

Smart Spaces Accelerator

Optimizing energy use is critical to reducing waste and costs

Facilities managers need to innovate for more agile and accurate energy operations



Inefficient energy use is common and costly

- **30% of energy is wasted** every year in US commercial buildings.¹
- **67% of energy consumed** by a commercial building is used to **provide lighting, ventilation, heating, and cooling** changing the waste of this energy can have massive effect on efficiency and sustainability.²



New technologies can enable smarter energy use

- **90% of facility managers** expect to see connected systems improving **smart, productive, and profitable operations** while delivering **better value and sustainability**.³
- **27 billion IoT connections** are expected to be active worldwide by 2025.⁴

¹ [Reducing Energy Consumption in Commercial Buildings | Mid-Atlantic Controls, September 2022](#)

² [How to Make a Commercial Building More Energy Efficient | Our Endangered World, September 2022](#)

³ [Survey: Facilities managers look to IoT for building performance boost | Internet of Business, current](#)

⁴ [State of IoT 2022: Number of connected IoT devices growing 18% to 14.4 billion globally | IoT Analytics, May 2022](#)

Challenges to more efficient energy management

Siloed data prevents facilities managers from responding quickly and proactively



Operational inefficiencies can be challenging to pinpoint, leading to excess energy use and unnecessary costs.



Siloed data prevents integration of internal and external data streams for rich analytics and insights.

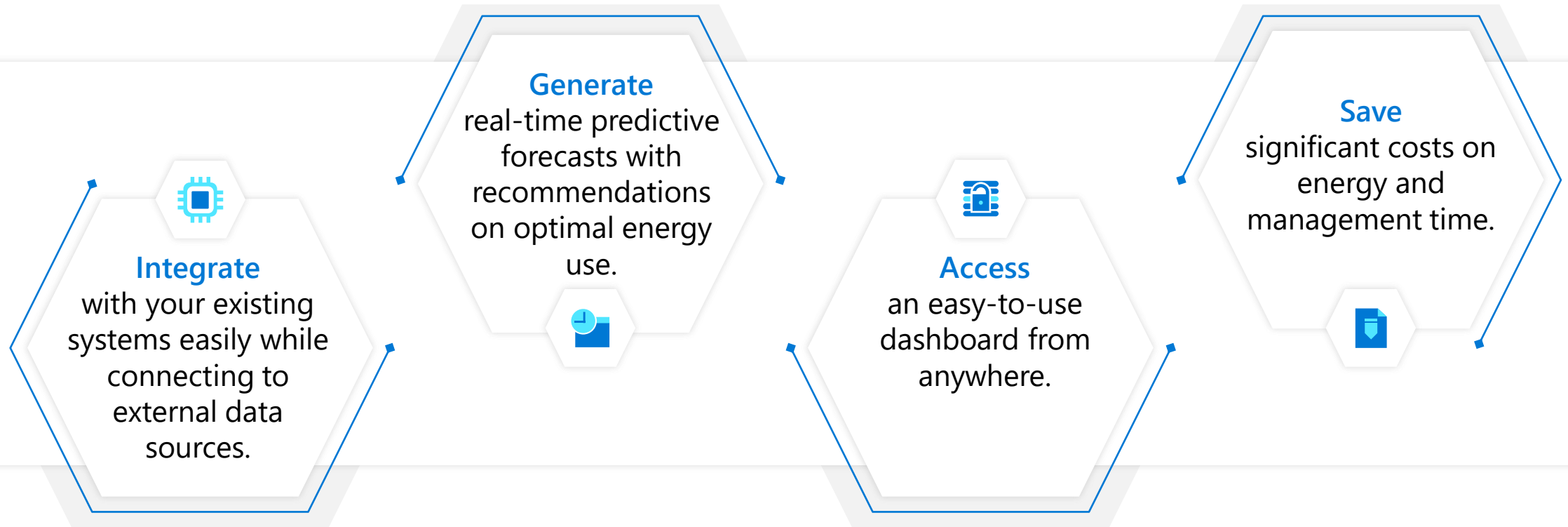


Lack of fast and accurate forecasts makes it difficult to effectively predict energy needs.



A mobile application is needed so facilities managers can work from anywhere.

Organizations want data-driven energy conservation



Transform your facility with smart energy management

Predictive insights help facilities managers optimize HVAC energy use

The **Smart Spaces Accelerator** increases the power of your existing **Building Management System (BMS)** by using Azure Data Factory and Stream Analytics for data integration and machine learning to make increasingly accurate predictions. Additionally, Power BI delivers insights and recommendations in a visual dashboard that is easy to use on the go.



