

Recommendation T/SF 53 (Copenhagen 1987)**REMOTE CONTROL OF SUPPLEMENTARY SERVICES**

Recommendation proposed by Working Group T/WG 7 "Services and facilities" (SF)

Text of the Recommendation adopted by "Telecommunications" Commission:

"The European Conference of Posts and Telecommunications Administrations,

considering

- demand has been identified for a service to enable a customer to remotely control services available to his/her line,
- as demand increases for the supplementary services, demand for remote control of these services will also increase,
- it is expensive and introduces delays if the customer has to request the Administration to make remote changes to customer controlled services,
- an Automatic service frees Administrations from the responsibility of manual verification of the authority of the party requesting the change,
- the introduction of remote control will allow greater flexibility to the customer for many existing and proposed supplementary services,
- to allow customers to make remote changes to lines across international and/or competitive network boundaries a common service will need to be agreed,

recommends

- that when planning to introduce remote control for supplementary services, one common service should be harmonized,
- to achieve harmonization this service when introduced should conform to the service as described in the attached definition."

1. **DEFINITION**

The possibility for a customer to control certain supplementary services associated with an exchange termination other than the one from which the control commands are made.

2. **DESCRIPTION**

2.1. This service allows a customer to activate, deactivate or interrogate register and erase supplementary services on his own line(s) by means of a control procedure sent remotely via the Public Switched Telephone Network.

2.2. It may be possible to control, for example, the following supplementary services by remote control:

Call barring (both I/C and O/G single or multiline).
Call diversion (immediate, on busy, or on no reply).
Change to a remote call forwarding destination.
Abbreviated dialling.
General deactivation of Supplementary Services.
General interrogation of Supplementary Services.
Alarm Call.

2.3. To protect lines from unauthorised changes a keyword must be used as part of the control procedure for remote control services. The keyword may be the same or different from the normal keyword, which may be needed to control supplementary services direct from the exchange termination being controlled. The use of a keyword for remote control working negates the need for other keywords, i.e. only one keyword will be used for this service irrespective of what service is being controlled.

2.4. It shall not be possible to control or interrogate a service, using remote control unless that service has been provided to the address being remotely controlled.

2.5. A control or interrogation request made using the remote control service shall cause the same results as if requested direct from the controlled line. All normal indications shall be provided to the remote customer.

3. **APPLICABILITY TO TELECOMMUNICATIONS SERVICES**

ISDN

Telephony

Note. Both ISDN and non-ISDN terminations shall be able to control both ISDN and non-ISDN lines.

4. **OPERATIONAL REQUIREMENTS**

4.1. **Provision**

Provision of this facility may require an agreement between the Administration and the customer. The Administration shall be able to make this service available on demand.

4.2. **Withdrawal**

Withdrawal of this facility will be at the customer's request or for administrative reasons.

4.3. **Controlling customer's requirements**

4.3.1. *Registration*

It will be possible to register a change of keyword for use of remote control service direct from the line to be remotely accessed. As an Administration and customer option it may be possible to change the keyword remotely.

4.3.2. *Activation*

The controlling customer may, by use of a control procedure, activate this service direct from his line.

4.3.3. *Usage*

4.3.2.1. The subscriber will be able to use this service by means of a control procedure from any exchange termination providing suitable signalling is available.

4.3.2.2. The service shall be activated by a control procedure which includes a keyword. It shall not be possible to activate a service on a PSTN address unless that service has first been made available to that address by the Administration. As an option this service may be deactivated when X attempts are unsuccessful due to the use of an incorrect password. X may be set to any value between 1 and 10.

4.3.2.3. All confirmation messages relevant to individual services will be provided to the remote controlling customer using the same announcements that would be received if changes had been made direct from the line being controlled.

4.3.2.4. If activation of a service is rejected a reason for rejection should be given.

4.3.3. *Deactivation*

The controlling customer may, by use of a control procedure, deactivate this service. This may be done direct from his line or by use of the remote control service.

4.3.4. *Testing*

Where appropriate, it should be possible for a subscriber to ascertain that a service functions correctly, possibly by using it.

4.3.5. *Interrogation*

4.3.5.1. It should be possible by use of this service to remotely interrogate a termination to ascertain what services are operative even if these services were not activated or registered remotely.

