





# Agenda

**01** Introduction

**02** Covid-19

**03** Architectures

**04** User Interface

**05** Reporting

**06** Summary

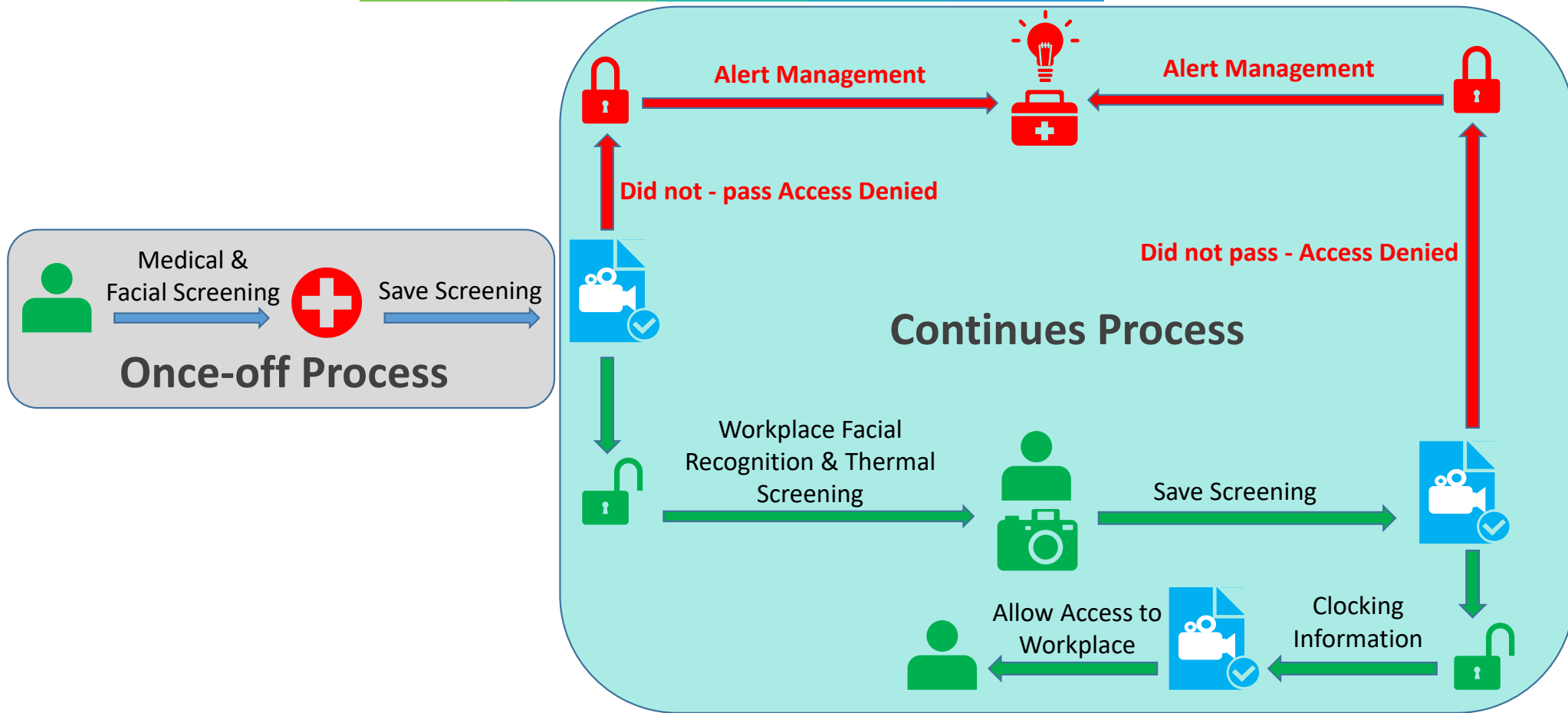
  
AccuReward

# Introduction

## Hikvision interface

- AccuReward is a registered Solution partner with Hikvision
- We have been working with Barnel Design & Manufacturing and HIKVISION to develop a software solution to automatically transfer data seamlessly to and from HikCentral Pro using your existing HR/Payroll/T&A employee data. This fully automated system reduces human intervention and thereby eliminates human errors.
- Our application automatically sends employee associated data (which we get from your HR/Payroll/T&A system) with an associated employee image (to be used for facial recognition) to Hikcentral and retrieve all scanned data such as the latest facial images, thermal (fever) scans and mask detection, linked to the employee based on the facial recognition technology from the Hikvision system.
- We can then pass this data onto any other system as required.
- Our management portion within our application can be set up to automatically send out notifications (SMS or email) based on user customisable profiles such as high temperature events and unrecognised people to any address or group.
- With our system will we be able to seamlessly integrate with your Hikvision investment requiring minimal to no human intervention and generate any required DMR, Health & Safety and/or Management reports.
- Our scanner application will ensure added value for any Hikvision investment even after the Covid-19 pandemic has passed

