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# BACnet Integrations

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## Harry Kohal

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Harry has 17 years of experience in the EAM/CMMS solution design and support. He joined TMA with the acquisition of Eagle Technology in September 2022.





## Wasique Ahmad

Head of Engineering, Eagle

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Wasique has 15 years of experience in the EAM/CMMS solution design, development and support. He joined TMA with the acquisition of Eagle Technology in September 2022.



# Agenda

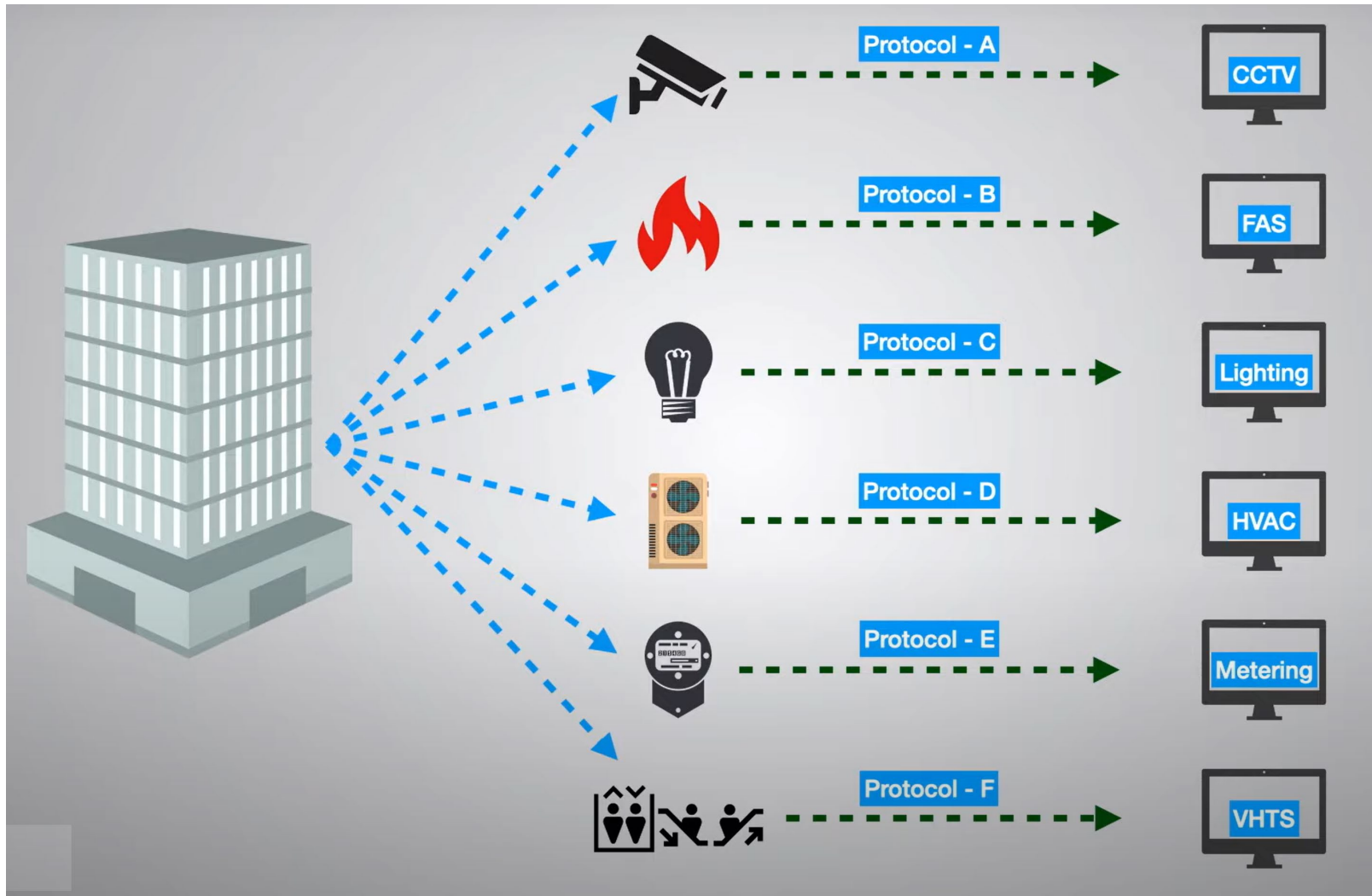
1. What is BACnet?
2. BACnet Benefits
3. BACnet Applications
4. How it works
5. BACnet with WebTMA
6. Future of Smart Buildings

