



EquaScan

Radio system for efficient data collection in buildings with high density of devices

Itron provides with the EquaScan radio system an innovative solution for the automated data collection of apartment water and heat meters, residential meters and heat cost allocators. The secure and efficient system has been developed with the specific purpose of meeting the requirements of the modern housing sector.

Depending on the requirements, the system can be operated as a mobile (EquaScan walk-by) or fixed network (EquaScan FNet). Right from the start, the Itron EquaScan radio system has been developed under the strictest security standards regarding data collection and transmission security.

SECURE.

- » Highest data security thanks to multiple encryption
- » Safe and reliable data transmission
- » Individual encryption of all telegrams transmitted
- » No unauthorised external access possible

RELIABLE.

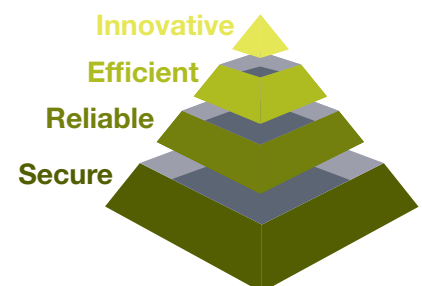
- » Comprehensive data protocol
- » All-year-round 100% radio access to data ensured by dual band technology
- » Inductive communication interface

EFFICIENT.

- » Simple and quick commissioning
- » Broadest radio coverage enables rapid reading
- » No more reading errors
- » Short protocol e.g. with consumption value and billing date reading
- » Clearly arranged configuration and dataCollection software

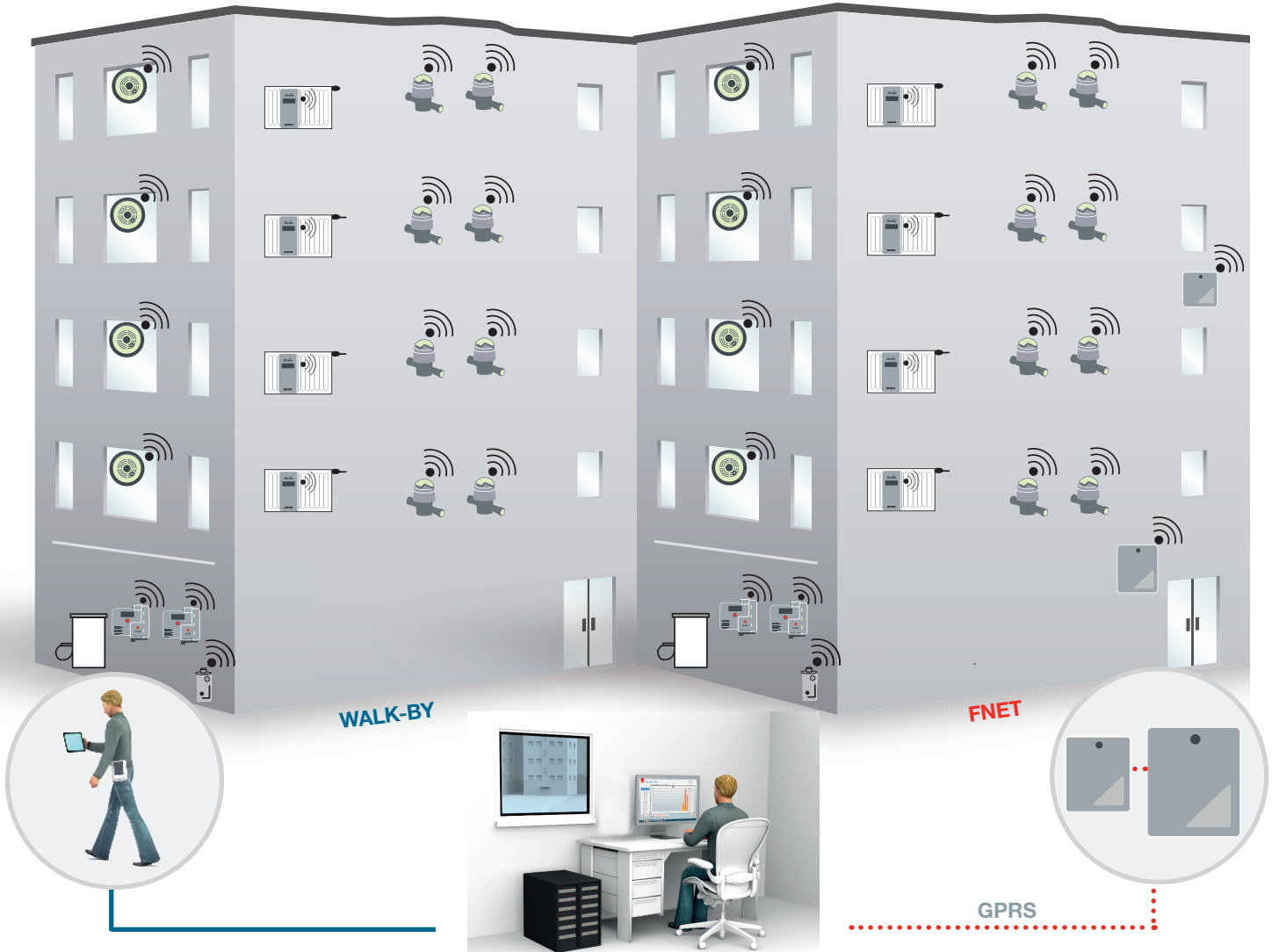
INNOVATIVE.

