



Straight Talk from the Corner Office

Bringing the Intelligent Office to Your Business



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Welcome again to *Straight Talk*, one of the ways Coranet shares perspectives on important issues and opportunities in business communications.

When it comes to technology, we certainly live in exciting times, but it can often be difficult to cut through the buzz to get a clear view of real business benefits and impacts. Case in point: the topic of automation has been getting considerable attention from the press lately – whether in the form of self-driving cars, the increased use of robotics in industrial operations, or in the much ballyhooed vision for the *Internet of Things*, in which nearly every aspect of our business and personal lives is connected to an automated sensor or system.

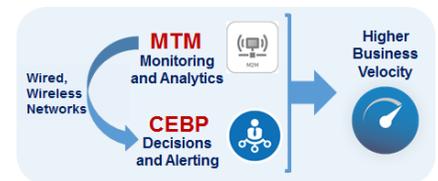
Since a number of clients have asked us about the practical aspects of automation and how it can bring real-world benefits to their companies, we'll use this summer issue of *Straight Talk* to take a look at two proven forms of enterprise automation – *Machine-to-Machine (M2M)* technology and *Communications-enabled Business Process (CEBP)* – together with a highly relevant use case that combines the two.

M2M and CEBP Explained

The effectiveness by which nearly every form of business technology is measured is the degree to which it improves performance metrics like efficiency, productivity and operational expense. Working together, M2M and CEBP can be highly effective in driving measurable business improvements not only in these attributes, but in many others as well.

The idea behind both forms of automation is fairly straightforward. Machine-to-Machine technology is all about connecting data-gathering devices to software applications that integrate and analyze the various inputs – tasks that would normally consume an employee's time.

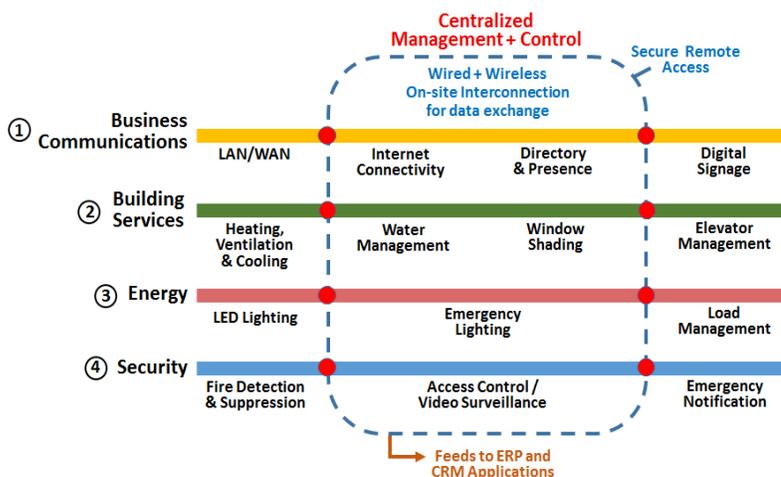
Once the M2M data analysis is completed (typically in seconds), the Communications-enabled Business Process Solution then utilizes rules-based software to decide on a course of action, and concurrently communicates real-time updates and insights to designated individuals (such as IT staff, knowledge workers, executives, customers or suppliers) using voice, instant messaging, SMS or email. The net result is the acceleration and optimization of business workflows through the reduction or elimination of 'human latency'. Tasks get completed faster and with higher accuracy, together with responsible individuals having immediate access to the status of important business workflows.



A Key Use Case: The Intelligent Office

In the business domain, one of the most well-developed use cases combining M2M and CEBP is the *Intelligent Office* (also called the *Smart Office*). In essence, the Intelligent Office is an advanced technology solution that provides comprehensive management of a company's technology in order to *improve business speed and lower overall operating expense while increasing employee productivity and job satisfaction*.

Unlike traditional offices where most operations – whether core IT concerns like network capacity and performance monitoring, or general environmental needs like air conditioning and physical access control – are managed separately, the Intelligent Office uses an integrated approach to bring all building services into a common monitoring and management system. When properly architected, an Intelligent Office solution brings together four core functional areas (as shown below) that touch all of your employees or tenants.



Cisco was one of the first major providers to embrace Intelligent Building technology with their *Cisco Connected Real Estate (CCRE)* Building Management solution portfolio. Typically deployed in a customer's on-site or cloud data center, a CCRE solution utilizes multiple sensors that monitor a wide range of building attributes in real time – temperature, humidity, water consumption and physical occupancy to name but a few – all interconnected using copper, fiber optic or wireless LAN (WLAN) technologies.

