A Best Practice Case

Dr. E. Douglas Harris
Associate Dean
Erik Jonsson School of Engineering and Computer Science
The University of Texas at Dallas
Quality Excellence for Suppliers of Telecommunications (QuEST Forum) is a group of over 150 Service Providers and Suppliers that developed and implemented the TL 9000 Telecommunications Quality Standards.
TL 9000 requires that performance measurement data be provided in order to “obtain” and “retain” registration
Key Elements in Data Security

- Confidentiality of Data Source (Submitter)
- Confidentiality of Data
- Security of Data
- Integrity of Data
- Reliability of Data
- Availability of Processed Data (in report form)
MRS Approval and Audits

- A QuEST Forum Team Composed of a Representative from each Member Organization Approved UTD’s Design

- The British Standards Institute BS 7799 for “Information Security” was Selected as the Third Party Auditor
Data Integrity

- Computers and Data in a Locked Room
- Computer Room Under Constant Video Surveillance - Tapes Reviewed and Logs Verified Twice Weekly
- NOBODY Has Unauthorized Access to Computers
- All Software Strictly Controlled
• Fault Tolerance
  – Triply Redundant Computers
  – Encrypted Backups of Database
  – Never Lose Power - Double Backups
  – All Procedures Documented and Controlled per BS 7799 Standards
  – Trained Skilled Staff
• BS 7799 Covers All Aspects of Data Security Through 130 Auditable Controls
• UTD Achieved BS 7799 Certification in January 2000
• The MRS at UTD is the First BS 7799 Certified Secure System in the United States
MRS System Operations

Secure Room – Fault Tolerant

1. On-line Measurement Data Receiver
2. Off-line Storage
3. Standalone “A”
4. Standalone “B”
5. Standalone “C”

Anonymous FedEx, UPS, etc., Input
Alias e-mail

Manual Move 2-3 Times Daily

www.questforum.org
QuEST Forum

MRS System Operations

Disaster Tolerance

Transfer CD ROMS to Separate Off-site Vaults Quarterly

Standalone “A”

Standalone “B”

Standalone “C”

DB Part 1

Off-site Vault “X”

DB Part 2

Off-site Vault “Y”

DB Part 3

Off-site Vault “Z”
1) System is operational and has received numerous data sets from suppliers.

Registered sites sending measurement data to the MRS as of 9/20/00:

- 65.9% United States
- 18.2% Canada
- 9.1% Asia
- 4.6% Europe
- 2.3% Mexico
MRS Physical Facilities

Key Security

- Medeco Lock System
  - Smart Chip Identification
  - High Mechanical Security
MRS Physical Facilities
On-Time Delivery - Items (OTI)
Product Category YYY

% Accepted by Customer Requested Date

Oct-99  Nov-99  Dec-99  Jan-00  Feb-00  Mar-00

Max  Mean  Min
QuEST Forum MRS Operations at UTD

Thanks for Your Kind Attention