- » Innovative collision management for rapid reading even with high density of devices
- » Freely programmable data protocol
- » Changes can be made wirelessly



SYSTEM COMPONENTS


All components of the Itron EquaScan radio system are optimally coordinated and, due to their range of functions, cover almost all applications in the housing sector.



**COMPONENTS
WALK-BY AND FNET**




eHCA^{RF}
Heat cost allocator



hMIU^{RF}
Heat meter RF module



pMIU^{RF}
Pulse RF module



wMIU^{RF}
Water meter RF module



EquaScan
software



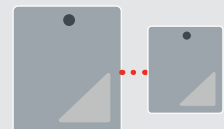
iSD^{RF}
Smoke detector

WALK-BY



Master^{RF}

FNET



Coordinator and router

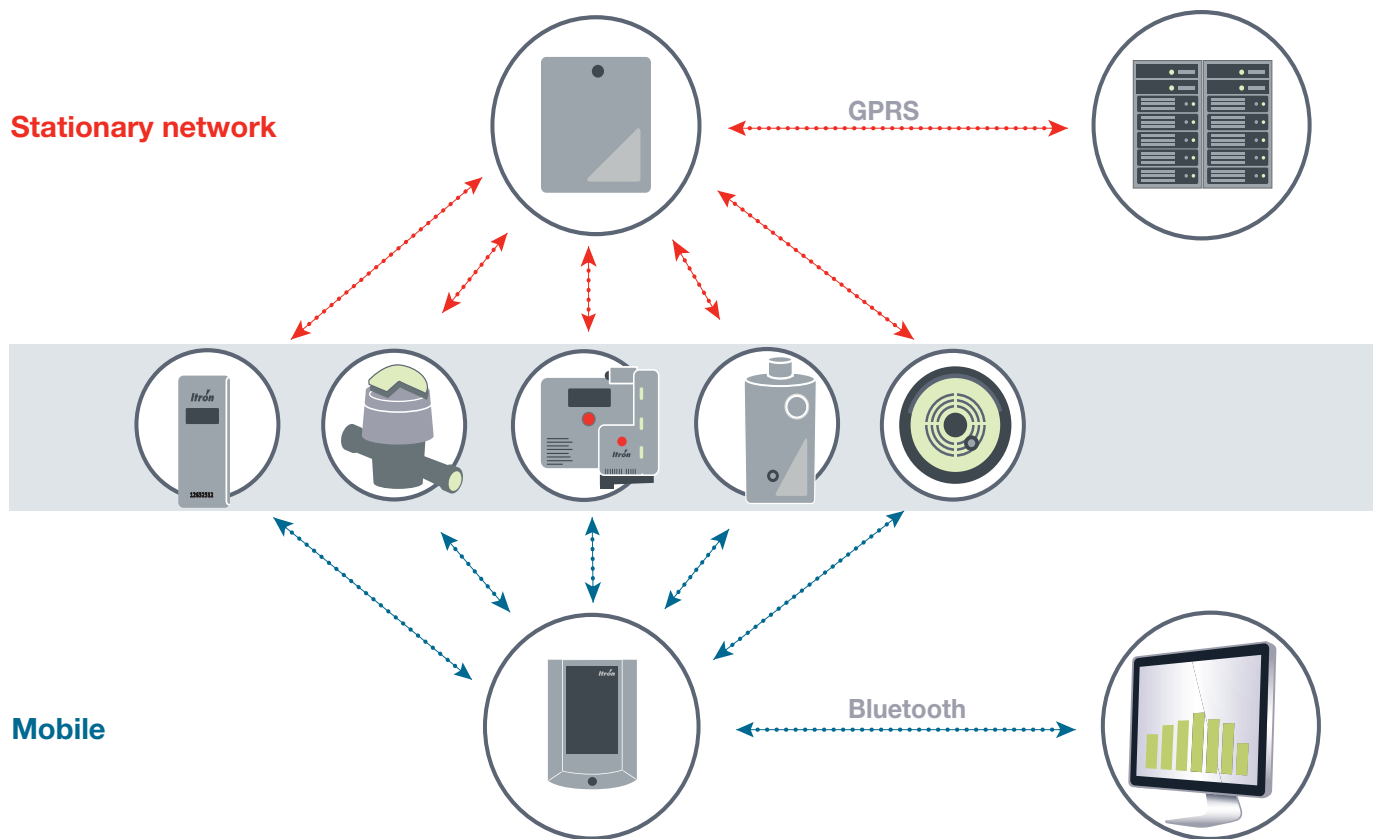
The Itron EquaScan radio system can be operated as a fixed or mobile application. The greatest range and a 100% readout rate are common to both systems. Our customers can choose flexibly which mode meets their requirements.

