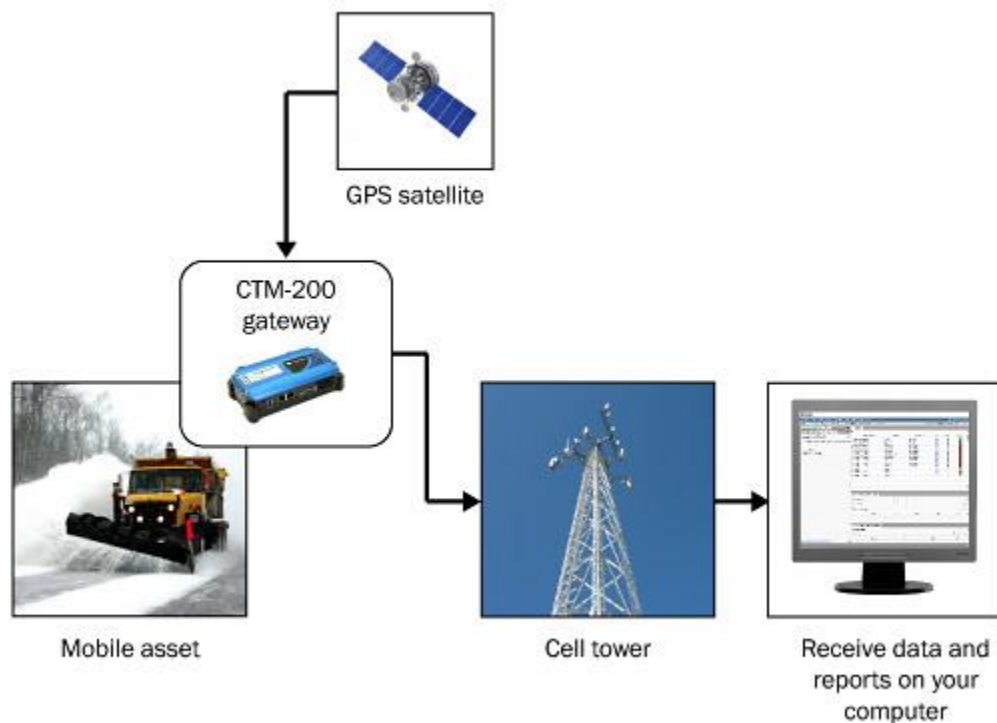


Providing an “Always On, Always Connected” Experience for the M2M Industry

Businesses today require relevant, real time usable data in order to make decisions that keep businesses operating safely and efficiently. Without this data, businesses are “blind” in many operational aspects that are critical to operating a successful organization.

Cypress Solutions Inc. develops and manufactures a line of industrial Wireless Gateways (or modems) for use in markets that require reliable, real time data connectivity. The Cypress Gateway relies primarily on high speed cellular (3G/4G) networks to move data from a remote or mobile site to a data aggregation point, such as a server or cloud computing data management system. The Gateway can communicate with a wide range of third party equipment providing a seamless wireless link for mission critical data. The on board sensors and data processing capability of the Gateway enable it to “make sense of the data” and provide meaningful data to the data management system. The end result is an intelligent, reliable remote system that is capable of providing valuable, usable, real time data to a business.

In the use case below, Cypress gateway (CTM-200) is installed on a mobile asset. The gateway calculates its position based on GPS signals from a GPS satellite. The gateway communicates information using wireless cellular technology. Data is received and monitored on the user’s computer.

