How Thiess Listens to Customer Assets to Improve Service and Cut Costs in Healthcare

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BUSINESS OVERVIEW

THIESS

CONSTRUCTION MINING SERVICES

19,000 EMPLOYEES

OVER **30** SIGNIFICANT PROJECTS (>$100M)

FOUNDED **1934**

OPERATING IN **AUSTRALIA, INDONESIA, INDIA AND NEW ZEALAND**

WORK IN HAND **$22B**

$6.2B FORECAST REVENUE 2013

Services

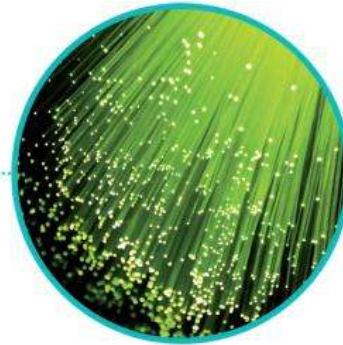WATER · ENERGY · TELECOMMUNICATIONS · REMEDIATION · INFRASTRUCTURE

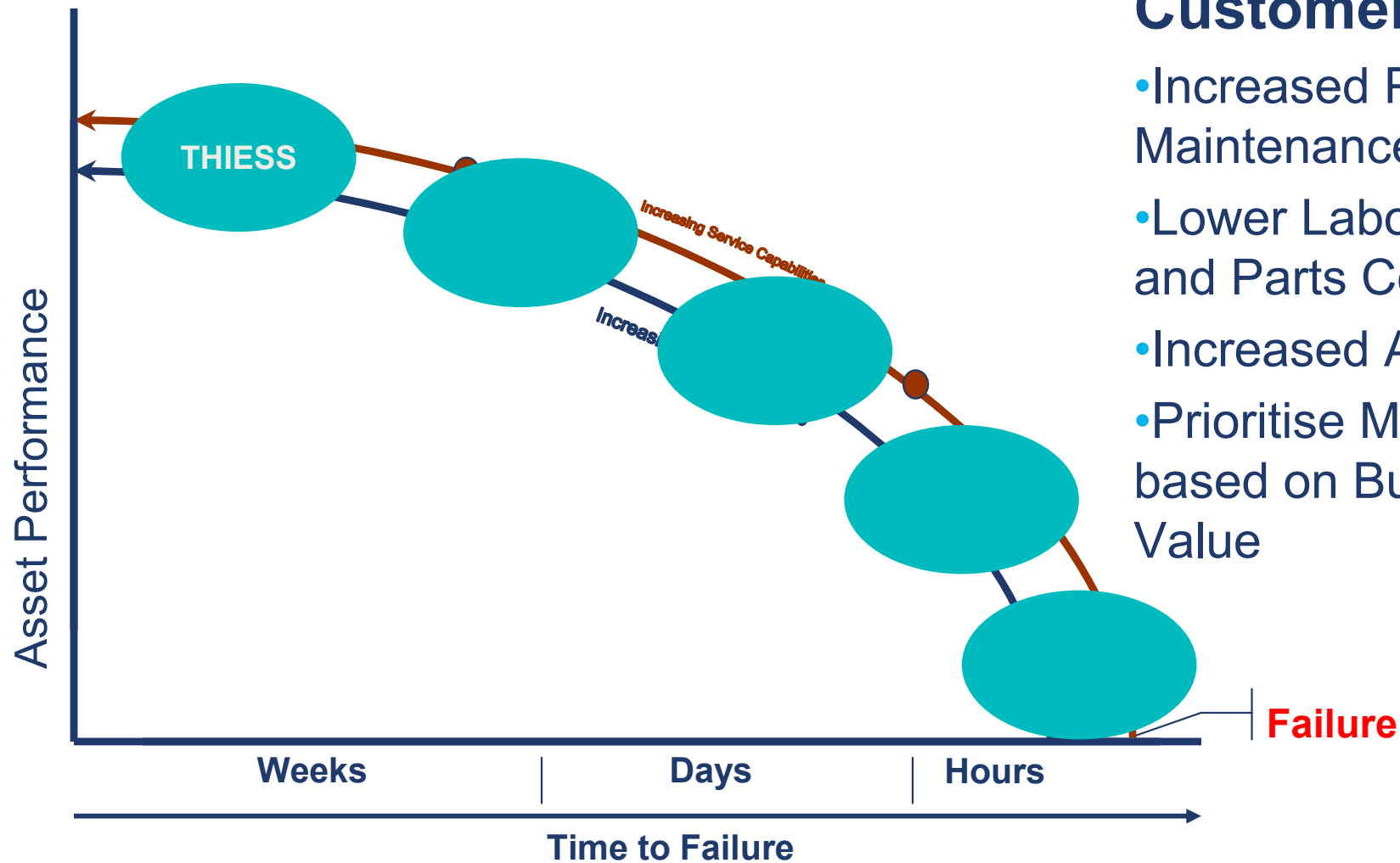# Royal North Shore Hospital

28-YEAR MAINTENANCE CONTRACT AWARDED TO THIESS SERVICES IN 2008

Project Objectives

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Increase Asset Life

Increase Customer Service

Optimising Profitability

Increase Asset Knowledge

Decrease Maintenance Costs
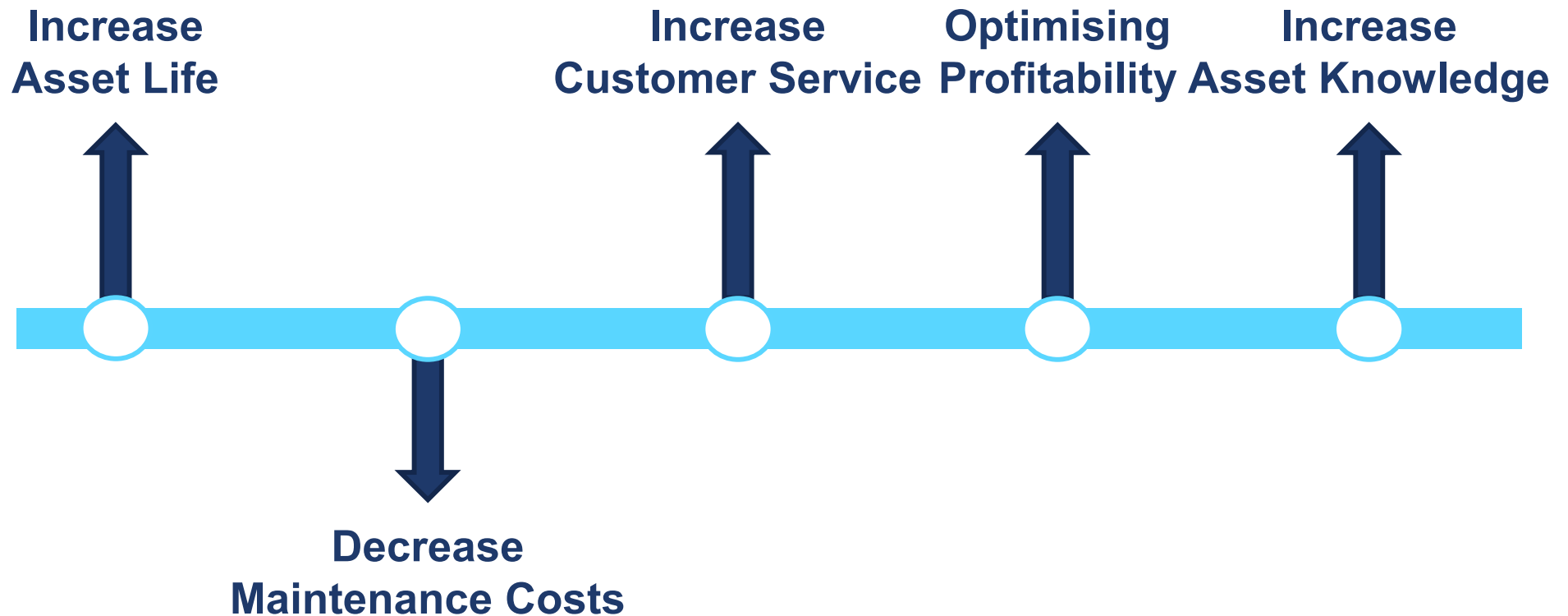
Performance to Failure Curve

THIESS

Asset Performance (y-axis)

