Lucent Technologies
Bell Labs Innovations

Usage Sensitive Three-Way Calling and Spontaneous Usage Sensitive Three-Way Calling Feature Document 1A ESS™ Switch

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1. Introduction

Definition

1.01 There are two versions of Usage Sensitive Three Way Calling: Access Code (USTWC) and Spontaneous (SUSTWC). Note that while SUSTWC depends on USTWC and Subscription Three Way Calling (TWC), SUSTWC does not appear to exist at the same time as USTWC to a customer. USTWC is implemented on an office-wide basis. The SUSTWC feature can be implemented on either a Per Line basis (SUSTWC-PL), or an Office Wide basis (SUSTWC-OW).

⇒ **NOTE:**
When the SUSTWC acronym is used, the condition being described in the text applies to both implementations of the feature, SUSTWC-PL and SUSTWC-OW.

1.02 The USTWC (Usage Sensitive Three Way Calling) feature is a customer-activated service feature which allows residential customers to make three-way calls by dialing an access code prior to a call between two stations. Flash is then allowed for the customer line. A charge mechanism is invoked when the access code is dialed. Thus, charging for USTWC activation is on a per activation basis. Also, when the second leg of the three-way call is answered, a second charge mechanism is invoked. Charging for the USTWC second leg set-up is on a per second call completion basis. The USTWC flash can be made only if the call originated from the station. The USTWC feature is considered an alternative to the existing TWC feature.

1.03 The Spontaneous Usage Sensitive Three Way Calling - Per Line (SUSTWC-PL) feature, available with the 12.05 PPU, and the Spontaneous Usage Sensitive Three Way Calling - Office Wide (SUSTWC-OW) feature, available with the 12.07 PPU, lets a customer with SUSTWC assigned to the line make an on-demand three-way call by simply flashing when on a call between two stations, the same as TWC. A charge mechanism is invoked when the second leg of the three-way call is answered. Thus, charging for the SUSTWC second leg set-up is on a per second call completion basis. The SUSTWC flash can be made whether the call originated from the station or terminated to the station. From a customer perspective the SUSTWC feature may be considered to be the same as the existing TWC feature. If a customer with SUSTWC dials a USTWC access code, the USTWC access code is ignored.

1.04 When either USTWC or SUSTWC is active in an office, if the controlling party in a TWC, USTWC, or SUSTWC call disconnects with a party on hold, the controller will get rung back to restore the held party to the talking connection. This ring back capability can be turned off on a per office basis. The control of ring back is through the values of two bits in the translations Office Options Table. See Table A.

Prior to having USTWC or SUSTWC in an office, calls using TWC do not have the ring back capability. After USTWC is loaded in an office calls using TWC, USTWC, and SUSTWC will be able to have the ring back capability. This should be carefully considered when setting the ring back settings in the Office Options Table. See Table A.

Reason For Reissue

1.05 This practice is reissued to provide a description of the Spontaneous Usage Sensitive Three-Way Calling Feature Office Wide capability.

Economic Worth

1.06 The USTWC feature is economical to the feature provider (local telephone company) in that casual three-way call users can be offered USTWC, while frequent or regular three-way users can continue to be offered the TWC feature. The major difference between USTWC and TWC is the method utilized for feature charging. With TWC, the subscribing customer is normally charged an initial service installation fee, plus a fixed monthly rate, regardless of the number of three-way calls made.

1.07 With USTWC, the subscribing customer exercises usage control by a customer-

dialed activation procedure. Once the feature is activated, the customer can make one or more three-way calls during a single activation. The customer is charged for a USTWC call only when this type of call is completed. If required by the RAO (revenue accounting office), a USTWC subscribing customer may be charged for USTWC on a per activation basis, plus a USTWC call basis.

1.08 If a subscribing customer is a casual three-way call user, then USTWC is more economical to the customer than TWC. Charging for USTWC should be established to discourage migration from TWC for customers who make three-way calls on a regular basis.

1.09 The SUSTWC version of this feature lets users invoke a three-way call while active on a two-party call without having to indicate their intentions prior to the two-party call. Users are billed for this service on a "Per Use" basis. This offers new revenue potential to the operating company offering this feature.