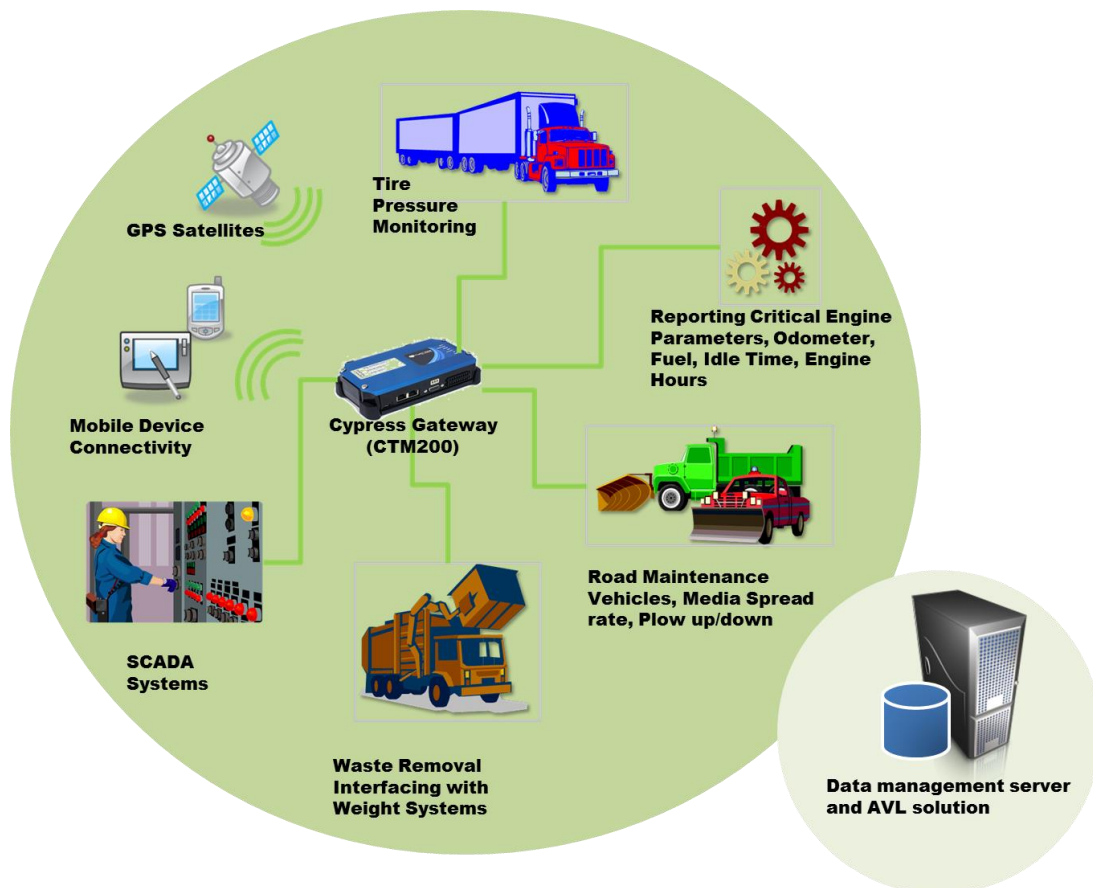


Customer Example: Collaboration with The City of Calgary

A leader in technology innovation, The City of Calgary and Cypress Solutions work closely to develop solutions for various City business units. Not all business units are alike, and each requires flexible platforms, which can be used as standard pieces of equipment within The City.

Roads required their maintenance vehicles to integrate with multiple media spreader controllers designed to measure the amount of ice and snow deposited on the roads. Waste and Recycling required a solution that integrated with a “weight system” for measuring the weight of commercial waste bins, and Fleet needed a tire pressure monitoring system for monitoring tire failures on large municipal vehicles.

Cypress Gateway is integral to Calgary Transit operations including the Advanced Passenger Information System (APIS) and electronic fare cards. Cypress Gateway is also used for locating vehicles and connecting to the vehicle subsystems via the CANBus interface.



Benefits of the Cypress Gateway Solution

Reliable:

In today's world wireless is the norm, but wireless still has challenges. The Cypress Solutions gateway has advanced data session management to ensure a persistent connection and has mechanisms to "store and forward" data if the cellular connection becomes unstable or is unavailable. In addition, satellite communication networks can be used as a "failover" if cellular becomes unavailable.

Flexible:

The gateway can communicate with a wide variety of third party equipment such as sensor networks, SCADA equipment, Vehicle Control Modules, industry specific controllers and computers and tablets.

In addition, the gateway can create a "local" Wi-Fi hotspot or provide a connection for industrial wireless personal area networks (WPAN). In addition, traditional wired connections for interfacing with external equipment such as serial, CANBus, Ethernet and General Purpose Inputs and Outputs are also available.

Scalable:

The advanced processing capability of the gateway provides a platform for today and tomorrow. An advanced open source Linux™ operating system provides a powerful platform to develop new applications. As new user equipment is deployed, support can be added to the gateway firmware.

Smart:

Advanced features for data "accumulators" are available that allow accurate calculations for parameters such as Cellular Wireless data usage, Odometer, Fuel, Idle time and Engine Hours.

Efficient:

Advanced reporting logic provides data "when it is needed". An advanced event processing engine on the gateway triggers data only when needed saving on wireless bandwidth. Power saving features allow the gateway to operate in a variety of low power states, minimizing power consumption for applications that do not have access to "Grid" power.



Company Profile: Cypress Solutions Inc.

Cypress Solutions Inc. is a leading provider of rugged communication products for commercial and industrial applications. Established in 1997, Cypress designs manufactures and supports wireless data products that enable secure web based monitoring, management and reporting for both fixed site and mobile applications. The company's Chameleon brand of wireless gateways are designed and built for use in harsh environments such as those found in electric power, oil and gas, public safety and transportation markets. From isolated oil rigs to police fleets, Chameleon wireless gateways are built to withstand the most demanding environments.

How Cypress Partnered with Arrow Electronics

Cypress Solutions has seen significant success with their Chameleon family of gateways and accessories. This rapid growth can lead to challenges in engineering and supply chain, as the company scales to build a more complex product in higher volume and less time. By working closely with Arrow early in the design cycle to align on program goals, Cypress was able to marry cutting edge technology with the longevity and robustness the market demands, while improving time to market. Arrow's expertise in supply chain services helped Cypress Solutions to scale their production at optimized costs, while retaining focus on their market leading product development and support.

"As we grew we knew we needed to stay focused on the needs of our customers. Working with Arrow allowed us to capture this opportunity for quality, rugged and flexible telemetry solutions that the market was telling us it needed. Arrow acts as an extension of our internal team to help accelerate our growth, improve our costs and streamline operations" said Casey O'Neill, President of Cypress Solutions.

