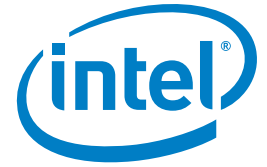


## CASE STUDY

### Intel® vPro™ technology

Enterprise Client/Mobility  
Security and Manageability



# Patient-Centric Health Services

## Czech Ministry of Health's IZIP\* portal made available to thousands of doctors with support from Intel

The Czech Republic covers an area of 79,000km<sup>2</sup> in eastern Europe and has a population of over 10 million. Providing high-quality and efficient healthcare to its citizens is the responsibility of the national Ministry of Health (MoH), based in Prague. The MoH works closely with the government-owned General Health Insurance Company (GHIC), which covers 75 per cent of the Czech people, to deliver the best care to patients across the country. The two organisations are committed to collaborating with technology and service providers to innovate across the healthcare process.



### CHALLENGES

- **Open up eHealth services.** Provide secure access to patient records for physicians across Czech Republic
- **Maximise uptime.** Ensure physicians' PCs can be rapidly recovered in the event of any outage
- **Ensure security.** With personal information passing through the PCs and a permanent connection to the Internet, physicians must ensure that security software patches are applied promptly

### SOLUTIONS

- **MD Comfort.** Desktop and notebook PCs access an online IZIP\* portal. They are powered by Intel® vPro™ technology
- **Remote remediation.** Managed services provider Autocont can administer, patch and troubleshoot from its support centre, even if the machine is powered off or will not boot
- **Data backup.** PCs are managed using Autocont's Acronis\* software. If a machine fails, Autocont can recover it from a hard drive image stored on an external disk

### IMPACT

- **Enhanced availability and security.** Autocont can guarantee recovery of a machine within four hours and can patch Symantec\* security software remotely
- **Cut cost of maintenance.** Managing PCs without site visits means Autocont can manage PC fleets better and faster, remotely and at a lower cost. The average time spent solving hardware and software problems is reduced by 34 percent. Security and system patches can be distributed across the whole environment up to 56 percent faster.

### Upgrading healthcare

Healthcare in the Czech Republic has traditionally relied heavily on paper records. This can mean time-consuming updates and make access to patient data in an emergency difficult – for both the patients themselves and the physicians treating them or needing to share data with other medical sites across the country.

To make this critical information available to authorised users on demand, the MoH and GHIC decided to build an electronic patient health records (EPHR) system. Mr. Bek GHIC, explains: "It is essential to make the right information available to doctors so they are equipped to make the best diagnosis and treatment decisions. Meanwhile, people have a right to access their own medical records and control who sees them. By creating an online EPHR system, our goal was to address these requirements, enhancing quality of care and patient safety in a user-friendly way."

"Intel's involvement has been integral to IZIP's success. From innovative technology to informed consultancy, we know we've built this solution on a solid foundation and look forward to seeing it grow."

Mr. Bek  
General Health Insurance Company



## PC management is handled remotely using Intel® vPro™ technology to let physicians focus on patient care

### An innovative approach

The MoH and GHIC worked with Intel to identify the technological challenges and requirements inherent in building a national EPHR platform and to shape healthcare policies around them. The result was a database of patient details and healthcare information called IZIP, which now holds tens of millions of entries and has over one million users. European Commission experts have estimated that the net annual benefit of the IZIP platform in 2008 exceeded EUR 60 million. The estimated productivity gain, measured as the decrease in the cost of using a record, was found to be 74 per cent<sup>1</sup>.

Hosted on servers powered by Intel® Xeon® processors, IZIP can be accessed and used by both patients and medical professionals. Tomas Mladek, vice chairman of the board at IZIP, explains: "Citizens can register to be included in the database, which they can then use as a single point of reference for any queries about their own medical status and treatment." Patient confidentiality is protected by enabling each user to control who views their personal data. Physicians must register and, if authorised by the patient, can use the portal to access information about his or her medical history or share information with colleagues on diagnoses and treatments. This faster access to key data enhances the doctors' efficiency.

While data security is a paramount concern for IZIP, accessibility is also important. "We need to strike a balance between stopping unauthorised use of information and making it so secure that even patients and their doctors are unable to access it in an emergency," says Tomas Mladek. "The choice of how many levels of security are applied is left up to the patient."



### Engaging physicians

Persuading members of the public to sign up for IZIP is just half the challenge. Many physicians are used to working with paper-based patient records and have little IT training, creating significant resistance to switching to an electronic system. The MoH and GHIC were, therefore, eager to offer incentives to encourage the uptake of its eHealth solution among the medical community.

They worked with IZIP and Intel, as well as with components manufacturer MBXS, to develop a bundled EPHR solution called MD Pack\*. This includes broadband connectivity, an electronic medical records (EMR) system called MD Comfort\*, security and back-up as well as remote PC management and support using PCs running Microsoft Windows\* XP and equipped with Intel® vPro™ technology.

Already, more than 5,000 PCs have been purchased and are administered by the project's managed IT services provider, Autocont. Using Intel® vPro™ technology's remote management capabilities, it is able to carry out daily upkeep activities, security patching and troubleshooting from its support centre, even if the machine is powered off or the operating system is unresponsive. Autocont also carries out regular data backup.

### An example for the industry

Physicians equipped with Intel® vPro™ technology-powered PCs are now guaranteed recovery within four hours. Autocont is also able to carry out regular patches of security software to ensure patient data is protected from hacking or corruption due to viruses. The speed and ease with which these operations can be completed cuts the overall cost of maintenance for both Autocont and individual doctors or hospitals, while physicians' efficiency is improved.

### Spotlight on General Health Insurance Company

With more than 6.4 million clients, General Health Insurance Company (VZP ČR) is the biggest health insurance company in the Czech Republic. It has been operating for over 15 years and has been one of the basic pillars of the Czech health care system for a long time. The company is a partner of renowned expert associations and is a highly regarded member of the Association of International Non-profit Making Health and Sick Benefit Insurance Companies (Association Internationale de la Mutuallité).

By giving citizens control over their own health records, IZIP has also made their treatment experience much smoother and stress-free. They no longer need to worry about being prescribed overlapping or contrasting medications by different doctors for example. Doctors and other healthcare providers have access to patients' full medical accounts at the point and time of treatment, leading to better care and time savings. This also means that the cost saving made by healthcare organisations represents 37 percent of the initiative's overall economic benefit.

IZIP has given Tomas Mladek and his team confidence to plan for other projects. "We're working on an eDoctor service at the moment, which will work in parallel with IZIP to provide diagnoses and treatment guidance to users online based on their individual medical history," he says.

Mr. Bek (GHIC) concludes: "Intel's involvement in this initiative has been integral to its success. From innovative technology to informed consultancy, we know we've built this solution on a solid foundation and look forward to seeing it grow."

Find a solution that is right for your organisation. Contact your Intel representative or visit the Reference Room at [www.intel.com/references](http://www.intel.com/references).

<sup>1</sup> [http://ec.europa.eu/information\\_society/activities/health/docs/events/opendays2006/ehealth-impact-7-5.pdf](http://ec.europa.eu/information_society/activities/health/docs/events/opendays2006/ehealth-impact-7-5.pdf)

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