Access Point 5

Data sheet

Leading utilities and cities have delivered breakthroughs in operational efficiency, customer service, and environmental sustainability by relying on Itron's secure, reliable two-way connectivity to critical infrastructure. The Itron Gen™5 network technology delivers the performance to continue the acceleration of critical infrastructure modernization initiatives. The Access Point 5 (AP 5) offers secure, flexible connectivity between the Itron network and common wide area networks including Ethernet and cellular.

FLEXIBLE COMMUNICATIONS FOR DIVERSE APPLICATIONS AND ENVIRONMENTS

The Itron Access Point 5 (AP 5) provides the central network resource for delivering data generated by endpoint devices at the network edge and IT/OT systems—enabling high-performance applications, network control, and monitoring. Its flexible communication features extend the reach and coverage of the network to thousands of customer sites, and its support for up to 5,000 endpoints per access point dramatically lowers costs. The AP 5 offers multiple paths to each endpoint device through sophisticated mesh network routing that ensures greater reliability and redundancy.

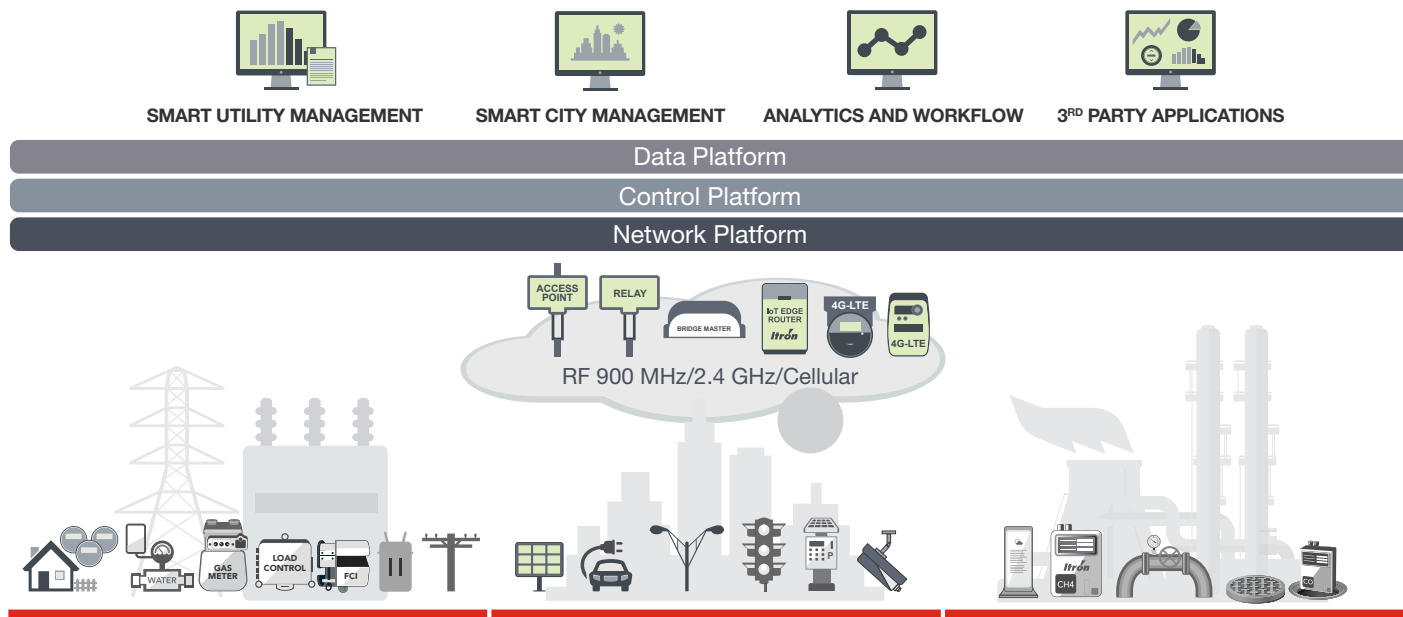## INTEGRATION AND DEPLOYMENT SCENARIOS

Smart grid

The low latency and high-speed throughput of the AP 5 keeps pace with the high-performance devices and network infrastructure within the Itron network. Redundancy, secure communications, and high reliability enable utilities to scale multi-application deployments rapidly while leveraging existing systems and reducing overall cost of ownership.

Smart city

The AP 5's flexibility and ease of installation facilitates the success of new city services such as traffic monitoring and smart parking. The proven multi-layer security of the AP 5 allows cities to rapidly deploy new applications and services while leveraging consistent policies and controls proven at scale.

SPECIFICATIONS

THE ITRON GEN5 SOLUTION SUITE
Any application server: not dependent on Itron head end

The high-performance AP 5 dynamically adapts to optimize speed and coverage to a variety of devices while` securely and reliably delivering data for multiple applications.

