

BACnet Market Adoption

Drawn from BSRIA Global Market Research Report
Market Penetration of Communications Protocols 2018 – 2027



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SOURCE DATA

Data in this report is drawn from a BSRIA market research study on the global market penetration of building automation data communications protocols. The BSRIA study incorporated information from a variety of sources, including:

- Historical data from published BSRIA market research reports on Building Automation & Control Systems from 2018 to 2023
- Pan-regional interviews with manufacturers, integrators and relevant associations and alliances
- Desk research conducted by BSRIA staff in 2022

Market data and commentary are drawn from the “Market Penetration of Communications Protocols” report completed by BSRIA in January 2023. Additional extracts with more detailed information may be available from the BACnet International office.

BSRIA is a world leading provider of market intelligence specialized in the HVAC industry, with over 35 years of longstanding relationship with HVAC manufacturers, contractors, and distributors worldwide. BSRIA is a long-time educational partner of AHR and offers unique industry presentations each year at HVAC shows around the world (AHR, ISH, MOSTRA, etc.). Since 2010, BSRIA regularly publishes building automation reports which include a section on communication protocols adoption.

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INTRODUCTION

The purpose of the BACnet standard is to provide manufacturer-independent data communications for building automation so that equipment can easily work together and information can be readily shared among devices and systems. The BACnet standard is continually enhanced and extended with the most recent version being released in 2020 and the next version planned for 2024. BACnet is a national standard in many countries and is also an ISO global standard.

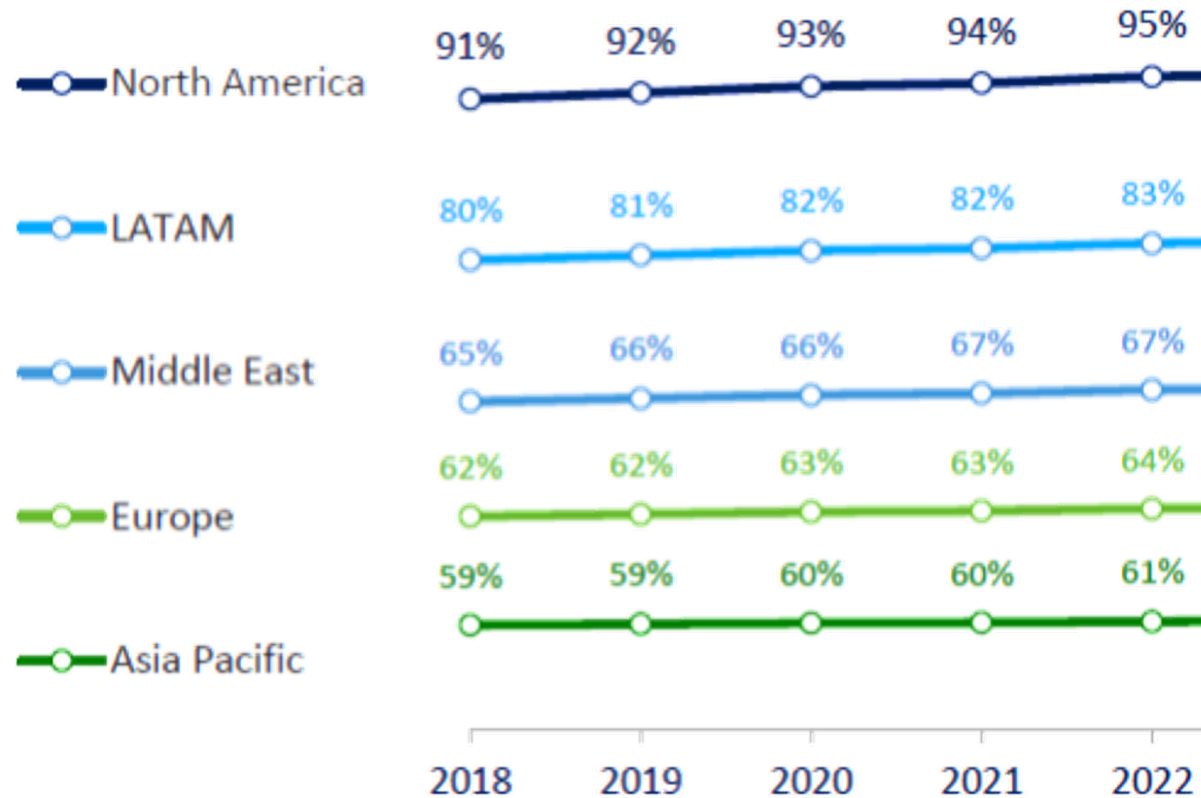
BACnet has been widely adopted in all regions of the world and continues to gain market share. This report provides specific information on BACnet market penetration in various countries and regions of the world. It also includes projections on the likely penetration of BACnet in the coming years.

