



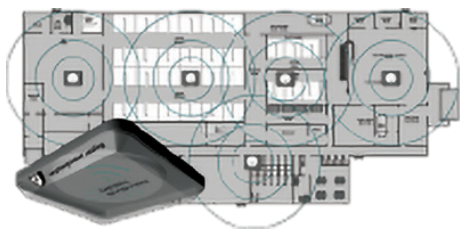
Getting the hatchery connected

Technological developments in recent years have afforded many the opportunity to have an internet connection at their fingertips, practically at all times.

The rise of Wi-Fi, voice activated technology and other interactive advancements have allowed for convenience in daily life, but have not progressed into all areas of the hatchery. Most hatcheries have an internet connection, but it tends to be limited to the office area with a direct wired connection to the incubators.

Mesh Wi-Fi systems:

Because of their design, many hatcheries act like a Faraday cage (an enclosure that actively blocks electromagnetic fields) by blocking the penetration of wireless signals. The introduction of Mesh Wi-Fi with individual, yet connected nodes, allows for a total coverage of the hatchery, opening up new possibilities.



Sensors:

There are a plethora of wireless temperature and humidity sensors that can be used as independent monitoring systems within the hatchery. Many of these sensors have the added bonus that they are battery powered, and can be precisely placed.

As an example, instead of monitoring temperature high on the wall, sensors can be placed inside chick boxes to get as close as possible to chicks, and to be alerted immediately if there is a developing situation.

Cameras:

Wi-Fi connected cameras have become very affordable. A simple camera placed in the Chick Holding Room allows remote monitoring, and by listening in, can also identify chick calls during holding. The cameras also come with software that can be configured to alert when movement occurs in specific areas, which is useful for security purposes.

Quick response (QR) codes:

QR codes are a two-dimensional barcode that, when viewed by a mobile phone, tablet or AR glasses, link directly to a site on the internet that houses a document or video describing how to perform a certain task, such as break out investigations or troubleshooting issues. An increasing number of QR codes will connect to the company's support team; this an important resource when needing to repair, replace or re-order a replacement part.

Remote assistance/ viewing:

Having eyes-on viewing into an operation is a huge advantage. This can be used internally in the hatchery to allow Production Managers to see chick quality on the hatch day, as well as externally for auditing and support from equipment suppliers, or by specialists and veterinarians to quickly identify and rectify issues. Remote assistance/viewing not only reduces biosecurity risks by bringing fewer people into your operation, but also increases the speed of actions and resolutions (reducing losses), as well as a reduction of carbon footprint.