

# Utilizing Defect Management for Process Improvement

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## What This Presentation Will Cover

How to Appropriately Classify and Measure Defects

What to Measure in Defect Tracking

Utilizing Risk Analysis in Defect Management

Finding the Weak Links in Your Processes

Improving Processes with Effective Defect Management

What to Report to Management

## Appropriately Classifying Defects

**What Phase of the Project ?**

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**Severity and Priority?**

**Initiation**

**Critical**

**High**

**Definition**

**Major**

**Medium**

**System Design**

**Minor**

**Low**

**Programming**

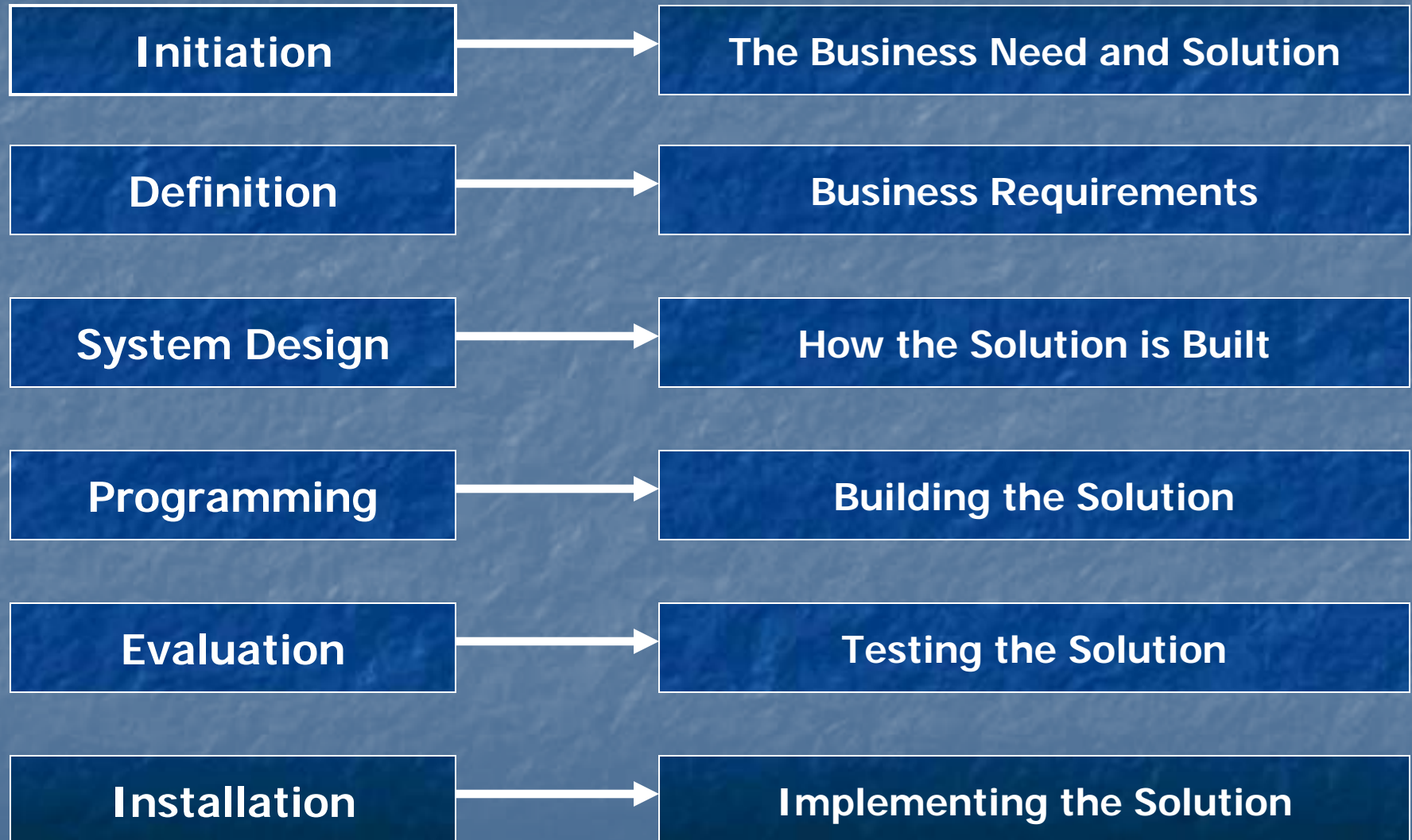
**Enhancement**

**Nice to Have**

**Evaluation**

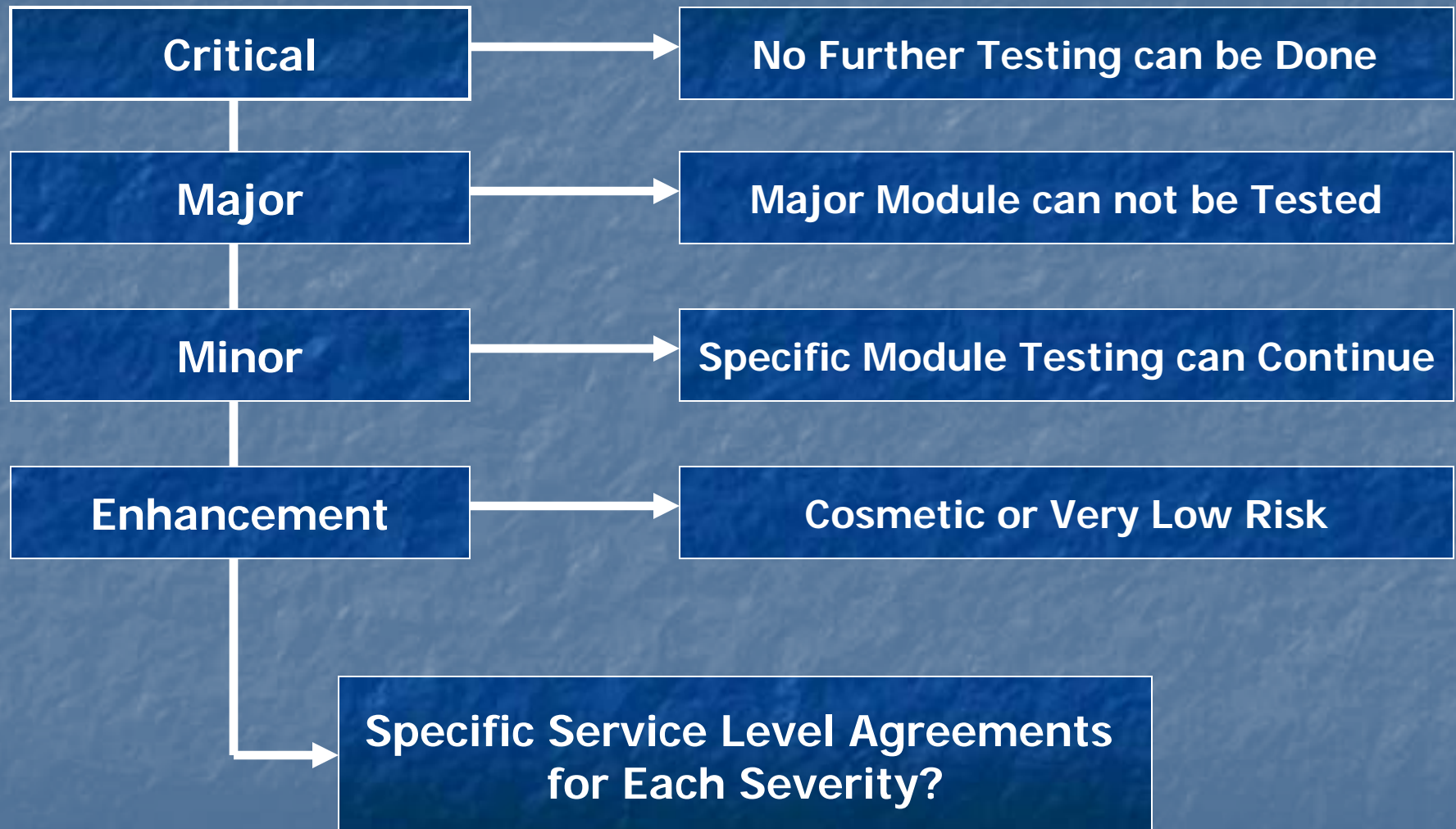
