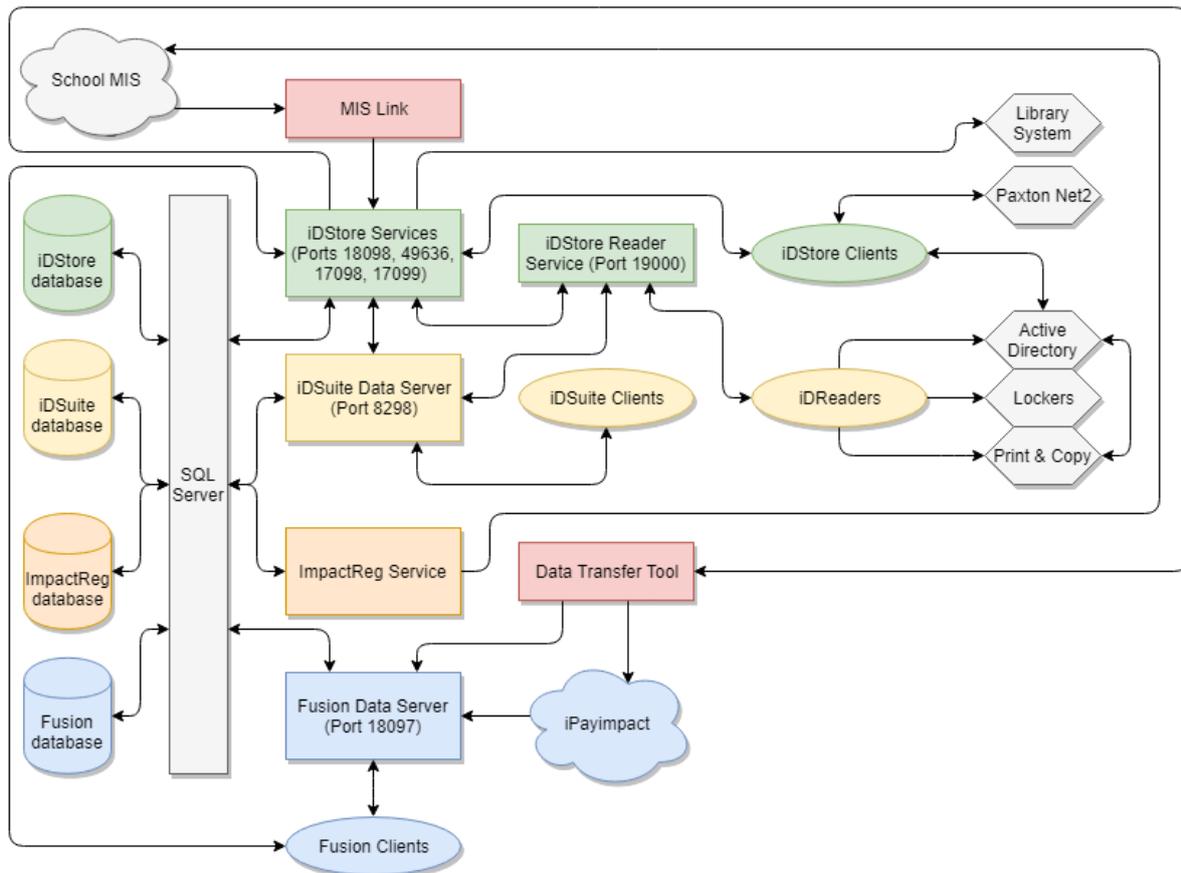# CRB Cunninghams System Overview

With Fusion

Purpose

The purpose of this document is to provide an overview of how a typical CRB Cunninghams system is installed.

Please note: Due to individual system/site requirements, your installation may differ slightly.

Topology

The topology below details how a system with all our components fit together.

iDStore

Although it may not be immediately obvious from the topology, iDStore is integral to our system. It is the central hub through which all our other applications link through. Via the MIS Link, it stores students and staff member accounts and allows for biometrics, cards and PINs to be registered to them. This information is made available to other applications – including 3rd party applications such as Library systems and Paxton's Net2 door access software – for the purpose of identifying and authorising the user account in that system.

Services

iDStore Data Server *(TCP port 18098 & 49636)*	This service makes the data held in the iDStore database, available to all iDStore client software and to the applications that require it.
iDStore Import Service	This service is responsible for retrieving the exported .csv file from the MIS Link and importing the data into iDStore.

iDStore Primary Server *(TCP port 17099)*	This service is used by iDStore clients when capturing biometric enrolment for users. After receiving the image from the scanner, it converts it to an iDStore template and stores it in the database against the user.
iDStore Secondary Server *(TCP port 17098)*	This service makes the biometric templates available to other applications. For example, when a user puts their finger on the scanner at a till, the image is sent to the secondary server which compares the image against the templates stored in the database to find the correct user account.
iDStore Reader Partner Service *(TCP port 19000)*	The final iDStore service is only required if you have iDReaders in use. This service allows the iDReaders to connect to iDStore.

Fusion

Fusion is the name of our latest cashless catering system. User data is inserted into its database via the Data Transfer Tool, which retrieves this data directly from iDStore. This automated process ensures that Fusion stays up-to-date with the data stored in iDStore. The Data Transfer Tool also exports user data to our online payments system, iPayimpact. This allows parents/guardians to pay online to top up their child's Fusion account.

Services

Impact Fusion Data Server *(TCP port 18097)*	This service makes the data held in the Fusion database, available to all clients (Revaluation machines, Point of Sale, Back Office etc.). It also has an API which is accessible to approved 3rd parties.
CRB Cunninghams Schedule Service *(TCP port 19001)*	This service performs the automated tasks that Fusion requires, such as the automated link to iDStore, database backups and online top-up retrieval.

iDSuite

iDSuite provides a hub for our additional modules such as electronic registration and password reset. iDSuite retrieves user data directly from iDStore and makes it available to the licensed modules. Users will interact with iDSuite via iDReaders.

Services

Impact iDSuite Server *(TCP port 8298)*	This service makes the data held in the iDSuite database available to the iDSuite clients and the iDStore Reader Partner Service.

Impact Reg

Lastly, Impact Reg allows attendance marks recorded in iDSuite, to be written-back into a compatible MIS. It also retrieves user timetable information so that iDSuite knows when a user is on-time or late.

Services

Impact Reg Service	This service retrieves user timetable information from this MIS daily, and uploads attendance marks that are stored in the Impact Reg database.

Data flow

The below diagram is intended to display how user data flows through our system. This is useful in troubleshooting any issues with users not appearing (or being updated) in a part of the system. For example, if they have been added into the MIS but are not showing in iDStore, then this suggests that the issue lies with the MIS Link.