



To whom it may concern,

On December 2016, the Italian Government approved, inside the Budget Law for the year 2017, a development plan for industrial activities, called "Piano Industria 4.0." This development plan highlighted investment in new machinery and enhancement in production plants, using some technologies now available which allow a full integration between OT and IT. One of the advantages for end users who invest in such new technologies now is a tax reduction in the years following the initial investment, which allows increases to their return on investment. These benefits have been extended in December 2017, through the approval of the Budget Law for the year 2018.

To achieve this, users must implement an interconnection between the productivity assets (for example, a machine, a plant, or an electrical cabinet) and the enterprise network, in order to bring together data from the factory shop floor with data from the manufacturing and scheduling systems of the factory. This kind of interconnection must be achieved according to what has been defined in the document called "Circolare 4/E", issued on 30 March 2017 by the Italian Revenue Agency (Agenzia delle Entrate), pages 59 and 60:

<i>In order for an asset (machine, plant or electrical cabinet,...) [...] to be "interconnected" for the purpose of obtaining the (tax) benefit, it is necessary and sufficient that:</i> <ul style="list-style-type: none"><li>• <i>It exchanges information, in an open and secure way, with internal systems (for instance, enterprise resource planning – ERP – systems, planning systems, product design and product development systems, remote monitoring and control, other machines inside the plant, etc.) and external systems (for instance, customers, vendors, other production sites, partners in collaborative design and development, supply chain, ..) through a document-specific, publicly available and internationally recognized connection (for instance TCP / IP, HTTP, MQTT, ...);</i></li><li>• <i>It is uniquely identified in order to recognize the origin of information to ensure data security by using internationally recognized standards (IP address).</i></li></ul>	<i>Affinché un bene [...] possa essere definito "interconnesso" ai fini dell'ottenimento del beneficio, è necessario e sufficiente che:</i> <ul style="list-style-type: none"><li>• <i>Scambi informazioni, in modo aperto e sicuro, con sistemi interni (es. sistema gestionale, sistemi di pianificazione, sistemi di progettazione e sviluppo del prodotto, monitoraggio, anche in remoto, e controllo, altre macchine dello stabilimento...) ed esterni (es. clienti, fornitori, altri siti produttivi, partner nella progettazione e sviluppo collaborativo, supply chain,...) per mezzo di un collegamento basato su specifiche documentate, disponibili pubblicamente e internazionalmente riconosciute (es. TCP/IP, HTTP, MQTT,...);</i></li><li>• <i>Sia identificato univocamente, al fine di riconoscere l'origine delle informazioni per garantire la sicurezza dei dati, mediante l'utilizzo di standard internazionalmente riconosciuti (indirizzo IP).</i></li></ul>
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Modbus®/TCP is one of the first open protocols made available as an open protocol specification on the TCP/IP stack, and one of the most widely adopted Ethernet and TCP/IP suite protocols for industry today.

Modbus TCP has enjoyed International Standard status for several years, thanks to the work of IEC Technical Committee 65 "Industrial-process measurement, control and automation" and its Sub-committee 65C "Industrial networks", and it is integrated into IEC 61158 and in IEC 61784-2. Since then it has been recognized/re-labeled into other regional standards (same with different prefixes e.g. DIN, BSI, EN etc., respectively for Germany, England, Europe etc., as often done for IEC standards), and translated and made into a Standardization Administration of China standard, via work done in its National Technical Committee of Standardization of Industrial Process Measurement and Control (TC124).

Modbus TCP has been assigned two privileged ports for its operations by IANA (Internet Assigned Numbers Authority), port 502 and port 802, the latter to be used with Modbus Secure.

Modbus.org states that Modbus TCP provides users with features particularly suited for the Industrial

Internet of Things: the commitment to simplicity recognizes that industrial automation applications are the most diverse and that there are advantages in delegating the handling of diversity to the applications. Some of the key features are: simple to implement; small footprint; scalable in complexity, scope, and range; open and low cost, the specification is freely available from [www.modbus.org](http://www.modbus.org); connectivity, it is easy to build networks made of different underlying layers, via widely available flexible gateways; installed base, experience, and tools.

Moreover, Modbus.org states that Modbus TCP can fulfill the requirements of recognized international standards for interconnection as stated by the excerpt of the above "Circolare 4/E," pages 59 and 60, which allows companies to benefit from the tax reduction which has been introduced by the Italian Government with "Piano Industria 4.0."

Sincerely,

Rudy Belliardi

Modbus.org Technical Director [www.modbus.org](http://www.modbus.org)

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