INFORMATION SYSTEMS AUDIT

Muhammad Mubashir Nazir
# Information Systems Audit

<table>
<thead>
<tr>
<th>Risk Assessment</th>
<th>Review of automated application-level controls</th>
<th>Review of controls at operating system, network and database level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of General IT Controls</td>
<td>Penetration Testing for Operating System, Network and Applications</td>
<td>Pre- and Post-Implementation Reviews</td>
</tr>
</tbody>
</table>
Risk Assessment provides management with a summary of key risks that must be properly mitigated to achieve its objectives and an audit plan to best mitigate these risks.
Review of Automated Controls

- Application Security Features and their use (configuration)
- Input, processing and output Controls
- Access control lists and their mapping with job description of users
- High privileged (super) users, system administrators and their role
Review of IT Infrastructure

- Evaluation of configuration of operating system, network and database by running scripts
- What security features are available and how much utilized?
- Access Control Lists for operating system, network and database

Internet Security, Protection from Malicious Software, Intrusion Detection, Encryption Procedures etc.
Review of controls at Systems Development Life Cycle (SDLC)

- User Requirements Definition and Acceptance Testing
- Pre- and Post-Implementation Reviews for recent implementations
- Change Management Procedures
- Segregation of Duties
Review of Physical Access Controls

- Terrorism
- Intruder
- Fire
- Water

Information Processing Facilities and offline media
Review of Business Continuity / Disaster Recovery Management

Business Impact Analysis

Adequacy of Responsible Teams for Disaster Recovery

Review of Alternate Processing Sites

Review of Procedures for recovery of critical resources
Review of General IT Controls

- IT Strategic and Tactical Plan
- User Support
- Policies & Procedures
- Segregation of Duties within IT
Penetration Testing

Network

Database

Operating System

Applications

Penetration Attempts from inside

Penetration Attempts from outside
Pre- and Post-Implementation Reviews

- Data Migration
- System Configuration
- Review of Re-engineered Business Processes
Thank you