



# AutumnCare Systems

**SOA in the Aged Care Industry**

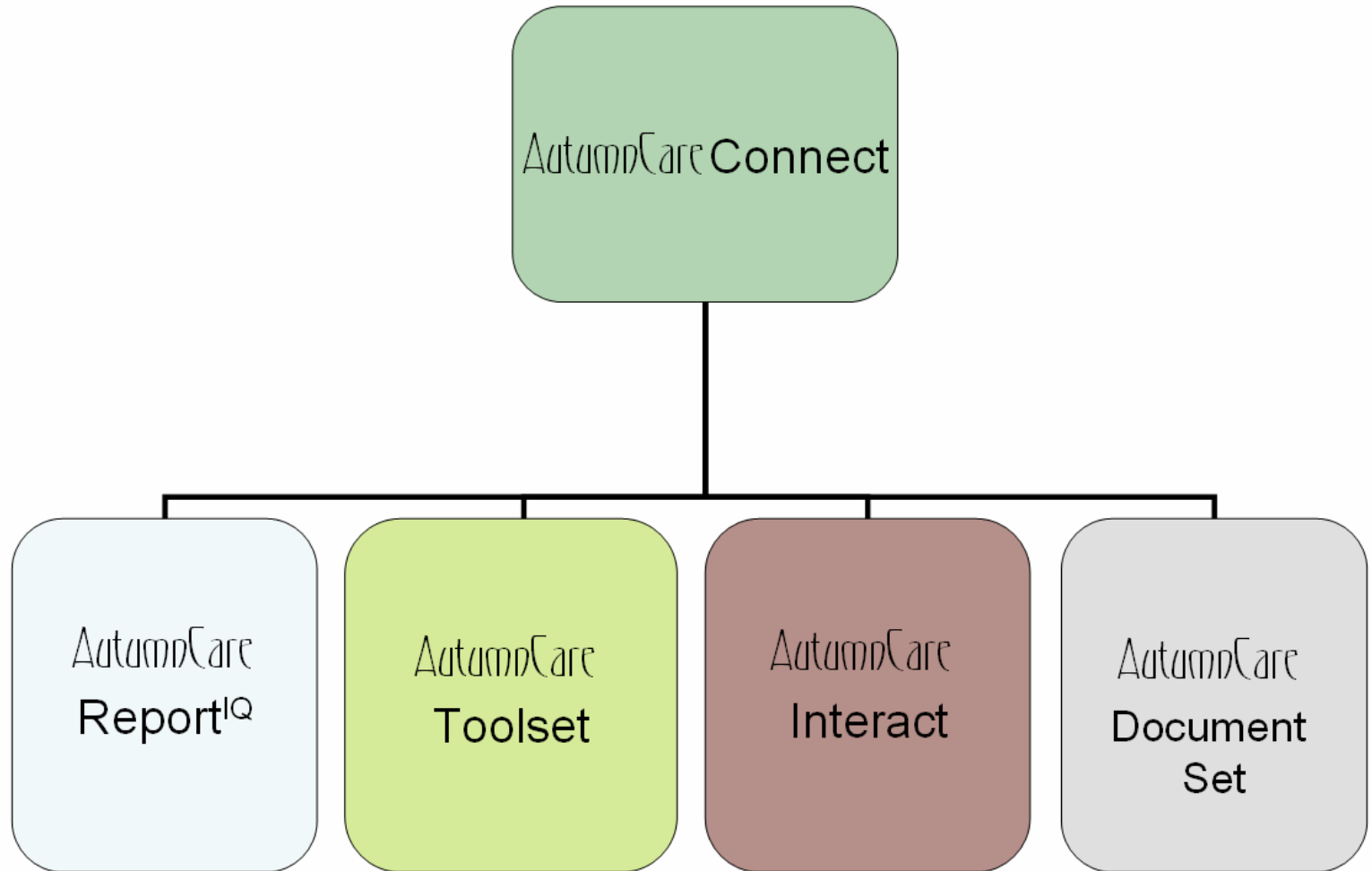


# Introduction

- 🍃 About us
- 🍃 Design drivers leading to SOA
- 🍃 Challenges presented by SOA
- 🍃 AutumnCare's SOA implementation
- 🍃 Migration Example



# Clinical Solutions



# Design Drivers Leading to SOA

- ✿ Interoperability
- ✿ IT Industry evolving towards SOA
- ✿ Access from heterogeneous networks
  - ✿ Mobile devices
  - ✿ Rural and remote
  - ✿ 24x7 access
- ✿ Enterprise scalability