# Covid-19



# Architecture – Site and Central Data storage

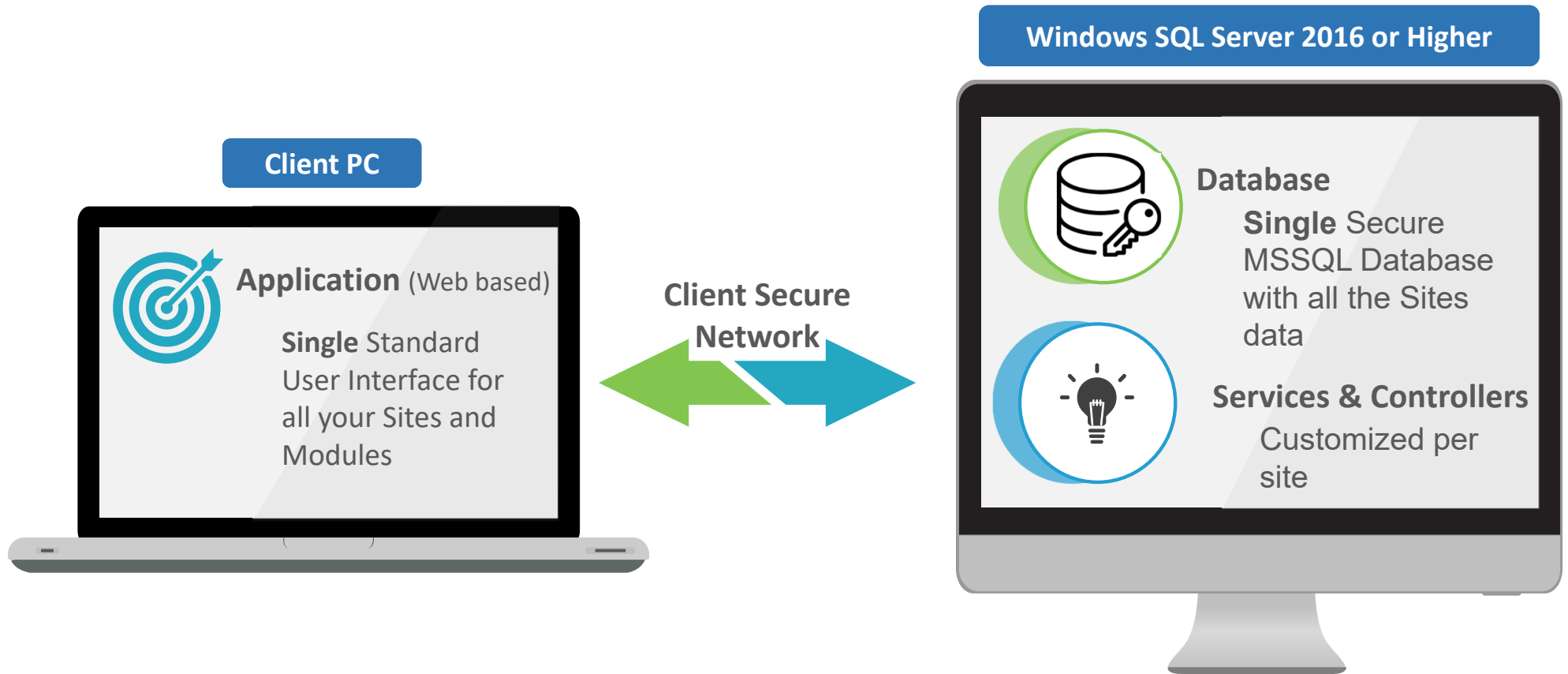
## Site

- Standalone PC Connected to the Network. The PC will Store and Sync data to the central server to act as a “fail-safe” when the network link is down to the central server.
- **Minimum Requirement**
  - **Software**
    - Windows 10 with latest updates
    - Microsoft .Net Core 3.1 and Microsoft .Net 4.6 Framework installed
    - SQL server 2016 standard edition
    - ACCR API and Event manager and Monitoring services
  - **Configuration**
    - Access to local network.
    - Some port to be opened (depending on installed devices)
    - Access to SMTP server for email notification
  - **Minimum Hardware (depends on devices to monitor)**
    - Processor Intel Core I3 6100 @3.7 GHz
    - 32GB memory
    - Available 256 GB HD (SSD preferred)