THIESS

Increasing Service Capabilities

Increas

Weeks | Days | Hours

Failure

Time to Failure
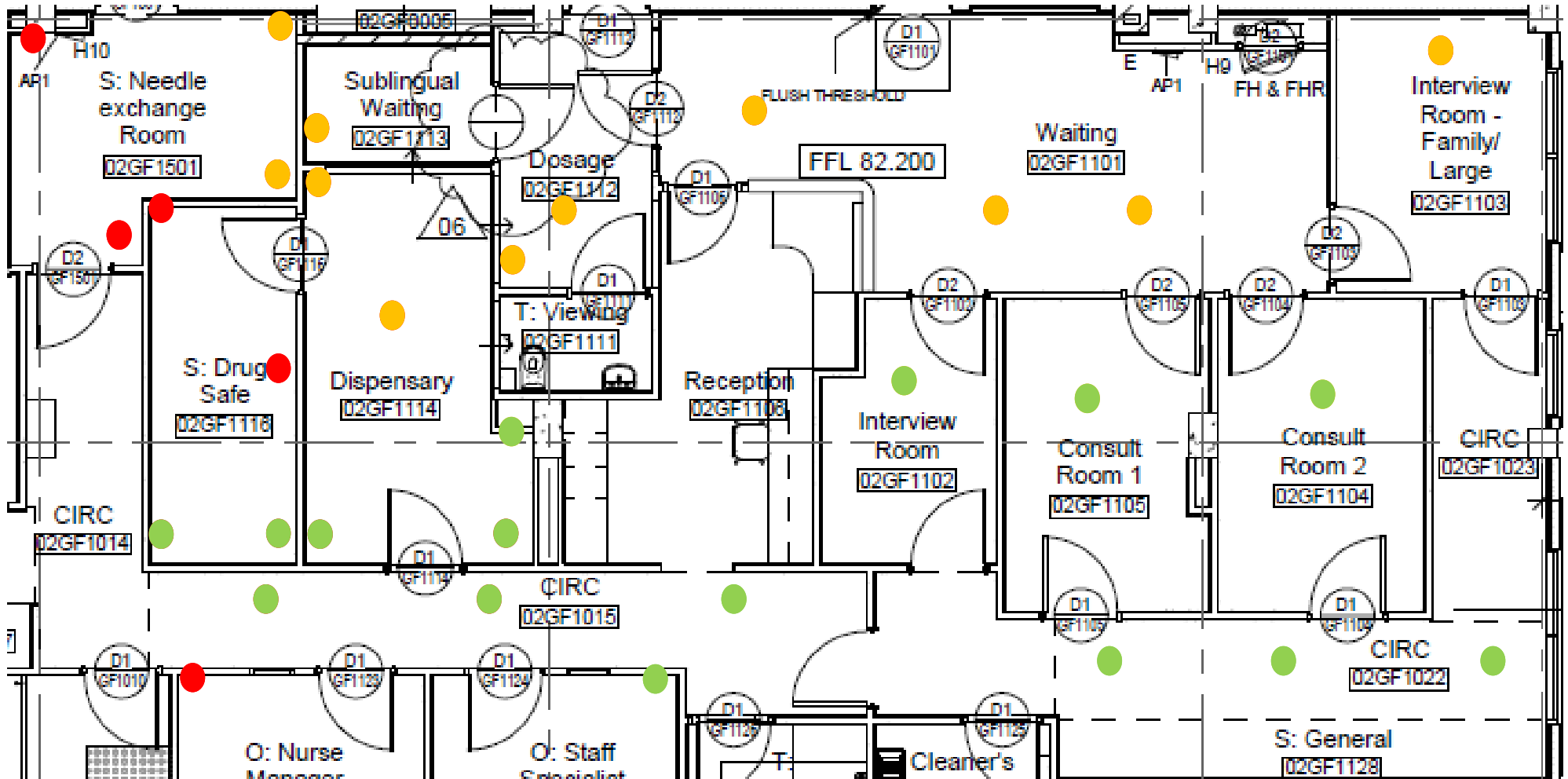