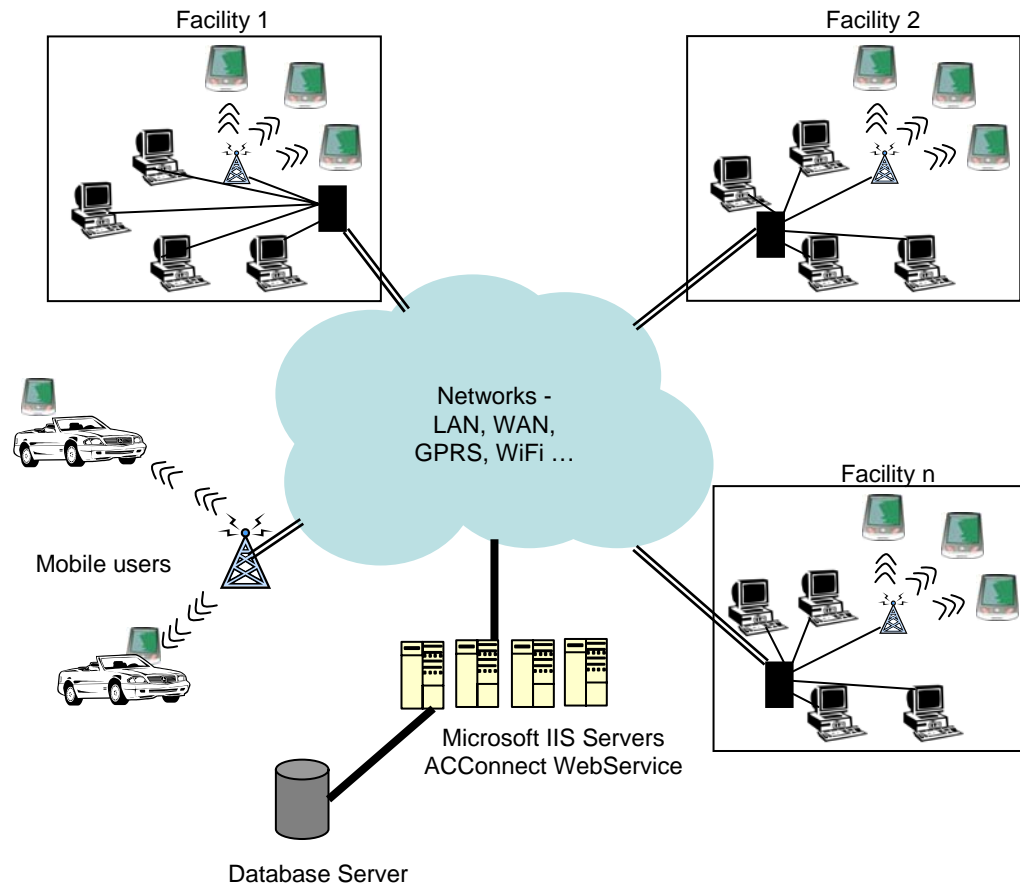
# Challenges presented by SOA

- ✦ Limitations of mobile devices
  - ✦ Development framework
  - ✦ Devices
- ✦ Connectivity
  - ✦ Slow connections
  - ✦ Unreliable connections
  - ✦ Power
- ✦ Identity management



# System Architecture

Supports single site or multi-site, enterprise-level information management requirements



# AutumnCare's SOA Implementation

- ✦ Web Services
  - ✦ Accessible from anywhere
  - ✦ Scalable
  - ✦ Tool support
  - ✦ Suited to occasionally connected model
- ✦ SQL Server
  - ✦ Enterprise grade DBMS
- ✦ Microsoft .Net Framework
  - ✦ Common code with Compact Framework
- ✦ Encoding of data
- ✦ Occasionally connected software model
- ✦ Synchronisation model
- ✦ Implications of scalability solution



# Proprietary encoding of data

- ✦ Implementation for mobile devices
- ✦ Can be efficiently processed
- ✦ Eliminates XML bloat
  - ✦ Improved performance
  - ✦ Reduced volume charges
- ✦ Compression and encryption



# Occasionally connected software model

- ✿ User can work disconnected
  - ✿ Read / write access
- ✿ Synchronises when connected



# Synchronisation model

- ✦ Only sends changed data
  - ✦ Reduces volume of data
    - ✦ Improved performance
    - ✦ Reduced volume charges
- ✦ Robust



# Implications of scalability solution

- ✿ Many web servers, one database server
  - ✿ Shift load to web servers
    - ✿ Caching of data on web servers
  - ✿ Common source for date/time information



# Migration Example

## AutumnCare Report<sup>IQ</sup>

- ❖ Traditional methods
  - ❖ Poor performance
  - ❖ Security issues
    - ❖ Limitations on computers able to run reporter
    - ❖ Systems administration overhead



# Migration Example

## AutumnCare Report<sup>IQ</sup>

- ✦ Revised SOA implementation
  - ✦ Vastly improved performance
  - ✦ Accessible from anywhere
  - ✦ Reduced systems administration requirements



# Summary

- 🌿 Drivers for SOA
  - 🌿 Interoperability
  - 🌿 Access from heterogeneous networks
  - 🌿 Remote access from mobile devices
  - 🌿 Enterprise scalability
- 🌿 AutumnCare's SOA implementation
  - 🌿 Web Services
  - 🌿 Proprietary mechanisms for encoding and synchronisation
- 🌿 Migration to SOA
  - 🌿 Significant gains from migration of existing products to SOA