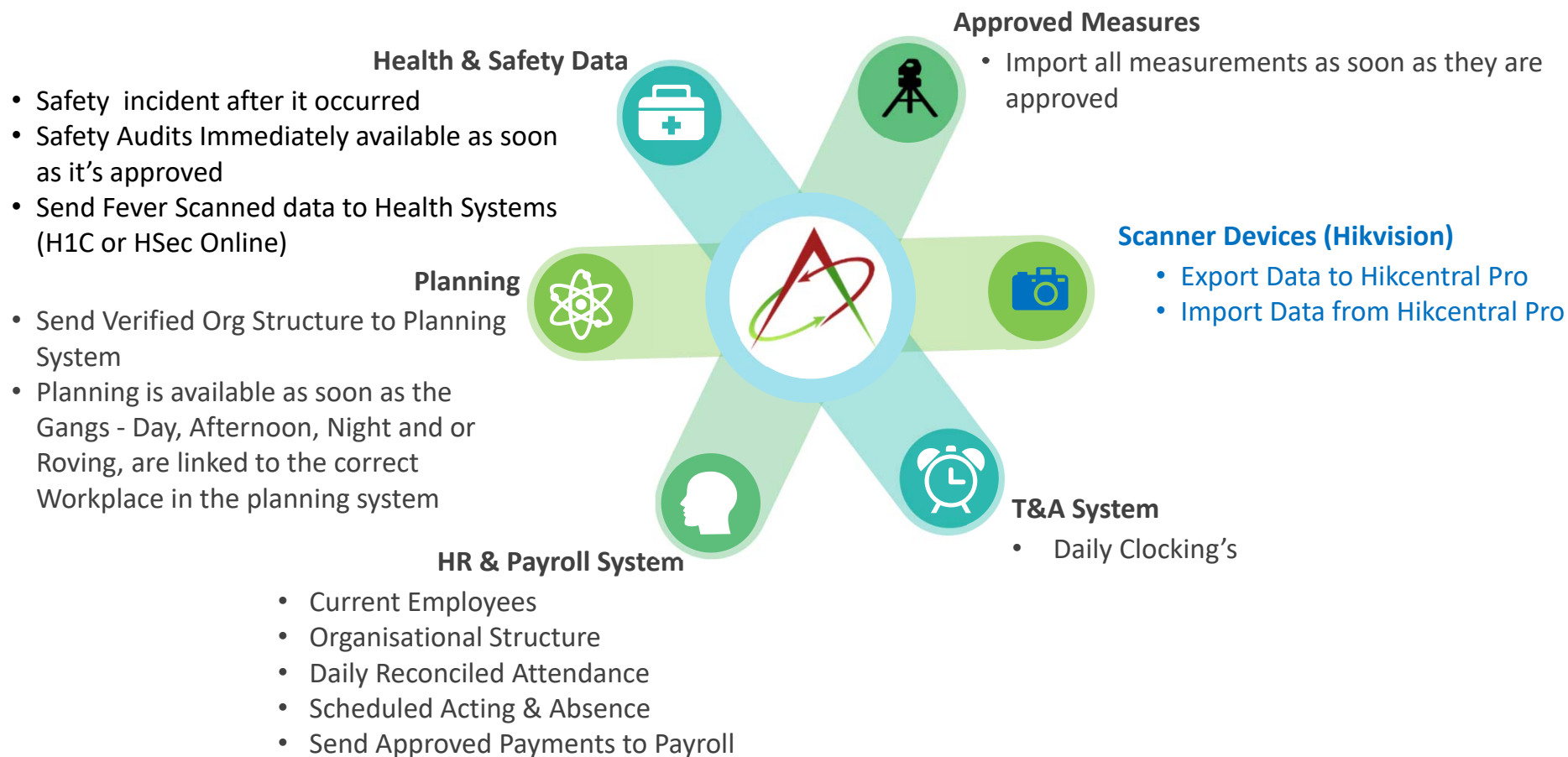
## Central

- Server Connected to the Network. The Server will act as “Data Warehouse” and the Site PC’s will Sync to this server. All the Interfaces to the other sources will be handled by this Server. We do not need a new server and separate Server, we can share an existing server
- **Minimum Requirement**
  - **Software**
    - Windows Server 2016 with latest updates
    - IIS enabled
    - Microsoft .Net Core 3.1 Framework installed
    - SQL server 2016
    - ACCR API and Event manager and Monitoring services
  - **Configuration**
    - Access to local network.
    - Some port to be opened (depending on installed devices)
    - Access to SMTP server for email notification
    - Internet access to send Email and SMS notification
  - **Minimum Hardware (depends on devices to monitor)**
    - Intel Xeon, CPU E5 2.6Ghz 2 Processors (Preferred 4 or more)
    - 64GB or Higher is preferred
    - Available 500 GB HD (SSD preferred)

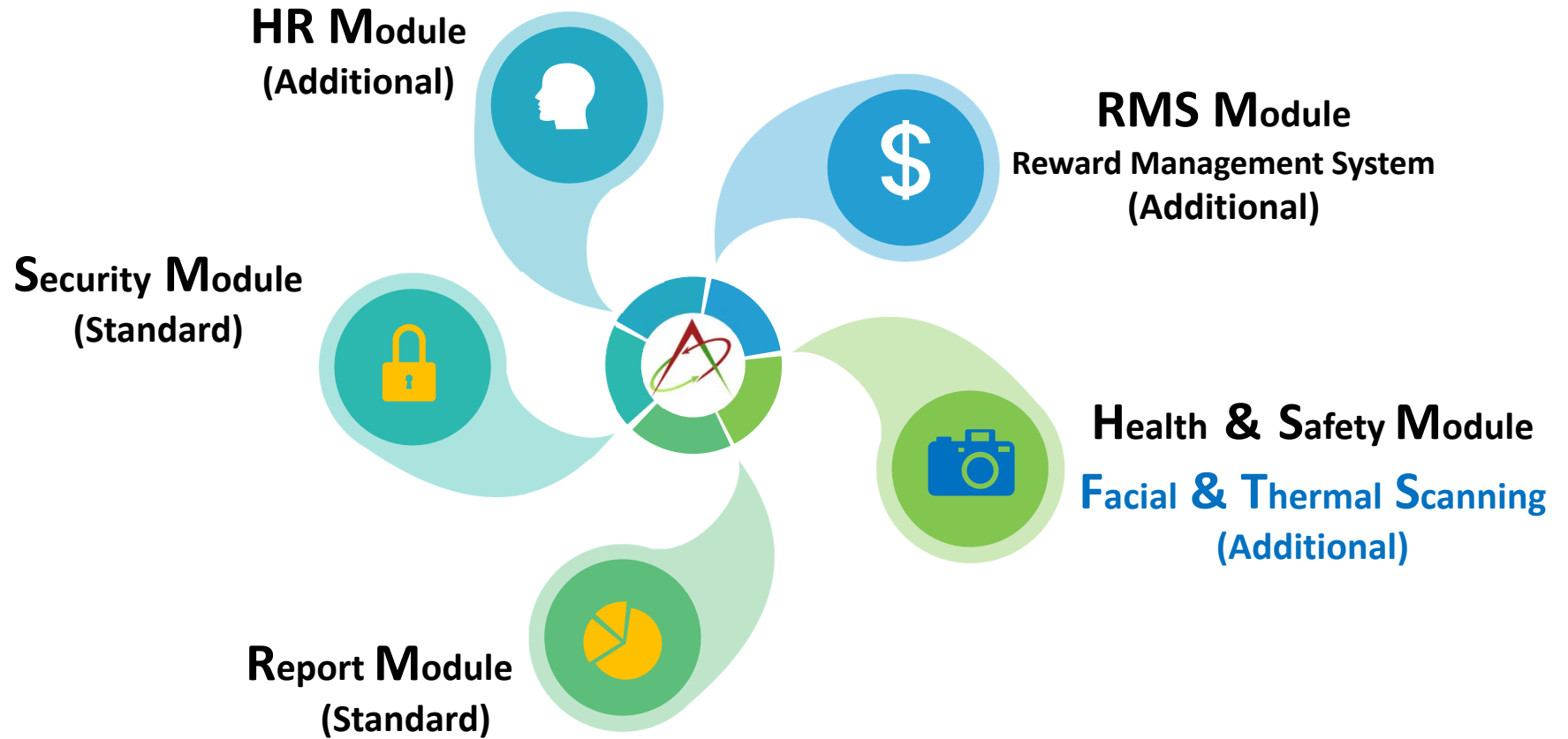
# Architecture – ACCR System (C# & ASP.net Core3)



