

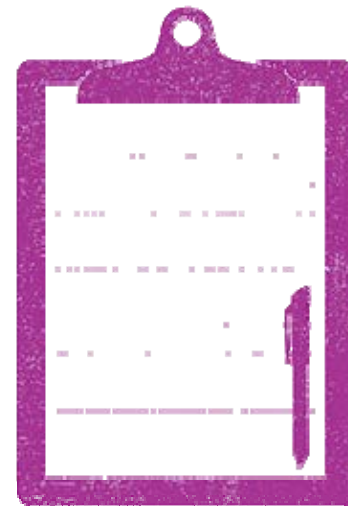


Integrated IT Audits

What are they and suggested practices

Agenda

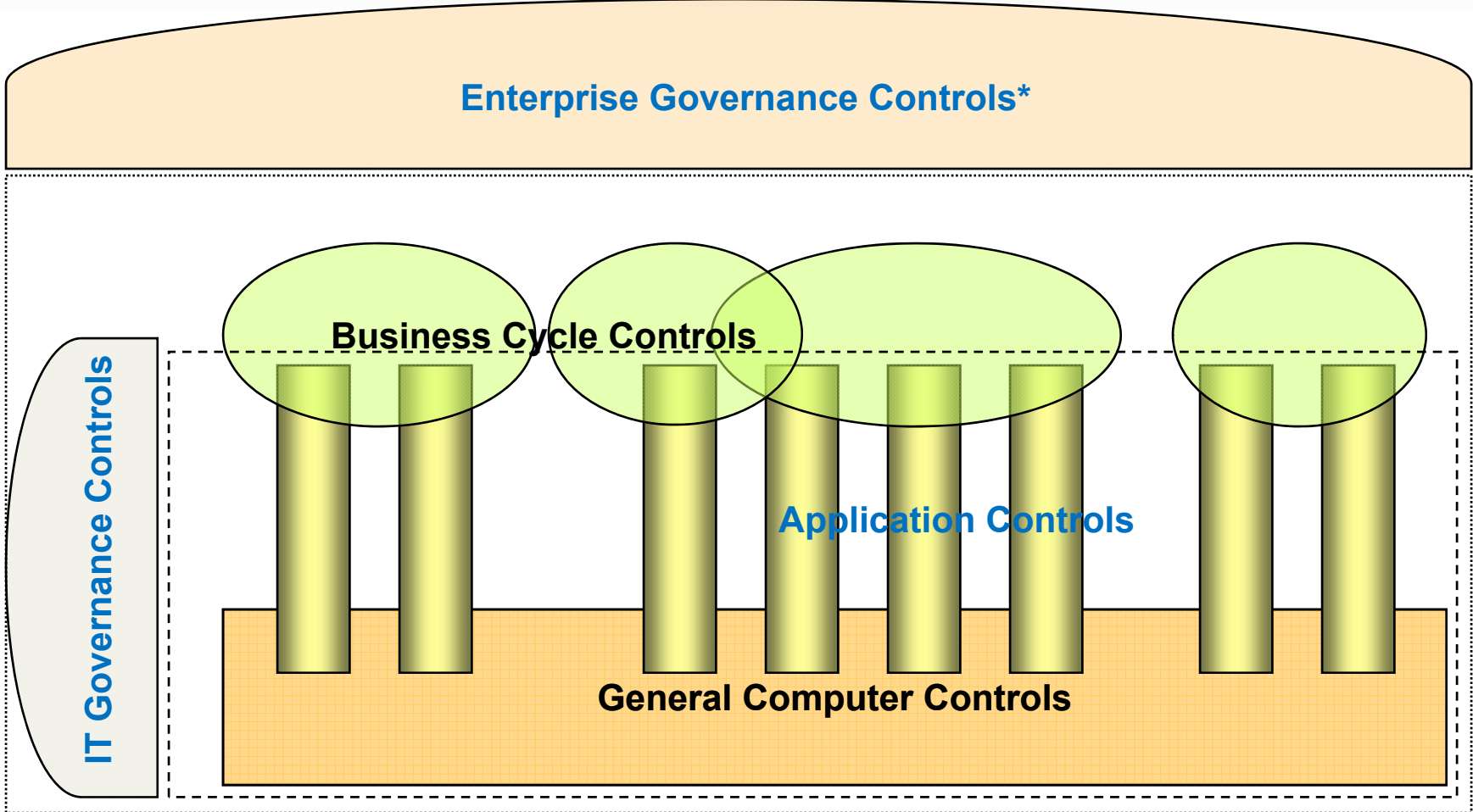
- Overview
- Application Controls
- Risk Assessment Process
- Audit Planning
- Testing
- Reporting



