

February 6, 2002

Log #: AN-0013

Dialing Restriction Configuration in the Mobility Server System

1. Overview

Trunk Call Discrimination (TCD) defines the end user calling privileges beyond the system. Each end user has a TCD value between 1 and 99.

2. Technical Discussion

Trunk Call Discrimination (TCD) defines the end user calling privileges beyond the system. Each end user has a TCD value between 1 and 99. The TCD value is then compared to the TCD values that are tied to each number in the number analysis, which can be:

All- which permits all users to call that number.

A list of TCD values- which permits the user to call that number only if the user's TCD value is in the list.

TCD works in the following way:

Each Mobility Server system contains a list of end users.

Each end user resides in a Radio Exchange.

The Radio Exchange connects to the switchboard via an (incoming) trunk.

Each external transmission peripheral connects to the switchboard via an (outgoing) trunk.

Each Trunk maps to a Route.

Each end user has either a customer-defined default **TCD** or an overriding **TCD**.

Each public phone number has a **TCD** associated with it and is defined in routing analysis.

Each Route has a **TCD** associated with it.

For an end user's call to connect beyond the system, the end user's **TCD** must match the called number's **TCD** (in routing analysis).

3. Solution

Here is an example of a configuration to restrict international dialing.

The End User Data configuration might look like this:

End User Number	Customer	End User Name	TCD	TMC	ID Presentation Restriction	Voice Mail Access	Voice Mail Subaddress	Voice Mail Access	Type	Features
1000	Big_Inc	A	1	15	No		1000	#1000	PWT User	

February 6, 2002

Log #: AN-0013

									Station	
1001	Big_Inc	B	1	15	No		1001	#1001	PWT User	
1002	Big_Inc	C	10	15	No		1002	#1002	PWT User	
1002	Big_Inc	C	10	15	No		1002	#1002	PWT User	

Routing Analysis might look like this:

Customer	From	To	NPI	Type of number	Min digits	MNPI	Mton	Delete	add	Analyze result	Trunk Call Discrimination
common	9	9	unknown	unknown	4	Private	Local	No	No	continue	All
common	9000	9010	Private	Local	4	Don't change	Don't change	No	No	Select PNP 1	All
common	9011	9011	Private	Local	4	Don't change	Don't change	No	No	Select PNP 1	10
common	9012	9910	Private	Local	4	Don't change	Don't change	No	No	Select PNP 1	All
common	9911	9911	Private	Local	4	Don't change	Don't change	No	No	Select PNP 1	All
common	9912	9999	Private	Local	4	Don't change	Don't change	No	No	Select PNP 1	All

In this example, User A & B have a TCD Value of 1. User C has a TCD value of 10. Note that the routing analysis for the number "9011" has a Trunk Call Discrimination (TCD) value of 10. That indicates that any user dialing "9011" must have a TCD value of 10 to place a call to any number starting with "9011". If user A or B attempts to dial "9011" they would be rejected and receive a "fast busy" tone.

TCD is the mechanism in the Mobility Server system that can be used to restrict dialing to certain outbound numbers and number series. As mentioned earlier, lists of TCD's may be used to provide a hierarchy of outgoing calling privileges. TCD values should be configured in conjunction with your existing dialing plan for any restricted access. The following tables provide an example of how this may be further configured if needed.

End User	TCD Value	Allowed to Call
3325	1	All Numbers
3355	2	All except international numbers

February 6, 2002

Log #: AN-0013

3366	3	Local Public number and all private numbers
3377	4	Only Private Numbers

Destination	Permitted TCD Values
Local Users	All
Other Private Numbers	1,2,3,4
Local Public Numbers	1,2,3
Public National Numbers	1,2
International Numbers	1