Availability

1.10 The USTWC feature is available as an optional base controlled feature in the 1AE8A.02 generic programs of a 1A ESS Switch. An Issue 55 PDA (Parameter Data Assembler) is required in the 1A ESS Switch before USTWC can be activated. The ability to turn off ring back is initially available with the 1AE8A.03 generic program. For feature licensing information, please contact your Lucent Technologies representative.

1.11 The SUSTWC Per Line (SUSTWC-PL) feature is available as an optional line feature in the 1AE12.05 generic program of the 1A ESS Switch. The feature is controlled by a Fast Feature Set Card, FF129. An office must have the Fast Feature Set Card before the feature can be activated. SUSTWC-PL requires USTWC.

1.12 The SUSTWC feature is available as an Office Wide (SUSTWC-OW) feature in the 1AE12.07 generic program of the 1A ESS Switch. The feature is controlled by Fast Feature Set Card FF143. Fast Feature Set Card FF129 is also required as a precondition. An office must have both Fast Feature Set Cards before the Office Wide version can be activated. SUSTWC Office Wide requires SUSTWC Per Line and USTWC.

Feature Assignment

1.13 The USTWC feature is assigned on a per switch basis using the PACT (Prefixed Access Code Translator) feature. It may be denied on a per individual line basis using an RC:LINE input message.

1.14 The SUSTWC-PL feature is assigned on a per-line basis using an RC:LINE and RC:MLHG input messages.

1.15 The action of a flash by a SUSTWC-PL customer will be ignored if the Ignore Flash bit in the Translations Supplementary Office Options Table is set to a 1. This is word 2, bit 10. If the Ignore Flash bit is set to a 0, customers will immediately be able to activate a SUSTWC-PL call, if they have SUSTWC-PL on their lines.

1.16 The SUSTWC-OW feature is accessible by all applicable lines in the office when the Office Option Indicator is set.

Incompatibilities

1.17 A POTS (plain old telephone service) customer can use the TWC, USTWC, or SUSTWC feature, but does not have access to all three features at the same time. A TWC customer gets reorder if the USTWC access code is dialed. A line does not have access to the USTWC feature unless the USTWC access code is dialed. If a SUSTWC customer dials the USTWC access code, it is ignored.

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1.21 This practice is issued by:

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2. User Perspective

User Profile

2.01 The end user for the USTWC feature is a POTS residential customer who would not make enough three-way calls to warrant TWC, but who would likely use the service on a usage sensitive basis.

2.02 The SUSTWC version of this feature lets users invoke a three-way call while active on a two-party call without having to indicate their intentions prior to the two-party call.

Customer Premises Equipment

2.03 The USTWC and SUSTWC features may be activated by the customer using either a DTMF (dual-tone multi-frequency) or a dial pulse telephone set. A switch-hook flash capability is required.

Activation

2.04 A USTWC customer requests activation of USTWC by going off-hook, receiving dial tone, and dialing either *71 or 1171. If dialing is legitimate, second dial tone is returned.

2.05 Upon receipt of second dial tone, the customer dials the station DN (directory number) associated with the first leg of the call. When the called station DN is collected, it is processed by the switch as any normal two-party call origination. If the first leg called station party answers, a normal two-party call configuration is established.

2.06 The USTWC customer's line is given flash privilege and a switchhook flash can be initiated at any time. When the USTWC customer initiates a switchhook flash, three-port facilities are seized, the two-party call configuration is interrupted, and the first leg called station party is temporarily placed on hold. Confirmation tone, followed by regular dial tone is then returned to the USTWC customer. At the end of confirmation tone, the USTWC feature is automatically activated and remains activated until the switch detects an

on-hook condition from the activating customer's line.

2.07 Once USTWC is activated, the USTWC customer dials the station DN associated with the second leg of the call. When the called station DN is collected, it is processed by the switch as a normal three-party call. If the second called station party answers, a normal two-party call configuration is established between the respective parties and a USTWC call is recorded. If the USTWC customer initiates a switchhook flash, the first leg called station party is taken off temporary hold and a three-party call configuration is established between the respective parties. Once a three-party call configuration is established, it remains in this configuration until one of the three parties abandons the call by going on hook. If a USTWC customer disconnects with a called station party on hold and ring back applies, then automatic ring back occurs.

