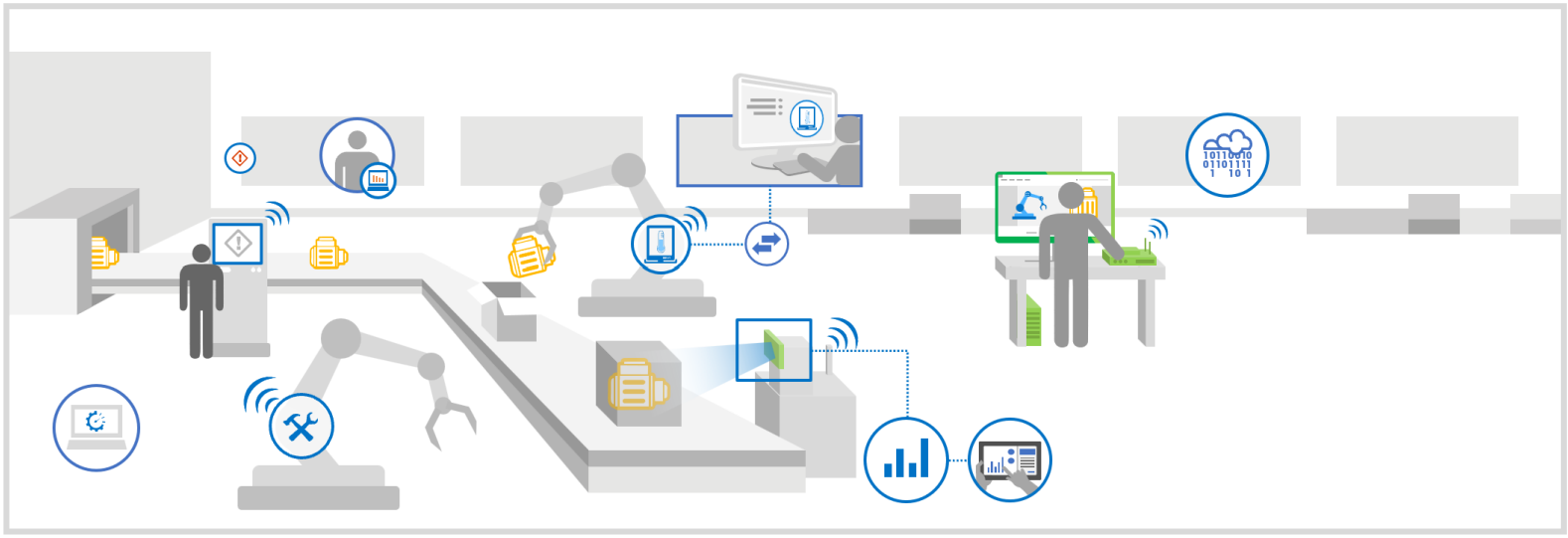


VISUAL INSPECTIONS FACTORY FLOOR

MANUFACTURING

Microsoft

Azure IoT Central

Learn by Doing — Innovative — Security — App ready to plug in

PROBLEM STATEMENT

In the modern manufacturing process, assembly lines and the product would go through several developments, efficiency, and quality checkpoints before a product leaves the manufacturing floor. As the technology evolved over the years, visual inspections are a great way to analyze during the product development cycle at the point of assembly while its production and avoid defective products by reducing assembly downtime and interruption. These steps can impact overall product ROI by increasing factory efficiency, on-time product delivery, real-time inventory control, and customer satisfaction.

CHALLENGES

SKILLS

Lack of skills across many areas during this type of innovation has been a huge barrier, accelerating teams with POCs has to be easier to bring multiple teams together.

CAMERAS LENSES

Lack of SMEs to identify the right lenses, cpus/gpus or lighting has been an struggle, we need a partner in this area to accelerate time to value.