# Architecture – ACCR Current Automated Interfaces



# Architecture – ACCR System (Modules Available)



# Architecture – Current Basic Setup



HR & Payroll System



T&A System



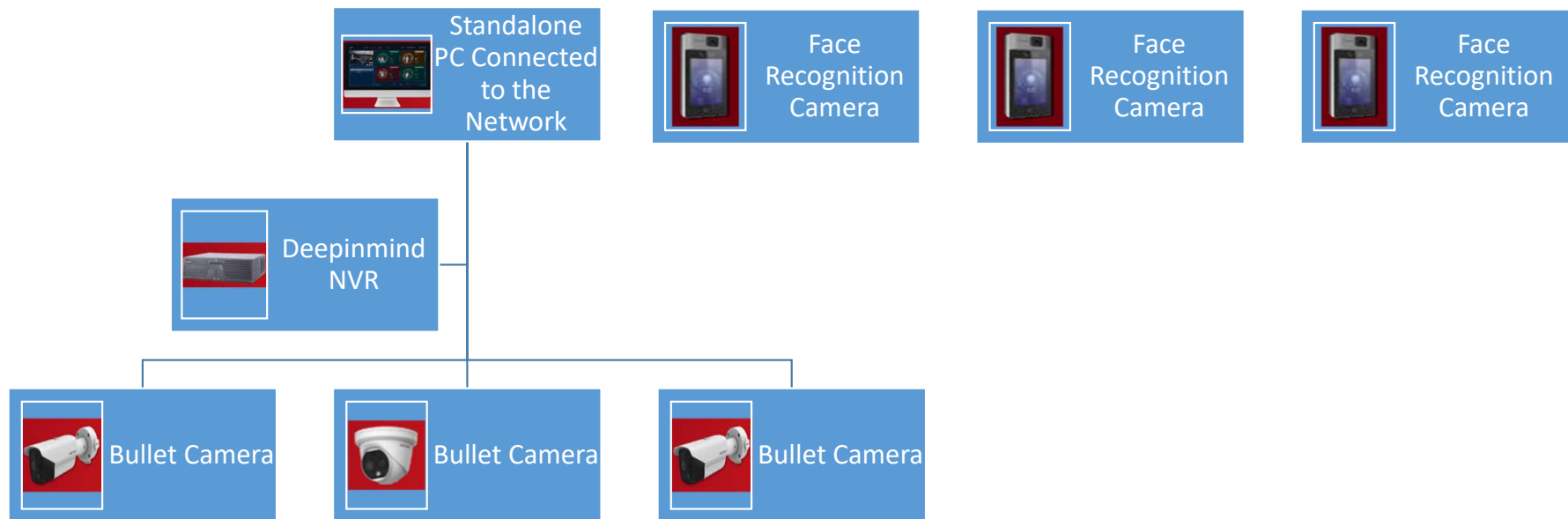
Health &  
Safety Systems



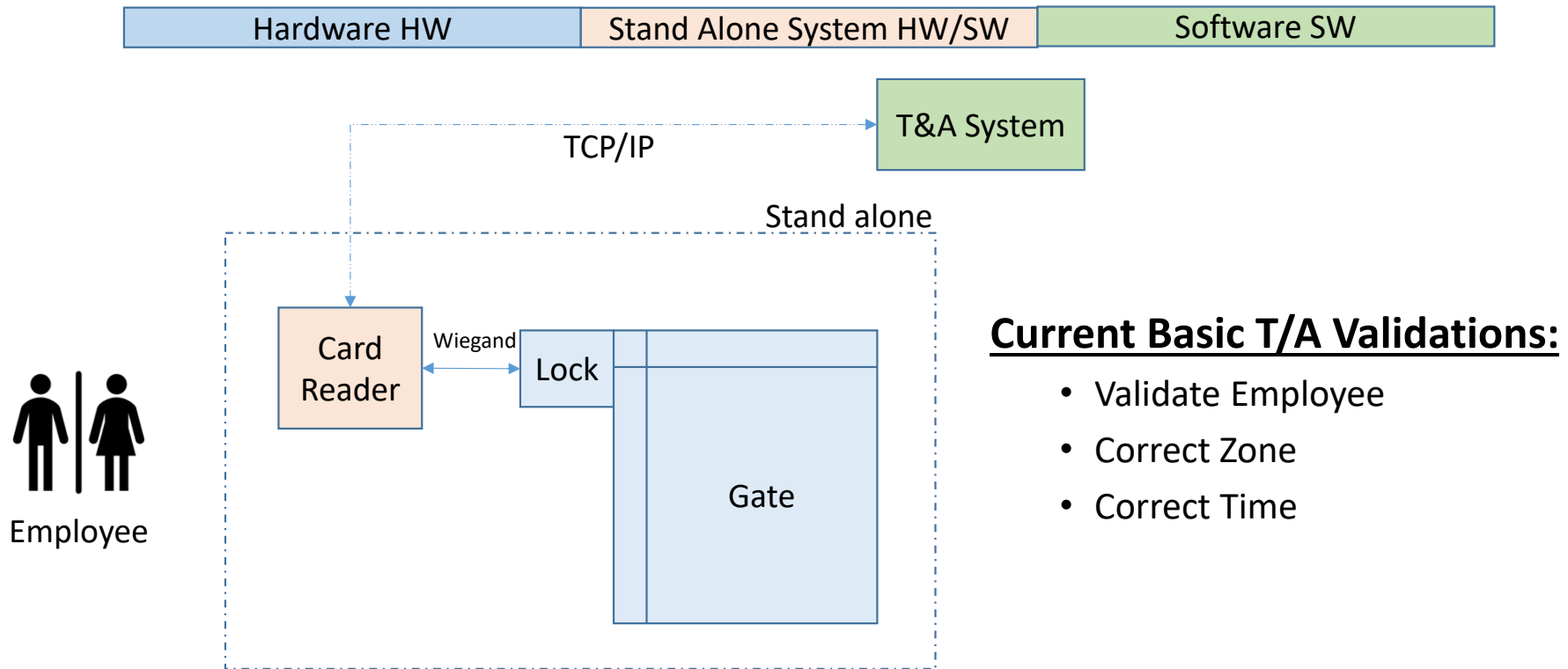
Survey System



Planning System



# Architecture – Current T&A



## Current Basic T/A Validations:

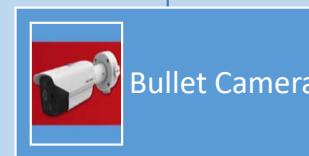
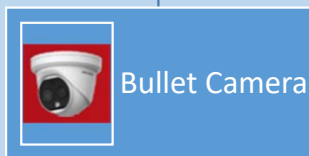
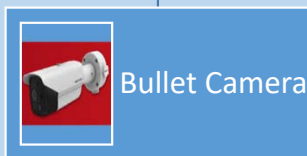
- Validate Employee
- Correct Zone
- Correct Time

