Unified Wireless Network for Patient Monitoring

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Introduction

- **Dräger Medical** is one of the world's leading manufacturers of medical equipment.
- Offices in over 190 countries
- Medical devices focused on the Acute Point of Care

Draeger Medical Core Business: Solutions for the Acute Point of Care (APOC)





Pre Hospital | **Hospital** | **Post Hospital**

Emergency Care
- Ventilation
- **Monitoring**
- Neonatal Transport

Perioperative Care
- Anesthesia
- **Monitoring**
- IT Systems

Critical Care
- Ventilation
- **Monitoring**
- IT Systems
- ICU Equipment

Perinatal Care
- Ventilation
- Warming therapy
- IT Systems
- NICU Equipment
- **Monitoring**

Home Care
- Oxygen Therapy
- Sleep Therapy
- Ventilation
- **Monitoring**

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First

What is the case for

wireless patient monitoring

Two Unique Features

Infinity Patient Monitoring

Healthcare Solution Value Proposition

Pick and Go™

One monitor switches from

bedside to patient transport…

- Saves clinician time; No Admit/Discharge
- Enables continuity of patient data
- Uncompromised parameters during transport; Full Disclosure

…on a Cisco Unified Wireless Infrastructure

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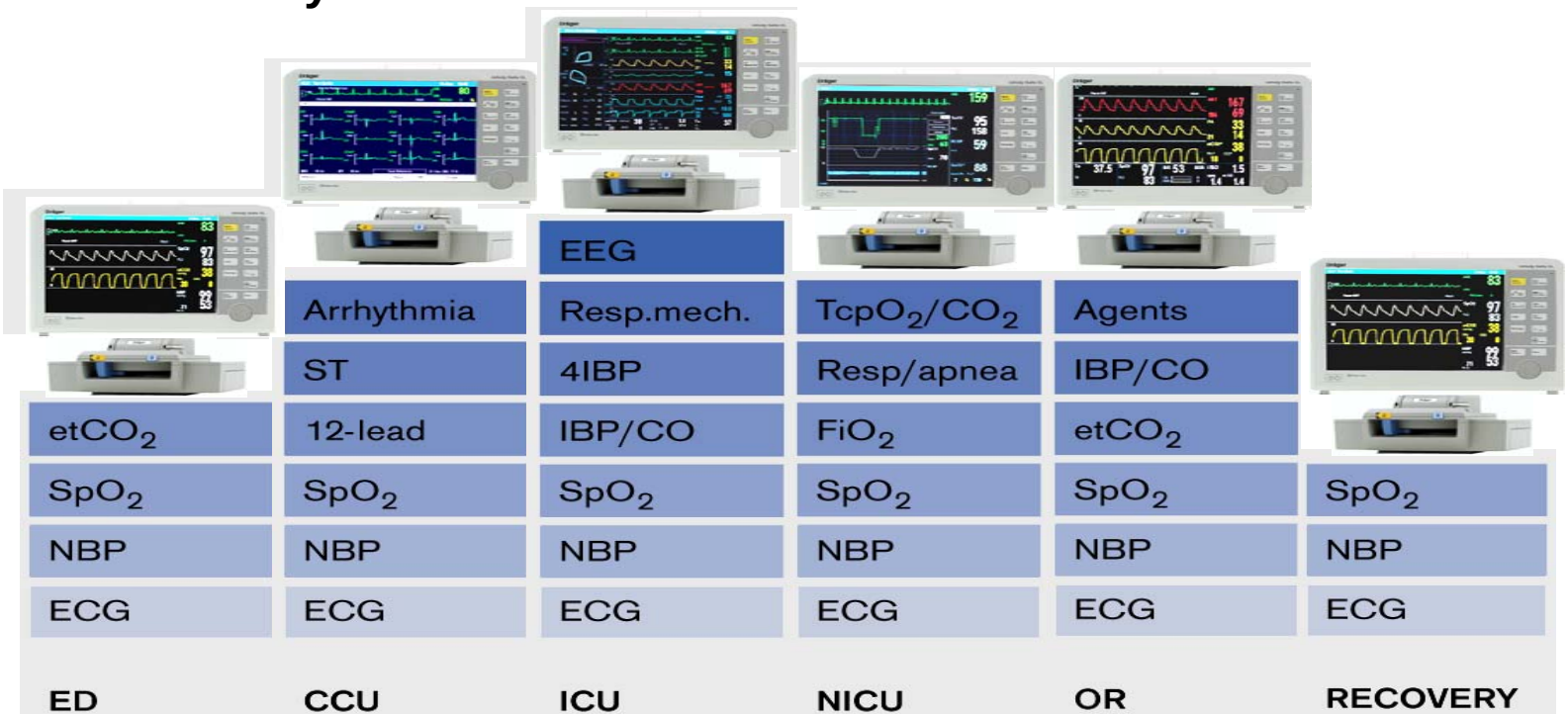
Infinity - A Truly Flexible System

