

# Systems Architecture

# **Document Owner(s)**

Name	Project/Organisation Role	
Iain Prior	Systems Architect	

# **Document References**

Document	Description

# **Version Control**

Version	Status	Date	Author	Change Description
V1.0	Draft	2017-08-26	lain Prior	Document created

# **Overall Systems Architecture**

**Per Store IT Country-Wide IT** 

Overall reporting / analytics POS System

**Kiosk/Smart Tables** Marketing support & nationwide campaigns

Local Network / Country Link **Finance** 

Resilience Tracking and setting up shops

Websites – nationwide Supplier management

Ingredients Procurement Cross shop Customer support

Menu control Staff authentication & management

Staff management (HR/Payment etc) Call centre support Routing + tracking Social media support

Overall QC Customer detection system

Marketing support External APIs

Basic IT in shop – Wifi, Cabling etc Mobile App Support & Dev

**Finance POS** monitoring

In shop displays Training Complaints management Internal HR Support

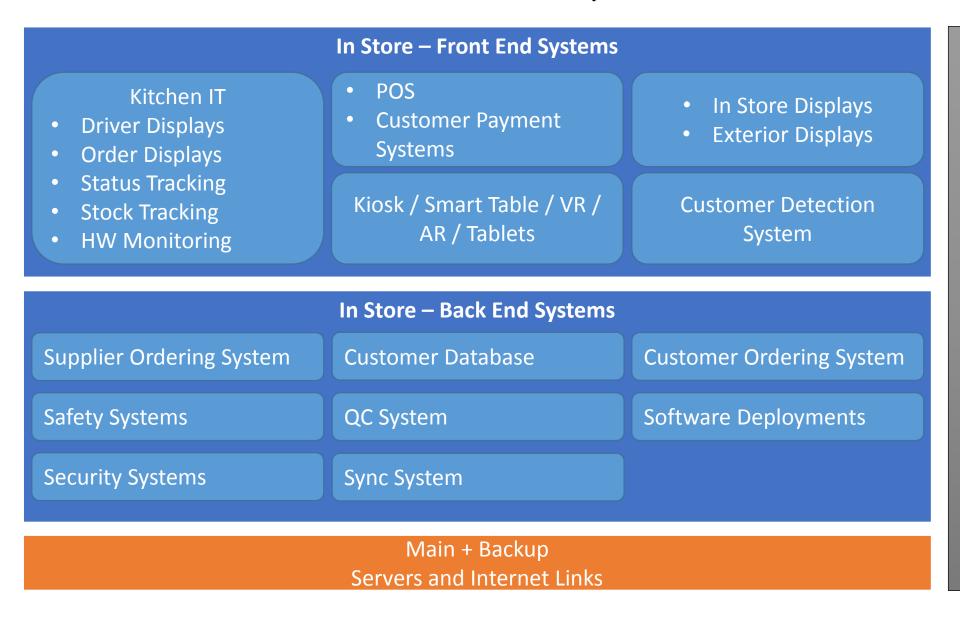
**Company Procedures & Policies Driver IT** 

Website Social media

**Training** 

QC

# **In-Store Systems Overview**



# **Central Provided Systems**

- HR Systems
- Marketing
- Web
- Menu Control
- Routing
- Finance
- Ordering System
- Complaint & Escalation System
- Tracking etc.
- Social Media

