

Technologies

- Understand technologies that support
 - CAD, CAFM, CMMS
 - Project management, Asset management
 - Cost analysis
- Establish & maintain infrastructure & technology to support organizational business goals: hardware & software supporting:
 - Voice, information
 - Data and media operating systems
- Know with whom and how to best interact to maintain goals



CFM Technology Competency

- Pivotal role of Facility Managers
 - Development
 - Implementation
 - Maintenance...of IT systems
- Assess and predict future requirements
 - FM Department
 - Overall IT Strategy
- Activities include:
 - Acquire, implement & maintain systems
 - Deploy assets
 - Dispose of technologies as required



CFM Technology Competency

- Influenced by & influences every other competency
- Two major components
 - Plan, direct & manage Facility Management Business & Operational technologies
 - Plan, direct, manage and/or support the Organization's Technological Infrastructure



Business & Operations

- Monitor information & trends
- Identify & interface with accountable resources
- Evaluate & recommend FM technology solutions
- Assess how changes in technology impact current processes & systems
- Plan for implementation of FM technologies
- Recommend & communicate policies
- Establish practices & procedures
- Develop & implement training programs
- Monitor performance of technologies & improve as needed
- Manage corrective, preventive & predictive maintenance
- Develop emergency procedures & disaster recovery plans



Organization Technological Infrastructure

- Monitor information & trends
- Identify & interface with accountable resources
- Contribute FM perspective to evaluations & recommendations
- Assess how other resource's changes will affect current processes/systems
- Direct, manage or support components for infrastructure technologies
- Manage or participate in development of policies, practices, procedures
- Manage or participate in the development & implementation of training programs
- Manage or support corrective, preventive and predictive maintenance
- Manage or participate in testing & implementing emergency procedures and disaster recovery plans



Performances

Monitoring Trends To Ensure That:

- FM requirements are included when changes are being considered
- Future needs are considered when emerging trends are incorporated into planning
- Recommended solutions are cost effective & compatible with existing technology
- Review of recommendations are done efficiently & effectively
- Decisions can be made with confidence
- Communications with other entities are effective & efficient
- Interfaces & integration with outside entities are effective



Identification & Interface w/Accountable Resources to Ensure that:

- Redundancies & rework are reduced
- Roles & Responsibilities clearly defined
- Decisions are efficient & accurate
- Solutions are implemented competently & effectively
- Costs are justified or reduced
- Needs are met
- Support is provided
- Effective working relationships are developed
- The FM is included in the decision making process
- Systems may be effectively integrated.



Evaluate & Recommend FM Technology Solutions To Ensure That:

- Business needs are met
- Opportunities to minimize costs are optimized
- Info about new technology is part of assessments & recommendation
- Resource use is optimized
- Appropriate consideration is given to alternatives
- System ability is considered in decisions
- Criteria for decision making includes:
 - Life Cycle issues & backup/auxiliary systems
 - A process for continuity of services
 - Facility must support the change
 - People have appropriate skills to support the change



Impact on Current Processes & Systems

To Ensure that:

- Business needs are met
- Opportunities to minimize costs are optimized
- Resource usage is improved
- Other systems and technology will not be negatively impacted



Plan for Implementation of FM Technologies to Ensure That:

- User needs are met
- Roles & responsibilities are clearly defined
- Redundancies are reduced
- Vendors have a clear understanding of what they have to furnish
- Contractual commitments are fulfilled & Components meet specifications
- Tests are conducted to verify performance under all conditions & to validate warranties & agreements
- Installation and setup is timely and performed by professionals
- Supporting documents are received & disseminated appropriately
- Best service agreements & costs are negotiated
- A good relationship with vendor is established & maintained



Establish Policies, Practices & Procedures To Ensure That:

- The desired result is articulated & is understood
- Decisions are made that support business needs & objectives
- Customer needs are met
- Decisions made under emergency conditions reflect business philosophy
- Conflicts over system performance & allocations are resolved easily
- The technological infrastructure is properly maintained and upgraded
- Personnel understand their roles & responsibilities in order to perform their jobs & respond to the emergencies & disaster recovery needs
- Business is minimally impacted during an emergency or disaster



Establish Departmental Policies, Practices & Procedures To Ensure That:

- Operating procedures (daily, emergency & disaster recovery) are documented & standardized
- Systems operations are efficient, effective & deliver quality output
- Cost benefit is optimized
- Operations comply with Health, Safety and Environmental Requirements & Regulations
- Staff is well trained; reassignment are performed with minimal downtime
- Roles & responsibilities during emergency situations are defined
- Emergency procedures are in place & practiced
- Appropriate “back-up” systems are identified and in place to minimize risk to personnel, buildings, equipment & materials, the environment and the community



Develop & Implement Training Programs To Ensure That:

- Policies, practices & procedures are understood & implemented
- Technological systems are properly operated, maintained & upgraded
- Personnel perform their jobs competently
- Personnel can respond to emergencies & perform disaster recovery
- Customer needs are met
- Business is minimally impacted during an emergency or disaster



Monitor The Performance Of FM Technologies To Ensure that:

- Use & operations are analyzed to determine efficiency & effectiveness
- Actual performance is compared with standards and expectations
- Shifts in usage are noted & accommodated
- The need for predictive maintenance is determined
- The need for back-up and auxiliary systems is determined
- Changes in training, equipment & procedures is determined
- Ability to meet future demand is anticipated
- Changes in operational & maintenance budgets are evaluated
- Advisability of introducing new technologies is forefront
- Required audits are conducted
- Employee well-being, safety & health isn't compromised



Manage Corrective, Preventive & Predictive Maintenance To Ensure That:

- Interruption of service to users is minimized
- Liabilities & Risk to personnel, equipment, image, and the environment are minimized
- Operational image is maintained
- Return on investment is maximized
- Cost-benefit of repair vs. replacement decisions can be made
- Legacy systems are replaced when cost effective
- Staff is trained, assigned & scheduled appropriately
- Warranties & service agreements are kept in force
- Recommended maintenance schedule & procedures are considered
- Funding for back-up and auxiliary systems, as well as maintenance, testing equipment & supplies is budgeted.



Preparation Of Emergency Procedures & Disaster Recovery Plans To Ensure That:

- All critical systems are identified & prioritized
- Back-up systems & critical databases are available during emergencies
- Emergency practices & procedures are implemented properly
- Auxiliary systems function properly
- Appropriate resources & agencies are apprised of expectations in case of an emergency
- Vendors & suppliers are accessed to assist in restoring systems
- Risk & liability are minimized
- Proactive measures are designed to minimize occurrences & loss
- Business reopens as soon as possible after an emergency or disaster



Questions

Technology in FM

- Of the four factors listed below, which area must be dealt with first to assure successful implementation in developing a sound strategic plan for technology in the Facility Department?
 - A. The sophistication level of the facility department staff toward automated systems.
 - B. The ability to integrate FM automation into the framework of the overall organizational technology plan
 - C. The commitment of adequate FM and IT resources that will be necessary to complete the project.
 - D. Completion of a comprehensive needs analysis that clearly demonstrates the advantages of automation for this organization.



Technology in FM

- Which of the following data collection areas can most benefit from the automation process within a large facility operation?
 - A. Energy Management
 - B. Predictive Maintenance
 - C. Staffing and work scheduling
 - D. Budget formulation and execution



Technology in FM

- As part of the implementation of a new automated system within the facility management department, which of the following four priorities must be addressed initially?
 - A. That all existing data is immediately transferred to the new system
 - B. The new system is integrated into the work processes of the parent organization
 - C. Data input is kept current as new procedures are refined and the initial databases are established
 - D. Management reports are produced so that new systems can be evaluated and refined.



Technology in the Organization

- In the development of close coordination with the IT Department in a large organization, the FM must be aware of this as a first priority.
 - A. That both IT and FM support the activities of the main mission of the overall organization.
 - B. Cooperation with IT is essential because of the many overlapping functions of the two departments
 - C. Improvement of productivity is an important issue in any organization and currently many IT functions promote productivity gains.
 - D. The importance of a sound and functional automated network is a primary function for the facility manager.



Technology in the Organization

- Within the context of a business contingency plan, the most important element that needs to be coordinated between IT and FM is:
 - A. Backup site and number of essential employees
 - B. Configuration of computers and necessary software
 - C. Emergency call lists
 - D. FM systems at an off-site location



Technology in the Organization

- In determining the build-out of a new computer facility, primary FM consideration should be given to:
 - A. Layout of the space to accommodate equipment and operators
 - B. Equipment loads required for electrical and HVAC operation
 - C. Adjacencies to other IT locations
 - D. Strategic plans for IT systems over the next three years.



Technology in FM

- Which of the following four success criteria is the least important in developing and implementing a solid facility automation program?
 - A. Enhance the productivity of the work force
 - B. Creation of a paperless system
 - C. Reduce maintenance failures
 - D. Improve customer relations



Technology in FM

- Relational databases in an automated system are important because:
 - A. All data items must be sequenced in order
 - B. Cost considerations are an important element of the system
 - C. Different data elements should be able to be grouped together for analysis
 - D. Each equipment category must be complete



Technology in the Organization

- Web based Facility Management systems are preferred when:
 - A. The parent organization has an excellent web site that is widely used by their customers
 - B. Facility information is used for collaboration with many different organizations inside & outside of the FM department
 - C. Internal facility managers and associates are comfortable with using automation
 - D. Integration of existing systems is difficult to do internally



Technology in the Organization

- From a management standpoint, automated work order call centers are most important because:
 - A. Incoming calls are treated through standard protocol
 - B. Documentation of workload for planning & budget
 - C. Personal contact with the customer
 - D. Audit trail for uncompleted work



Technology in FM

- After implementing an integrated FM automation system, the most important element which must be addressed is:
 - A. Selling the system to clients
 - B. Designing and using management reports
 - C. Establishment of maintenance & upkeep of the system
 - D. Linkage with other corporate systems



Technology in FM

- In the development of an effective CAFM system, one of the most common problems during implementation is:
 - A. Trying to do too much too fast
 - B. Doing implementation with live data
 - C. Considering life cycle of equipment
 - D. Using quality control procedures



Technology in FM

- An effective Strategic Automation Plan centers around:
 - A. Automation objectives of the parent organization
 - B. Integration of all systems to a single platform
 - C. Meeting the needs of the implementation team
 - D. Training needs of the FM staff



Answers

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