One platform scalability…



…provides standardization without compromise

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Healthcare Solution Value Proposition

1. Pick & Go One monitor switches from bedside to patient transport using Cisco Unified Wireless Infrastructure

2. One monitor automatically adapts to the needs of any department connected to the hospital network

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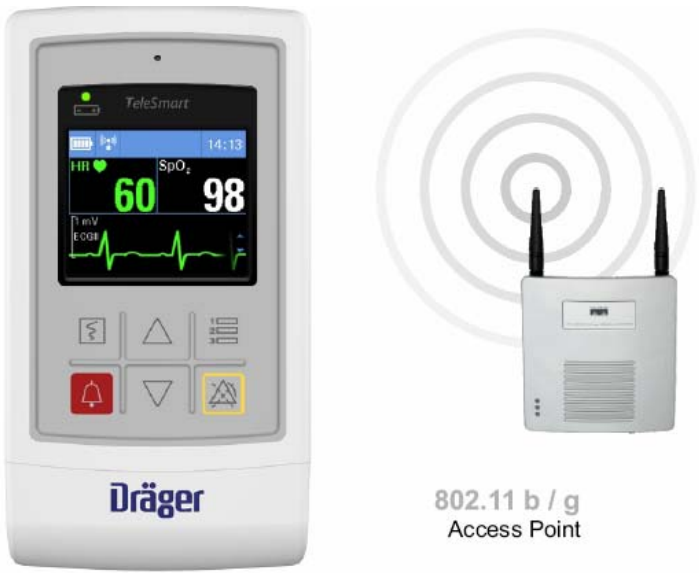
Healthcare Solution Value Proposition: Infinity TeleSmart*

