

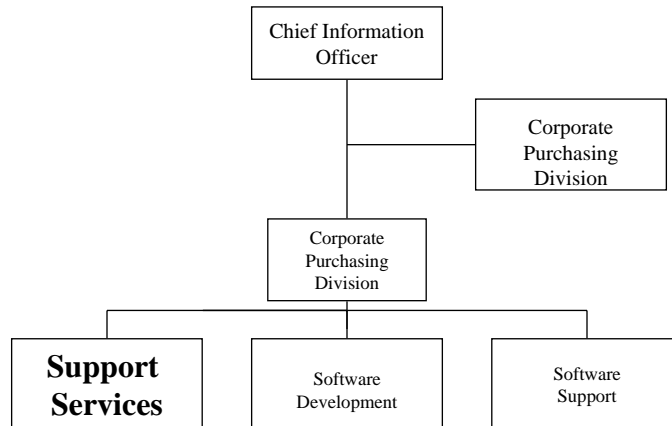
Process Assurance Audits: Lessons Learned

Session XY : ICSE'98
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Introduction

- Large Telecommunications MIS group
- New Process Assurance Function
- Small team of Process Ass. Auditors (4)
- Lessons from 1997 based on 20 audits
- Experimental Conformance Graphs

Organization



Goal of Process Assurance Audits

- Capture and document conformance to the Corporate Software Development Process
- Report directly to CIO on progress
- Short term: Measure Conformance
- Long term: Measure effectiveness of existing processes

Process Assurance and Conformance

- Process assurance compares factual process usage to baseline processes
- Process Assurance uses Quality Auditing processes and techniques
- Conformance is measured on 3 key perspectives.

Deliverables of the Process Assurance Audit

- 2 Reports:
 - » A two-page executive report
 - » A detailed report
- Measurements
 - » 1 Overall Measure
 - » 3 Conformance graphs

7 Step Process

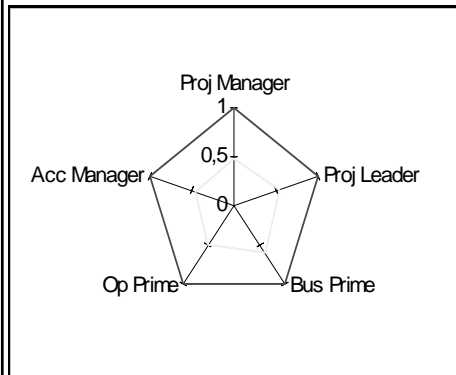
- Choice of the project using executive Criteria
- First contact with the project team (package)
- Response package from the Project Manager
- Review response package and questionnaire
- Audit (Opening Meeting, investigation interviews, exhibits reviews, conformance measurement, closing meeting)
- Reports (Executive and Detailed)
- Response follow-up and Mentoring

Measure Conformance

- If a mandatory role, process or product is not present it is rated as a major non-conformance.
- If it is present it is investigated using a qualitative evaluation process.
- Each perspective is rated, documented and presented to the project Manager for concurrence on findings

1997 Results - Roles & Responsibilities

0: NonConformance , 1: Full Conformance

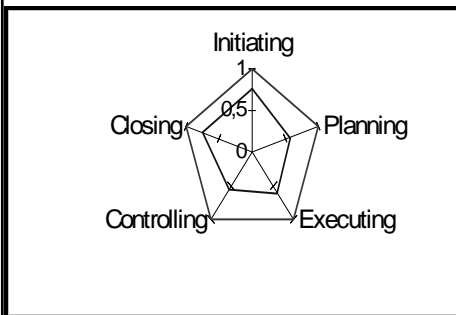


Major Causes:

Informal assignment of R&R 47%
 Responsibility Poorly Executed 21%

1997 Results - Project Management Processes

0: NonConformance , 1: Full Conformance

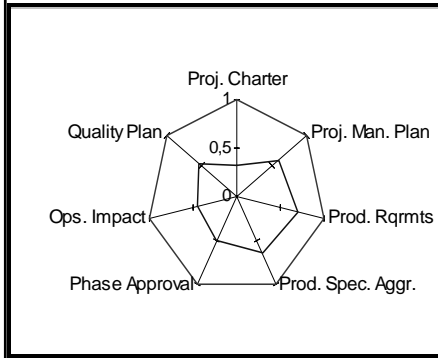


Major Causes:

Informal planning process 47%
 Informal control 21%

1997 Results - Mandatory Products

□ 0: NonConformance , 1: Full Conformance



Major Causes:

Lack of awareness of tail. guid. 47%
Incomplete/inaccurate product 21%
Misuse/absence of template 12%

Lessons Learned

- Scope of audit is too large
- Corporate Processes change rate
- Customer excluded from activity
- Findings not categorized
- No follow-up on audits
- Over optimist improvement targets