Bring **all relevant data streams together** including historical energy use, weather patterns, and weather forecasting.



Gain **increasingly accurate model predictions** for setpoint recommendations.

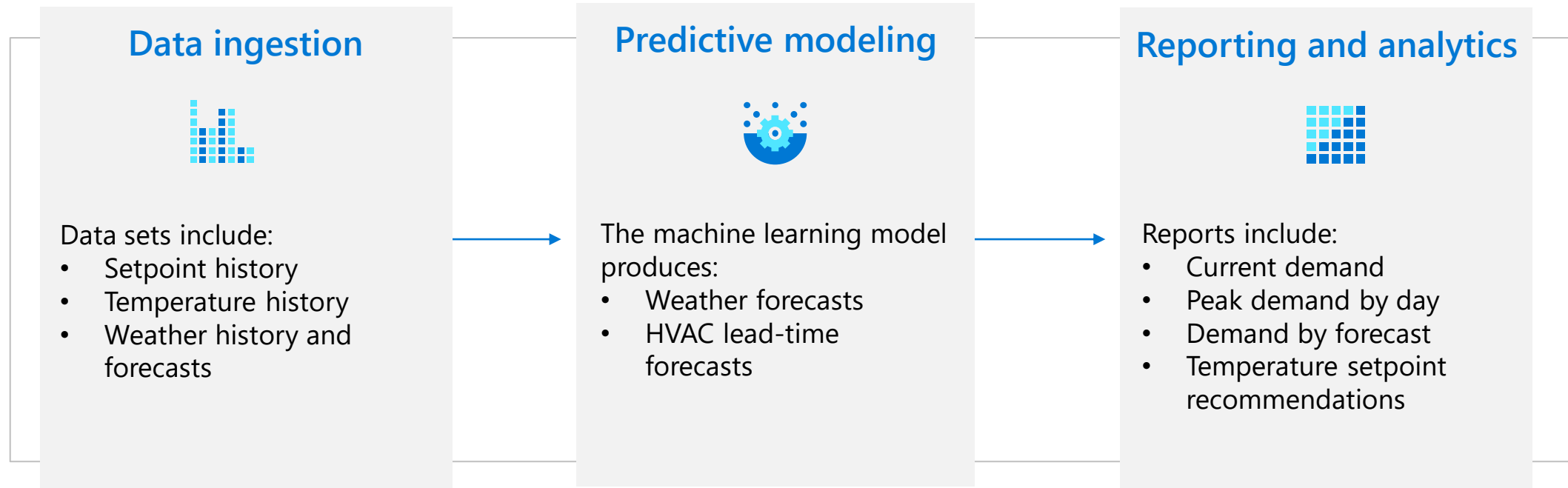


Leverage **interactive desktop and mobile dashboards** so your team can manage adjustments easily in any situation.