First Wearable patient monitor with Wi-Fi



**Infinity® TeleSmart requires 510(k) review and is not yet commercially available in the U.S.*

Allows a hospital to deploy telemetry services throughout the entire facility

Allows Dräger to develop a telemetry system for the global market

…on a Cisco Unified Wireless Infrastructure

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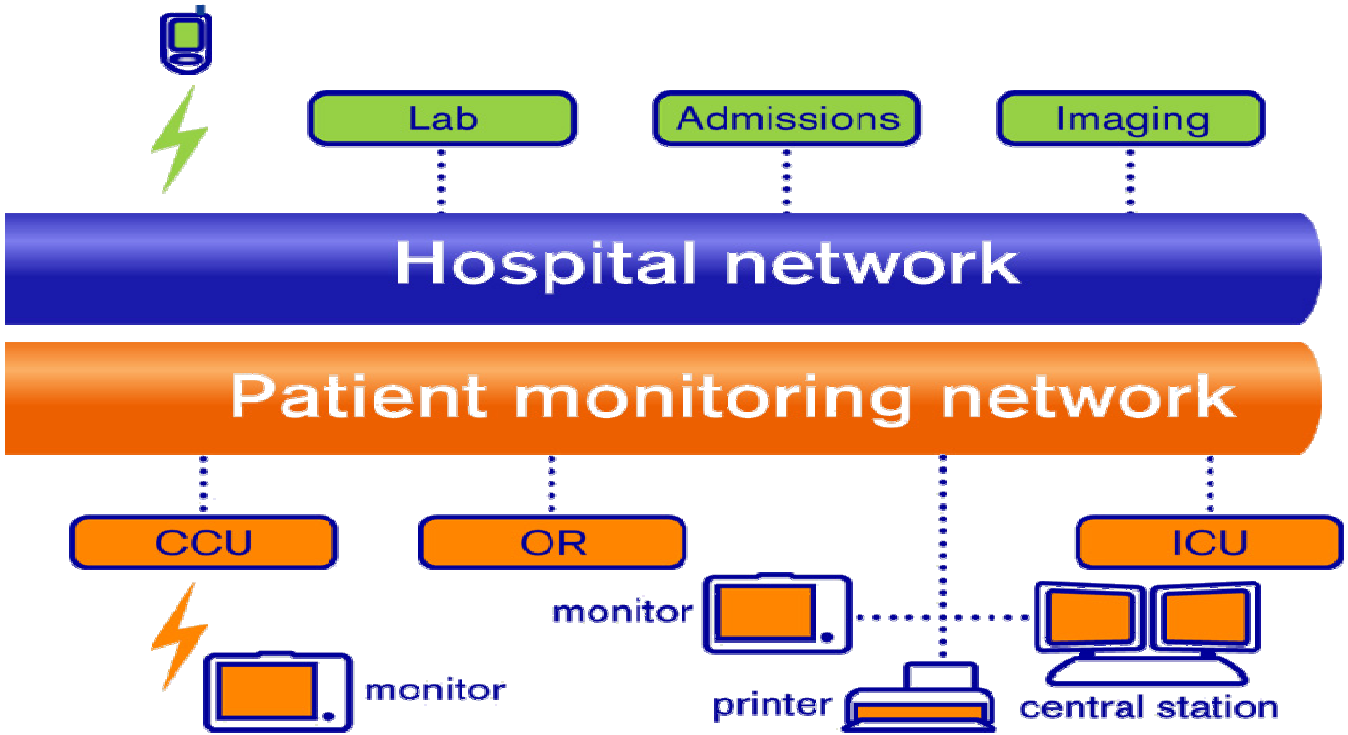
The Question

How to improve patient monitoring in the Enterprise Network

Traditional Network Topology
Isolated overlapping infrastructure



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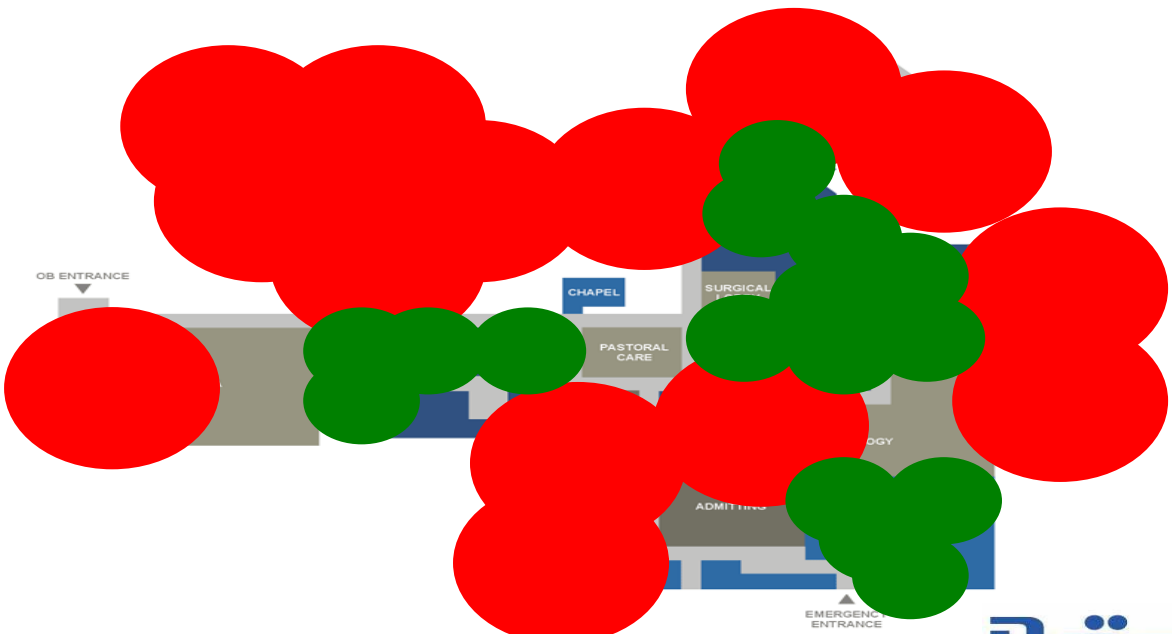
Wireless Functionality