# Architecture – Proposed Setup – HikCentral

## Central



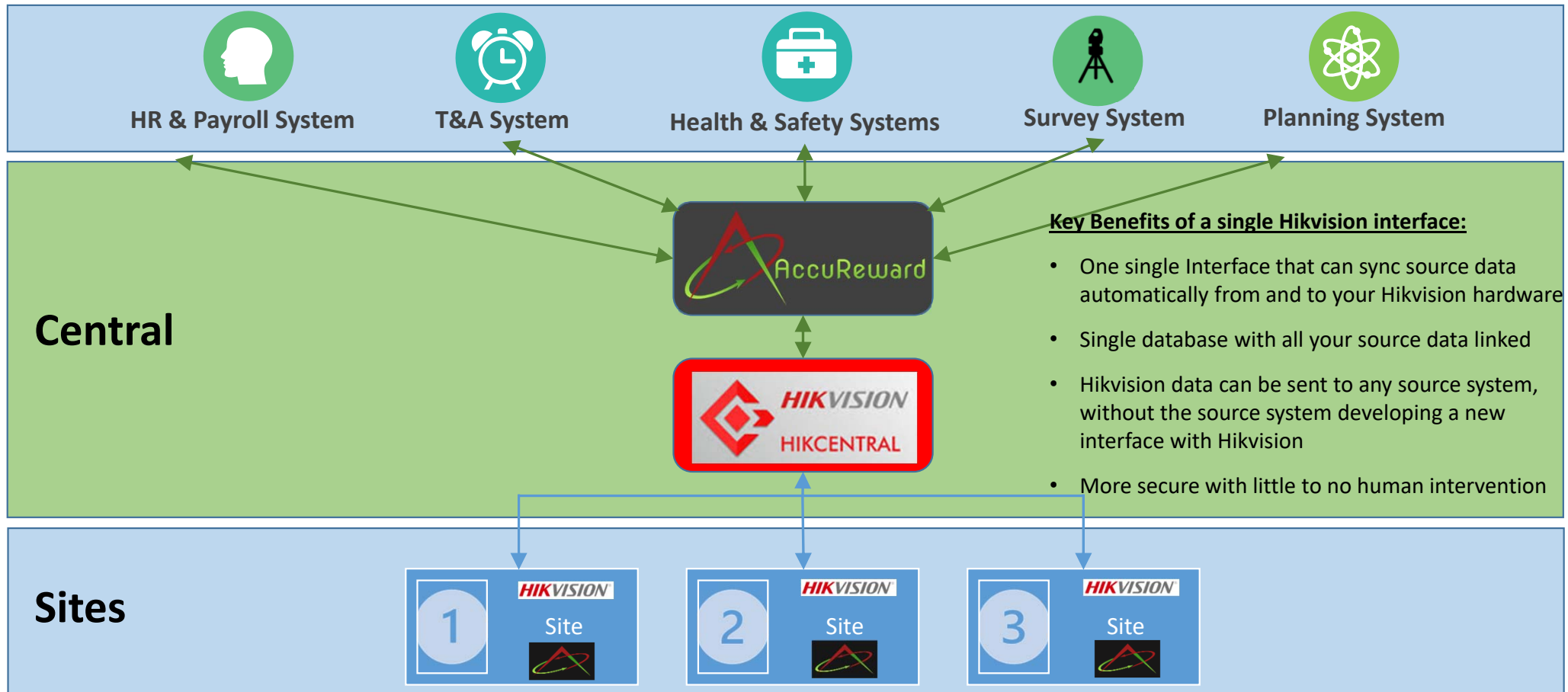
## Sites



### Key Benefits of HikCentral:

- HikCentral centralizes management and enhances efficiency to help customers maximize security data and implementation.
- Enables you to link multiple types of devices
- Automatically sync data to all or to a group of devices

# Architecture – Proposed Setup – Interface



# Health System Data Transfer

## Current Data available to transfer

- Send Actual Filtered Fever data to your Health System
  - Timeframe of transfer – Live feed or Period driven (*once a day or every hour – setup according to the need of the client*)
  - Company Number
  - Time of Scan
  - Area / Location where scanning took place
  - Actual Temperature Scanned
  - Mask Detection

## Pre-Health Check Questionnaire

- A person needs to complete a Pre-Health check questionnaire online via cellphone or computer – link to the portal will be supplied
- When the employee or visitor fails the questionnaire a notification will be sent to the T&A system to Block Access and the portal will notify the person that they will not be allowed. This information will be sent to your Health and Safety.
- Questions are customizable to suite your need, for example:
  - Have you had any signs or symptoms of a fever in the past 24 hours such as chills, sweats, felt "feverish"
  - Do you have any of the following symptoms?
    - Cough
    - Shortness of Breath or Chest Tightness
    - Sore Throat
    - Nasal Congestion/Runny Nose
    - Myalgia (Body Aches)
    - Loss of Taste and/or Smell
    - Diarrhea
    - Nausea
    - Vomiting
    - Fever/Chills/Sweats
  - Have you traveled internationally or outside of state in the last 14 days? Or, have you had any close contact in the last 14 days with someone with a diagnosis of COVID-19?