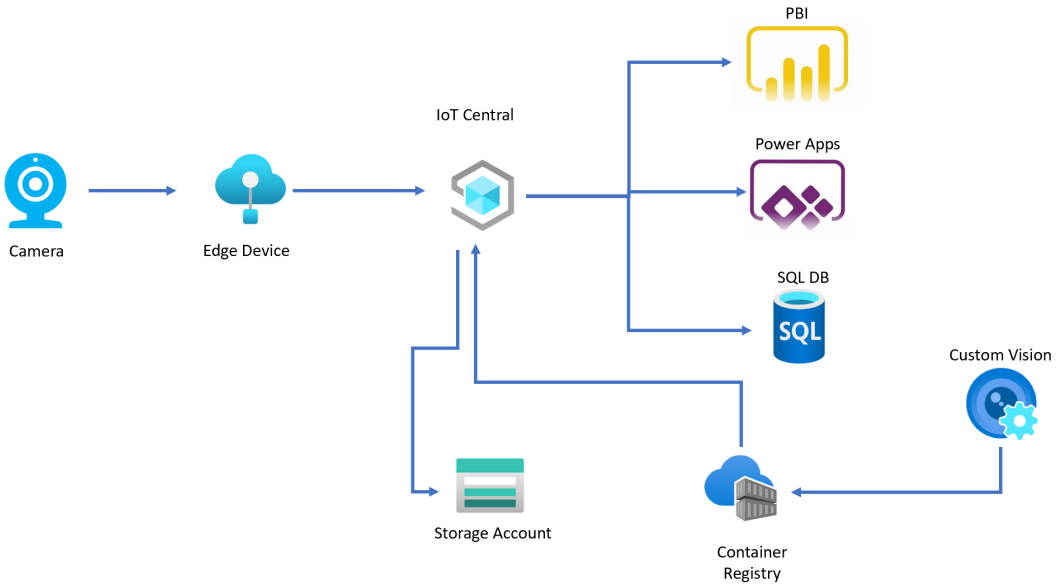
NETWORKS

Solution needs to be able to run in factory floors compliance with ISO/95 or enabling private networks.

TEST THE CONCEPT

Testing the concept has been complicated, time consuming with little success in a well defined scenario where we have all the technologies available