Traditionally Wireless Monitoring area and Wi-Fi (802.11b/g) data area cannot overlap



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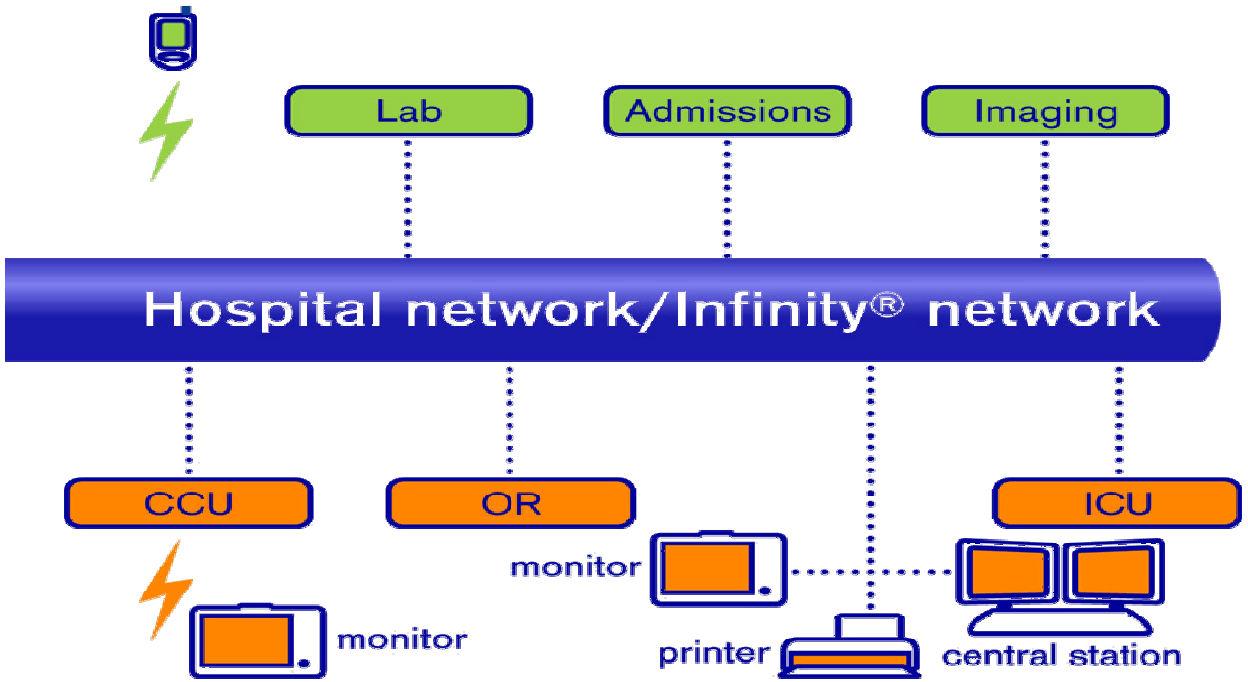
Infinity OneNet



