# A Perspective on the Solutions and Needs of IoT, Utilities, and Smart Cities

Tom Deitrich

Itron, 2111 North Molter Road, Liberty Lake, WA 99019 USA, +1 (800) 635-5461, Tom.Deitrich@itron.com

**Keywords: IoT, Utilities, Smart Cities, GaAs**

**Abstract**

**By almost any prediction the "Internet of Things" will connect many billions of devices to a global network in the coming decade. In the abstract, it is extremely difficult to understand the function and quantify the economics behind this trend. However, in the industrial networking space, the benefits to utilities and cities are already clearly driving economic and societal value.**

**With applications such as distribution automation and distributed energy management, forward-thinking utilities are reducing operating costs, improving quality of service, and saving natural resources. Similarly, through streetlight automation and intelligent ~~connect~~ methane sensing, "smart cities" are harnessing the power of connectivity to create greener, safer, and more efficient communities with engaged citizens.**

**This talk will review the benefits and challenges of smart utilities and cities, with a focus on the underlying technologies. The current role of compound semiconductors, such as GaAs, will be discussed, as well as a perspective around future innovation needs to enhance safety, security, and efficiency in the end applications.**

ACRONYMS

IoT: Internet of Things