**Opportunities that exist in intelligent building**

**Sustainable construction process**

On an intelligent project the design document files should readily extend into the construction process. The goal is to keep as much of the construction process as “paperless” as possible. Keeping updated electronic documentation is valuable, not just because it reduces cost during the construction process, but also because it forms the basis for continuous documentation of the project. In reality the mission of many buildings is constantly in flux, resulting in the construction process is never being totally done. Having accurate documentation of how the building is constructed and modified provides the ability to bring this information into operations.

From an environmental or green perspective intelligent building use construction processes that are sustainable. This means looking to minimize construction waste, utilize environmentally friendly materials, develop on brown field sites and recycle materials whenever possible.

**Low operation cost**

Intelligent buildings are also efficient buildings; therefore operating costs are significantly lower. More accurate monitoring and control of energy-intensive systems like HVAC and lighting help keep costs in check. For example installation of motion detectors at each work station would essentially carry the same cost whether it is used for a single or multiple Intelligent Building systems such as:

•Temperature and air flow reset per on the *HVAC system*,

•Light shut down on the *Lighting system*,

•Occupancy / non-occupancy on the *Security system*.

**Flexible for future technology**

While no one can foresee where the future of technology is going, experts predict that a building with an IP backbone will be ready to support almost anything that comes onto the market. And, with tenant needs changing, it's important to have a building flexible enough to adapt quickly.

**Early Return on Investment**

The intelligent building approach can be used in new construction as well as existing buildings. In most cases the return on investment is less than two years. Intelligent building can save money because it can:

* Monitor energy consumption in real time to more quickly discover inefficiencies

The system automatically sends an email message when something unexpected occurs, such as when an air handler begins operating 24 hours a day.

* Prevent bigger problems

Finding out that a chiller plant is low on coolant or that a back-up generator didn’t start can enable an agency to avert a data center crash.

* Reduce equipment acquisition costs:

Intelligent buildings system gives government facilities the flexibility to work with multiple systems and vendors instead of just one.

* Extend equipment life

Access to complete information about building systems helps facilities departments find ways to reduce the number of hours that systems operate. This can extend the lifetimes of assets ranging from compressors and transformers to light bulbs. Extending equipment life also reduces industrial waste and the need to mine natural resources for new manufacturing.

**Greater control and integration**

The growing use of computers, digital technology and the internet means that many traditional technologies are becoming easier to use, cheaper to purchase and more efficient to operate. One such area to benefit from these advances in technology is the CCTV camera and security system.

Intelligent buildings provide greater control and integration than traditional CCTV (Closed Circuit TeleVision), security, building and power management system whilst providing increased cost reductions.

Some opportunity form these systems are

* To incorporate digital technology to maximize operational efficentcy with subsequent space and cost savings.
* Demonstrate a proactive approach to security issues, health and safety.
* Integrate the latest security and broadband communication techniques to differentiate site and services from the competitor
* To be able to publicity or privately report measured and controlled environment information