters

Industriestraße 41  
69190 Walldorf (Baden), Germany  
Tel.: +49 (0) 6227 385 100  
Fax: +49 (0) 6227 385 199

### InterComponentWare AG

Branch office Cologne  
Im MediaPark 6b  
50670 Cologne, Germany  
Tel.: +49 (0) 221 57 43 73 50  
Fax: +49 (0) 221 57 43 73 89

## Subsidiaries

### InterComponentWare GmbH

Löwengasse 47A, Top 3  
1030 Vienna, Austria  
Tel.: +43 (0) 1 890 24 82 0  
Fax: +43 (0) 1 890 24 82 13

### InterComponentWare Deutschland AG & Co. KG

Industriestraße 41  
69190 Walldorf (Baden), Germany  
Tel.: +49 (0) 6227 385 100  
Fax: +49 (0) 6227 385 199

### InterComponentWare (Schweiz) AG

Alfred-Escher-Strasse 38  
8002 Zurich, Switzerland  
Tel.: +41 (0) 43 540 40 12  
Fax: +41 (0) 43 540 40 13

### InterComponentWare, Inc.

Headquarters  
650 East Swedesford Road, Suite 180  
Wayne, PA 19087, USA  
Tel.: +1 610 947 65 00  
Fax: +1 484 203 14 05