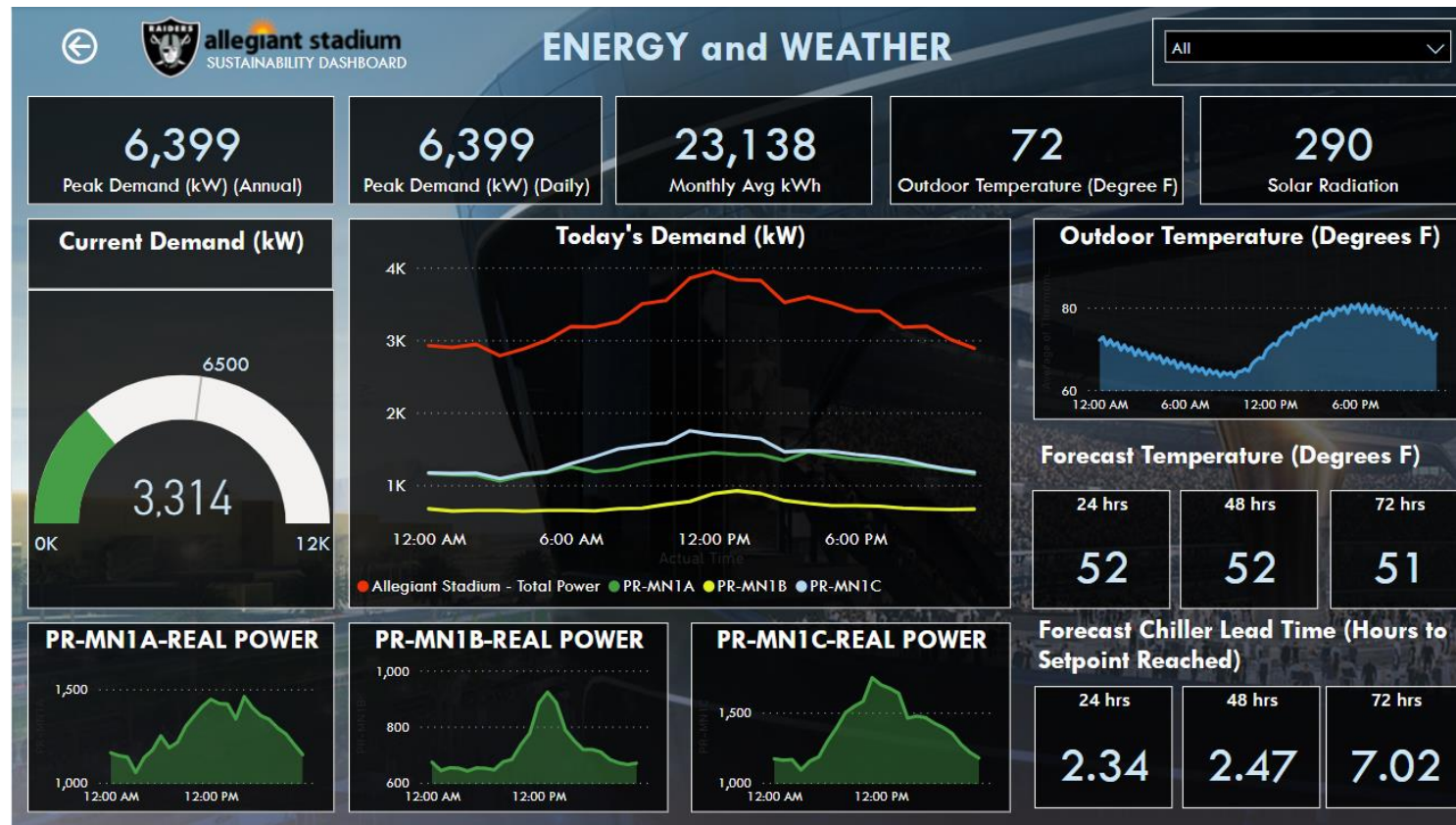
Easily launch an **accelerator simulation** using pre-configured Microsoft IP for proof of value.

Get actionable reporting and analytics in real time

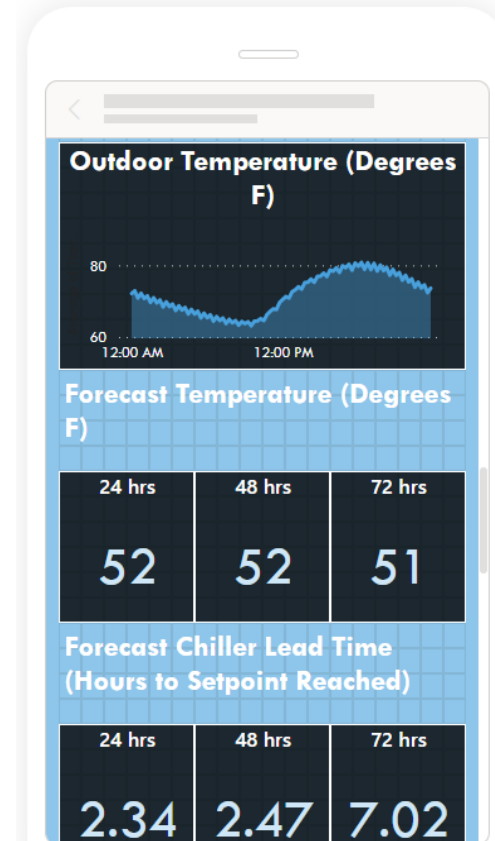


Visual, interactive dashboard in desktop and mobile

Get insights on energy use, energy demand forecasts, HVAC system settings, and more



Desktop



Mobile

Allegiant Stadium scores in energy savings

Situation



Allegiant Stadium, home to the Las Vegas Raiders football team, was cooling the stadium too much and for too long before games—often **running their HVAC at full blast for 48 hours before opening their doors**. Facilities managers had to work from a desktop application to view data on their systems, restricting their mobility.