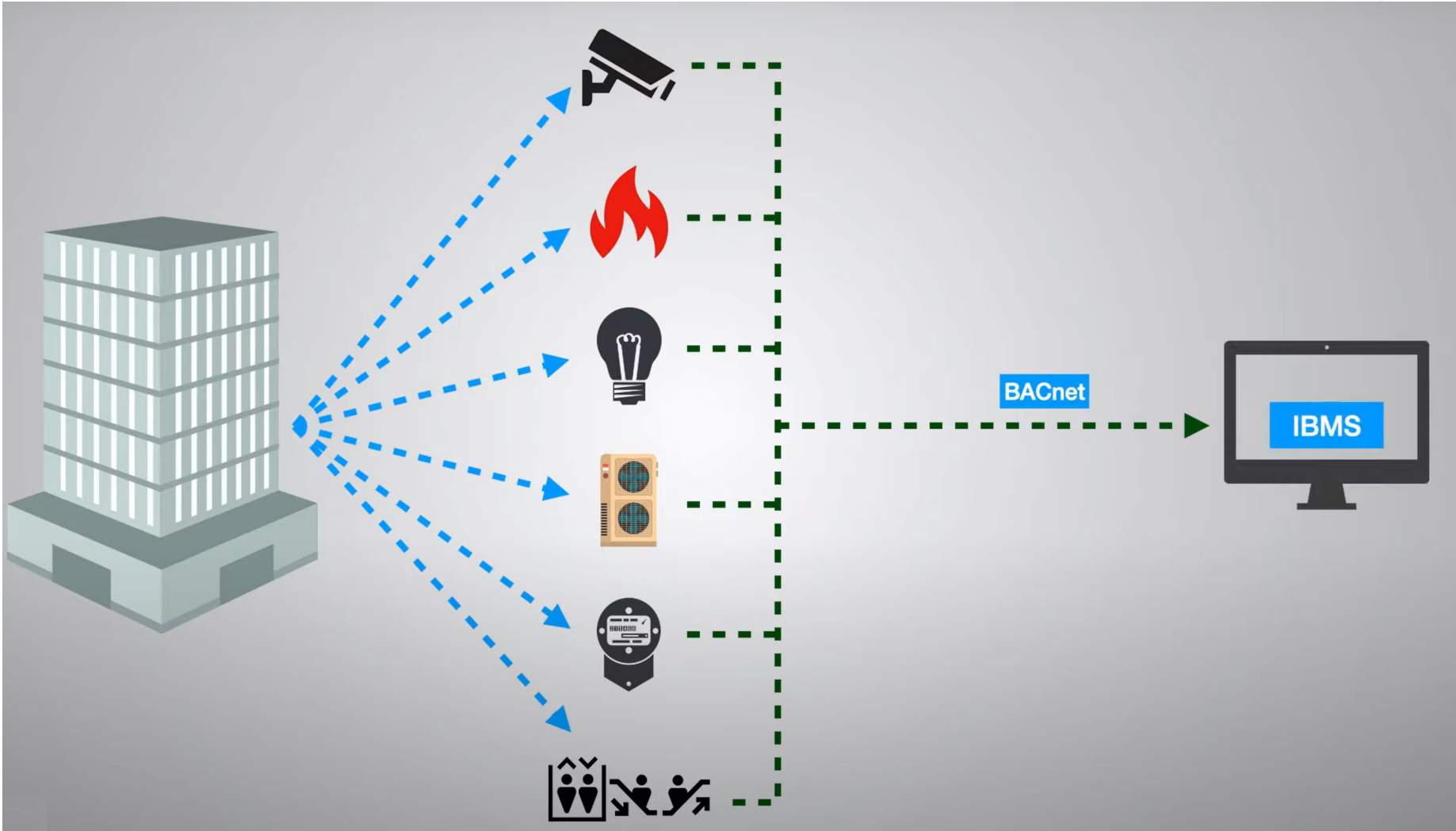


# What is BACnet?

**BACnet** (Building Automation and Control Network) is the global data communications standard for building automation and control networks. It provides a vendor-independent networking solution to enable interoperability among equipment and control devices for a wide range of building automation applications. BACnet enables interoperability by defining communications messages, formats and rules for exchanging data, commands, and status information. BACnet provides the data communications infrastructure for intelligent buildings and is implemented in hundreds of thousands of buildings around the world.