ARCHITECTURE



1 Select use case

2 Take Pictures, tag and export.

3 Change the Keys

4 Visual Inspections Alerts flowing!

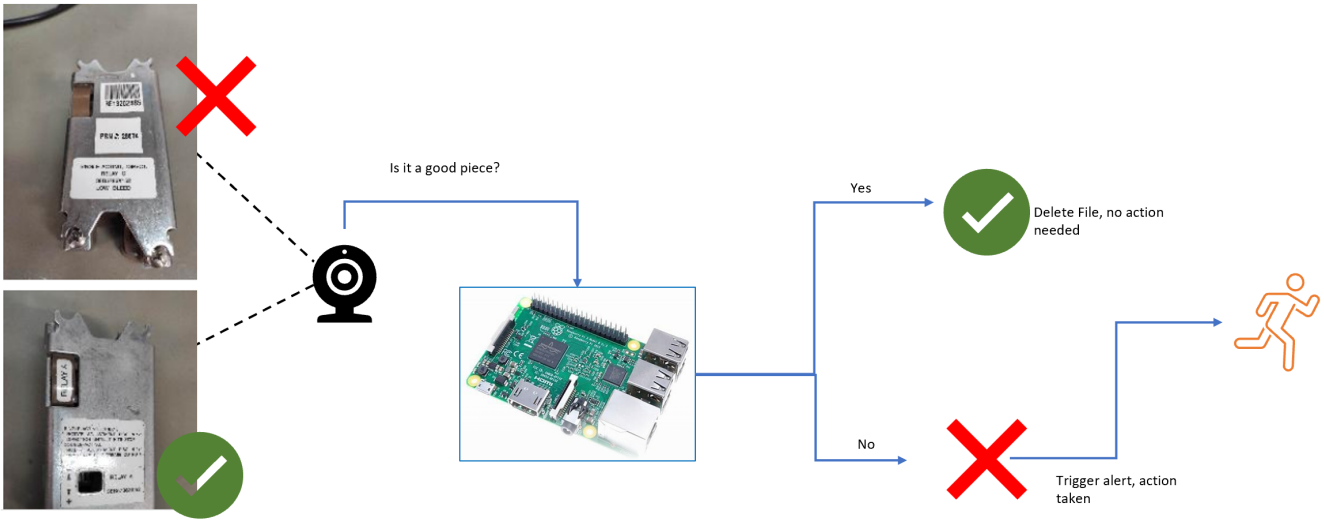
THE SOLUTION

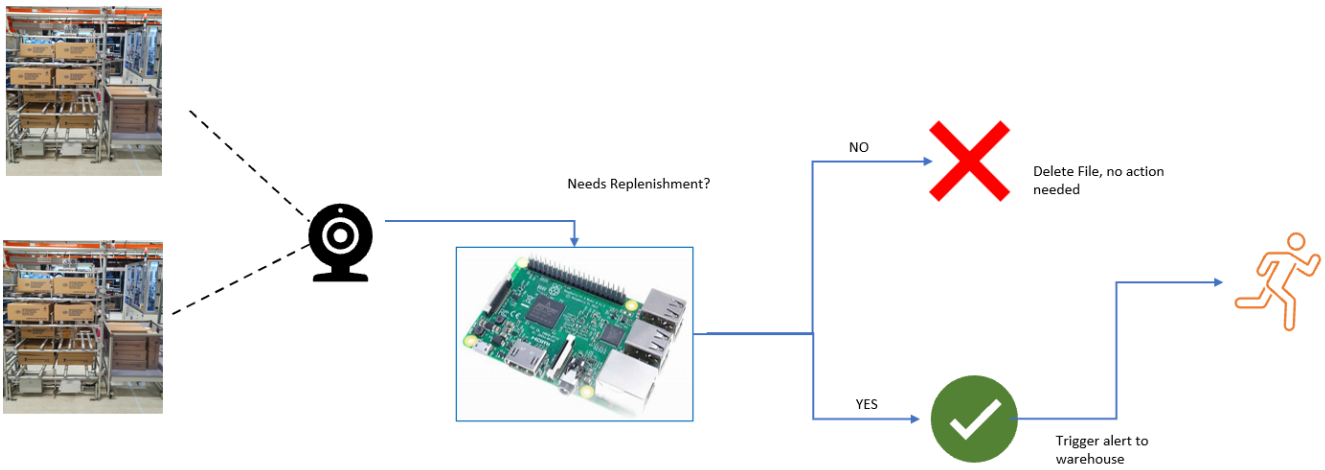
This solution allows you to change the machine learning models and your environment keys very quickly, quickly enables validating business scenarios using cameras. Enables customers with hands on skills, learn by doing. You can plug in a Custom Vision, object detection model or a more sophisticated model using TensorFlow. Connectivity to IoT Central or IoT Hub. The beauty of using IoT Central will enable customers a solution which is production ready including: security, alerts, data analysis in minutes, no developer skills required.

