Managing IT Security Projects

Change is good. You go first!

DILBERT (BY SCOTT ADAMS)

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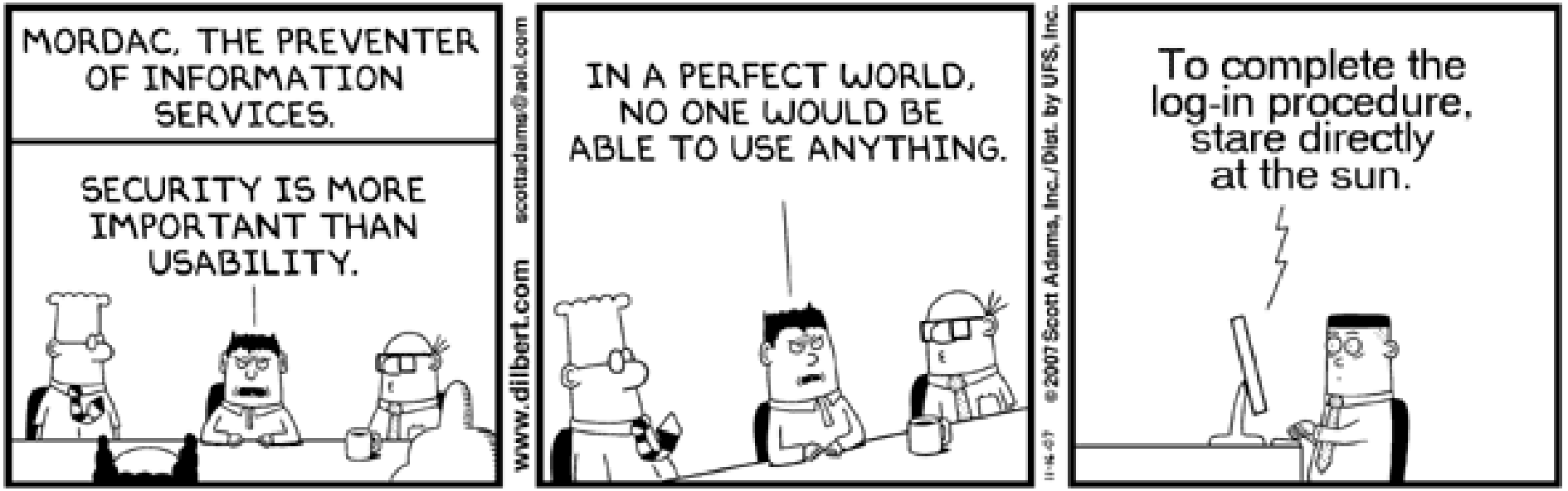


Introduction

- All IT projects require IT security baked in to the project plan from the start
- Planning for security in the project starts at the initial requirements phase
- IT security is designed, tested, retested and documented throughout the project
- IT security is part of the transition to Operations and Maintenance for continued support through the systems lifecycle until system retirement

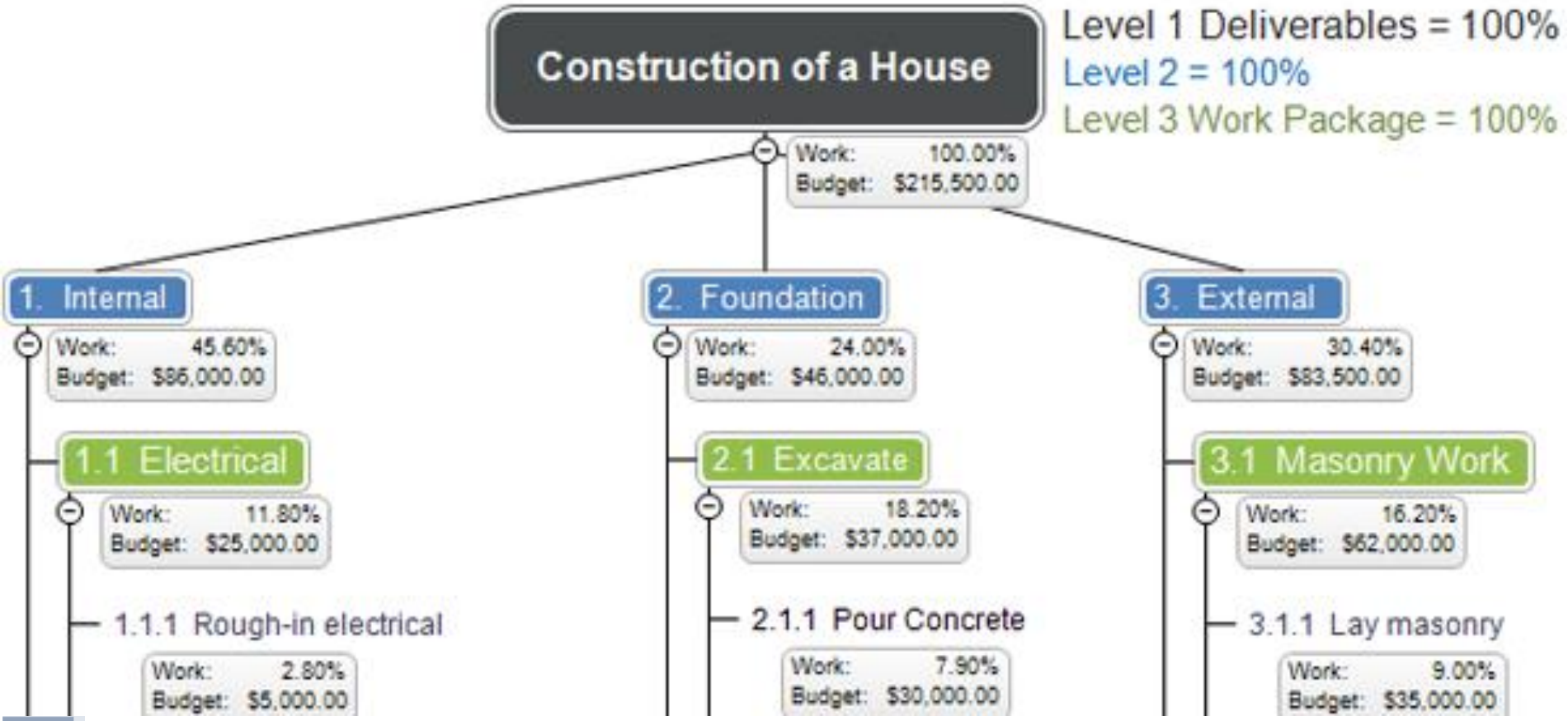
Project Management for Information Security