At the heart of the Intelligent Office is the *Intelligent Decision Support System*, or DSS. Coupling a powerful data analytics and reporting engine with Middleware that gathers data from all monitored

systems and merges it into an integrated view, the DSS performs automated control of all sub-systems and provides enterprise leadership or property management with at-a-glance and end-to-end operational visualization of the entire office infrastructure.

Tangible Business Benefits

According to a recent study by the *IBM Institute*, a well-designed and deployed Intelligent Office solution can drive an impressive set of business impacts as seen on the right. While benefits will clearly be company-specific, IBM's findings track fairly closely with the typical gains our clients have realized.

- ▶ Reduction in energy consumption an average of 50 – 70%
- ▶ Lower water usage by 30 – 50%
- ▶ Average employee productivity gains of up to 18%
- ▶ Employee satisfaction improvements up by 27%
- ▶ Reduction in building maintenance costs by 10 – 30%

Although not as easily factored into ROI calculations as electrical or water usage savings, we've found that most business leaders are keenly interested in leveraging Intelligent Office solutions to make improvements in worker productivity, job satisfaction and retention.

Often overlooked, proper lighting plays an important role in contributing to these employee outcomes. A landmark 2012 study by the *International Journal of Industrial Ergonomics* found that LED lighting systems not only consumed significantly less energy and lasted longer with brighter output, but also outperformed traditional lighting in every key employee metric involving reduced fatigue, positive mood, extended wakefulness and speed-of-performance.

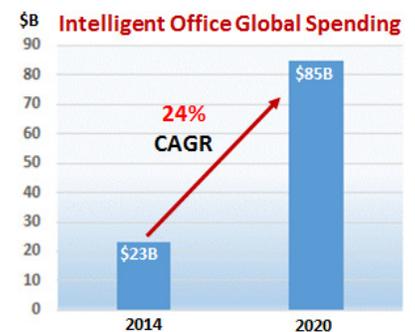
As a head's up, expect to see terms like "maximizing employee comfort" when investigating Intelligent Office solutions. While certainly not a traditional business concept, it is used frequently in the context of Intelligent Office solutions to describe the positive performance impacts experienced by building occupants when environmental conditions like temperature, air quality and humidity are properly managed.

In terms of desired business contributions from Intelligent Office adoption, it's also worth keeping in mind that in addition to lowering operational cost structure, your efforts in reducing energy, water consumption and greenhouse gas emissions can enhance external perceptions of your brand, as well as fostering a healthy people-friendly work environment.

Intelligent Office Outlook

To date, most of the specialized tracking and analysis of Intelligent Office adoption has been undertaken by London-based research firm *Memoori Business Intelligence*.

During their interactions with business leaders, commercial property developers and real estate management firms regarding their going-forward technology investment plans, Memoori sees very strong spending growth for Intelligent Office technology – not only in the U.S. but in all global GEOs. As shown on the graph, in a time when most IT categories are experiencing CAGRs in the mid-single digits, spending on Intelligent Office technology is enjoying growth rates over 3x higher.



Source: *The Internet of Things in Smart Buildings 2014 to 2020* (Memoori)

A Few Business Considerations

Regarding those companies that can benefit from Intelligent Office technology, it's important to note that the use of Intelligent Office technology is not limited to new construction -- significant gains can also be realized for deployments in existing properties or when relocating employees to new building locations.

As a highly sophisticated advanced technology, the design, deployment and lifecycle support of Intelligent Office solutions currently falls outside the experience and technical competence of many business communication providers. If you decide to move forward, be sure to carefully evaluate potential partners as to their ability to provide expert insight and guidance at each key step in the evaluation and adoption process. Since Intelligent Office deployments span multiple disciplines, make sure that your preferred provider has expertise – either directly or through an affiliate – with mechanical, electrical, security and facilities management systems, as well as with structured cabling for interconnecting all the various system components.

One final thought: in previous Straight Talks, we have addressed the growing problem of cybercrime and the critical importance of well-thought-through and properly executed security measures. Given the inherent integration of multiple sub-systems, intrusion prevention takes on heightened importance with Intelligent Office solutions. Be sure to make security a top priority when planning and designing your solution.

Thank you for joining me in our brief discussion on business automation and the benefits of Intelligent Office solutions. Although one can hardly do justice to a complex topic like this in a short overview, I hope it has been useful. I welcome your feedback -- please direct any questions or comments to questions@coranet.com.

Margaret