What is Integrated IT Auditing

- Operational, Compliance, Financial and IT Auditors working together to audit the entire (manual and automated) control environment
- Scope of IT audit
 - Usually only Application Controls but General Computing Controls as needed
 - Assist the Infrastructure IT Audit team to focus their testing

Interaction of Controls



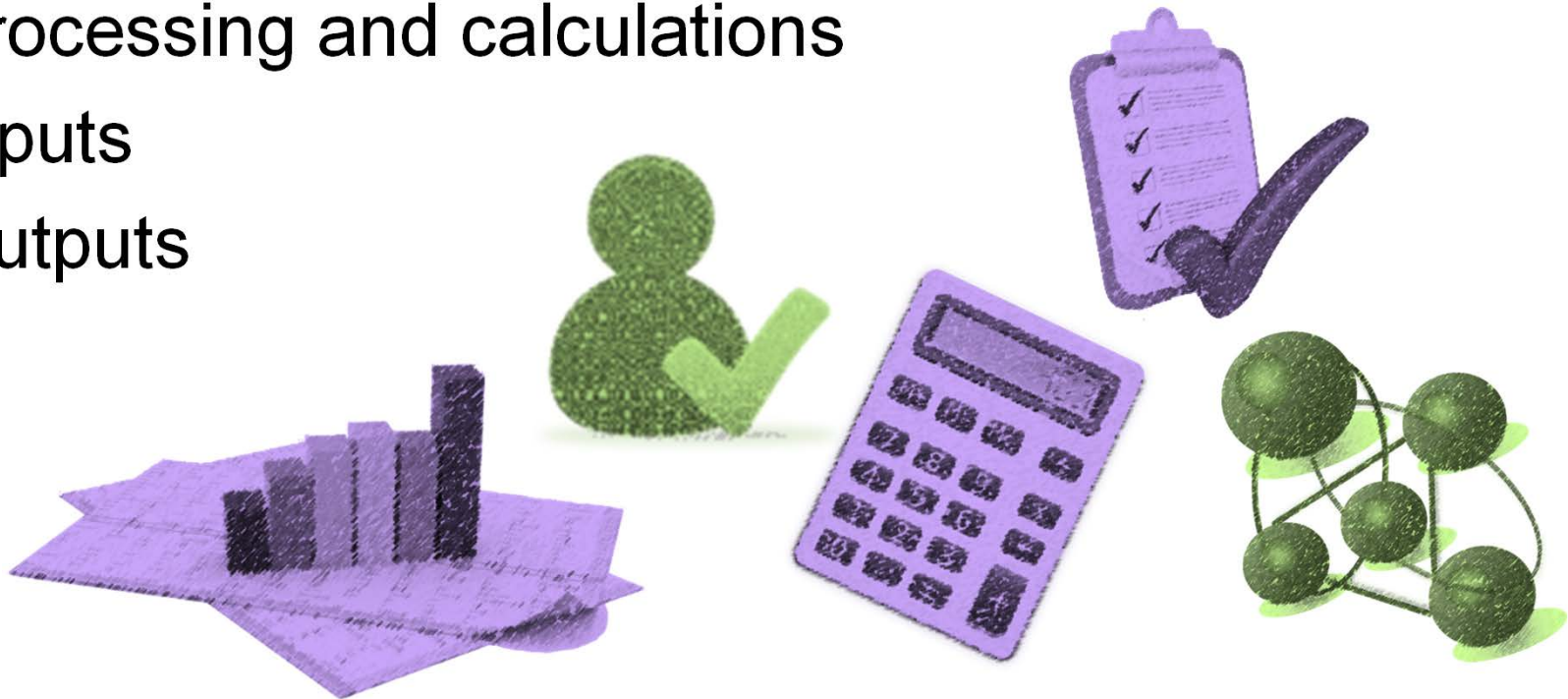
General Computing Control Considerations

- Shadow IT Departments
- User Developed Applications
- Vendor Managed Systems



Types of Application Controls

- Access
- Interfaces
- Processing and calculations
- Inputs
- Outputs



Why use Integrated IT Auditors?