- Once organization's vision and objectives are understood, process for creating project plan can be defined
- Major steps in executing project plan are:
  - Planning the project
  - Supervising tasks and action steps
  - Wrapping up
- Each organization must determine its own project management methodology for IT and information security projects

Developing the Project Plan

- Creation of project plan can be done using work breakdown structure (WBS)
- Major project tasks in WBS are work to be accomplished; individuals assigned; start and end dates; amount of effort required; estimated capital and noncapital expenses; and identification of dependencies between/among tasks
- IT security should have its own WBS Task AND lines in each implementation activity

Work Breakdown Structure



Project Planning Considerations

- As the project plan is developed, adding IT security details is not always straightforward
- Special IT security considerations include financial; priority; time and schedule; staff; procurement; organizational feasibility; and training

Financial Considerations

- No matter what information security needs exist, amount of effort that can be expended depends on funds available
- Cost-benefit analysis must be verified prior to development of project plan
- Both public and private organizations have budgetary constraints, though of a different nature
- To justify an amount budgeted for a security project at either public or for-profit organizations, may be useful to benchmark expenses of similar organizations

Priority Considerations

- In general, most important information security controls should be scheduled first
- Implementation of controls is guided by prioritization of threats and value of threatened information assets

Time and Scheduling Considerations

- Time impacts dozens of points in the development of a project plan, including:
  - Time to order, receive install and configure security control
  - Time to choose IT security compliant devices and software
  - Time to test IT security systems and procedures
  - Time to train the users
  - Time to realize return on investment of control

Staffing Considerations

- Lack of enough qualified, trained, and available personnel constrains project plan
- Experienced staff often needed to implement available technologies and develop and implement policies and training programs

Procurement Considerations

- IT and information security planners must consider acquisition of goods and services
- Many constraints on selection process for equipment and services in most organizations, specifically in selection of service vendors or products from manufacturers/suppliers
- These constraints may eliminate a technology from realm of possibilities

Organizational Feasibility Considerations

- Policies require time to develop; new technologies require time to be installed, configured, and tested
- Employees need training on new policies and technology, and how new information security program affects their working lives
- Changes should be transparent to system users, unless the new technology intended to change procedures (e.g., requiring additional authentication or verification)

Training and Indoctrination Considerations

- Size of organization and normal conduct of business may preclude a single large training program on new security procedures/technologies
- Thus, organization should conduct phased-in or pilot approach to implementation

Scope Considerations

- Project scope: concerns boundaries of time and effort-hours needed to deliver planned features and quality level of project deliverables
- In the case of information security, project plans should not attempt to implement entire security system at one time

The Need for Project Management

- Project management requires unique set of skills and thorough understanding of a broad body of specialized knowledge
- Most information security projects require trained project manager or skilled IT manager versed in project management techniques