2.08 SUSTWC (Spontaneous Usage Sensitive Three-Way Calling) lets a customer make an on demand three-way call by simply flashing when on a two-party call. After the flash, the switch places the current call on soft-hold and the user dials the number of the added leg party. The user then flashes again to perform the merge creating a three-way call. The initial call can either be originated by or terminated by the SUSTWC user. The switch does not require the subscriber to dial an access code or to have subscribed to the TWC feature in order to invoke SUSTWC.

Deactivation

2.09 The USTWC feature is automatically deactivated when an activating customer disconnects from a three-way call unless there is a called station party on hold. If a called station party is on hold, USTWC is deactivated when the held party goes on-hook provided the activating customer is still on-hook.

2.10 When an SUSTWC call is originated by flashing from an SUSTWC line (while on a stable call) and the second leg of the call is completed, if the controller hangs up, the SUSTWC feature is automatically deactivated, unless there is a called station party on hold. If a called station party is on hold, SUSTWC is deactivated when the held party goes on-hook, provided the activating party is still on-hook.

2.11 SUSTWC-OW can be defined on a per line basis by setting the USDNY item, Bit 23, in the LENCL3 word of the LEN translations.

Irregularities and Abnormal Switch Interactions

2.12 Some of the irregularities and/or abnormal switch interactions that could occur during USTWC activation or during a USTWC call are as indicated in subparagraphs (i) through (j) below. For explanation purposes, assume the USTWC customer is party A (may also be referred to as the controlling party), the first leg called station party is party B, and the second leg called station party is party C. Parties B and C may also be referred to as the non controlling parties.

(a) If a controlling party dials *71 or 1171 and USTWC is already activated, reorder tone is returned.

(b) If the USTWC controlling party makes an error in dialing the USTWC activation access code or does not have the proper class of service indicated, a special service error announcement is returned.

(c) If the USTWC controlling party does not completely dial the station DN associated with party B, no USTWC activation occurs and PSPD (partial signal-partial dial) treatment is returned.

(d) Any flash attempt by party A before completely dialing party B is always interpreted as a disconnect. If the Unanswered AMA feature is loaded, party A is not allowed to flash if party B does not return answer report.

(e) If party A flashes and no three-port facilities are available, the flash is ignored.

(f) After party B is placed on hold, if party A does not completely dial the station DN associated with party C without hanging up, or flashes before dialing is complete, a normal two-way configuration is re-established with

party B.

(g) If party B disconnects before party C answers, the status of the USTWC call depends on what happens with party C. If party C does not answer, party A must disconnect and USTWC is deactivated. If party C answers, parties A and C are able to converse in a normal two-way call connection. In this case, party A is not charged for a USTWC call.

(h) If party C disconnects while party B is on consultation hold, the original two-way call between parties A and B is re-established. If party A disconnects while party B is on consultation hold, party A is rung back and, on answer, is connected to party B in a normal two-way call connection.

(i) If party A dials a wrong number when dialing party C or gets no answer while party B is on consultation hold, party A must flash once to remove party B from hold and flash again to remove the third connection, or disconnect and be rung back.

⇒ **NOTE:**
Ring-back in (h) and (i) above occurs if this not turned off in the office by the appropriate setting of the bits controlling ring-back in the Office Options Table. See Table A.

(j) For SUSTWC, if the controller disconnects with a party on hold, the controller may get ring-back. See Table A. If the controller answers ring-back, then the held party is connected. When the SUSTWC controller hangs up, and there is no held party, or there is a held party and the controller does not answer ring-back, the far end party receives disconnect treatments after a timing interval.

Operational Limitations

2.13 There are no operational limitations as to the number of three-way calls that a USTWC customer can make during a single USTWC activation.

2.14 There are no operational limitations as to the number of SUSTWC calls a SUSTWC customer can make.

Telephone Company

2.15 If a customer:

- has USTWC activated,
- makes a call via an outgoing trunk that fails to complete due to line busy or don't answer conditions,
- hangs up to originate another call (actually failing to depress the switchhook for an adequate period of time, resulting in the switch interpreting the customer's action as a flash),

the outgoing trunk of the first call attempt and the three-port facilities seized as a result of the flash are held for the duration of the second call. The unanswered trunk enhancement, available with 1AE8A.06, prohibits the ability to flash under the above conditions, preventing the customer from inadvertently tying up these items.