**Installation**

## Appropriately Classifying Defects

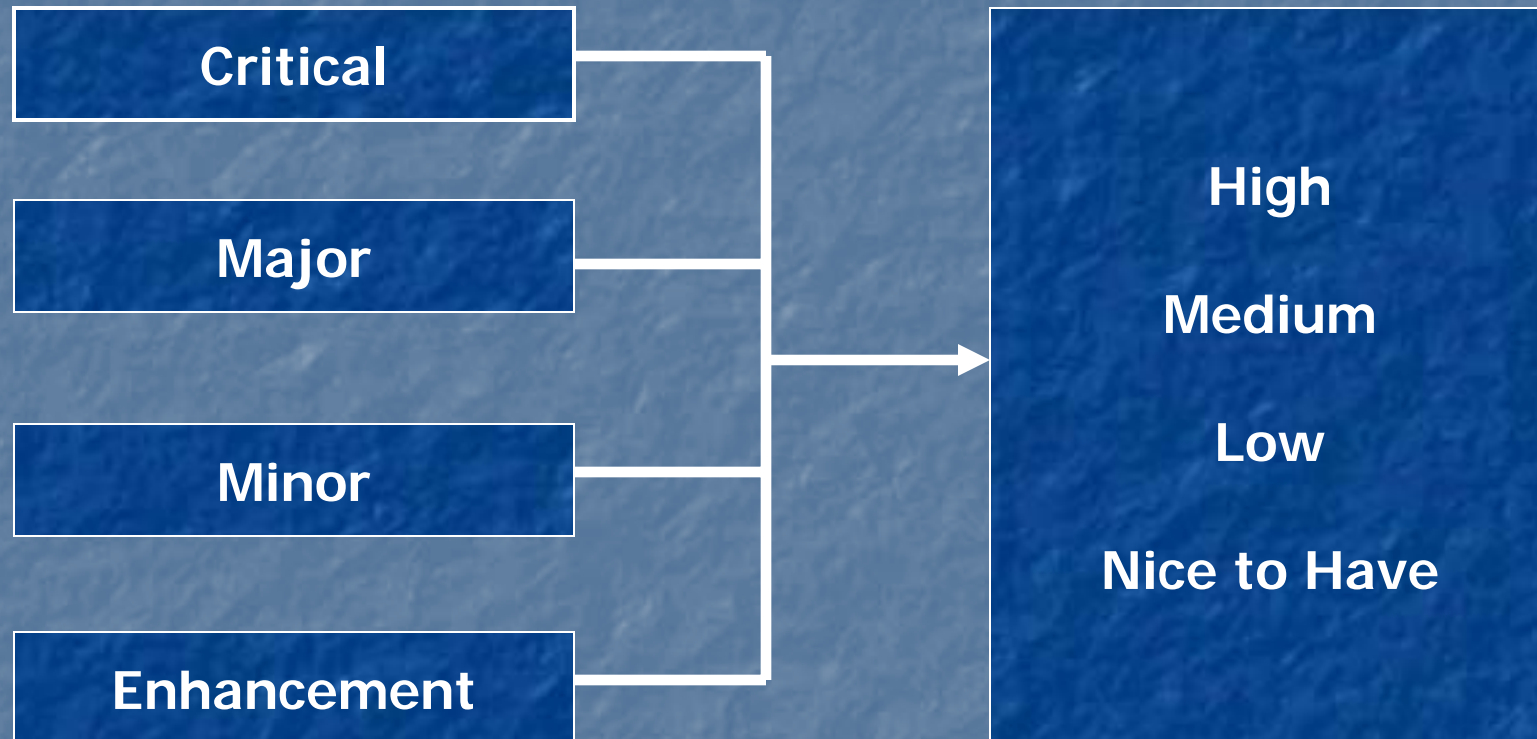




## Appropriately Classifying Defects



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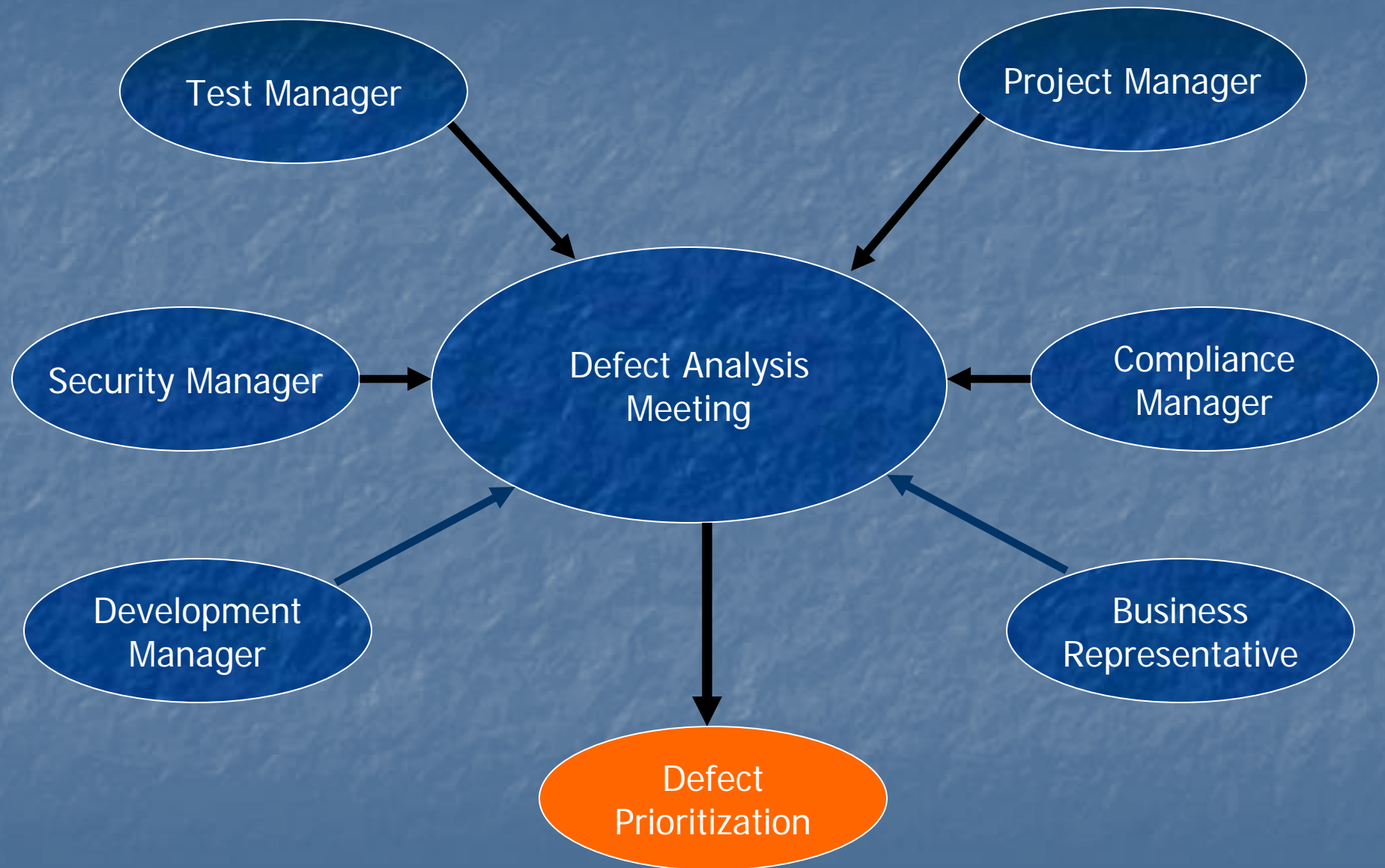
## Utilizing Risk Analysis in Defect Management