4.3.5.2. It should be possible to individually interrogate numbers within a list but it is not necessary to request with one command that all registered numbers will be given. Should a customer request a service specific general interrogation for a service such as abbreviated dialling, selective diversion, selective barring or distinctive ringing then only the general interrogation announcement will be given followed by an additional announcement to advise the customer that it is not possible to list all numbers registered when interrogating using Remote Control.

4.4. **Service Operation Requirements**

4.4.1. Exchange numbers with call barring, remote call forwarding or diversion facilities activated will be accessible for remote control service commands.

4.4.2. Once a remote control command has been accepted the facilities provided by the controlled exchange termination shall be identical to the service as would have been provided by normal control procedures used from the line.

4.4.3. A line being remotely controlled should be available for outgoing calls and changes made by this means shall not affect calls already set up or in the process of being set up.

4.4.4. If a line is being controlled from more than one source at a time and the service requests are incompatible then only the last request will be actioned.

4.4.5. Changes made via remote control should have equal status as changes made direct from the line.

4.5. **Compatibility Requirements**

4.5.1. All Compatibility Requirements and limitations of the individual supplementary services shall apply.

4.5.2. Remote control of supplementary service requests shall not be diverted or barred by any supplementary service activated on the home line.

4.5.3. Remote control of terminations with Universal Access Number facilities may not be allowed.

4.5.4. Remote control attempts that fail due to busy shall not be able to activate completion of calls to busy subscriber service.

4.6. **Administration Requirements**

- 4.6.1. The Administration shall have direct access to any information stored by use of the remote control procedure in the same manner as normal stored information.
- 4.6.2. The Administration shall be capable of interrogating and changing the keyword.
- 4.6.3. The use of remote control shall not lessen the Administration's control over any supplementary service.

4.7. **Charging Requirements**

- 4.7.1. It should be possible to charge for rental and usage of this service over and above any charges for use of the service being accessed.
- 4.7.2. The charges for this service may be billed to the termination being remotely accessed. These charges should include all relevant charges for access/change to the supplementary service being controlled and charges for use of remote control supplementary service.

5. **CONTROL PROCEDURE**

A service code 42 has been allocated for this service which will be used in addition to the service code of the service to be controlled.

All normal announcements for services being controlled via remote control services should apply including guidance and option to cancel.

The following abbreviations and their meaning are used within the control procedure section:

- LH Lift handset.
- DT Dialling tone.
- TN1 The telephone number of the line to be accessed.
- KW1 Keyword to allow verification of authorisation.
- KW2 New keyword to allow verification of authorisation.
- SDT Special dialling tone.
- 51 The service code for registration of abbreviated dialling codes.
- AN The code against which a number is to be stored.
- TN2 The telephone number to be registered for abbreviated calling.
- IND An audible and/or visual indication to provide relevant information to the customer.
- RH Replace handset.

5.1. **Activation**

LH DT★421★KW# IND RH

5.2. **Deactivation**

LH DT #42★KW★TN# IND RH
or
LH DT #421★KW★TN# IND RH

5.3. **Registration of new keyword**

LH DT★42★KW1★KW2★TN# IND RH

5.4. **Invocation**

LH DT★42★KW★TN1# SDT [Followed by the normal control procedure for the individual supplementary service to be accessed/controlled but without a second keyword].

For example the normal direct procedure for registration of an abbreviated dialling number would be:
★51★AN★TN2#

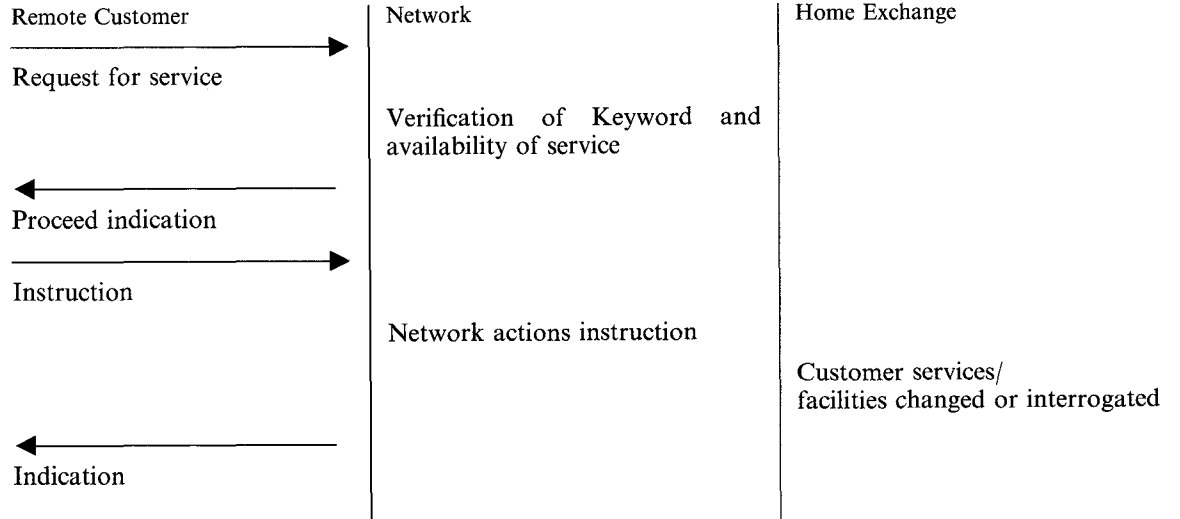
For remote registration of this number the complete sequence will be:
LH DT★42★KW★TN1# SDT★51★AN★TN2#