3. Engineering

⇒ **NOTE:**
These guidelines are for planning purposes only. The COEES (Central Office Equipment Engineering System) Information System engineering document, Index 30, should be used to manually order and engineer the 1A ESS Switch. The standard recommended automated procedure is COEES-MO (Mechanized Ordering).

Hardware

3.01 A three-port conference circuit SD-1A284-XX is required during an activation attempt of USTWC and SUSTWC. This circuit is seized when the activating customer flashes after the first leg called

station party answers. Once seized, the circuit is held for the duration of the three-way call connection. A three-port conference circuit is engineered on a one-to-one basis with a three-port conference register.

3.02 The USTWC and SUSTWC features can have an impact on touch-tone customer digit receivers (SD-1A173-XX) and dial pulse customer digit receivers (SD-1A172-XX) by increasing the holding time. For SD-1A173, the holding time is increased by approximately 3 seconds. For SD-1A172, the holding time is increased by approximately 7.5 seconds.

3.03 Customers who attempt to use USTWC and have been denied service, and those customers who misdial the USTWC activation access code, are routed to an existing special service error announcement. This announcement has a fixed route index of 87.

Software

A. Base Generic Program

3.04 The USTWC feature is base controlled and requires an estimated 515 program store words, which are contained in the 9FCORE feature package.

3.05 The SUSTWC-PL feature requires 230 program store words, which are contained in the 9FCORE feature package.

3.06 The SUSTWC-OW feature requires 700 program store words, which are contained in the 9FCORE feature Package.

B. Parameters/Call Store Areas

3.07 The B6USTWC and B6USTWC + 1 parameter words are used to point to a block of two unrestricted duplicated call store words required for collecting traffic measurements associated with USTWC. Parameter word B6USTWC contains the address of the first word of the USTWC block and B6USTWC + 1 contains the size of the USTWC block.

3.08 The set card NAM, that specifies the number of 13-word AMA (automatic message accounting) registers, is modified as a result of the USTWC feature. A 13-word AMA register is seized when a USTWC activation access code is dialed and is released when the first called station party answers. This is in addition to the normal 13-word AMA register used in processing the two-party call. Also, a 13-word AMA register is seized when a third party is added-on, even if the call does not ordinarily require it. This AMA register is held for the duration of the add-on portion of the call.

3.09 There are no new parameter or call store areas required for SUSTWC.

C. Translations

3.10 The translations required to implement the USTWC feature are as follows:

(a) **PACT (Prefixed Access Code Translator):** Word 0 of the PACT Head Table points to a 100 word subtranslator for the # digit. Word 60 of that subtranslator corresponds to access code *71, which is the recommended access code for the assignment of the USTWC access code. This assignment is on a per-switch basis. The PACT entry for USTWC has a Feature Type value of 4.

(b) **LEN (Line Equipment Number) Translator:** The USDNY item (bit 23) in the LENCL3 word of the LEN translations is used to deny USTWC to an individual line customer. If the LENCL3 word is not present or if present and bit 23 is not set, USTWC is allowed.

3.11 The following translations are required to implement the USTWC and SUSTWC features:

(a) **Office Options Table Translator:** Effective with 1AE8A.03, bits 15 and 16 of word 1 are used to turn off ring back for USTWC, and SUSTWC. These bits also turn off ring back for TWC. These bits are defined in Table A. Bit zero in word 14 is used restrict the printing of an AMA record of USTWC activations. Effective with 1AE8A.06, bit 18 of word 0, when set to 1, prevents a customer from flashing when an unanswered outgoing trunk is involved in the call connection.

3.12 The translations required to implement the SUSTWC-PL feature are as follows:

⇒ **NOTE:**
Although the SUSTWC-PL feature requires the USTWC feature, the translations for USTWC (PACT and LEN - USDNY) are not required.

(a) **Supplementary Office Options Table Translator:** Effective with 1AE12.05, bit 10 of word 2, the ignore flash from lines subscribed to SUSTWC-PL bit, is used to ignore flash from lines subscribed to SUSTWC-PL. The default (0) for this indicator will allow flashes from SUSTWC-PL lines. Otherwise, if set to 1, flash will be ignored from lines subscribed to SUSTWC-PL.

(b) **LEN (Line Equipment Number) Translator:** The SUSTWC-PL item (bit 18) in the LENCL4 word of the LEN translations is used to indicate if the line is subscribed to SUSTWC-PL. If this bit is set, it means the line is subscribed to SUSTWC-PL.