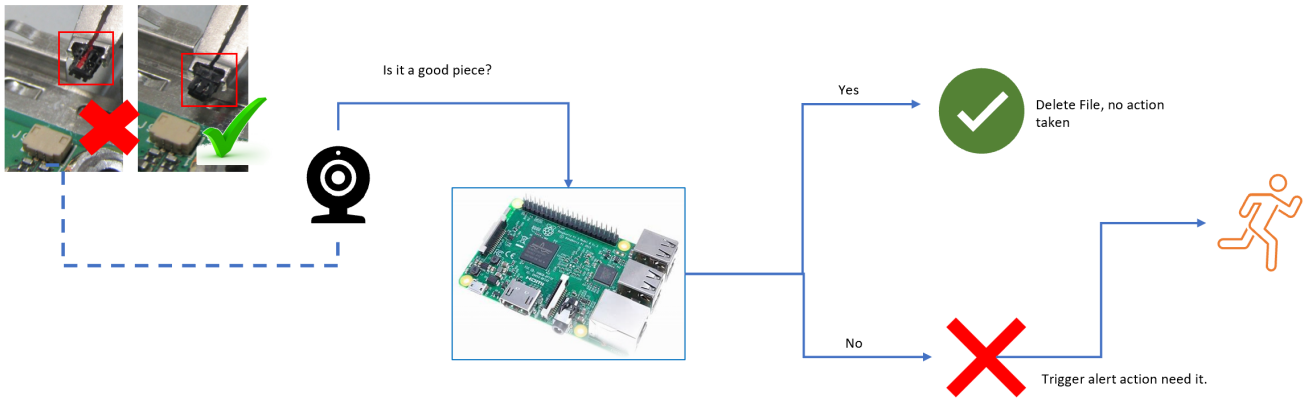
SOLUTION

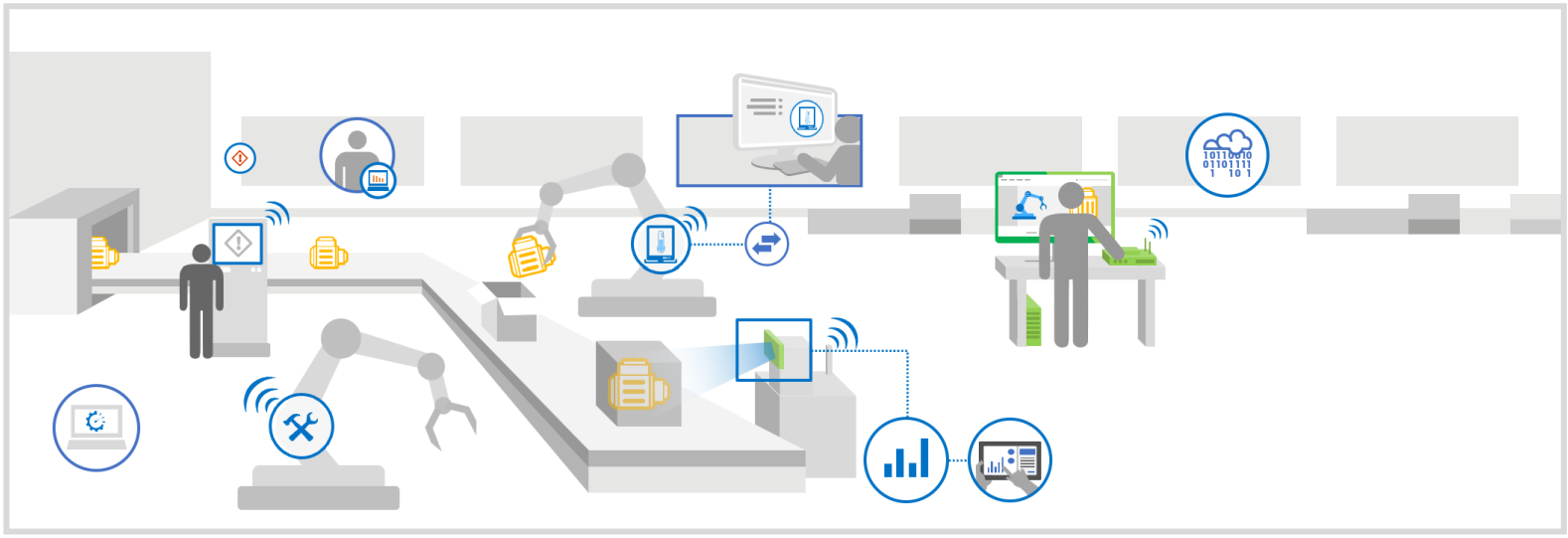
1. Identify Scenario
2. Download Solution
3. Take pictures, tag them, export your model
4. follow the step to plug in the keys for your environment and your business case
5. If you need a camera with different resolution or mounting unit or different CPU, connect with partner (The Imaging Source) they will analyze the lenses you need and ship you a kit ready to plug in, following the same instructions

SAMPLE SCENARIO FOR VISUAL INSPECTION WORKSHOP









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Visual Inspection Workshop - Technologies