Solution



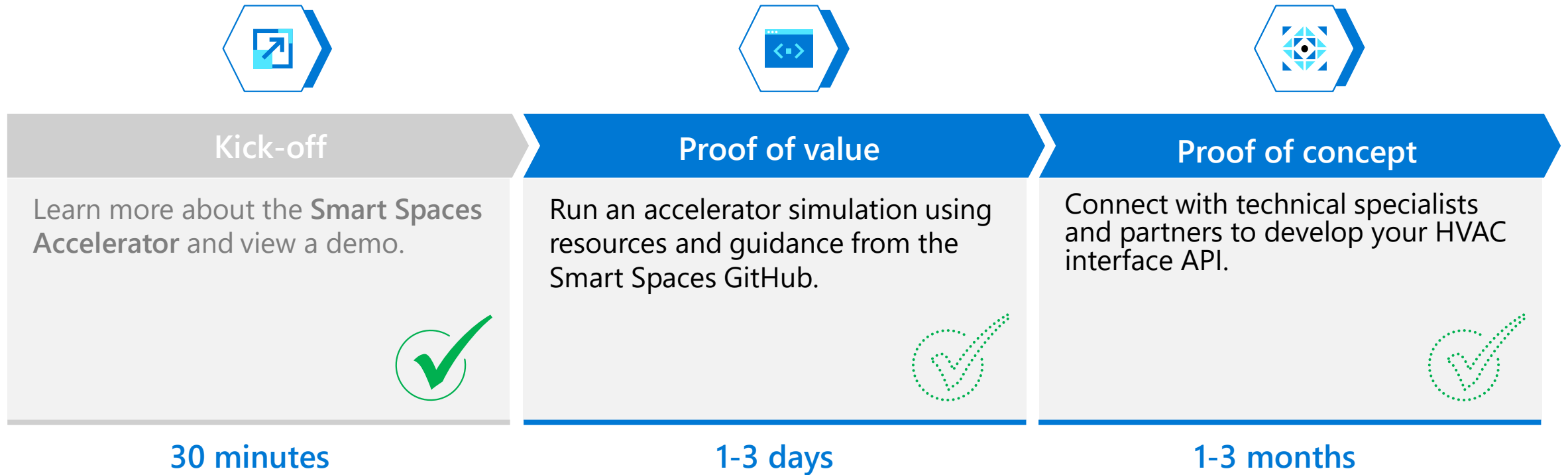
The stadium deployed the Smart Spaces Accelerator to integrate its internal and external data streams to better **understand energy use and gain accurate forecasting**. Data and insights are now available on **mobile as well as desktop** in a visual dashboard, so workers can make real-time adjustments from anywhere.