(c) **MLHG (Multi Line Hunt Group) Translator:** The SUSTWC-PL item (bit 18) in word 17 of the MLHG Common Block (LENCL4) is used to indicate if the MLHG is subscribed to SUSTWC-PL. If this bit is set, it means the MLH group is subscribed to SUSTWC-PL.

(d) **Abbreviated LEN Translator:** The SUSTWC-PL item (bit 18) in the LENCL4 word of the LEN translations is used to indicate if the line is subscribed to SUSTWC-PL. If this bit is set, it means the line is subscribed to SUSTWC-PL.

(e) **REN (Remote Equipment Number) Translator:** The SUSTWC-PL item (bit 18) in the LENCL4 word of the REN translations is used to indicate if the line is subscribed to SUSTWC-PL. If this bit is set, it means the line is subscribed to SUSTWC-PL.

(f) TWC must not be assigned for USTWC. TWC must be assigned for SUSTWC-PL. TWC for POTS lines (which are the only SUSTWC-PL candidates) appears in both the DN (Directory Number) and LEN translators. The TWC item is bit 12 in the DNCL1 and LENCL1 words. Refer to Part 6 B(4), Translation Output Configuration for a layout of the DNCL1 and LENCL1 words.

3.13 The translations required to implement the SUSTWC-OW feature are as follows:

(a) **Supplementary Office Options Table Translator:** Effective with 1AE12.07, bit 12 of word 2 will be used as the SUSTWC-OW on/off indicator. When this bit is set to 1, SUSTWC-OW is enabled for all applicable lines in the office. Bit 14 of word 2 will be used to inhibit making a USTWC Charge Record for SUSTWC-OW.

(b) **LEN (Line Equipment Number) Translator:** The USDNY item (bit 23) in the LENCL3 word of the LEN translations is used to deny SUSTWC-OW to an individual line customer. If the LENCL3 word is not present or if present and bit 23 is not set, SUSTWC-OW is allowed.

Real Time

3.14 The real time impact of the USTWC or the SUSTWC feature is minimal. However, if the increase in three way calling occurs during the office busy hour, the input for add-on calls on the COEES input form 646X should be modified.

4. Implementation

4.01 The USTWC feature is implemented on a per-switch basis by making the appropriate Feature Type entry in the PACT translator. The recommended entry is *71.

4.02 Recent change message RC:PSWD is used to assign the USTWC Feature Type for an access code for the USTWC feature. Beginning with the 1AE 12.04 program, this may be assigned with a RC:PACT recent change message. See Part 6 A(4) for details.

4.03 If the office wishes to not immediately begin USTWC activation billing, a bit may be set in the Office Options Table Translator. The RC:PSWD message is used to set the Inhibit USTWC Activation Record, if desired. It is bit 0 in word 14 of the Office

Options Table Translator. This bit should be turned on later when the office is ready to begin billing for USTWC activations. This bit does not effect SUSTWC billing.

4.04 Ring back effects TWC, USTWC, and SUSTWC. If the office wishes to not immediately begin ring back with the loading of USTWC or the activation of SUSTWC, the following bits should be set to 1. Effective with 1AE8.03, the RC:PSWD message can be used to turn off ring back by setting bit 15 and/or 16 of word 1 of the Office Options Table Translator. See Table A for bit significance. Refer to Part A(2) for RC procedures.

4.05 Keyword DUSTWC can be used with the RC:LINE message to deny USTWC to an individual line. Refer to Part A(3) for RC procedures.

4.06 The SUSTWC-PL feature is implemented on a per-line basis by using the RC:LINE and the RC:MLHG messages with the keywords for TWC and SUSTWC-PL.

4.07 The SUSTWC-OW feature is controlled by Fast Feature Set Card FF143. Fast Feature Set Card FF129 is required as a precondition. An office must have both Fast Feature Set Cards before the Office Wide version can be activated. The SUSTWC-OW feature is assigned to all allowed lines when the Office Wide Indicator Bit is set.

USTWC Billing

4.08 When a USTWC activation occurs, a Call Code 49 record is made. The first call is subsequently established. When the first call is made, any billing records normally made for the first call are made as if the USTWC access code had not been dialed. While the first call is active, the originator flashes. The second leg is dialed. When the second leg answers, two possibilities occur. If billing is required for the second leg call, when the appropriate billing occurs, the normal billing record for that call will be generated. If billing is not required, a Call Code 48 billing record will be generated. The generated billing record will contain a Service Feature Code (SFC) set to the value for USTWC to indicate that the second leg was a USTWC type call.