Customer Value

- Increased Planned Maintenance
- Lower Labour and Parts Cost
- Increased Availability
- Prioritise Maintenance based on Business Value
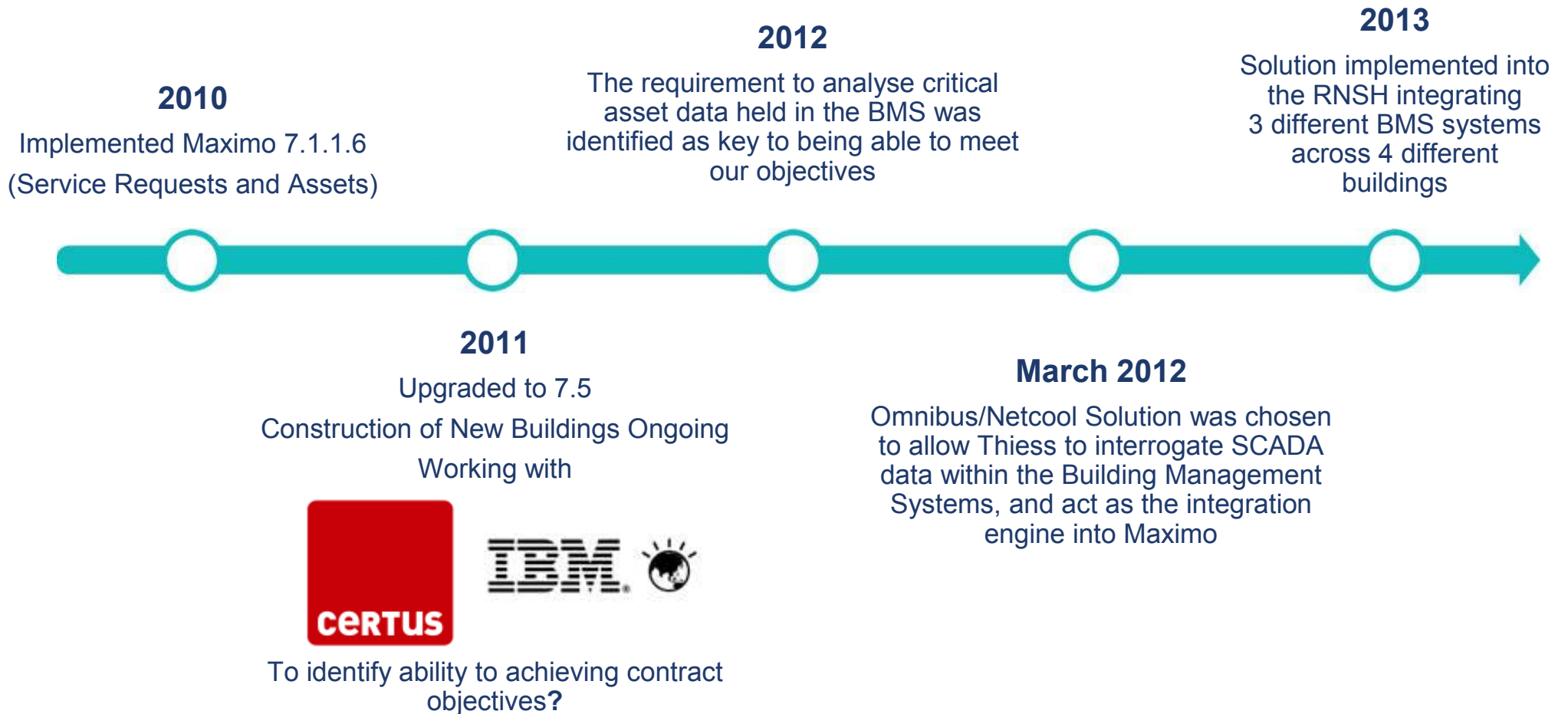
Achieving Our Objectives
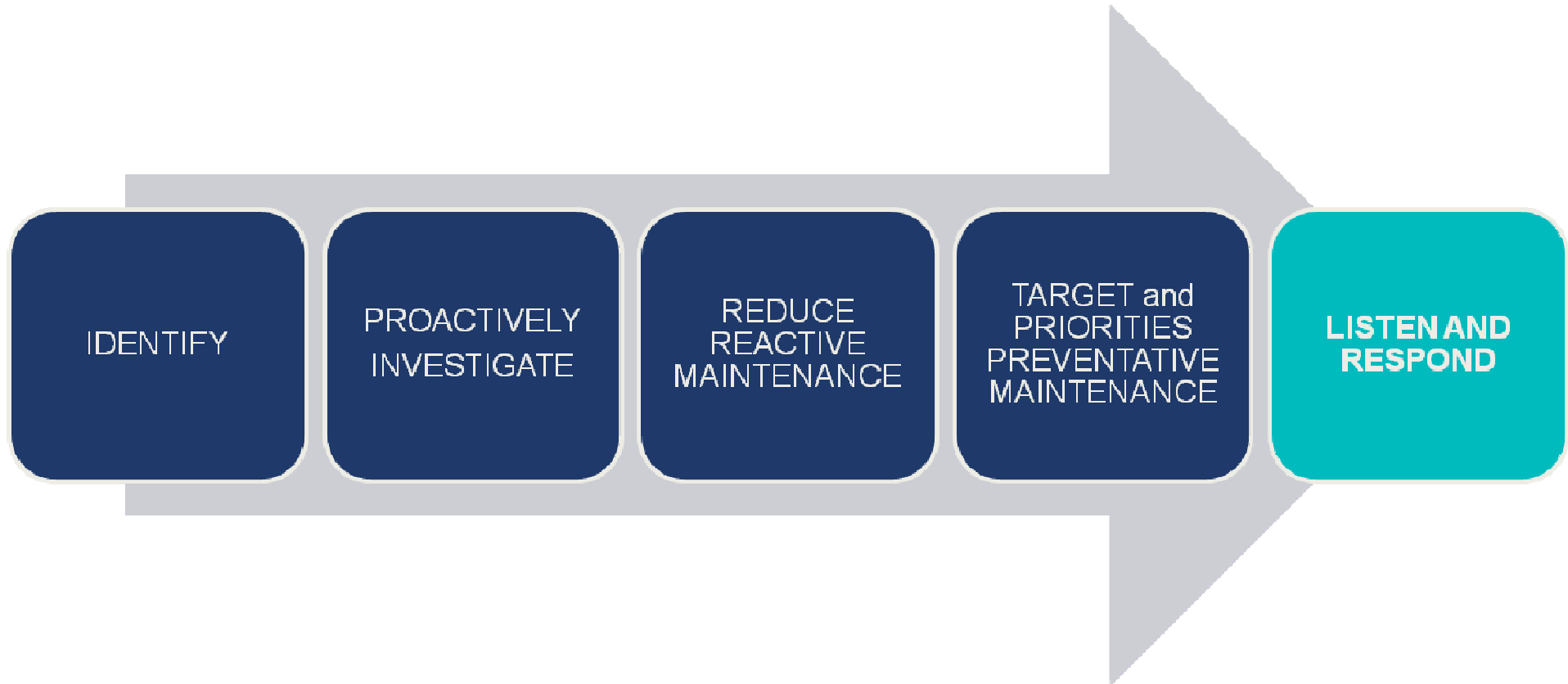
Applying Business Rules Driven by KPI's