# Key Benefits of BACnet

01

Worldwide standardized data communication for building automation. Hundreds of products.

02

Independent of specific technologies and suppliers

03

Comprehensive solution for building control and automation networks

04

Compatibility with IT infrastructure and highly scalable solutions

05

Validation at independent testing laboratories and product certification. Secure.

06

Continuously being maintained and upgraded while preserving current investments





# Typical BACnet Applications

- Heating, ventilation, and air conditioning
- Lighting control
- Elevator monitoring
- Access control
- Security and fire alarm systems monitoring and integration
- Energy management and energy services
- Operations data (XML)

For an overview of BACnet, see the free two-hour online course called “BACnet Basics” in [The BACnet Institute](#)





### The BACnet Committee (SSPC 135)

The **BACnet Committee** is more formally known as SSPC 135 (a Standing Standards Project Committee) of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). It developed and continuously maintains the BACnet standard.

Polling Question

**What building management system do you have?**



# New BACnet Guide Specification

🕒 February 13, 2023

As part of an education session at the 2023 AHR Expo in Atlanta, GA, BACnet International announced a new BACnet Guide Specification. Grant Wichkenko, president of Appin Associates, presented the session, titled *BACnet-centric Guide Spec*, on Monday, February 6, 2023 as part of BACnet International's education track. He announced the public availability of the guide spec at the conclusion of the session.

The guide spec is based on the Department of Defense document and Appin worked with the original author to update and optimize it for BACnet projects.

The primary goal of the guide spec is to assist building automation system (BAS) designers and specifiers with the laborious task of writing a spec for each BACnet project. The guide spec will save time, make it easier to develop project documents, and, ultimately, provide the author with a better finished product. It covers BACnet objects and services and can be inserted into the BAS designer's existing Division 23 or 25 specification.

For more information on the Guide Spec and accessing the document, visit [bacnetinternational.org/bacnet-guide-specification](https://bacnetinternational.org/bacnet-guide-specification).



# BACnet Testing Laboratories (BTL) Working Group Releases BTL Test Package 23

○ January 6, 2023

*Latest Version 23.0 includes testing for most new functionality, including BACnet Secure Connect*