⇒ **NOTE:**
If the customer dialing the USTWC activation code is a SUSTWC customer, the USTWC activation code is ignored.

SUSTWC Billing

4.09 When an SUSTWC customer is already on a stable call and flashes, the "allow flash" item is set to "allow" on the customer's call register. The second leg is dialed. When the second leg answers, the same two possibilities as for USTWC billing occur. If billing is required for the second leg call, when the appropriate billing occurs, the normal billing record for that call will be generated. If billing is not required, a Call Code 48 billing record will be generated. The generated billing record will contain a Service Feature Code (SFC) set to the value for USTWC to indicate that the second leg was a SUSTWC type call. The SUSTWC feature uses the same SFC value as USTWC.

Billing Record Creation Time

4.10 The time of creation of the records will be the normal time the records would have been made if USTWC or SUSTWC had not been invoked. For CI calls a record is made when the call is set up. For other type calls this may occur as late as when answer is reported. It is, therefore, possible to have the SFC set to indicate a USTWC or SUSTWC call in a billing record even if answer does not occur.

AMA Formats

4.11 For the USTWC and SUSTWC Call Code 49 record, the Old Format record is Type Entry Code V49. For the USTWC or SUSTWC Call Code 48 record, the Old Format record is Type Entry Code V01. A record must be made for the USTWC or SUSTWC second leg even when a record is not required for that call if it were not part of a USTWC or SUSTWC type call. A second leg call that requires its own Type Entry Code record will use it. All Old Format second leg USTWC or SUSTWC type calls will have Data Group A2 with 4

characters. The SCF for USTWC (18) will be recorded in the 3rd and 4th characters of Data Group A2. The SUSTWC feature uses the same SCF value as USTWC.

4.12 For the USTWC and SUSTWC Call Code 49 record, the corresponding AMASE record is Structure Code 0028. For the USTWC or SUSTWC Call Code 48 record, the AMASE record is Structure Code 0001. A record must be made for the USTWC or SUSTWC second leg even when a record is not required for that call even if it were not part of a USTWC or SUSTWC type call. A second leg call that requires its own Structure Code record will use it. All AMASE second leg USTWC or SUSTWC type calls will have Table 12 present and the SCF for USTWC (018) will be recorded in its 4 characters (018 (left adjusted) in 3 characters and the hex C character in the 4th character). The SUSTWC feature uses the same SCF value as USTWC.

For additional information see Part A(5) or Part A(6).

Office Preconditioning

A. SUSTWC-PL

4.13 When preconditioning an office for SUSTWC-PL, RC:PSWD can be used to set the Supplementary Office Option bit to ignore the "spontaneous" switch-hook flash until all lines to be recent changed are completed. Then RC:PSWD can be used again to reset the Supplementary Office Option bit and allow the switch-hook flash for SUSTWC-PL to be recognized.

B. SUSTWC-OW

4.14 The SUSTWC-OW feature is controlled by Fast Feature Set Card FF143. Fast Feature Set Card FF129 is also required as a precondition. An office must have both Fast Feature Set Cards before the Office Wide version can be activated.

Assignment Restrictions

4.15 The USTWC and SUSTWC-PL features are denied on a per individual line basis for Centrex station and attendant lines, coin lines, multiparty lines, and hotel/motel lines. USTWC is also denied on a per individual line basis for lines with TWC. However, SUSTWC-PL can only be assigned with both the keywords for SUSTWC-PL and TWC. For additional information see Part A(3).

4.16 SUSTWC-OW is denied on a per individual line basis for Centrex station and attendant lines, coin lines, multiparty lines, and hotel/motel lines. SUSTWC-OW is also denied on a per individual line basis for lines with TWC.

Set Cards

4.17 The USTWC and NAM set cards apply when implementing USTWC on a per switch basis. When the USTWC set card is set equal to one, a bit is set in the office options table allowing call processing to use the feature. Modification of the NAM set card ensures sufficient 13-word AMA registers are available for USTWC.