This document is published by BACnet International, an industry association focused on facilitating the successful use of BACnet in building automation and control systems through product certification, interoperability testing, educational programs and promotional activities. BACnet International complements the work of the ASHRAE BACnet standards committee and other BACnet-related interest groups.



REGIONAL BACnet ADOPTION

“ BACnet protocol holds the highest share across the five regions analyzed.”



Source: BSRIA Inc.

GLOBAL BACnet ADOPTION

**“BACnet REMAINS THE MOST
WIDELY SPECIFIED PROTOCOL
AT A GLOBAL LEVEL” WITH A**

77%

TOTAL GLOBAL SHARE.

Source: BSRIA Inc.

“BACnet is by a large margin the mostly used protocol globally. In North America, the biggest market by share, key manufacturers -the likes of Siemens, ALC, Schneider Electric, Honeywell and JCI-all base their product range on this protocol and have very little exposure to others.”

“In some countries in Europe the use of BACnet has superseded that of other protocols.”

“BACnet holds the highest share for access controls, and it is gaining ground in lighting applications.”

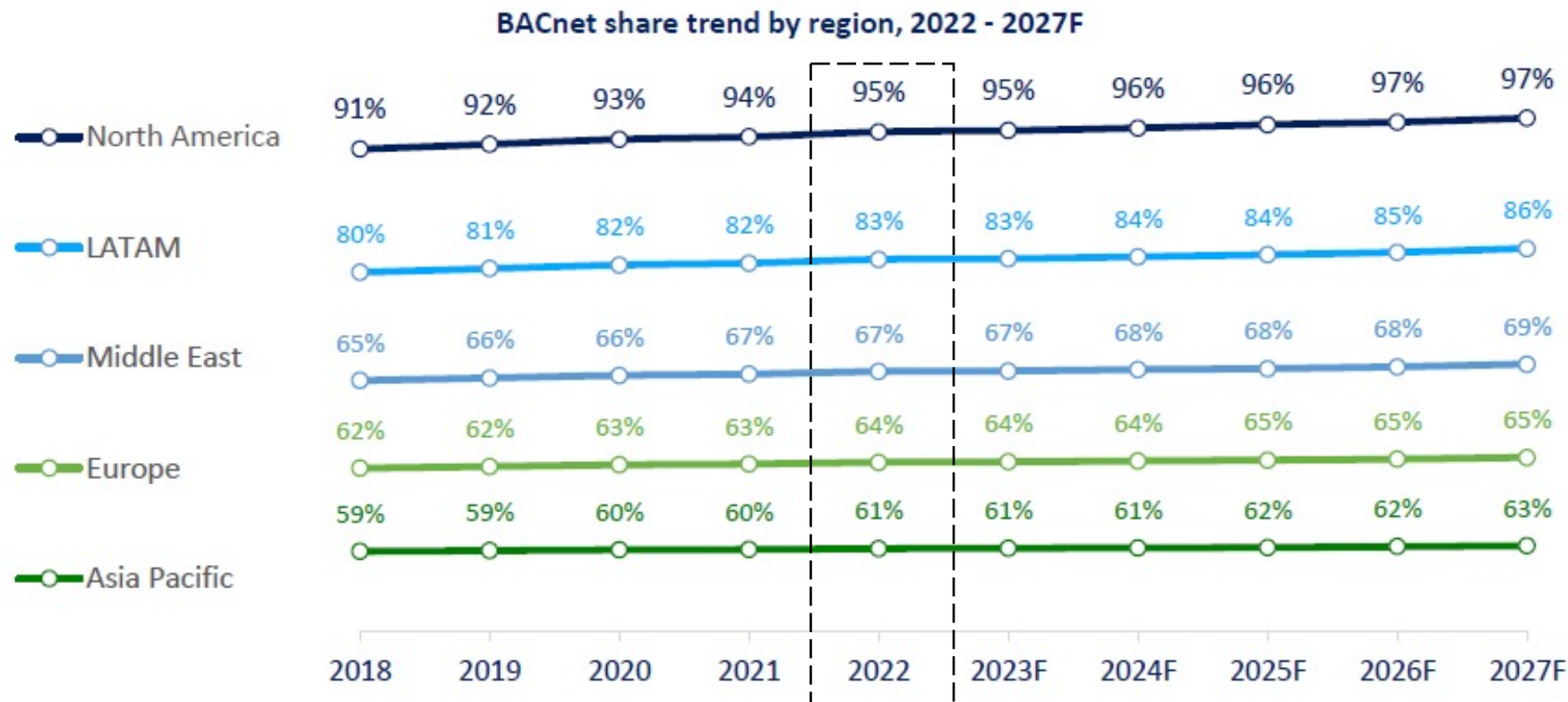
“BACnet secure connect (BACnet/SC), currently at an embryonic stage from a market penetration point of view, could see an increase in demand in response to cybersecurity threats linked to cloud connectivity and software usage.”