5.5. **Interrogation**

LH DT★# 42★KW★TN# IND RH
or
LH DT★# 421★KW★TN# IND RH

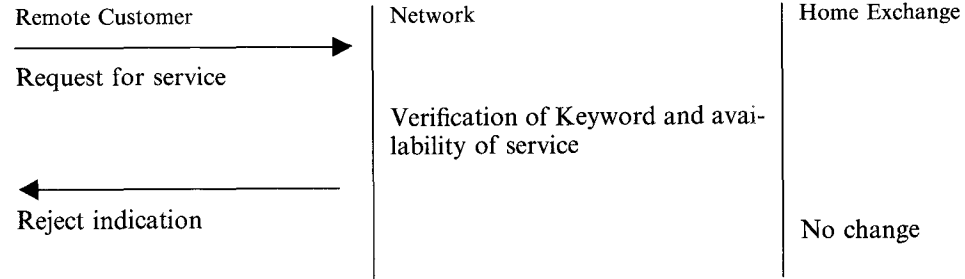
6. **DYNAMIC DESCRIPTION FOR THIS SERVICE**

6.1. **Successful Outcome**

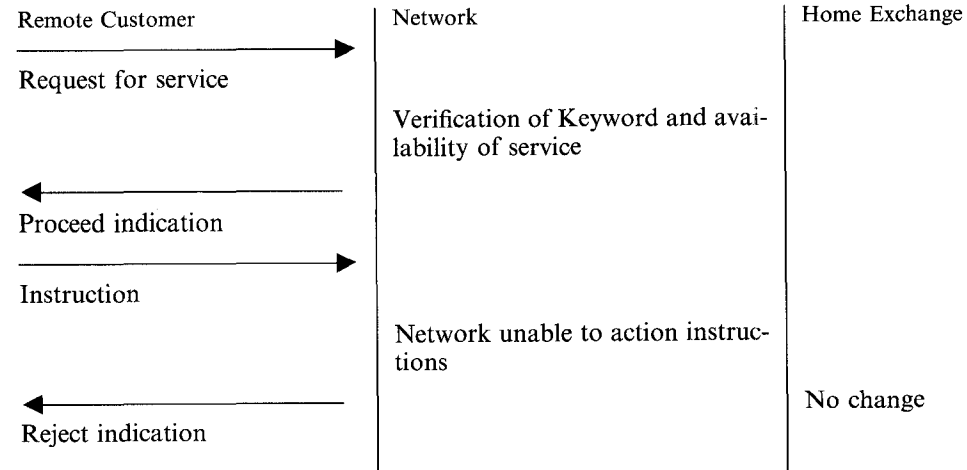


6.2. **Unsuccessful Outcome**

6.2.1. *Service not allowed or Keyword incorrect*



6.2.2. *Network unable to action instructions*



7. **ATTRIBUTES TABLE WITH VALUES**

Attributes

Means of Subscription/Provision (MS)
Supplementary Service Specific Parameters (SSP)
Service Activation/deactivation (SA/D)
Means of Specified Period Activation/deactivation (MSA)

Values

L
I, U
CC, S
L, R

[Note. R only applies to
deactivation.]

Means of Parameter Registration Interrogation and Modification (PRM)
Means of Service Invocation (MSI)
Applicability to Telecommunication Service (AT)
Charging (for further study)
Compatibility (for further study)

L, R
L, R
ALL
FS
FS