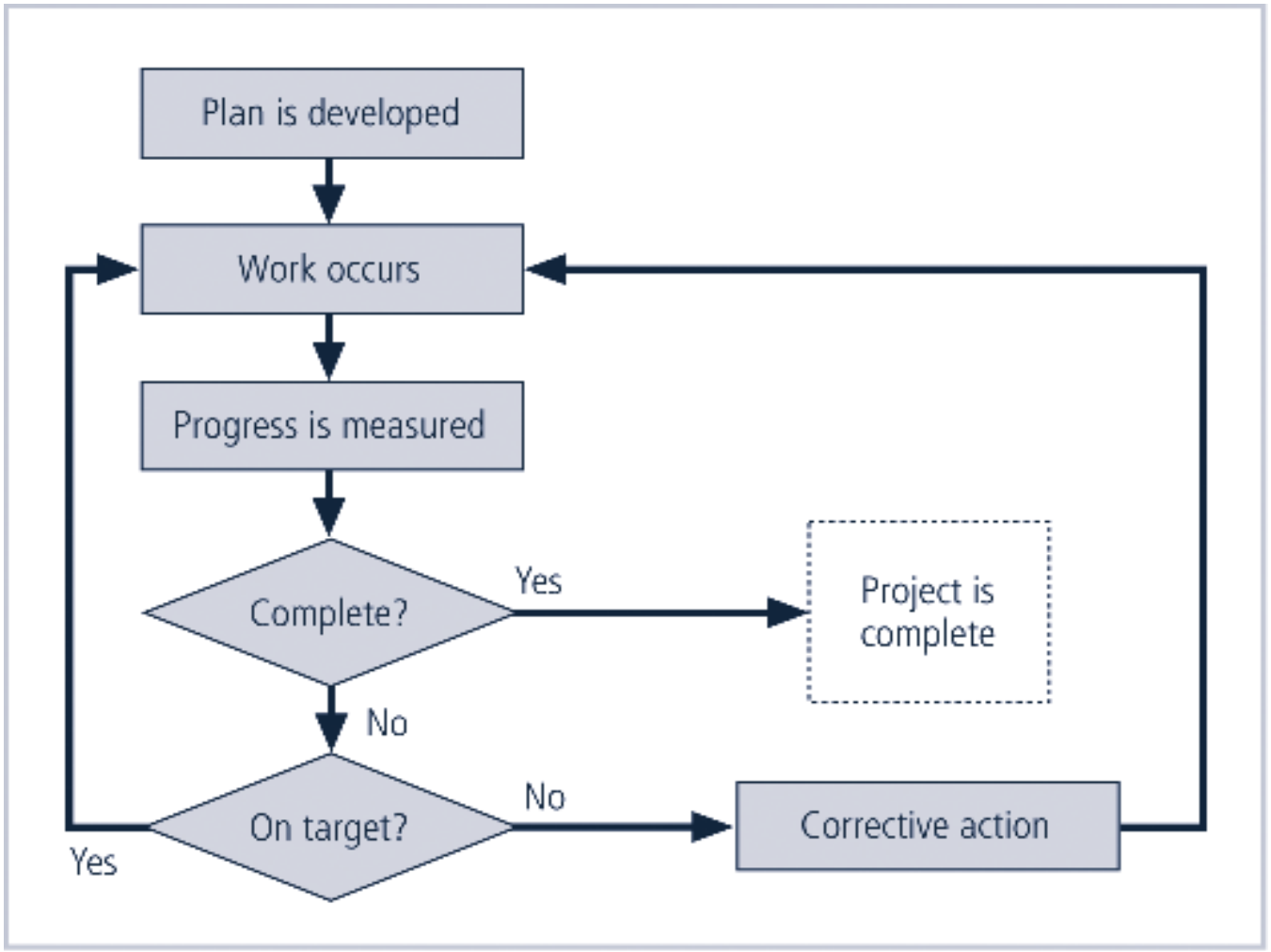
The Need for Project Management

Supervising Implementation

- Some organizations may designate champion from general management community of interest to supervise implementation of information security project plan
- An alternative is to designate senior IT manager or CIO to lead implementation
- Optimal solution is to designate a suitable person from information security community of interest
- Up to each organization to find most suitable leadership for a successful project implementation

Executing the Plan

- Negative feedback ensures project progress is measured periodically
  - Measured results compared against expected results
  - When significant deviation occurs, corrective action taken
- Often, project manager can adjust one of three parameters for task being corrected: effort and money allocated; scheduling impact; quality or quantity of deliverable



Negative feedback Loop

Project Wrap-up

- Project wrap-up is just as important as project planning
- Good IT security installed during the project is wasted if not imparted to operations and maintenance activities
- Collect documentation, finalize status reports, and deliver final report and presentation at wrap-up meeting
- Goal of wrap-up to resolve any pending issues, critique overall project effort, and draw conclusions about how to improve process

Summary

- IT Security is “baked in”, not “bolted on”
- IT Security is included in the first document and the first meeting of a project
- IT Security is included throughout the project

Bolt-On Solution