# **Central Systems Overview**

#### Internal

Finance Systems

**CRM System** 

HR System

#### **Internal Database**

**Customer Order System** 

**Customer DB** 

# Marketing

**Vouchers & Promotions** 

Social Media

- Management
- Links

Marketing Digital Assets

## **Customer Facing**

Websites

Mobile App

Call Centre

#### **OPS**

Supplier Order System

Routing & Tracking System

**Complaints Escalation System** 

Menu Control

Registered User Detection

**Notification Systems** 

Software Deployment

#### **External Interfaces**

Below the line

- Push Notifications
- SMS & Email

Payment Gateways

Store Sync

Live Tracking

Mobile App

**Driver App** 

**External Ordering API** 

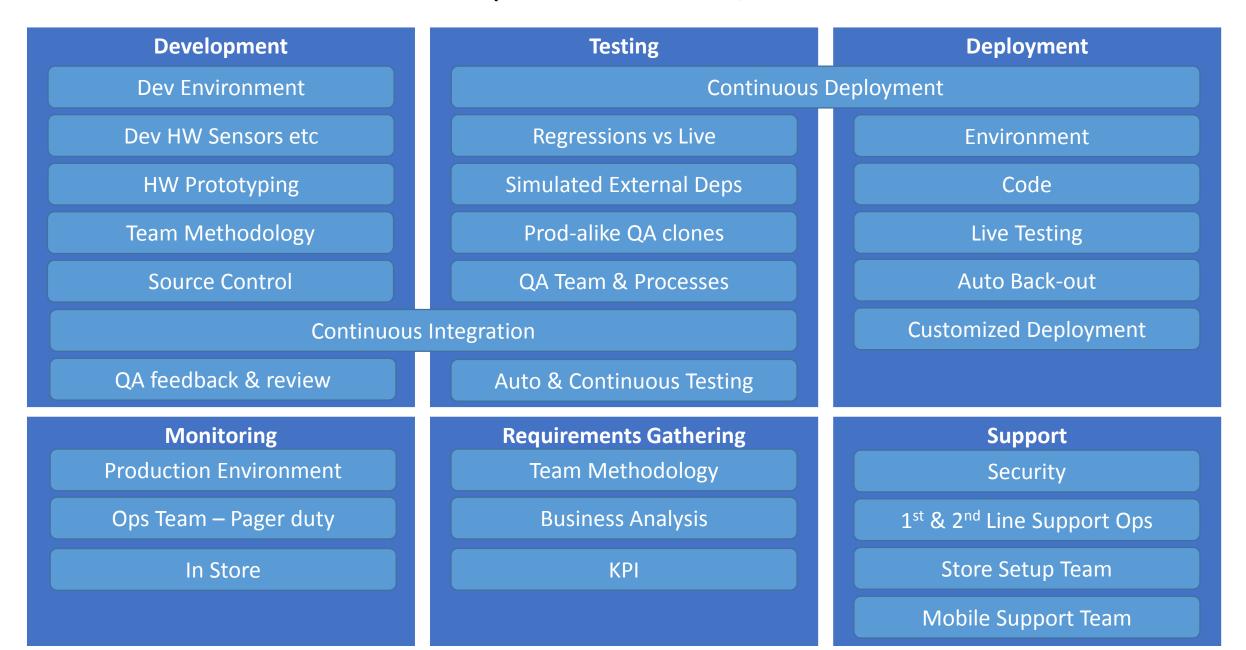
# Reporting

MIS

KPI's

Analytics & Data Science

# DevOps IT Infrastructure / Process



# Feature Ideas – Mobile

## **Customer App**

#### Place Order

Repeat Previous Order

#### **Preferences**

- Banned ingredients
- Allergies
- Intolerances

#### Track

- order status
- driver + pizza temperature

Multiple people using same phone

Push notifications + SMS

#### Payment

- multi channel bitcoin etc
- register card

Selfie with pizza – free publicity

Bring pizza to me – GPS of customer

Scan QR code on pizza box

Order and collect at store

## **Driver App**

## Smart routing

- display route
- reroute for traffic
- reroute for accidents
- geofencing

Sorry I'm running late

- customer commucation
- ops (perhaps resend)

Track pizza vitals & driver location

Bluetooth temp sensor in casing

**QR Code Scanning** 

- Ensure correct pizza to the customer
- QR code on pizza box

# Feature Ideas – In-Store

## **POS System**

Standard POS System

Phone # pickup

Customer preferences callup

Face detection -> registered user detection

Payment – Card, cash, bitcoin, Ethereum etc.

NFC phone swipe payment

# **Kitchen Systems**

Oven etc HW monitoring

incl. Health and safety systems (fire)

Overhead screens

- Courier locations, routing plans
- Current orders
- Stock levels

Supplies procurement

- Stock in/out
- One click ordering

**Quality Control** 

- Inspections / Measure / Control
- Complaint register

#### **Customer Area**

Registered User Detection

- Phone (app)
- NFC
- Button / Screen
- Facial Recognition

Smart Table/Kiosk

- Phone on table
- Build your pizza
- Register
- Repeat orders

Food is ready buzzer, push etc.

Automated food delivery (Sushi bar)

# Feature Ideas – Head Office

#### **Call Centre**

CRM

Complaints register linked to store

Social media tools – Buffer etc

Order management tools linked

## **Customer Website(s)**

Central website

Find a store

Some customization per store

Order management, create

Register

Preference management

Complaints

Payment

Advertising

How to

Get the app

About us (per store)

## **Intranet Website & Systems**

Marketing machine – SMS & Push & opt out

Store analytics presented to management (+store)

Live KPI tracking

Finance systems

POS management

HR systems

- Leave
- new staff

Promotion systems

store can set up vouchers, promotions

Driver management

Set up geofences, routes, areas to avoid etc.

Menu control

**CRM** access

External API access – Zomato etc

# **Next Level Ideas**

Drone delivery

3d Pizza printing

Upload a picture and get pizza in that shape

Al pizza suggestion engine – use past behaviour and liked ingredients etc.

Pizza Coin (altcoin ICO etc)

Pizza ATM

PaaS – become the back end to other pizza shops

The awesome pizza making table thing from the ads

VR / Augmented reality for staff and customers

Smart watches for staff