# Pre-Health Checks - Constraints

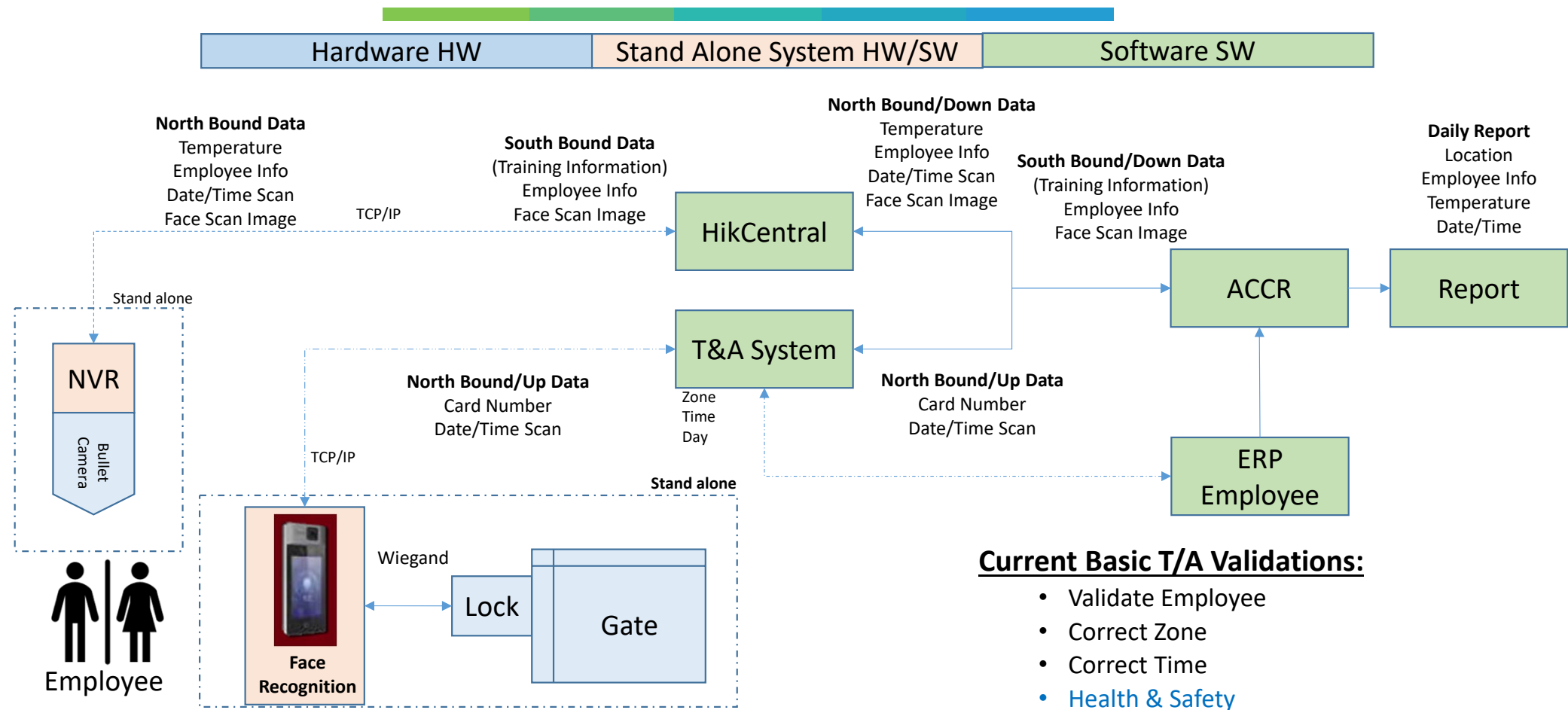
## Points to discuss on constraints with Pre-Health Checks

- Does everyone have access to a computer or a smartphone with data?
- What Languages do we need to cater for?
- What about the employees who cannot read or write?
- How often do you require the Pre-Health Checks?
- How long will it take to complete the questionnaire, bulk people at the shafts, when will they complete the questionnaire?
- Do you require the same questions every time for visitors and fulltime employees?