**Risk – The impact financial or business impact of an event versus likelihood of the event occurring.**

### **Solutions:**

- Identify and Resolve**
- Mitigate the Risk**
- Pass the Risk**
- Nothing**

## Utilizing Risk Analysis in Defect Management





# Utilizing Risk Analysis in Defect Management

## Why a Defect Analysis Meeting?

Identification of Business Critical Functionalities

Severity and Priorities are Usually Determined by one Person

Business or Customer Objectives have Changed

Legislative or Contractual Obligations

Budget, Time and Resource Constraints

Identification of Weak Processes

# Finding and Improving Processes with Defect Management

## In What Phase are Defects Found?

### Initiation

Is There a Clear Understanding of the Business Need?

Are Adequate and Sufficient Resources Identified and Procured?

Are Project Risks and Assumptions Identified and Communicated?

Are Roles and Responsibilities Well Defined, Communicated and Understood?

# Finding and Improving Processes with Defect Management

## In What Phase are Defects Found?

### Definition

Is There Adequate User and Development Interaction?

Are Tools Such as Process Flow Diagrams, Requirements Prioritization And Business Use Cases Utilized?

Have System Dependencies, Constraints, and Performance Requirements been Gathered and Documented?

Has there Been a Formal and Effective Requirements Inspection?



# Finding and Improving Processes with Defect Management

## In What Phase are Defects Found?

**Design**

**Are System Interdependencies Documented and Mapped?**

**Have System Security Issues been Identified and Addressed?**

**Have File, Table and Record Formats been Defined in accordance to System Standards?**

**Has there Been a Formal and Effective Design Inspection?**



# Finding and Improving Processes with Defect Management

## In What Phase are Defects Found?

### Programming

Have System Standards such as Naming Conventions been Followed?

Are Programmers, Business Analysts, and Testers Effectively Communicating?

Have System Dependencies, Constraints, and Performance Requirements been Considered?

Has there Been a Formal Code Review?

Has Proper Documentation and Communication of Unit Test Results Been Forwarded to Testing?

# Finding and Improving Processes with Defect Management

In What Phase are Defects Found?

## Evaluation

Has the Test Plan been Reviewed and Communicated?

Do the Test Scripts Cover, Negative, Positive, Load and Performance Criteria

Are Defects and Issues Prioritized, Well Described, and Repeatable?

Do Testers Possess the Skill Sets and Competencies Necessary For Success?

# Finding and Improving Processes with Defect Management

In What Phase are Defects Found?

**Installation**

Is an Implementation Plan Established and Communicated?

Are all Hardware, Software, and Resource Requirements  
Procured and Available?

Has a Contingency Plan Been Developed and Tested?  
Under What Conditions will it be Invoked?



# **What to Report to Management**

**Issues Impacting Business Critical Functionality**

**Identification of Weak Process Areas and Suggested Resolutions**

**Unstable or Weak Infrastructure Inherent in Code, Architecture, or Hardware and Suggested Resolutions**

**Deficiencies in Skill Sets and Competencies and Suggested Resolutions**

**Unrealistic Resource, Budget, and Time Constraints**



## **Are Automated Tools Right for You?**

**Is the Organization Able to Afford the Tool and Associated Training Costs?**

**Are Testers Specifically Trained in Testing Methodologies and Techniques?**

**Does Management Understand the Value of Implementing Effective Defect Management?**

**Is the Organization Actually Going to Utilize the Information Gained From an Automated Defect Management Tool?**

**Are Adequate Resources Available to Manage the Information Processed by the Tool?**

**Thank you for Attending!!**

**Questions??**

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