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[Continued on next page]

(54) Title: SYSTEM AND METHOD TO ENFORCE UTILITY METER SECURITY

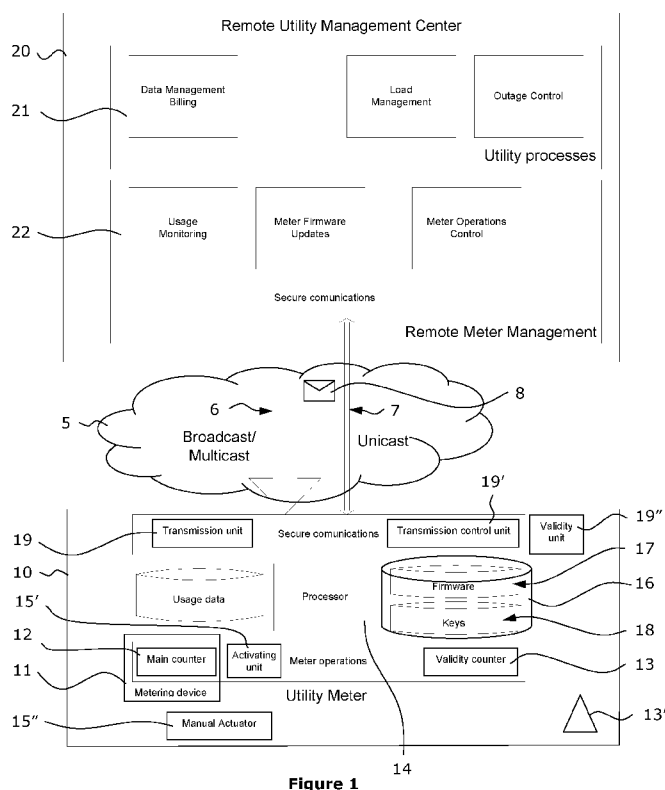


Figure 1

(57) Abstract: The present invention relates to a system, and method for enforcing utility usage and metering functions by a utility meter associated with a utility consumer end user, connected to a remote utility management center by a communication network. The present invention proposes a utility meter (10) for controlling and metering a least one utility consumption comprising: - at least one metering device (11) provided with at least a first main counter (12) for counting said utility consumption, - a transmission unit (19) for receiving messages (8) from a remote management center (20) and for sending at least one report message to the remote management center (20), - a memory (16) for storing data, - a switch (15) for switching the operating of the utility meter (10) from a normal operating mode to a disrupted operating mode, - a validity counter (13) for incrementing / decrementing a validity value, - a processor (14) for processing functions of said utility meter (10), - a transmission control unit (19') for verifying if an acknowledgment message has been received from the remote management center (20) in response to the report message, in the positive event the transmission control unit (19') delivers a positive signal, in the negative event the transmission control unit delivers a negative signal, - a validity unit (19'') for checking the validity of a renewal message received from the remote management center (20) and reloading the validity counter (13) in case where the renewal message is valid, - an actuating unit (15') for maintaining said switch into the normal operating mode in accordance with the status of said signal and said validity counter (13).



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>Itron: "OpenWay by Itron Security Overview", 1 January 2009 (2009-01-01), XP55027082, Retrieved from the Internet: URL: http://www.energysectorcybersecurity.com/Portals/1/Itron_OpenWay_Security_Overview_2.pdf [retrieved on 2012-05-14] the whole document</p> <p style="text-align: center;">----- -/--</p>	1-15



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>Itron Inc.: "OpenWay Demand Response Maximizing Value and Efficiency in Energy Delivery", 1 March 2010 (2010-03-01), XP55027203, Retrieved from the Internet: URL:https://www.itron.com/PublishedContent/OpenWay%20Demand%20Response%20Maximizing%20Value%20and%20Efficiency%20in%20Energy%20Delivery.pdf [retrieved on 2012-05-15] the whole document</p>	1-15
A	<p>"OpenWay Smart Metering for the Smart Grid", 1 September 2009 (2009-09-01), XP55027607, Retrieved from the Internet: URL:https://www.itron.com/na/PublishedContent/OpenWay%20Overview.pdf [retrieved on 2012-05-21] the whole document</p>	1-15
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INTERNATIONAL SEARCH REPORT

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