**Call Center Data of "ABC Financial Institute"**

This document describes data for a call center of a Financial Institute called ‘ABC’. The data is about telephone records over 11 months from 1/1/1999 to 11/30/1999. Data is provided in TXT file and a sample is provided at the end of this document.

**1. General Description**

The call center of "ABC Financial Institute" provides the following types of services:

* Information on and transactions of credit cards, to existing customers
* Voice information automatically generated by computer (through IVR = Interactive Voice Response)
* Information for potential customers
* Web-site support for internet customers

The call center is comprised of:

* 8 positions as agents
* 1 position as supervisor
* 5 positions as agents providing internet services

Working hours:

* Sunday to Thursday : 7AM to midnight
* Friday: 7AM to 2PM
* Saturday: 8PM to midnight
* Automated service (IVR) operates 7 days a week, 24 hours a day

**Note**: Friday and Saturday are weekends for this call center.

**2. Data Structure**

The data records all the telephone calls handled by this call center of "ABC Financial Institute", over the period of 11 months from1/1/1999 to 11/30/1999.

The data is provided in a TXT file with one record for one telephone call (between 20K to 30K calls every month). There are 17 variables for each record and detailed descriptions are listed below.

1) **IVR\_line - *6 digits***

When entering, each call is first routed through an IVR: There are 6 IVRs labeled BB01 to BB06. Each IVR has several lines labeled 1-16. Each phone call is assigned an IVR number and a line number.

2) **Record\_id - *5 digits***

Each call is assigned a record id. They are unique in a certain month. Though they are different, those record ids are not necessarily consecutive due to being assigned to different IVRs.

3) **Caller\_id - *0 to 12 digits***

Each caller is assigned a unique caller id, used as identification number for the caller. The caller ID is zero in the case when the caller is not identified by system (for instance, when prospective customers call in, they are assigned 0).

4) **Priority - *1 digit***

There are two types of customers: regular customers and high priority customers.

* 0 and 1 represent regular or unidentified customers
* 2 represents customers with high priority
* Customers are served in order, according to "Time in Queue".
* Customers with priority are allocated at the outset if their waiting time reaches 1.5 minutes, in order to advance their position in the hold queue.
* Until September 1997, all customers were treated with the same priority - 0. Priorities 1 and 2 were initially introduced in September 1st, 1997. At then there are still some customers with priority 0 but are treated as Priority 1.
* Due to a system bug, for callers who did not wait in queue (abandoned calls), their caller IDs were not recorded. Hence, their priority is also assigned 0.

5) **Type –** 2 to 3 digits

There are 6 different types of services:

* RA – regular activity (Non English)
* RAE – regular activity ( English)
* INT – Internet related activity
* SEA –stock exchange activity
* New – information for potential customer
* TT – customers who left a message asking for returning their call, but when the system returned their calls, the calling agents became busy so the customers were put on hold in the queue.

6) **Call\_Date -** 10 digits

year-month-day

7) **IVR\_entry -** 6 digits

Time when the call enters the call center. As every call is first routed to IVR, this is the time the call enters IVR.

8) **IVR\_exit -** 6 digits

Time when the call exits from IVR: either to the queue, or to agent service, or to abandonment (leaves the system).

9) **IVR\_time -** 1 to 3 digits

Time duration (in seconds) spent in IVR (calculated as IVR\_exit – IVR\_entry) .

10) **queue\_start -** 6 digits

Time when caller joins the queue (being put on “hold”). For customers who directly abandoned from IVR, hence not reached the queue, this queue\_start is set as default 00:00:01.

11) **queue\_exit -** 6 digits

Time when caller exits the queue: either to receive agent service or due to abandonment (leaves the system).

12) **queue\_time -** 1 to 3 digits

Time duration (in seconds) spent in queue (calculated as queue\_exit – queue\_start).

13) **Outcome -** 4, 5 or 7 digits

There are 3 types of outcome for each call:

* Hang – hung up
* Agent – Service from Agent
* PHATOM- a call can be ignored (only few of such records, due to unclear reason)

14) **servc\_start -** 6 digits

Time of beginning of service by agent (talking to agent). For calls which doesn’t reach agent service, this servc\_start is set as default 00:00:01.

15) **servc\_exit -** 6 digits

Time when service (talking to agent) ends.

16) **servc\_time - 1 to 3 digits**

Serice duration (in seconds) (calculated by servc\_exit – servc\_start)

17) **Server - text**

It is represented by SERVERxx, e.g SERVER33, if agent service was provided. If no service was provided, it is assigned ‘NO\_SERVER’.

**3. A Data sample**

