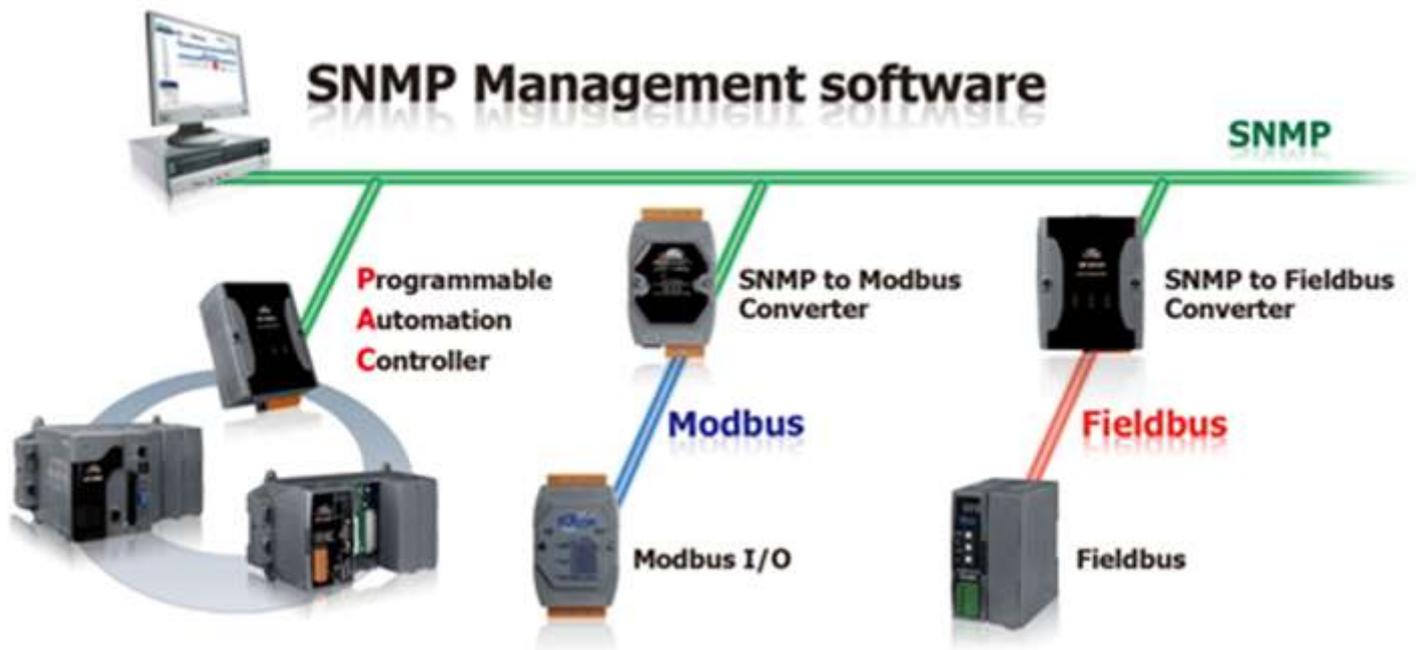# Introduction

SNMP (Simple Network Management Protocol) is a set of communications protocols for network management. It is an open network communication protocol and for years it has become the de facto standard in industry. The protocol is used mostly between network management systems and network devices.

Integration of I/O into network management

Currently, there is a various variety of network management software tools which allow network administrators to display and historically record SNMP variables. ICP DAS SNMP Technique seamlessly integrates monitoring and analyzing of network management systems and industrial control system. The industrial control devices expose acquired data on the SNMP managed systems as variables, which describe the control system status. These variables can then be queried or set by managing software tools.

SNMP trap

The SNMP trap is an unsolicited message sent by device when a change-of-state (COS) event occurs. The mechanism raises the communication efficiency. Unlike the traditional polling communication, it would transfer the data by the defined time, DI triggers or AI Hi/Lo alarm. In addition to improve the way of communication, that can also reduce the AP burden.

Unsolicited Message

Programmable

Using the SNMP package, users can develop their own custom SNMP firmware, allowing extra functions, integration of various protocols and I/O functions to the firmware.