🟩	$0 at Risk	🟧	$15,000 at Risk	🟥	$50,000 at Risk

Solution Timeline

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2010

Implemented Maximo 7.1.1.6
(Service Requests and Assets)

2012

The requirement to analyse critical asset data held in the BMS was identified as key to being able to meet our objectives

2013

Solution implemented into the RNSH integrating 3 different BMS systems across 4 different buildings

2011

Upgraded to 7.5

Construction of New Buildings Ongoing

Working with

CERTUS

IBM.

To identify ability to achieving contract objectives**?**

March 2012

Omnibus/Netcool Solution was chosen to allow Thiess to interrogate SCADA data within the Building Management Systems, and act as the integration engine into Maximo

Our Challenges

- Mix of old and new buildings
- 3 BMS systems
- Volumes of paperwork
- Thousands of alerts daily

Why not just use the BMS?

- 3 BMS Systems

- No integration

- Cannot apply business rules to generate work orders

Maximo – Netcool – Omnibus Solution
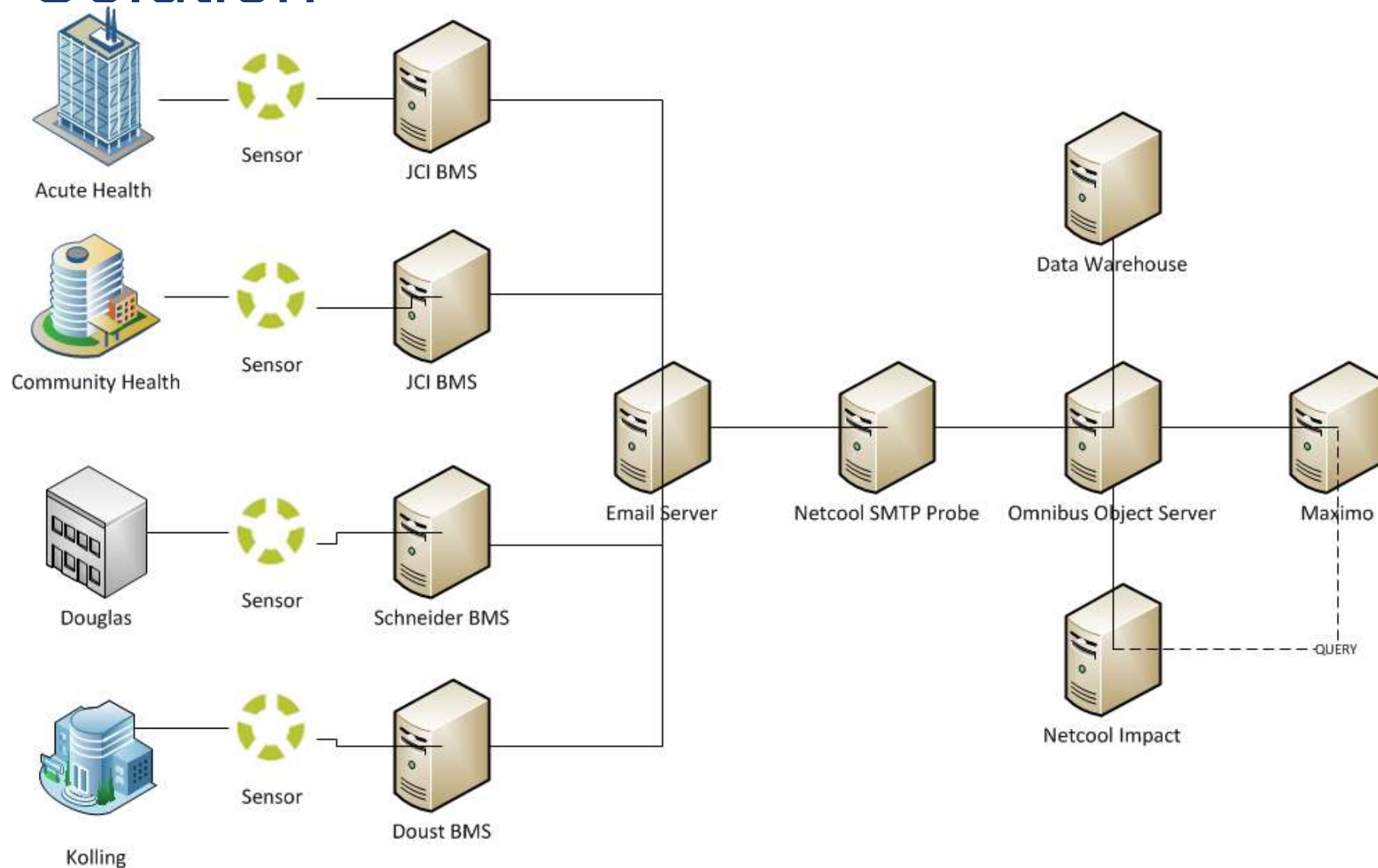
Real Time Data
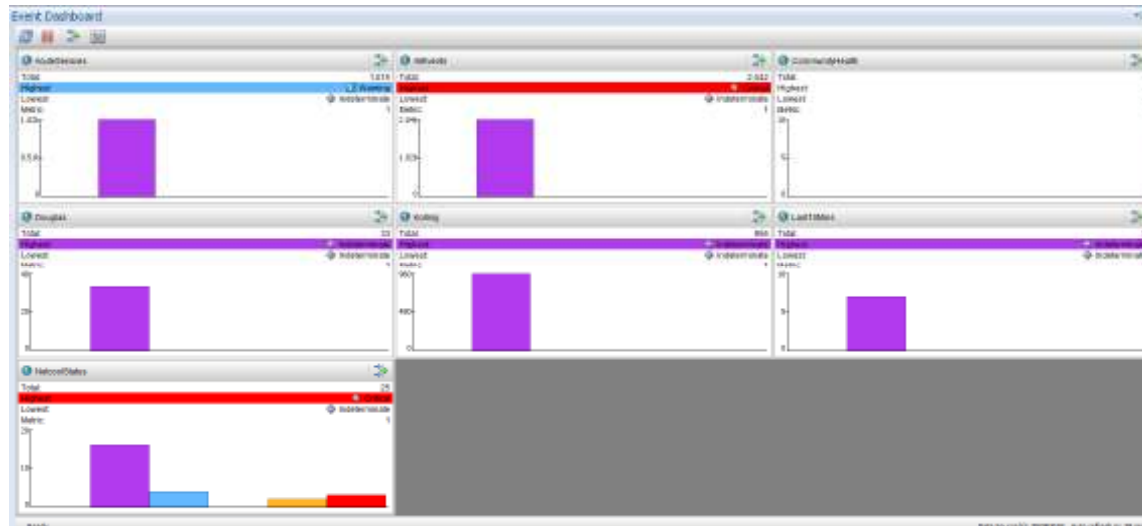
Desktop PC