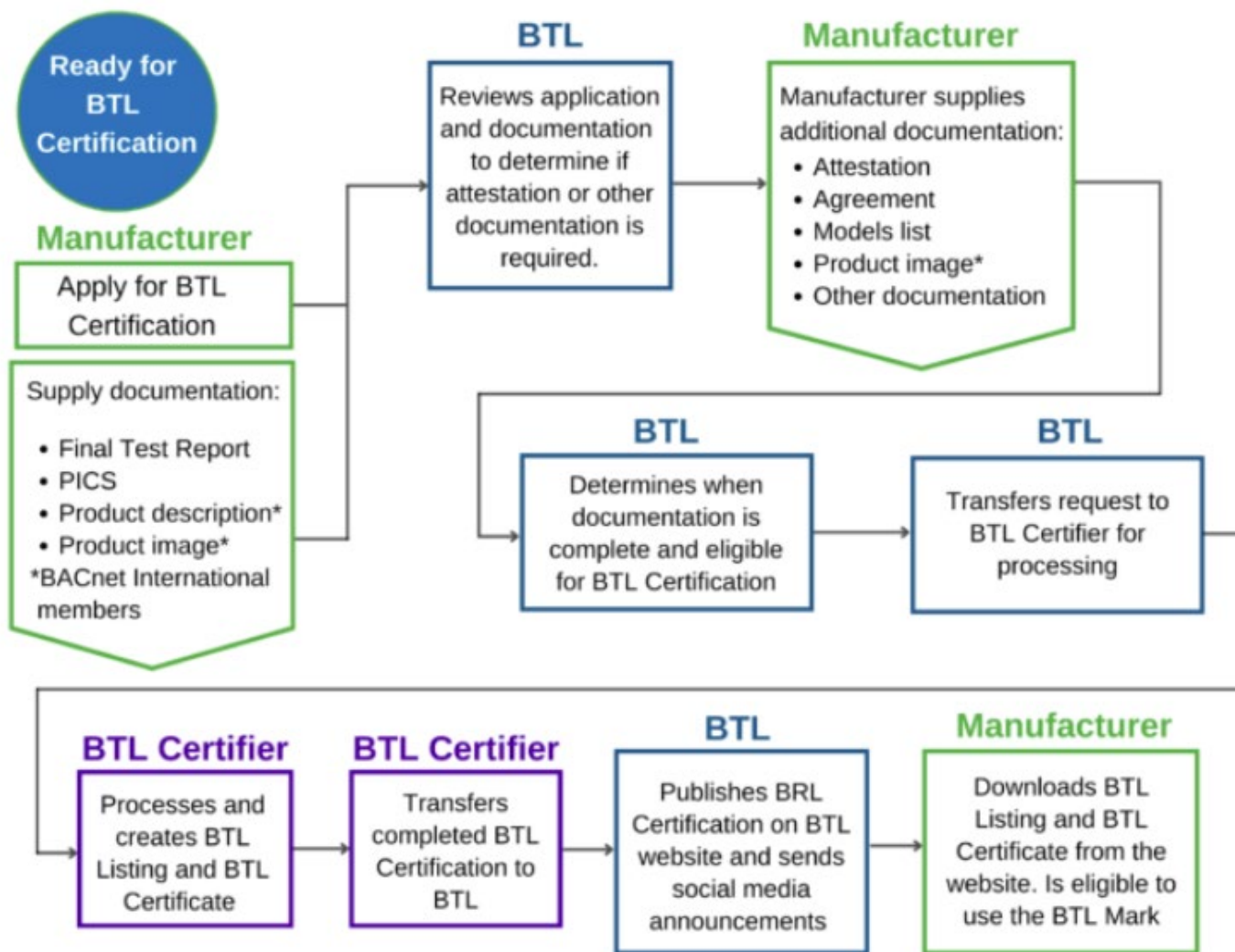
The BACnet Testing Laboratories' Working Group (BTL-WG) has released BTL Test Package v23.0, which contains updated tests and procedures to be used by manufacturers to pre-test products for BACnet compliance, and for Recognized BACnet Testing Organizations (RBTOs) to test devices qualifying for BTL Certification. The BTL-WG was formed by BACnet International to oversee the establishment of the BACnet conformance certification and listing program.

This update to the BTL Test Package was published on December 22, 2022, and is now the current test package. It includes testing up through Protocol Revision 23 of the BACnet standard (ANSI/ASHRAE 135-2020 plus addenda: bd, be, bi, bk, bl, bm, bn, bp, bq). Test Package 23 also includes testing for BACnet/Secure Connect (addendum bj).

"Testing and Certification of products is a crucial part of the success and continued adoption of the BACnet standard," stated Andy McMillan, president & managing director of BACnet International. "In furthering our work of maintaining a global standard, the interoperability enabled by BTL testing is a key factor in BACnet's leadership role in the building automation industry."

BTL Testing has entered a Transition Period. During the Transition Period, TP\_20.0.1 or TP\_23.0 may be used for products PR\_20 and below. All products PR\_21 and higher must use TP\_23.0. The end of the Transition Period will be set by the BTL Working Group in January 2023. The Transition Period is typically one to three calendar months.







# and Intelligent – Sustainable Buildings and WebTMA 7

- Sensors can provide real-time data via BACnet to WebTMA 7
- Run-time: can trigger work orders based on usage
- Fault: trigger work orders based on predetermined issue – sensor goes into fault stage
- Collection of time spent, parts used, frequency of issue is tracked to asset life-cycle costs
- Real-time notification can fix issue before building occupant even notice issue



Polling Question



**How many buildings are you responsible for?**





# BACnet – A Global Standard

Because BACnet is a standard around the globe, connecting the entire organization is possible.

BACnet is implemented by all Building Automation Vendors.

Tools exist to connect mixed vendor systems.



# What do smart buildings accomplish?

01

Occupant comfort

02

Energy Management

03

Asset Life-cycle Enhancement

04

Building Security

05

Sustainability



# What's on the horizon for Smart Buildings?



Independents



# Thank You.

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# Appendix.