

**IT General Controls review as per IT Policies & Procedures -**

- **IT Organization & Suppliers -**
- **Logical Access –**
  - Review of user management procedures at Application, Operating System and Database Levels
  - Review of privileged access rights granted to application and system administrators
  - Review of account and password policy controls
- **Physical & environmental Access Controls –**
  - Review of the procedures implemented at the Data Center (DC) / server rooms for:
  - Assess the critical assets for Environmental Management system.
- **Change management process & system documentation –**
  - Review the program change management with respect to policy & procedures.
  - Review the procedures for requesting, development, testing and implementing changes.
  - Review the process for monitoring program modifications.
- **System Maintenance –**
  - Review of Annual Maintenance Contracts (AMCs) / Warranties, Service Level Agreements (SLA)
- **Event & application Log maintenance –**
  - Review the policies and procedures adopted for reviewing and following-up activity logs
- **Third party Management–**
  - Review Service Level Agreements(SLA)/Non-Disclosure Agreements (NDA) for the maintenance and upkeep of the systems
- **Backup & recovery process–**
  - Review Backup related Policies & Procedures and compliance thereof.
- **Incident Management –**
  - Review Incident Management related Policies & Procedures and compliance thereof.
- **Business continuity management –**
  - Review the Business continuity management related Policies & Procedures and compliance thereof.
- **Compliance –**
  - Perform compliance review vis-à-vis IT regulatory requirements provided by the AMC.
- **Interfaces -**
  - Review controls over interfaces of Canara Robeco with –
    - Internal Systems
    - Broker systems (STP/Nifty Files upload)
    - Custodian / fund accounting systems
    - R&T agent
- **Security Review –**
  - Security and controls review of Operating systems, Oracle Database.
  - Policies & Security review of Firewall, Servers, Routers & desktops.

**1. In Scope Applications to be covered:**

- **AMC:** Adrenalin, Employee Trading system & SUN Accounting system
- **Mutual Fund:** Bloomberg – POMS, POMS Interface, NDS system
- **Fund Accountant –** HSBC: IFS – Fund Accounting system

- R&T – Karvy: CRM, Unit processing process
- Custodian – HSBC/HDFC: Software for Receipt entry & reconciliation

2. **IT Infrastructure to be covered:**

- Firewall,
- Servers,
- Network,
- Routers,
- Desktops

3. **System software to be covered:**

- Operating Systems (system software)
- Oracle Database (system software).

4. **Post Audit review**

**Audit Period: 1 April 2010 till 31 March 2012**

**Audit Schedule:**

Stages	Activity	Time Lines
1	Project kick-off Meeting	23 <sup>rd</sup> July '12
3	Audit Execution as per IT Policy & Procedures	24 <sup>th</sup> July '12 – 2 <sup>nd</sup> Aug '12
4	Draft report for discussion	14 <sup>th</sup> Aug '12
5	Final Report for Management Review	23 <sup>th</sup> Aug '12
5	Post Audit review for IT Compliance	Dec '12