EQUASCAN FNET

The EquaScan FNet sends multiply-encrypted data regularly to a data centre by means of a GPRS modem.

Advantages

- » Optimum data security by means of modern cryptographic methods and standards
- » Certified algorithm and system for reliable and secure data transmission.
- » Up-to-date data.
- » All coordinators/routers have a data storage capacity of up to 2,000 measuring devices.
- » Fixed network can be extended with up to 19 routers.
- » Dynamic dual band communication between the coordinator and routers.
- » Set-up, extension and maintenance of a network is possible without software tools.
- » Existing walk-by installations can be transformed into a fixed network at any time by Master^{RF}.
- » The EquaScan coordinator also serves as a data collection device for the measuring points.
- » Efficient data transmission by data collision management.



EQUASCAN WALK-BY

In walk-by mode the data is read out directly while walking past by means of a mobile reading device, the Master^{RF}, and then forwarded via Bluetooth to the EquaScan data collection software.

Advantages

- » Encrypted data telegram.
- » Data transmission at any time. All-year-round radio access (24/7) to the data.
- » No data loss thanks to permanent memory in the Master^{RF} - up to 16.000 telegrams.
- » Automatic activation of the radio module.
- » Innovative data collision management allows short reading time enable a high data reception rate.
- » Changes can be made wirelessly.



SECURE

- » Highest data security according to modern cryptographic methods and standards. Tested by certified laboratories
- » Protection of confidential consumption data (End-to-End protection)
- » Multiple encryption of all telegrams transmitted
- » Protection from external attacks (tested according to TVR methods)



RELIABLE

- » System compatibility ensured (wMBUS compatible)
- » No data loss thanks to permanent memory
- » Wireless module prepared for use in walk-by application and fixed networks
- » Conversion of walk-by systems to fixed network possible at any time via Master^{RF}
- » End devices in an EquaScan FNet can also be read by walk-by at any time



EFFICIENT

- » Plug&Play
- » Large radio range for data transmission in and outside the building
- » Data collision management
- » Standardised data formats enable easy data exchange for back-end applications (CSV and XML)



INNOVATIVE

- » End devices and FNet parameters can be configured via Master^{RF}
- » All data is available via radio
- » Personalised data queries of the desired information
- » Complete system solution thanks to full product portfolio
- » Prepared for future applications and additional sensors



Itron

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