



RICHARDS | ZETA

BUILDING INTELLIGENCE

Richards-Zeta (RZ) is the manufacturer of a hardware and software solution known as the Mediator™.

The Mediator™ provides an integration framework, known as the Multi-Protocol Exchange (MPX™), which allows for the convergence and migration of multiple disparate building systems onto a Cisco IP network. RZ goes to market through a channel of trained System Integrators, located on 6 continents, which understand the unique requirements associated with the convergence of BAS and IT. These well trained parties have been delivering innovative “real

world” solutions and are poised to continue doing so. In addition to manufacturing and supporting this solution, RZ also actively trains and grows this delivery channel that is focused on execution. By abating the pain traditionally associated with system integration—RZ integrators are freed to focus on applying technology in a manner that solves our customers actual problems, which in turn leads to well managed facilities.

The Mediator™ is a middleware solution comprised of both hardware and software. This domain agnostic integration framework is able to communicate with numerous disparate protocols. The MPX™ software frame-

work plays a central role in the integration process by normalizing both IP and legacy serial based protocols, which in turn allows for intra-protocol communication, the uniform application of services such as logging,

and the common presentation of information that is sourced from the array of intelligent machines found in buildings.

Using the embedded suite of tools, custom web-pages may be designed and hosted on the Mediator™ that are then used to present a window into the real-time condition of building systems. Alarms, logs, schedules, control sequences and other common features may also be configured using these embedded tools. And since the Mediator™ abstracts and treats all data in the same manner, there is no special distinction or friction associated with creating user defined causal relationships between sub-systems. Any value or combination of values taken from the HVAC, Lighting, Electrical or any other system, can change the operation of others.

Since all points within the framework are identified by a unique identifier (URI) and all information can be presented in common formats, such as HTML or XML-RPC, the Mediator™ allows for a number of other

FIG. 1

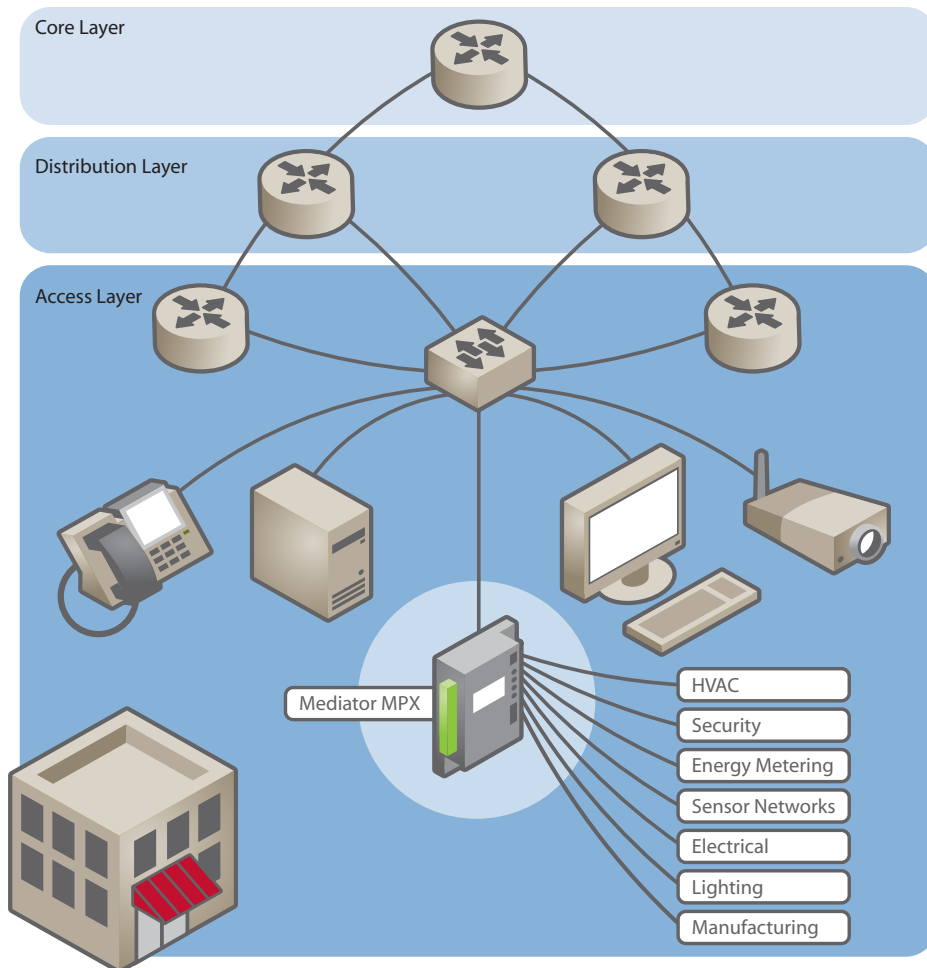


FIG. 1

This illustrates the role of the Mediator™ within a building from a network design perspective. In addition to supporting a number of IP based services and protocols, the Mediator™ is uniquely positioned to extend what has traditionally been considered the network edge, to serial based devices that currently occupy building's the world over.

parties to securely consume and manipulate this information. These different parties might include operations staff performing diagnostics or executives examining custom reports via their browser. These benefits might also be extended to tenants controlling their personal environment via their Cisco IP phone, other intelligent machines performing automated operations, or even value add service providers that specialize in specific areas such as predictive maintenance or energy management. The point being, that once this data has been liberated by the Mediator™ and these disparate protocols represented in a uniform IP-centric fashion, then all of the information from these systems, which exist in virtually every building in the world, can now be leveraged for the sole benefit of improving operations.