- Pros

- Risk based focus
- Comprehensive assessment of the control environment
- Better understanding of the processes
- Audit efficiency

- Cons

- Additional coordination effort required between teams
- Client pushback

Integrated IT Audit Planning

- Two Phases
 - Annual Risk Assessment Process
 - Individual Audits



Annual Risk Assessment Process

- Applications should be linked to entities
 - Allows assessment of technology risk
 - Assists with tracking of application coverage
- Listing of applications
 - CMDB or internally maintained
 - Risk assessed
- Double check between entity risk assessment and application risk assessment

Annual Risk Assessment Process

- Need to have criteria for integrating audits. Will vary by Company.
 - High Risk Audits with High Technology Risk Factors
 - Audits Using High Risk Applications

Individual Audit Planning

- Suggested to have one narrative/flowchart and one risk and control matrix
 - Allows complete understanding of the process
 - Assists in determining scope of testing for both Operational and IT
 - Low Risks
 - Compensating controls
 - Benchmarking/Rotating controls tested

Sample Risk Assessment

Risk	Risk Rating	Controls	Type	Tested
Invoices are not approved prior to payment	High	Department heads sign and date their approval on each invoice	Manual	AP 1.0
Payment discounts are not taken	Moderate	AP Clerk selects payment terms when entering Invoices	Manual	AP 2.0
		Input controls require selection of payment terms when entering invoices	Automated	IT 1.0
		System processes payments based on terms selected	Automated	IT 2.0

Risk and Control Matrix Practices

- Focus on the process risks
 - Security prices are not received preventing the daily calculation of NAV

vs

 - Data is not received timely
- Better control definitions to focus testing
 - Automated feeds provide key data

vs

 - Security prices are received via a nightly FTP batch

Project Management Practices

- Continued interaction between the teams
 - Status updates with Audit Management and Client Management
 - Adjust scope as needed

Testing Considerations

- Testing across various audits
 - Test once use many
 - Cross reference between audits
 - Tracking database

Access

User access related controls

Testing Areas/Methods:

- Security Administration IT General Controls:
 - Administrative access
 - Access provisioning/deprovisioning
 - Access modifications
 - User access reviews
 - Password and lockout parameters
- Authentication levels (e.g. network, system, SSO, remote)
- Access to key functions
 - consider all systems, tools and layers (i.e. app, DB, server)
 - collectively identify with operations team
- Access to data outside of application (e.g. shared drives)



Tips and Pointers

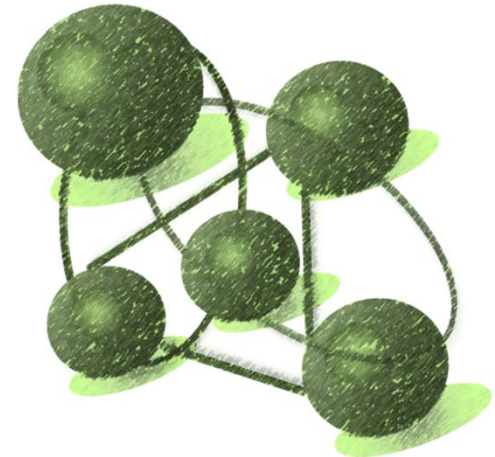
- Verify that configuration to limit access is working through observation

Interfaces

Controlling data as it flow across multiple systems/tools

Testing Areas/Methods:

- Batch processing – scheduled/automated file transfers
 - Monitoring controls
 - Scheduling process
 - Modification to scheduled jobs
- Real time – data transfer at time of transaction
 - Trace through sample transaction
- Completeness and accuracy
 - Number of records
 - Tie out totals
 - Trace through samples
- Change management
 - CM access
 - CM process
 - CM logging, review, detection