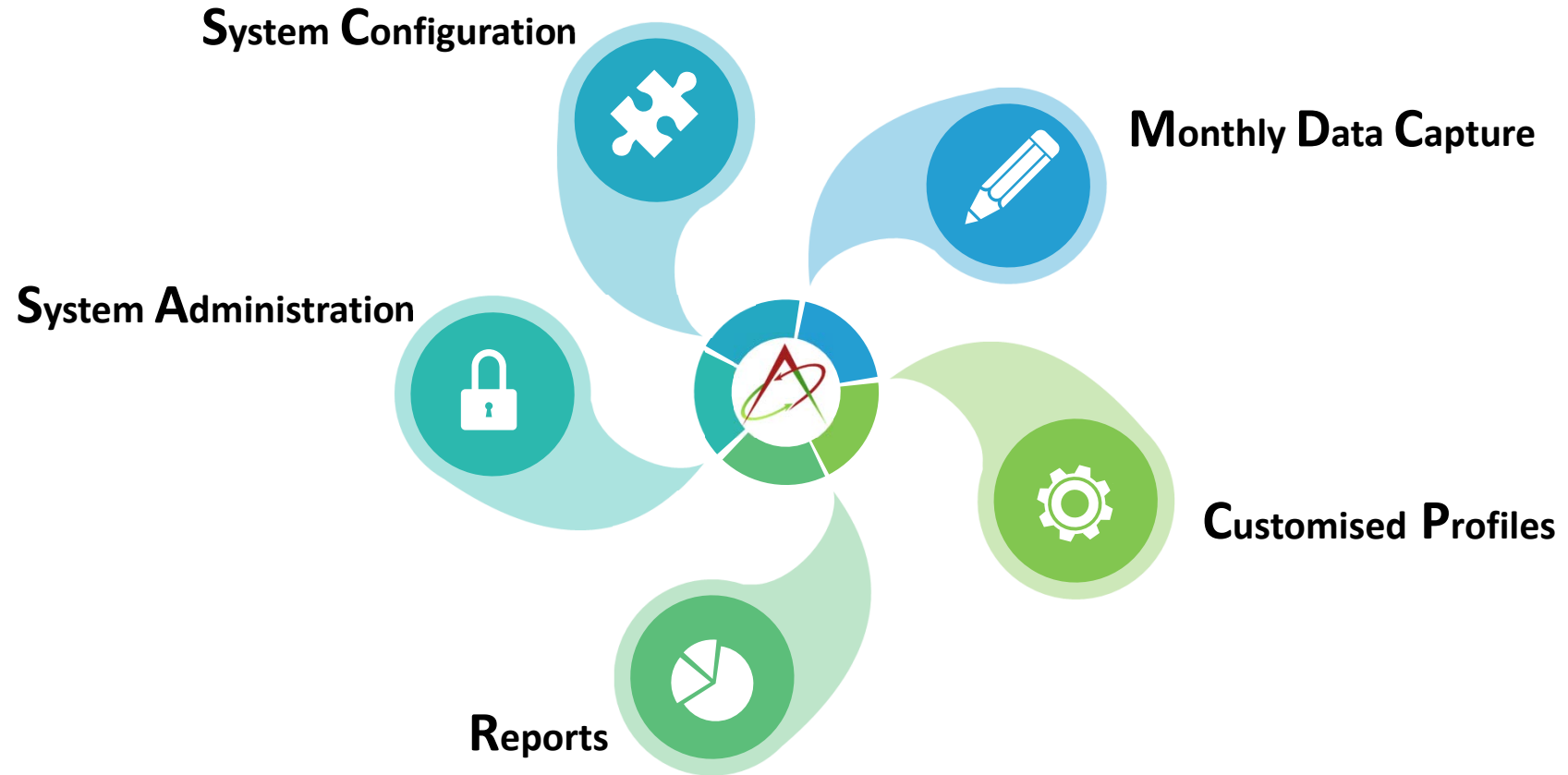


- Health & Safety

## Architecture – Face Recognition Terminal Phase (Optional)



# Architecture – ACCR Basic User Interface



# Architecture – User Interface



## System Administration

- Setup Password Policy according to Client's Standards
- Create and Maintain the various Active Sites
- Create and Maintain User Profiles per Site
- Create and Maintain Users



## System Configuration

- Setup Rules
- Global Settings
- Groups & Devices



## Monthly Data Capture

- Any Overrides
- Capture data that is not available in other source systems to keep data secure in SQL database with audit trails



## Customised Profiles

- Create Various Scanning Condition Profiles (e.g. Covid-19, Heat Exhaustion, Invalid Employees, etc.)



## Reports

- Admin
- Reconciliation
- Management

# Architecture – Database



*One single database for all your sites*

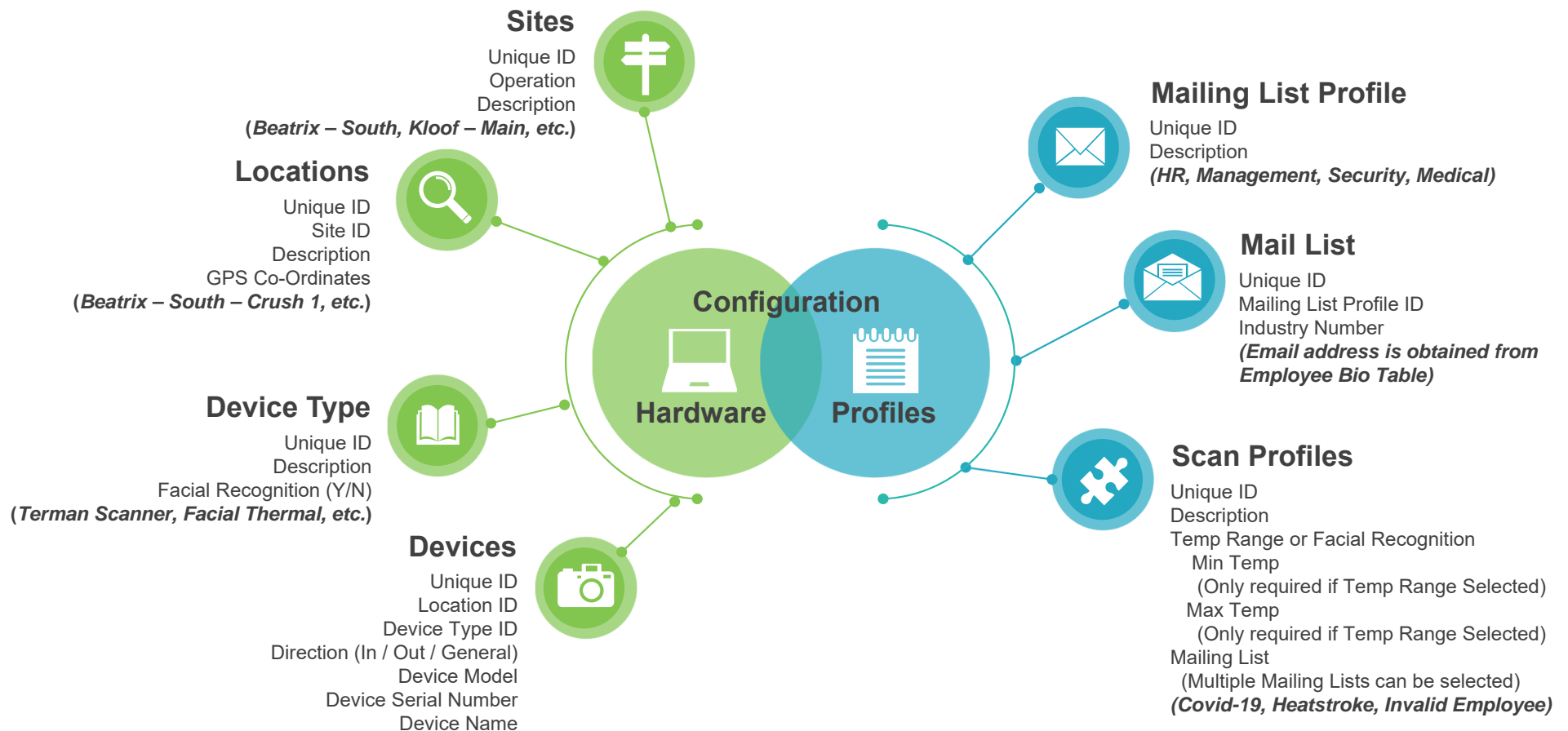
## Environments

- **Production (Live)**
  - NO Changes are done without the proper change requests and approvals
- **Development**
  - Duplicate Live every morning and use it to do daily support when users log a call, restricts working on live
- **Test Environment**
  - Duplicate when required for additional testing and large program changes