The only way to effectively use Wi-Fi in the Enterprise

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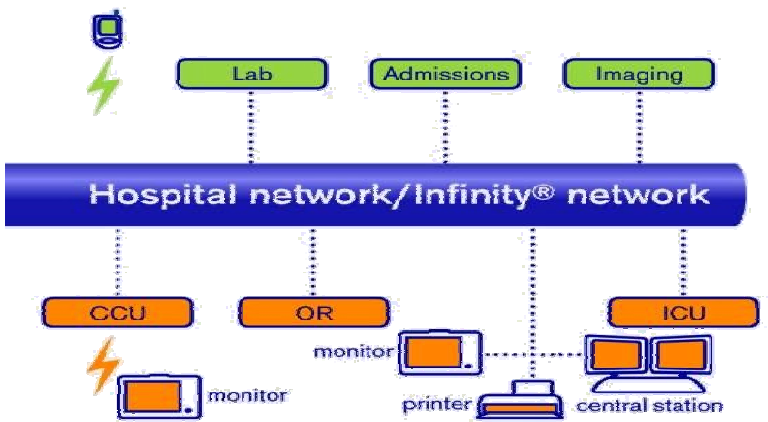
Customer Challenges

- No leverage of strategic investments in technology and infrastructure
- Separate service and support plans
- Non-compatible conflicting wireless deployments

Customer Benefits from OneNet

- Reduces total cost of ownership
- Allows for easy expansion of monitoring network
- Allows for both Hospital and Monitoring Wireless



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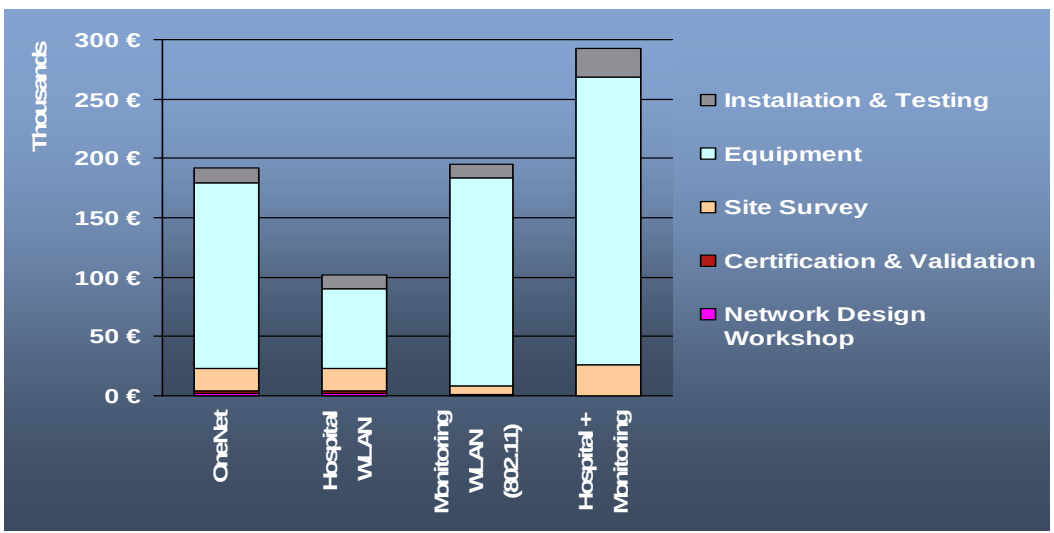
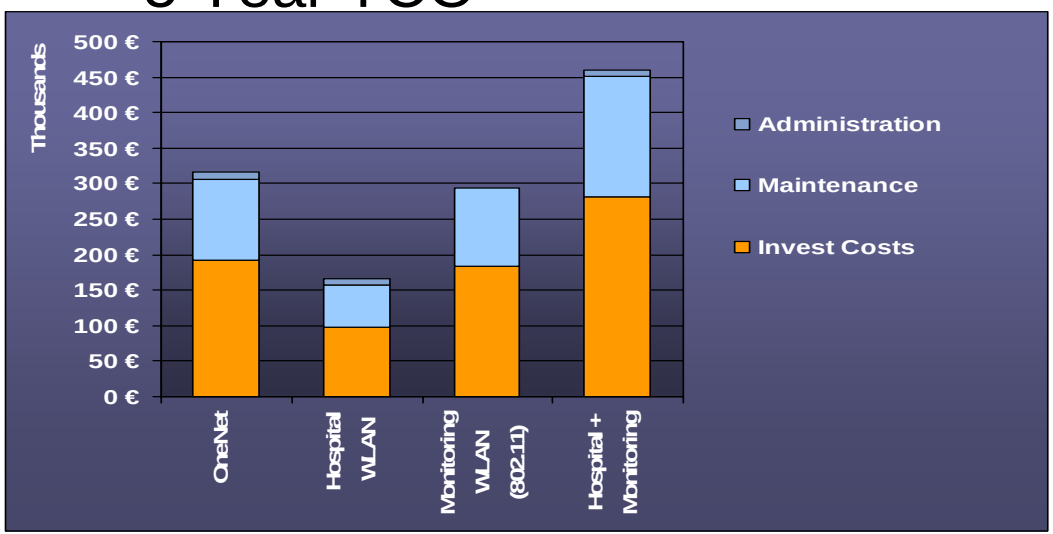
Customer Challenges and the OneNet Return on Investment