Mobile

BMS Extract

9/1/2012 12:22:57 PM ZN-T High Alarm 1
AHU 1-13 VAV 1-05 Zone Temp out of limits Alarm (MH)
Value   18.9 deg C
Site Name   ADS-01
Item Description   Zone Temperature
Item Fully Qualified Reference   ADS-01:NCE-02/FCB.Local Application.CHLR 7-1 COM-A

- Contains detailed alarm information
  - Reported Date
  - Alarm Level
  - Alarm description
  - Value
  - BMS Site information
  - Alarm Type
  - Alarm Reference

- Two key fields

Omnibus Probe

| Receive Extract | Process | Store in Omnibus | Archive |

- Probe monitors email/SNMP frequently
- Perform the following actions
  - Receive the BMS extract
  - Process accordingly
  - Store in the Omnibus Object Server
  - Archive once stored

Store in Omnibus Object Server

- **Database handles large volume of transactions**
- **Stores active alarm information**
- **SQL used to insert/update**

Enrich with Maximo Information

Run Policy	Indentify New Alarms	Lookup Maximo	Enrich Alarms	Create SR

- Netcool Impact policy performs
  - Runs at a specific interval
  - Identifies newly created alarms
  - Lookup Maximo for alarm details
  - Enrich the alarm information in Omnibus
  - Possible to create Service Request in Maximo

Process in Maximo

- SR Automatically created
- Automatically creates necessary Work Orders

Data warehouse

- All Object Server inserts/updates stored
- Data used to provide fault analytics

Analysis

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HVAC Analysis
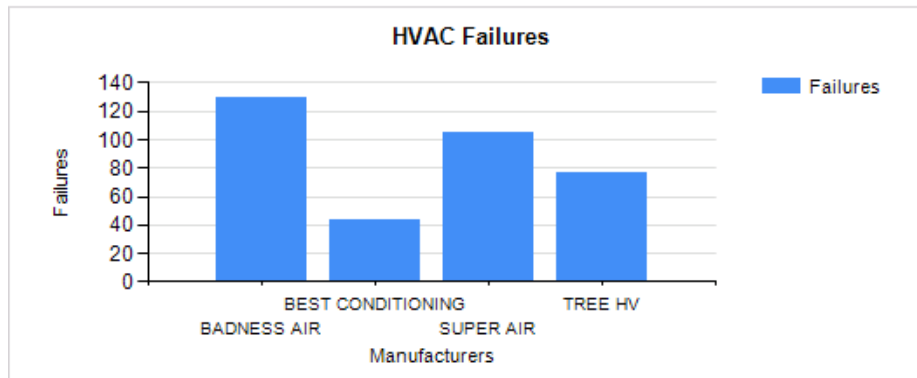
Manufacturer	January	February	March	April	May	Total
BADNESS AIR	30	50	10	5	35	130
BEST CONDITIONING	20	10	5	5	4	44
SUPER AIR	5	10	15	25	50	105
TREE HV	15	14	17	13	18	77
Total	70	84	47	48	107	356
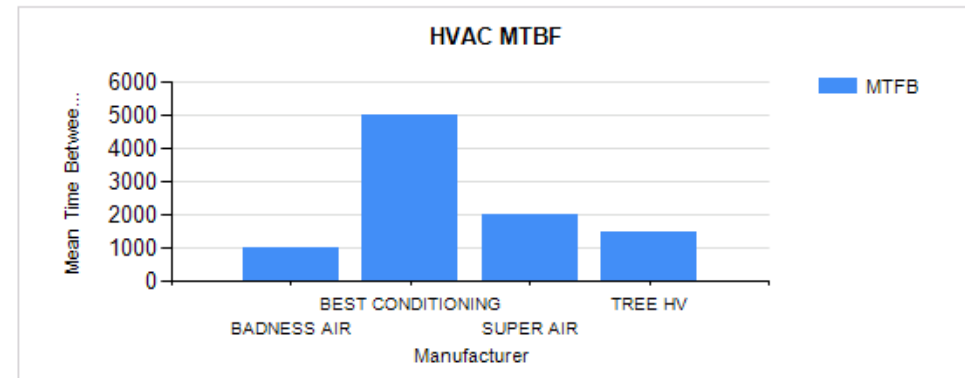
Manufacturer	MTFB
BADNESS AIR	1,000.00
BEST CONDITIONING	5,000.00
SUPER AIR	2,000.00
TREE HV	1,500.00

