

Telehealth mit zydadoc

Konzepte & Systemarchitektur

Good to know.

Unternehmen

- Graz – Steiermark - Österreich
- 10 Jahre Erfahrung im Bereich Video-telefonie mit Vitaldatenübermittlung
- 2/3 Techniker in der Entwicklung
- Kooperatives Klima
- Mitarbeiterbeteiligung seit 2011

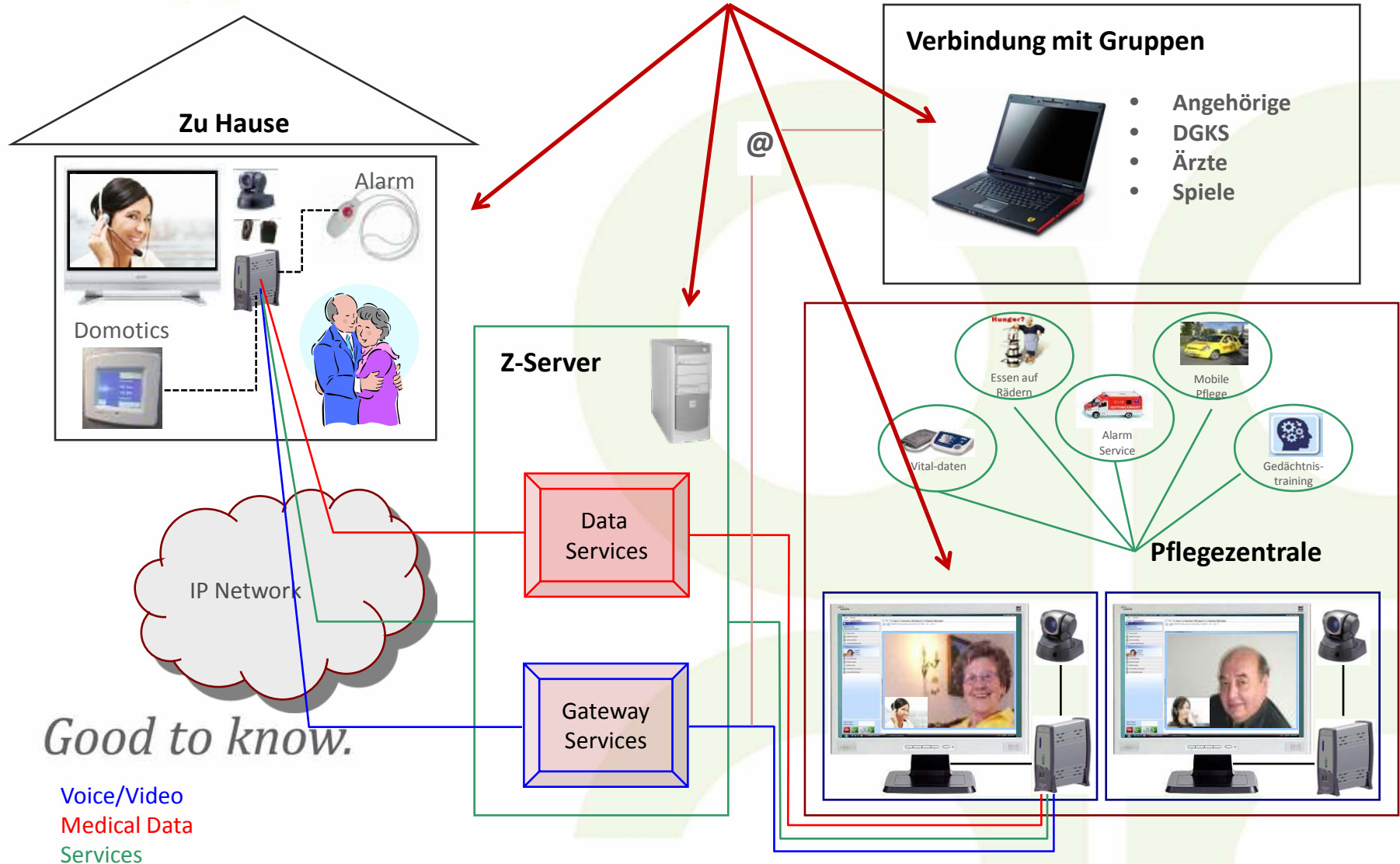
Good to know.