FEATURES

Secure, reliable performance to enable the most demanding smart infrastructure applications

» Up to 2400 Kbps data speeds

» 10 ms latency

» Open standards-based two-way communications and interfaces

» IPv6; IEEE 802.15.4g, Wi-SUN compatible

» Ethernet and cellular WAN options including 4G LTE

» Dynamically adaptive data rates to ensure maximum performance while ensuring backwards compatibility

» Integrated, open standards-based security

» Public key-based authentication and AES-256 encryption

» Increased system performance and data throughput

» 900 MHz radio

» 32 MB RAM and 32 MB flash

KEY BENEFITS

The AP 5 couples secure, reliable performance with open standards-based IPv6 communications to enable cities and utilities to cost-effectively integrate mission-critical control and monitoring processes.

Expanded opportunity for performance-intensive multi-application services

The AP 5's support for a data rate up to 2400 Kbps and 10 ms latency enables cities and utilities to roll out new types of services and increase customer satisfaction with engaging applications.

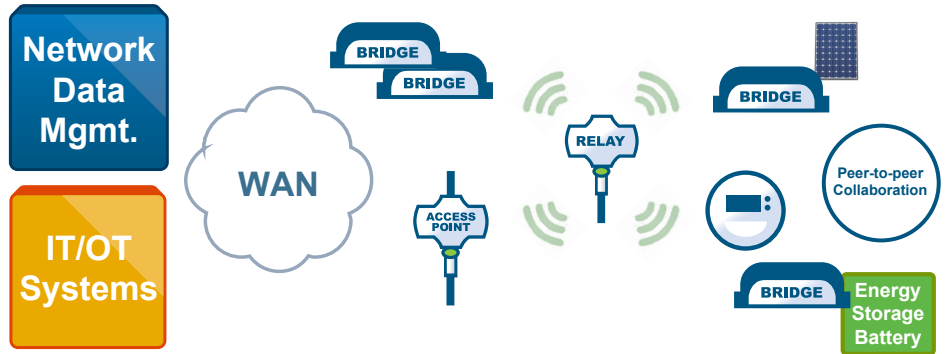### Comprehensive and cost-effective coverage of diverse territory

The AP 5 delivers cost-effective coverage while ensuring maximum overall system performance by dynamically adapting the data rate to optimize reliable information delivery over a long range in the most challenging environments.

Risk mitigation through proven, multi-layer security

Two-way communications remains protected from the increasingly hostile threat environment by building on Itron's proven, multi-layer security that leverages built-in controls from the application to device layer.

Rapid time-to-value with flexible integration

The AP 5 can be deployed on a broad array of existing assets. Mounting kits are available for installing APs on distribution poles, streetlights, walls, and inside pad-mounted enclosures. Multiple external antenna options are available to further extend the AP 5's range and coverage levels.

The AP 5 delivers low latency and high data rates for the most demanding multi-application initiatives.

SPECIFICATIONS

Communications	Data rate: 50 to 2400 Kbps
	Frequencies: 902-928 MHz or 860-880 MHz
	Spread spectrum technology: FHSS
	Modulation: FSK, OFDM – adaptive gear shifting
	Transmitter output: 900 MHz–30 dBm (1 W), 870 MHz (500 mW ERP)
	Output impedance: 50 ohms
	    WAN: Cellular, Ethernet, and Satellite
	    Cellular — 4G LTE

Protocols/Security	Addressing: Internet Protocol version 6 (IPv6) Security: Secure Hash Algorithm 256 bit (SHA-256) and RSA-1024 or ECC-256 Encryption: Advanced Encryption Standard (AES-128 or AES-256)
Physical Interfaces	Antenna connectors: N Type, Female
Power	Power Input range: 96 to 277 VAC, 50 to 60 Hz
Environmental	Operating temperature: -30°C to +70°C (-22°F to +158°F) Humidity: 0% to 95%, non-condensing

Mechanical	Cellular/Ethernet:
	    Dimensions: 35.0 cm (13.78") L x 21.1 cm (8.32") W x 9.2 cm (3.62") H
	    Weight: 4.4 kg (9.8 lb)
	    Enclosure: IP65, white, aluminum
	Access Point 5.0 does not have an active 2.4 GHz radio. It is recommended that the provided weatherproof cap be installed on the unused 2.4 GHz antenna port

Mounting Kit Options	Wooden pole Concrete pole Light pole Wall
Approvals	FCC: Part 15.247 Industry Canada: RSS-247 EU: ETSI EN 303 204
Memory	32 MB/32 MB Flash/RAM

POWER CONSUMPTION

Ethernet AP	Idle 7.5 W	Max 12.1 W
Ethernet AP with Battery	Idle 7.5 W	Max 18.1 W
Cellular AP	Idle 9.8 W	Max 13.3 W
Cellular AP with Battery	Idle 9.8 W	Max 19.3 W

Itron

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