Demonstration

Tangible Business Value

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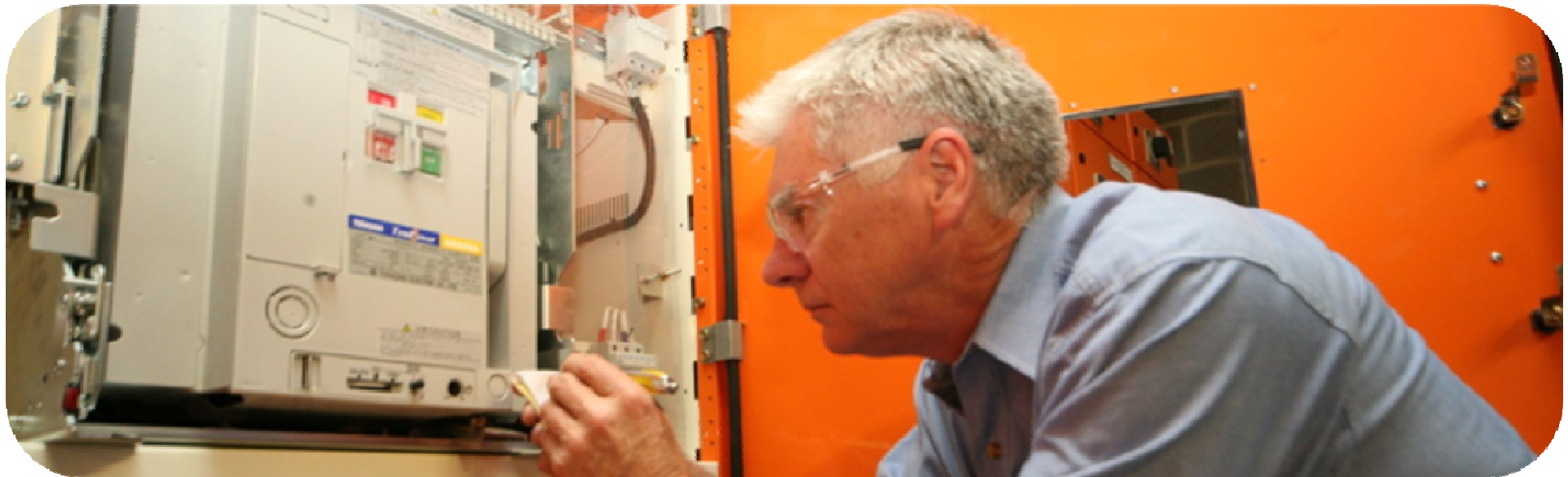| BEFORE	NOW
Revenue Exposure $200k + per month	Revenue Exposure Reduced to < $50k per month
3-4 FTE Admin Data Entry	2 FTE Monitoring and Reporting Trends

Tangible Business Value

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BEFORE

25% of Operating Maintenance Cost (unplanned and paid at premium)

NOW

17% cost unplanned and paid at premium (trending downwards)

Intangible Business Value

- Knowledge Bank of Asset Performance Data
- Maintenance Value Chain
- Increased Workforce Morale
- Customer Satisfied

Lessons Learned

- Identify Critical Assets and Business Impact
- What do you want to listen to?
- Collaborate with asset owners
- $$$ in BMS reconfigurations

Moving Forward

Project Summary

QUESTIONS?