Geschäftsmodelle

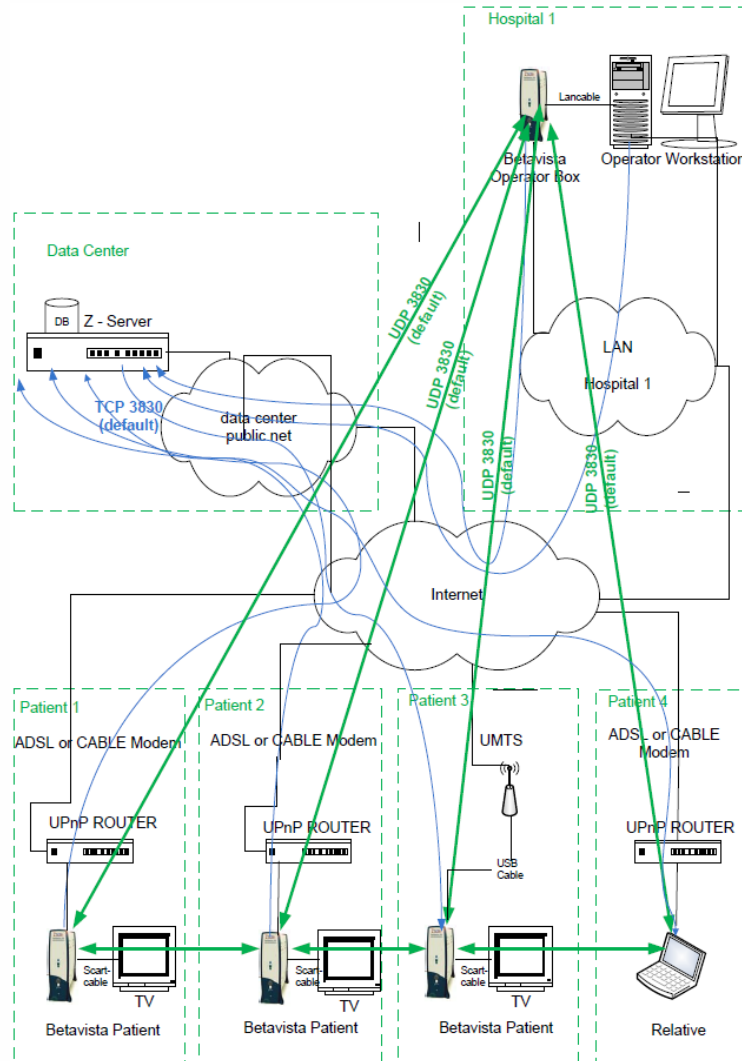
- Pflegebetreuung mit zydadoc **home**
- Entlassungsmanagement mit zydadoc **mobile**
- Public Health Point mit zydadoc **public**
- Dienstleistungsplattform mit zydadoc **platform**

Good to know.