Source: BSRIA Inc.



FIVE YEAR REGIONAL OUTLOOK

“ **BACnet will remain the dominant protocol globally.** In particular its dominance in North America is unchallenged and the outlook is for steady growth.”



Source: BSRIA Inc.

PROPRIETARY PROTOCOLS

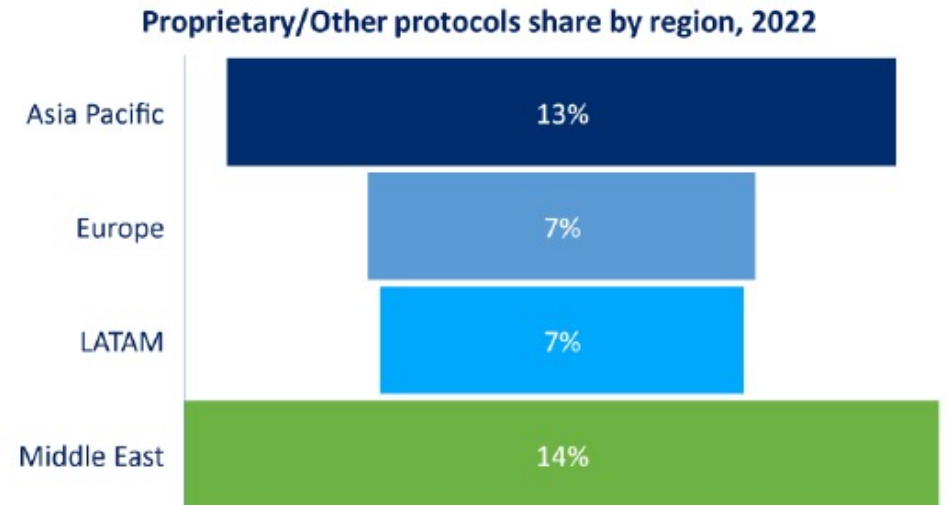
There are a number of open protocols used in Building Automation Systems today. They were created to address the need for integration among devices from diverse manufacturers and a broad range of building systems. The accelerating need for integrated systems and information to address the economic, climate and occupant related requirements of buildings today only increases the urgency of having open protocols to serve as an integration platform.

Proprietary protocols that limit or constrain communication among devices from diverse manufacturers are an obstacle to cost-effective system integration. BACnet was developed specifically to provide an alternative to proprietary protocols and we would hope all manufacturers adopt it. For that reason, we present the current and projected market penetration of proprietary protocols in this section.

PROPRIETARY PROTOCOLS

“Proprietary protocols have a marginal weight globally with the number of applications in BACS shrinking and open protocols prevailing.”