FIG. 2

The Mediator™ extracts data from a variety of different physical interfaces, determines semantics through its multi-protocol support, applies domain-centric attributes and proffers this information to a variety of different consumers. Though the value of the information certainly increases as one progresses towards the top of this illustration, it builds from the critical foundation of protocol agnosticism. Central to this value proposition is the Mediator's MPX™, which abstracts the data into a common object model, allowing for uniform processing, presentation and sharing of data between sub-systems.

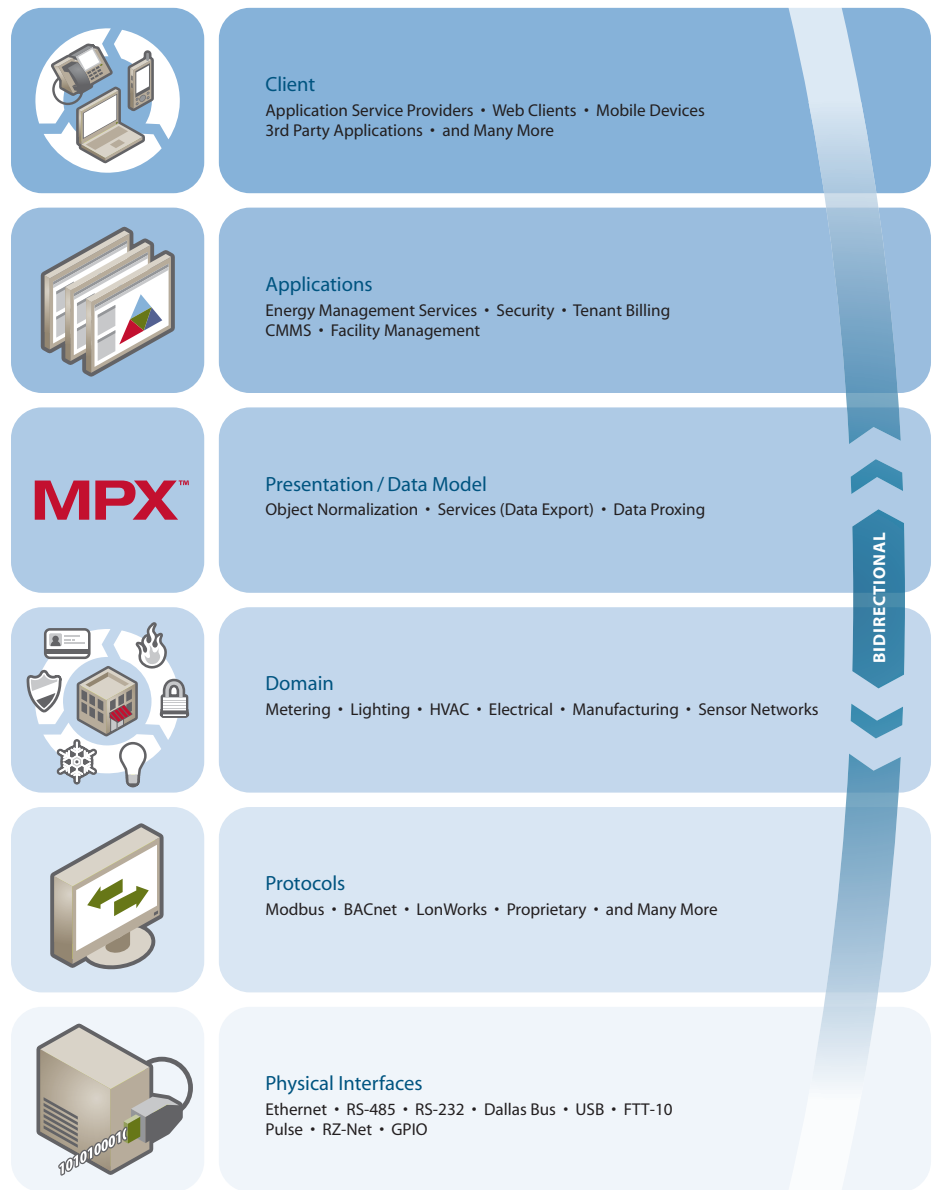


FIG. 2



The value of the Mediator™ can be highlighted by the following points:

- Creates a number of customer/CCRE options for vertical and horizontal integration solutions.
- Future-proof. It is a modular solution that is designed to evolve with current and potentially nascent IT requirements.
- It is a scalable solution that can meet the needs of projects of various sizes, without requiring specialized hardware or software.
- Opportunities exist to reduce both CAPEX & OPEX.
- Provides a powerful software framework that aggregates disparate building information and links these systems to Target Applications, such as Centralized Facility Operations Centers.

Richards-Zeta possesses over 20 years of Building Automation Systems (BAS) expertise, which is not only essential to understanding the market opportunity posed by migrating building systems to an IP centric solution, but is also critical to the development of this multi-billion dollar industry. As with core Cisco product sales into the IT domain, the building systems sales process has its own unique drivers and value propositions. By association with Richards-Zeta, Cisco's sales, marketing, engineering organizations and external Cisco Partners will have ready access to a wealth of industry expertise. Richards-Zeta's world-wide network of System Integrators (RZ SI's) stands ready to assist the regional and local sales teams of Cisco and their chosen partners, to deliver these innovative Cisco Connected Real Estate (CCRE) solutions.



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