Lower cost of installation and ownership maintenance



5 Year TCO



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Anyware Network Solutions

OneNet™ Case Study- CHEO

Children's Hospital of Eastern Ontario – Ottawa CAN

Anyware Network Solutions

OneNet™ Case Study- CHEO

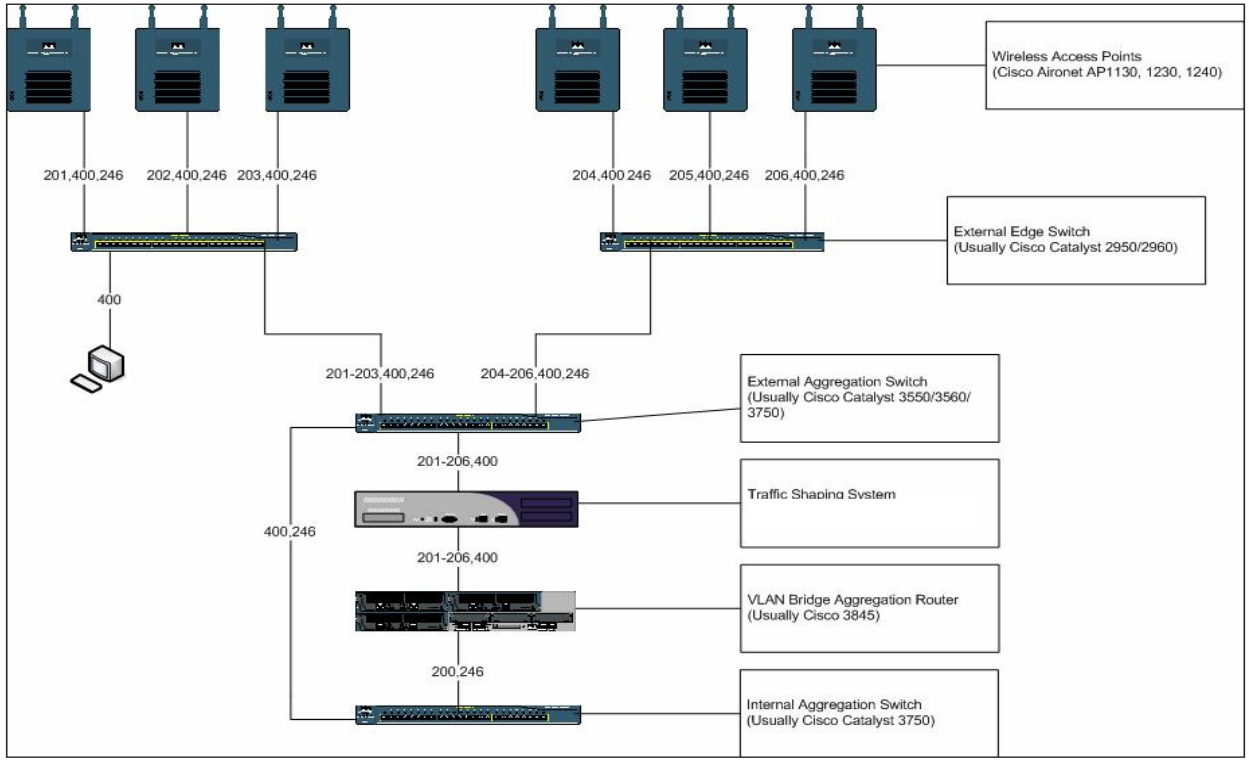
Children's Hospital of Eastern Ontario – Ottawa CAN