Unser System

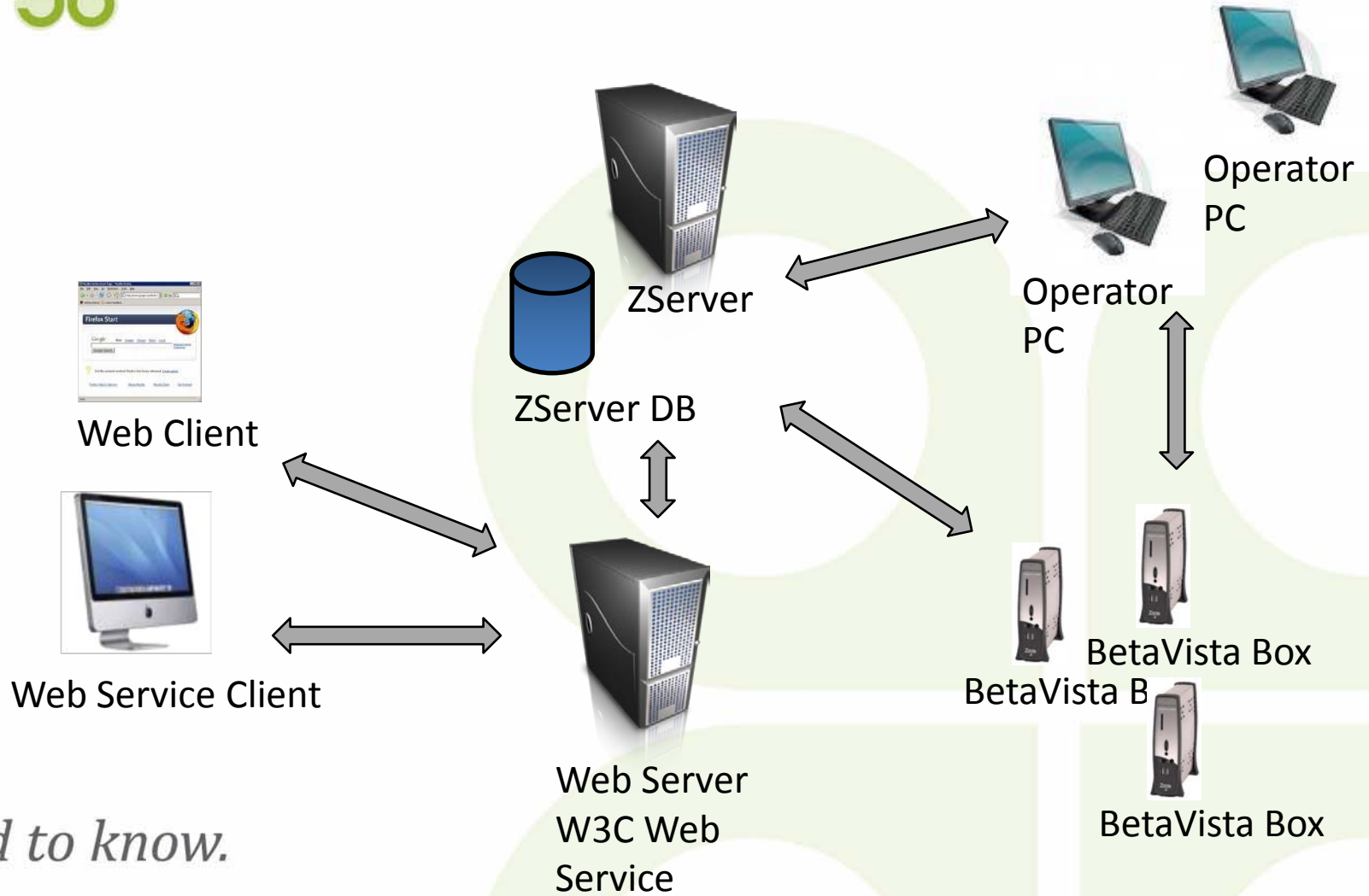


Systemskizze



Good to know.

Overview



Good to know.

ZServer

- Main Responsibilities
 - User Authentication
 - Software Update
 - Call Signaling
 - Storage of Medical Data
 - Storage of Billing Information
- Protocols
 - Proprietary XML based protocol on top of TCP/IP
 - RSA, RC4 Encryption
- Platform
 - Microsoft Windows Server 2003, 2008, MS-SQL 2005/2008
 - .NET Framework 4.0

Good to know.

Web Server

- Main Responsibilities
 - ZServer Administration
 - Hosting for Web Services
- Protocols
 - Http/Https

Good to know.

W3C Web Service

- Main Responsibilities
 - Provisioning Service for External Systems
 - Administrative Service for External Systems
 - Medical Data Access for External Systems
- Protocol
 - W3C Web Service Protocol (SOAP), REST (JSON)
- Platform
 - IIS 6/ IIS 7
 - .Net Framework 4.0 (WCF)

Good to know.

Operator

- Main Responsibilities
 - Video Communication (Peer to Peer)
 - Control of Medical Devices
 - Visualization of Medical Data
 - Documentation
 - Patient Administration
- Platform
 - Windows XP, Vista, Windows 7
 - .Net Framework 4.0

Good to know.