4.18 SUSTWC-PL feature requires the FF129 set card. The fast feature bit must be set to activate the feature in an office. SUSTWC-PL requires the USTWC set card.

4.19 The SUSTWC-OW feature requires the FF143 set card. Set card FF129 is required as a precondition. An office must have both Fast Feature Set Cards before the Office Wide version can be activated.

Translation Forms

4.20 The following translation forms apply to the USTWC and SUSTWC features. For detailed information, refer to Translation Guide TG-1A.

- ESS 1107
- ESS 1317
- ESS 1401
- ESS 1500
- ESS 1500D
- ESS 1502A

5. Administration

Measurements

5.01 Traffic measurement code (TMC) 140 is available for the USTWC/SUSTWC feature. The office count numbers (EGOs) are as follows and are available on the H-, C-, DA-15, and S-traffic measurement schedules.

EGO	DESCRIPTION
000	**USTWC Activation Peg Count:** This measurement counts the number of times USTWC is activated by dialing the USTWC activation code, dialing a second party, and receiving answer.
001	**USTWC/SUSTWC Peg Count:** This measurement counts the number of times a customer activated USTWC/SUSTWC, flashed, added a third party, and the third party answered

Automatic Message Accounting

5.02 With USTWC or SUSTWC, there are two separate types of AMA records that can be generated. These are:

(a) **USTWC/SUSTWC Activation Record:** This record can only occur on the first leg of the USTWC/SUSTWC call and only once per activation. Output of this record is on an optional basis, as determined by the office options table, but is never output if the USTWC/SUSTWC activating customer is not given the opportunity to initiate the second leg of the USTWC/SUSTWC call (e.g., failure to seize three-port facilities).

(b) **USTWC/SUSTWC Charge Record:** This record can occur as many times as the USTWC/SUSTWC activating customer successfully adds a third party to the USTWC/SUSTWC call.

5.03 For USTWC and SUSTWC, a Special Services AMA register, identified by the NAM set card, is used for formatting AMA records. For more detailed information applicable to AMA, refer to LT Practices 231-390-063 and 231-390-069.

6. Supplementary Information

References

6.01 The following documentation contains information pertaining to or impacted by the USTWC feature.

A. LT Practices

(1) 231-090-080 – *Three Way Calling*

(2) 231-318-319 – *Recent Change Formats*

(3) 231-318-325 – *Recent Change Formats*

(4) 231-318-336 – *Recent Change Formats*

(5) 231-390-063 – *AMA (Single Entries)*

(6) 231-390-069 – *AMA Standard Entries and Multientry Teleprocessing System*

B. Other Documentation

(1) *Translation Guide - TG-1A*

(2) *Office Parameter Specification - PA-6A001*

(3) *Parameter Guide - PG-1A*

(4) *Translation Output Configurations - PA-6A002*

(5) *Input Message Manual - IM-6A001*

(6) *Output Message Manual - OM-6A001*

(7) *759-100-000 BISP-Subject Index - COEES*

(8) *759-100-100 BISP-General Description - COEES*

(9) *COEES Information System Engineering Document - Index 30*

7. Abbreviations and Acronyms

A

AMA
Automatic Message Accounting

C

COEES
Central Office Equipment Engineering System

COEES-MO
COEES Mechanized Ordering

D

DN
Directory Number

DTMF
Dual-Tone Multifrequency

L

LEC
Local Exchange Carrier

LEN
Line Equipment Number

P

PACT
Prefixed Access Code Translator

PDA
Parameter Data Assembler

POTS
Plain Old Telephone Service

PSPD
Partial Signal Partial Dial

R

RAO
Revenue Accounting Office

S

SUSTWC
Spontaneous Usage Sensitive Three-Way Calling

SUSTWC-PL
Spontaneous Usage Sensitive Three-Way Calling - Per Line

SUSTWC-OW
Spontaneous Usage Sensitive Three-Way Calling - Office Wide

T

TIRM
Technical Information Resource Management

TMC
Traffic Measurement Code

TWC
Three-Way Calling

U

USTWC
Usage Sensitive Three-Way Calling

Table A. Office Options Table

Bit 16	Bit 15	Ringback	
		USTWC	STWC
0	0	ON	ON
0	1	ON	OFF
1	0	OFF	OFF
1	1	OFF	OFF

FEEDBACK FORM

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Feature Document
1A ESS™ Switch

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