Enhance your IT Audit and Risk Credentials

Auditing General Information Technology Controls (GITCs)
Topics today

• The role of internal auditors in GITCs
• Purpose of GITCs
• Scope of GITC review
IIA practice guides - Global Technology Audit Guides (GTAG)

The GTAG series of Practice Guides describes the relationships among business risk, key controls within business processes, automated controls and other critical IT functionality, and key controls within IT general controls. Each guide addresses a specific aspect of IT risk and control assessment.

### Practice Guides — GAIT
Guide to the Assessment of IT Risk (GAIT)

The GAIT series of Practice Guides describes the relationships among business risk, key controls within business processes, automated controls and other critical IT functionality, and key controls within IT general controls. Each guide addresses a specific aspect of IT risk and control assessment.

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<thead>
<tr>
<th>Title</th>
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<tr>
<td>GAIT for IT General Control Deficiency Assessment</td>
<td>January 2009</td>
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<tr>
<td>GAIT for Business and IT Risk</td>
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### Practice Guides — GTAG®
Global Technology Audit Guide (GTAG)

GTAGs are written in straightforward business language and address timely issues related to information technology (IT) management, control, and security.

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<td>Assessing Cybersecurity Risk: Roles of the Three Lines of Defense</td>
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<td>Change and Patch Management Controls: Critical for Organizational Success, 2nd Edition (Previously GTAG 2)</td>
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<td>Continuous Auditing: Coordinating Continuous Auditing and Monitoring Provide Continuous Assurance, 2nd Edition (Previously GTAG 3)</td>
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<td>Understanding and Auditing Big Data</td>
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Role of Internal Auditors in GITCs

• Knowledge
• Investing in your knowledge
• Consultant or Assurance
• Independent Risk Assessments
• Design of controls
• Education
• Control Testing
• Application reviews
Why test GITCs?

• The dependency we have on IT systems
• Reliance on application controls
• Understand how the systems work
• Included in several operational and regulatory audits:
  • IT operational reviews
  • SOC-2 assessments
  • Payment Card Industry Data Security Standard (PCI DSS) reviews/audits
  • SOX-assessments
  • Project review assessments
### Coverage of GITC

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Risk-based Audit Approach

1. Validate Understanding
2. Perform Risk Assessment
3. Perform Testing
4. Conclude the review

Risk-based Audit Approach
Validate Understanding

• Application
• Owner/Support
• Description
• Users
• Database
• Operating System
• Hardware
• Remote capabilities
• Products/services offered via the internet
• Previously identified issues
• Outsourced systems/processes
System Processes

• Transactions
• Batch processing
• Interfaces between systems
Access Security

• User access provisioning
• Generic Access and Privilege Access
• User access de-provisioning
• User access review
• Password parameters

Common Weaknesses
• User access de-provisioning
• Excessive access for some systems
• Weak password settings
System change control

- Change management policy
- Testing in development environment
- User Acceptance Testing
- Apply changes in production environment
- Segregation of duties

Common Weaknesses
- Segregation of duties
- No audit trail
Data centre and network operations

• Regular back-up
• Business Continuity Plan (BCP)
• Firewalls in place
• System updates or patch installations

Common Weaknesses
• BCP is not tested
• Patches not updated
Outsourced providers for infrastructure services

- Service level agreements
- Reporting
- Confirmation of control effectiveness

Common Weaknesses
- No control effectiveness review
- Unclear relationship management
Concluding on identified weaknesses

• Errors identified
• Mitigating controls
• Recommendations
Any Questions?