Tips and Pointers

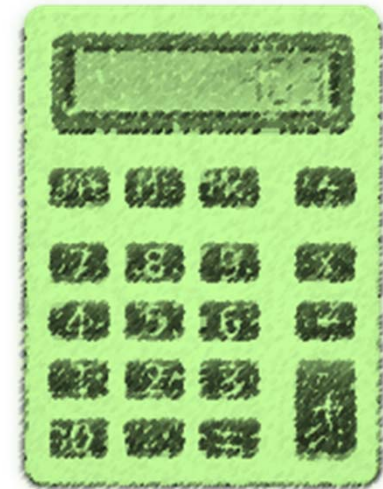
- Data flow diagram – document and confirm with multiple parties

Processing and Calculations

Controls around accurate processing and calculation of data

Testing Areas/Methods:

- Verify configuration settings
 - Source code walk through
- Trace through sample transaction from beginning to end
 - IT controls: access, change management, batch processing
 - Process controls: reconciliations
- Completeness and accuracy
 - Number of records
 - Tie out totals
 - Trace through samples
- Change management
 - CM access
 - CM process
 - CM logging, review, detection



Inputs

Controls that prevent errors in initial data entry

Testing Areas/Methods:

- Drop down menu
- Required fields
 - for all transactions
 - based on condition (e.g. dollar threshold)
- System checks
 - duplicate values
 - inaccurate calculations
- Required authorizations



Tips and Pointers

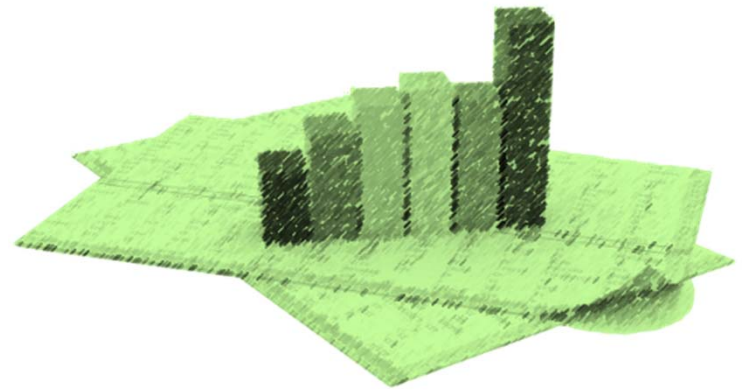
- Perform direct observation of sample data entry(ies)

Outputs

Controls that prevent errors in final data output

Testing Areas/Methods:

- Verify understanding of each field/column
- Verify any live calculations on sheet/report
- Completeness and accuracy
 - Number of records
 - Tie out totals
 - Trace through samples
- Change management
- Checks built into outputs



Tips and Pointers

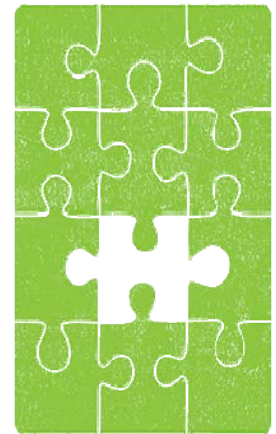
- Walkthrough all sections of the output (e.g. fields, formulas, live updates)

Audit Reporting

- Have one report that includes both IT and Operational Issues
 - Data Owner/Application Owner
 - Data Custodian
 - Issue Owner
 - Action Plan Owner
- Remediation plans can be owned by IT
- Will be appropriate to move some issues to an IT report

Implementation Challenges

- Higher level of coordination needed
 - IT Auditors needs to be involved early
 - Attend the walkthroughs
 - Participates in the risk assessment
 - Timing of projects can overload IT
- Tracking the overall testing of applications
- Client pushback to the application findings
- Addressing methodology concerns



Suggested Practices



- Align IT auditors to key business lines
 - Can create better communication having one individual for the operational team to work with
 - Scoping of audits can be remembered

Long Term Benefits

- Greater understanding of the process
 - Helps to identify future data analytics that can be incorporated
- Operational Auditors understand IT Audit



Questions?

WANT MORE INFORMATION?

David Bright, MBA, CPA, CISA
Experienced Manager – Business Risk Services



Contact Information

T: 949.608.5234

E: David.Bright@us.gt.com

Irene Lee
Senior Associate – Business Advisory Services



Contact Information

T: 213.688.1724

E: Irene.Lee@us.gt.com