## Database Structures

- **Tables**
  - Store data
- **Views**
  - Display selected data from multiple tables that are used on a regular basis. For security purposes we also use views to encapsulate the name of tables when sharing data with other systems, therefore the data is then only virtual and cannot be changed
- **Store Procedures**
  - Used by the Importer services to import data from external systems and when we reuse code to generate or calculate combined results. We DO NOT USE store procedures to calculate any rand values for security reason and flexibility

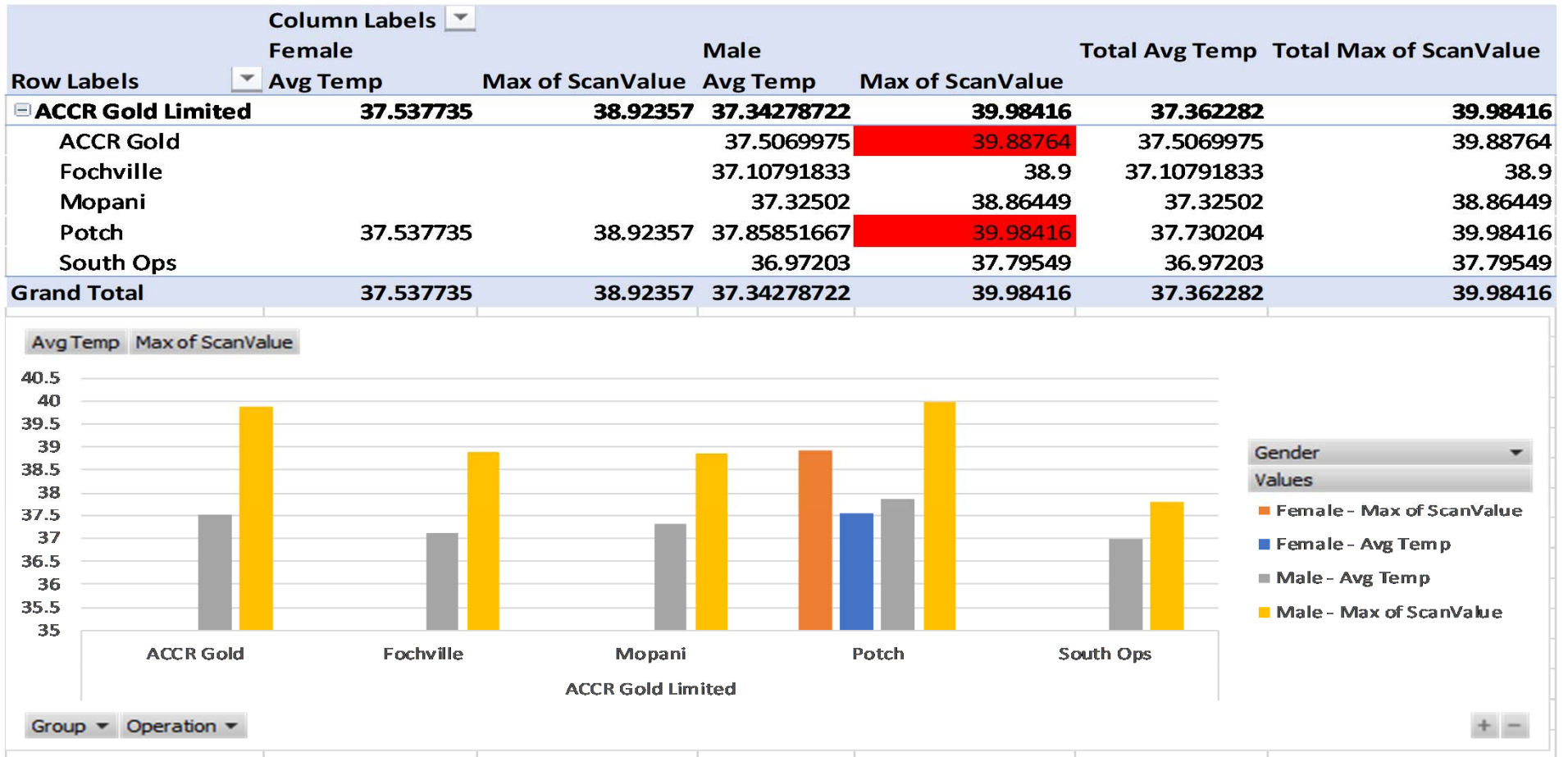
# Scanner – Basic User Interface



# Reporting - Dashboard



# Reporting - Data Analysis



# Summary

- Automatically upload employees from your Payroll system into HikCentral for facial recognition
- Send updated photo's to and from Hikvision & Payroll
- Single user interface to manage all your devices – HikCentral
- Single user interface (ACCR):
  - Transferring data to and from **ANY** Source Systems and HikCentral
  - Camera Status monitoring (Camera ON or OFF) - Send out email when camera is off-line
  - Fully Automated Machine-to-Machine communication
  - Single database with all Source data linked (act as a data warehouse)
  - Automatic Reporting via sms and email when exceptions are detected
  - Realtime Dashboard - view of scanned events
  - Fully customisable to meet all your needs



# Thank You

ACCR System