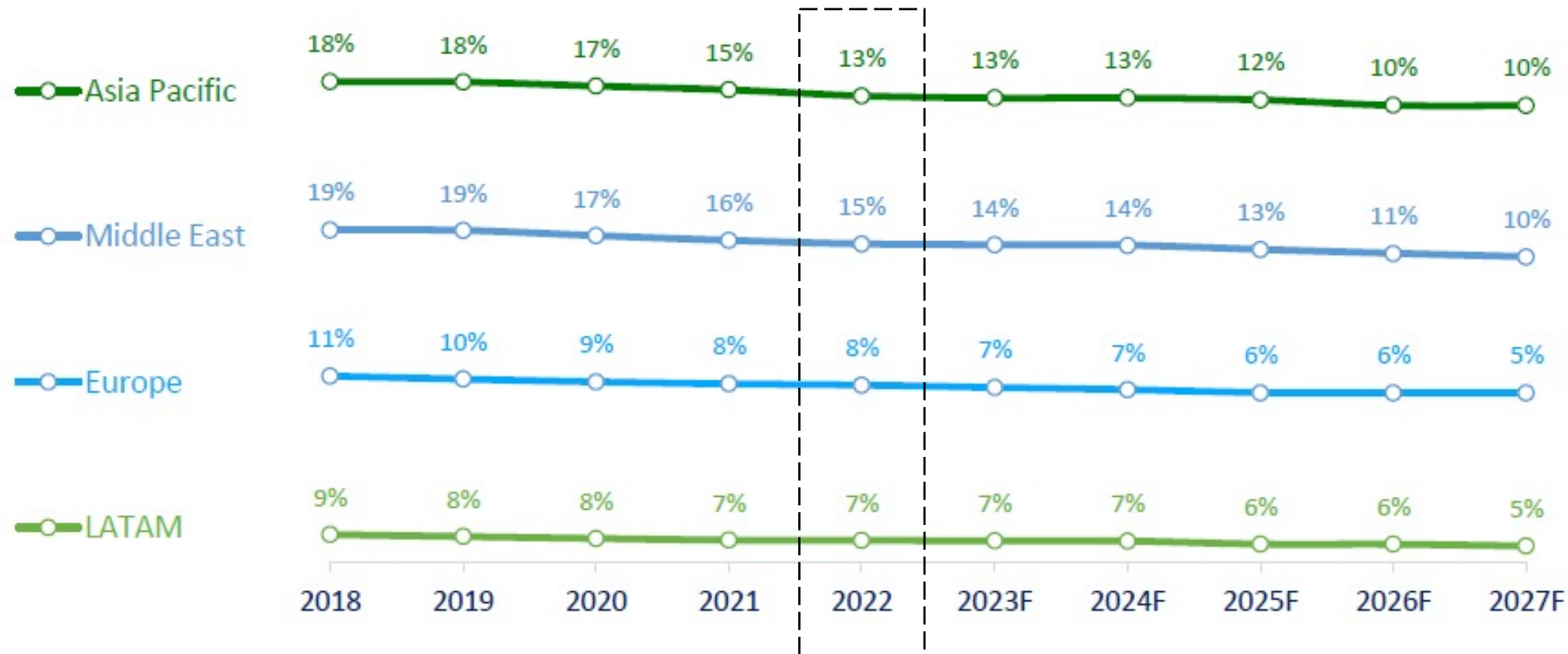
- “The obvious limitations of being restricted to one vendor and tied to recurring license fees, have limited their uptake and caused their decline over time.”
- “Asia Pacific and Middle East have been estimated as having the largest penetration of proprietary protocols, which remain negligible in North America and are not particularly widespread in Europe.”
- “Proprietary protocols have a strong installed base in some BACS segments.”
- “Additionally, proprietary/2 pair analogue cables are often used for connecting controllers to field devices, like pumps, meters or sensors.”



Source: BSRIA Inc.

PROPRIETARY PROTOCOL OUTLOOK

“The long-term trend for proprietary protocols is one of decline.”



Source: BSRIA Inc.

APPENDIX

This information in this report was drawn from a BSRIA market research report, “Market Penetration of Communications Protocols 2018-2027”. The following information refers to that report.

Study scope:

- The scope of this report is to provide an overview of the market for communication protocols from controller to controller and from controller to gateways and routers.
- The information is global so covers 18 countries representing four regions (Americas, Europe, Asia Pacific and the Middle East).

Objectives:

- The main objective is to have a global overview of the uptake of key protocols from controller to controller and from controller to gateways and routers from 2018 –2022 and forecast to 2027.
- A secondary purpose is to obtain more detailed information by region and include controllers outside HVAC such as lighting controls and access controls installed with and added the to building controls solution. The study also includes the uptake of IP (networked) controllers.

The following countries are included in each region:

ASIA PACIFIC

China, Australia

EUROPE

France, Germany, Italy, Scandinavia, Spain, Switzerland, United Kingdom

LATAM (Latin America)

Brazil, Mexico

MIDDLE EAST

Saudi Arabia, UAE

NORTH AMERICA

USA, Canada

Source: BSRIA Inc.