Software Maintenance in SLA’s

Alain A April        Dhiya Al-Shrougui
ipq@btc.com.bh        ip@btc.com.bh
Bahrain Telecommunications Company

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Batelco

- Bahrain’s Telecommunications
- 200,000 PSTN lines, 170,000 GSM
- Internet services deployed
- 84% Satisfaction from our Services
- Joint ventures in Kuwait (QualityNet) and Saudi Arabia (Atheer)
- Major Reduction in international call charges (fourth times in three years)
- 225 positions in IS Division
Our Maintenance & Support Organization

Batelco IS General Manager

User Support Senior Manager
- Help Desk
- Application Support

Production Services Senior Manager
- IS Operation
- IS Desktop Support
- IS Network Support
- IS Database Support
ISO/IEC 14764 - M&S

Modification Request

Correction

Enhancement

Corrective

Preventive

Adaptive

Perfective

- Modification request come in more or less randomly;
- Modification request are assessed at operational level;
- Maintenance workload not managed with project management techniques;
- The size and complexity can typically be handled by one/two resource;
- Maintenance is user-services-oriented;
- Any production problem will take priority over work in progress.

When is it M&S work?

- Call or Ticket to Support Group
  - New Function in an existing System?
    - Yes
    - No
    - Existing System Optimization
      - Min Latent error in existing system < 5 Days
        - Yes
        - No
        - Change to environment existing System
          - Min Days
            - Yes
            - No
            - Route request to Account Manager to be assessed as Major Enhancement or Project
  - Operation Failure (any size)?
    - Yes
    - No
    - Minor Enhancement
      - Min Minor Enhancement
        - Yes
        - No
        - Route request to Account Manager to be assessed as Minor Enhancement or Project
    - Functional Improvement to existing Function
    - Min Functional Improvement
    - Yes
    - No
    - Minor Enhancement
      - Min Minor Enhancement
        - Yes
        - No
        - Route request to Account Manager to be assessed as Minor Enhancement or Project
    - Corrective
      - Interrupt work to attend to failure
      - Min Corrective
      - Yes
      - No
      - Route request to Account Manager to be assessed as Minor Enhancement or Project
    - Preventive
      - Insert in list of work request, treat by priority
    - Perfective
      - Insert in list of work request, treat by priority
    - Adaptive
      - Insert in list of work request, treat by priority
SLA Project

Project Initiation
- Define IS Services
- Structure of SLA
- Exclusions
- Responsibilities
- Escalation Process
- Dispute Resolution

Service Definition
- General:
  - Availability
  - Response
  - Resolution Times
  - Responsibilities
- Meas. Methods

Service Measures
- Each Application:
  - Additional R&R
  - Technical Desc
  - Supported Vol.
  - Eq. Location
  - Contact Numbers
  - Specific Avail.
  - On-line
  - Batch
  - D/R
  - Report Card
  - 3rd party contracts
  - IS resources (HR)

Systems Inventory

Costing exercise

SLA Deployment

Gate 1 Gate 2 Gate 3 Gate 4

Service # 1 Account Management

Prod & Svcs

Res. & Business

Network Ops & Dev

Finance

Human Resources

IS Account mgr

IS Account mgr

IS Account mgr

IS Account mgr

IS Account mgr

SLA management
IS Work Programme
Service Analysis
Customer Satisfaction
Escalation point
### Service #2 Application Management

- Change Request Management/Assessment
- Corrective Maintenance
- Preventive, Perfective & Adaptive Maintenance
- Release Planning & Management
- Configuration Management
- Licenses, Escrow and M&S support
- Project Support

### Service #3 Help Desk

- Answer calls and resolve problems on-line
- Record problem information
- Prioritization
- Route calls & follow-up
- Notify customers of system events
- Administer security & access to application

Answer within 3 rings (no hold) 75% of total calls
Resolution on first call (no referrals) < 15 min 85%
Service #4 Infrast. & Operations

- Database Systems Dev., Ops, Support & Monitoring
  Availability: Front-Office 99%, Back-Office 96%
- Network Dev., Ops, Support & Monitoring
  Availability WAN & LAN 99%
- Desktop and Messaging Support Services
  Faults by criticality {2h, 8h, 3d, 5d}, New 10d, Moves 3d
- Contingency & Disaster Recovery
- Platform & Base Sftwr. Licenses & Contracts

Service #5 Problem Management

- Immediate assistance to level 1 (help desk)
- Assist level 1 in prioritization
- Analyze fault, recommend fix or work around
- Coordinate, negotiate with third party support
- Support Designers, Maintainers & Account Manager
- Surveillance, trends & preventive actions
Schedules

– List of customer applications by priorities
– 1 schedule B by application
– Description of the ticketing system used by all
– A generic scales of priority
– An example of our Service Level Report

Conclusion

• Easy
  – Create the initial SLA template
  – Get each section to describe their services
  – Get a high level measure from each IS section

• Hard
  – Document each application (schedule B)
  – Account Managers buy in to present the SLA
  – Customers not always interested in IS point of views