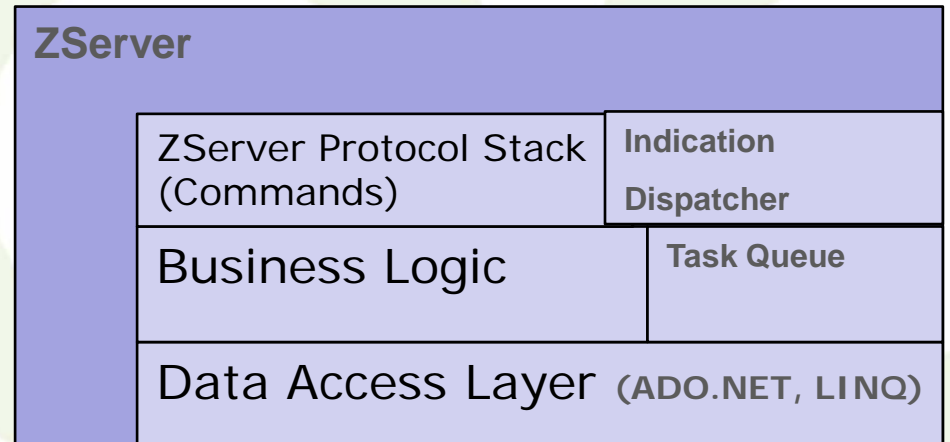
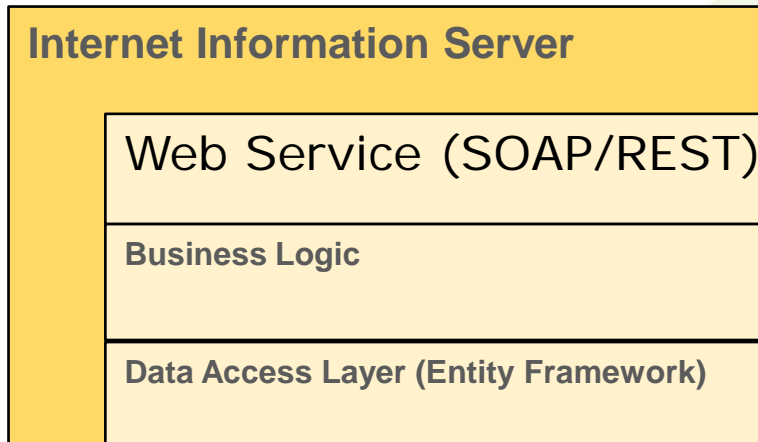
Zydadoc Box

- Main Responsibilities
 - Video Communication (Peer to Peer)
 - Medical Measurements
- Protocol
 - Proprietary XML based Protocol
 - RSA, RC4 Encryption (Signalling, Audio, Video and Medical Data)

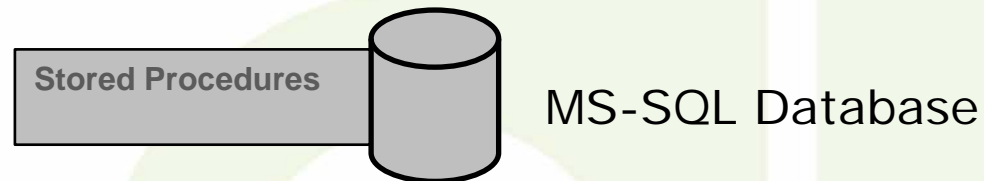
- Linux

Good to know.

Server Architecture (3-Tier)



Good to know.



Challenges

- Main recurring Challenges
 - *Integration/Merging of Third Party Software*
 - *Integration of Medical Devices*

Good to know.

Integration of Third Party Software

- *Service Oriented Architecture (SOA)*
 - *Services to support*
 - *Provisioning Process*
 - *Billing Process*
 - *Exchange of Medical Data*
 - *Exchange of Medical Reports (HL7-CDA)*
 - *Service Bus/Infrastructure*
 - *W3C(SOAP,JSON)/REST (JSON) web service*
 - *Implementation/Tools for all important platforms and development frameworks*

Good to know.

Integration of Medical Devices

- Currently no satisfactory solution
- Lots of proprietary middleware systems (lack of tool support)
- Promising Approach: Continua Health Alliance

Good to know.