Impact

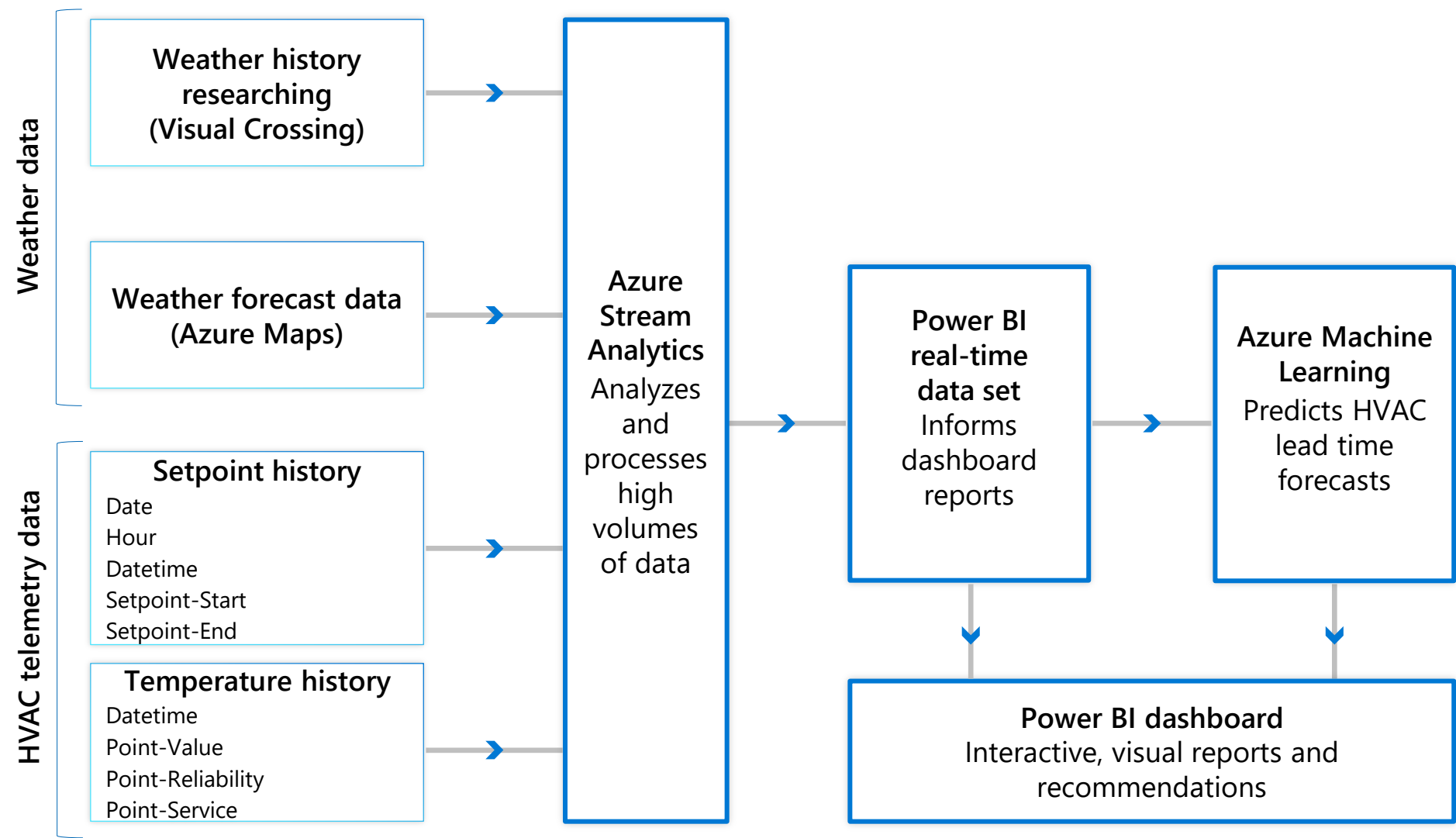


The stadium is now saving energy and operating its HVAC with greater efficiency. Facilities managers can **quickly respond to changes in forecasts based on real-time data**, reducing energy use and related costs.

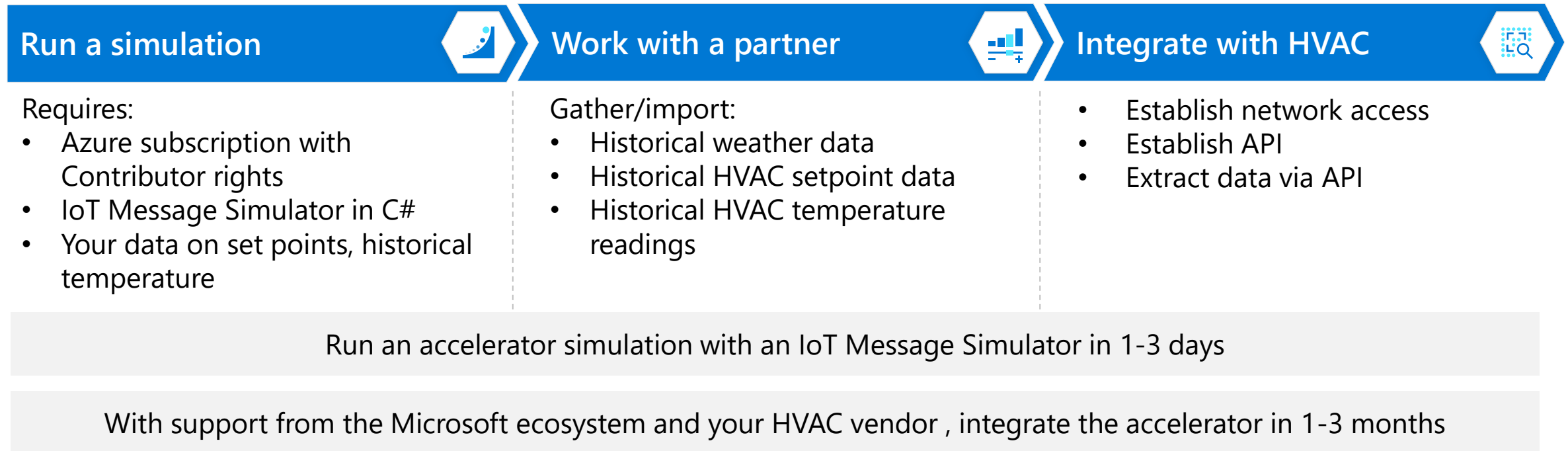
Accelerate your journey



Reference architecture



Take the next steps to proof of concept



Thank you