- Based on planning discussions with Draeger, the following requirements were outlined to Anyware:
  1. Verify wireless coverage areas;
  2. Validate all wired and wireless network devices for OneNet™ support;
  3. Implement the necessary configuration changes on all wired and wireless network devices for OneNet™ services;
  4. Validate proper OneNet™ operation of the network.

Anyware Network Solutions

Anyware/Draeger OneNet™ Process

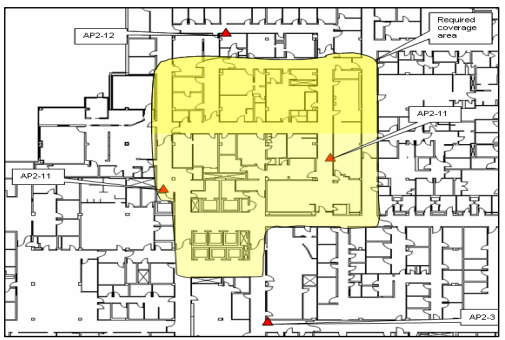
- Discovery Consultation
- Physical Survey
  - Hear me now
  - Building Materials
  - Attenuation
- Predictive Modeling
  - Wireless Valley
  - WCS
- Network Design
  - VLANs
  - Mobility Groups
- Report – Deliverable
  - RF Heat Map
  - Channel Plan
  - Radio Output Power
  - Network Configuration
- Implementation
  - Installation

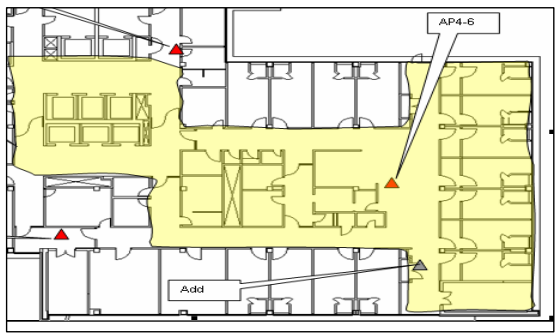


Anyware Network Solutions

Once the existing APs were identified the following changes were made:

- Addition of APs on floors 3 and 4,
- IOS software was changed to 12.3.8-JEA on all APs,
- AP2-3 was moved around the corner of the sub shop to better propagate the signals down the hallway,
- Configuration of APs was changed on selected OneNet™ APs to reflect appropriate VLANs.
- Installation and configuration of traffic management device for certified OneNet™ operation.
- Installation and configuration of bridging router for certified OneNet™ operation.





Conclusion: Why OneNet

- **Increased Clinical Functionality**
- **Increased Reliability: Cisco Unified Wireless Infrastructure**
- **Increased Return on Investment**

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Conclusion

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