"Customized Data Insertion Technology"

CD-IT PROVISIONAL PATENT APPLICATION

FORMERLY APPL NO. 60/449,151 FILING 2/24/2003

"SELF-REPLICATING MEDIA"

By

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Customized Data Insertion Technology, CD-IT

Abstract

The Customized Data Insertion Technology (CD-IT) invention provides a method for the reselling of products through a method of reseller features, that authorizes the reseller to receive compensation when a new buyer purchases a product or service after accessing a referral method registered to the reseller. The invention allows future purchasers of the product or service to become resellers, thus providing a "self-replicating" means for perpetuating selling and reselling.

Products comprise of digitally formatted content such as music, video, text or software as actual sales items or other products or services that are non-digital. A referral record containing reselling and sales transactions data registered to a reseller is used to initiate reselling. The record redirects a new buyer to a product sales site. Alternatively, the digital product is digitally inserted into a format that includes referral data for transfer of digital content product to buyer. When a new buyer purchases a product or service by accessing the referral record, a "resale" is credited to the reseller to whom the referral record is registered. In addition to managing product or service resale, the CD-IT invention also in part or in whole, manages the disbursement of sales transactions to other related parties.

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Filed: May 11th 2010

Claims

What is claimed is:

1. A method for the reselling of products or services through the use of the Self-Replicating Media (SRM) that are distributed in an open or secured environment where:

2. The SRM includes reselling data for specifying reselling features and redirecting buyer to the source of products or services being sold

3. The SRM includes reselling data for specifying reselling features and provides the optional insertion of digital content products such as music, video, text or software as a source of digital content product being sold

4. The method of providing a client based method for processing SRMs

5. The method of providing a remote based method for processing SRMs

6. The method of providing the address of the remote SRM processing method of claim 5 within the client based SRM processing method of claim 4

7. The method of insertion of the address of the remote SRM processing method of claim 5 into the client based SRM processing method of claim 4 by the method of claim 5

8. The method by which the client based method of claim 4 communicates with the remote SRM processing method of claim 5

9. The processing method of claim 1, wherein a method of storing data about product provider or representative is provided by the remote SRM processing method of claim 5. Data include name, address, user names, passwords, monetary accounts for receiving or making payments and like data.

10. The computerized method of claim 1, wherein a method for storing data about the reseller is provided by the remote SRM processing method of claim 5. Data include name, address, user names, passwords, monetary accounts for receiving or making payments and like data.

11. The first SRMs are developed for product providers or representatives and contain reselling data and product data that is provided by the remote SRM processing method of claim 5

12. A method of linking wherein data is associated with other data at a remote site, a client site or data within the source being linked. The linked data comprise of the processing of the source data, or a reference to other data.

13. The method of claim 11, wherein a unique code or set of codes is assigned by the method of claim 5 to the SRM for linking of data between the method of claim 5 and the method of claim 4

14. The method of claim 11, wherein a code or set of codes is linked by the method of claim 5 to the client method of claim 4 as a method of encrypting the private data of the SRM

15. The method of claim11, wherein the said SRM is linked to the product provider's data of claim 2 or claim 3 by the remote SRM processing method of claim 5

16. The method of claim 11, wherein the said SRM is linked with data that describes the product attributes by the remote SRM processing method of claim 5

17. The method of claim 11, wherein the said SRM is linked with additional transactions data such as product, licensing, or contractual data by the remote SRM processing method of claim 5

18. The method of claim 11, wherein the address of the remote SRM processing method is inserted into the said SRM by the remote SRM processing method of claim 5

19. The method of claim 11 wherein the data for choosing the remote processing method of claim 5 is inserted into the said SRM by the remote SRM processing method of claim 5

20. The method wherein the data for choosing the remote processing method of claim 5 is contained within the client based method of claim 4

21. The method of claim 11, wherein attributes of the said SRM are recorded for authentication purposes

22. The method of claim 11, wherein the said SRM is provided with additional methods for linking with other data such as product promotional and marketing data or digital content pre-view capability

23. The method of claim 11, wherein the said product provider or representative assigns schedules of reselling payments to said product by recording the portions of buyer payments to be disbursed to product provider or representative(s), seller and other parties linked to product sale or resale

24. The method of claim 11, wherein the said product provider or representative of claim 2 or claim 3, is provided with controls for managing SRM such as server source, encryption or non-encryption of digital content product and controls of features available to buyer such as buyer's viewing of reselling payment schedules of claim 23 or method of obtaining product

25. The second development of the SRM by a method of recording sales transactions data between reseller and seller of said product by remote SRM processing method of claim 5 after a certified SRM of claim 11 is accessed for reselling

26. A method for remote SRM processing method of claim 5 to receive payments on behalf of CD-IT business entity or representative for processing SRMs at a per SRM development basis or other arrangement for compensation of CD-IT business

27. A method of claim 25, wherein data of buyer who selects option to be a reseller of said product is stored within method of claim 5

28. A method of claim 25, wherein data linking sales transaction data and reseller data are recorded within the remote SRM processing method of claim 5 as a new SRM record set

29. The method of claim 25, wherein the authenticity of the said SRM of the seller is confirmed by comparison with said SRM attributes recorded in claim 21

30. The method of claim 25, wherein the authenticity of the seller's rights to sell said product is confirmed by comparison of said seller's data recorded in claim 27 when seller was buyer

31. The method of claim 25, wherein an affirmative result of claim 29 and claim 30 authorizes the further processing of claim 25

32. The method of claim 25, wherein a negative result of claim 29 or claim 30 terminates sales transactions of claim 25

33. The method of claim 31, wherein a method is provided to buyer to complete the sales transactions as an end user or reseller of product

34. The method of claim 31, wherein a buyer who selects the reseller option is provided a method to further select a reseller payment schedule of claim 23, that has been assigned to the said product

35. The method of claim 31, wherein ancillary sales transactions data such as license, promotional and marketing data that are selected by the buyer or remote SRM processing method of claim 5, is recorded by claim 5

36. The method of claim 31, wherein the disbursement of buyer payments is completed according to the reseller schedule of payments currently selected in claim 34 by the buyer (as reseller)

37. The method of claim 31, wherein the disbursement of buyer payments is completed according to the reseller schedule of payments previously selected in claim 34 when the seller was a buyer.

38. The method of claim 31, wherein a method of determining the selection of claim 36 or claim 37.

39. A method of claim 31, wherein data linking new SRM record set of claim 28 is recorded within a new SRM

40. The method of claim 31, wherein the transfer of said product to buyer from seller or third party source is determined by a method of buyer selection of controls that were assigned to SRM in claim 24 by product provider or representative.

41. A method by which claims 25 through 40 are "self-replicated" in a process where a previous buyer who selected the reseller option is able to sell the product or service through a new SRM registered to the buyer as a reseller. A new buyer who selects the reseller option is also able to "resell" the purchased product or service through another new SRM registered to the buyer as a reseller.

42. A method of identifying the said SRM as being of the present invention type.

FIELD OF THE INVENTION

[0001] The present invention relates to electronic commerce and, more particularly, to a system and method of generating SRM referrals that are distributed for the reselling of products or services.

BACKGROUND OF THE INVENTION

[0002] The CD-IT invention describes a method for the resale of products through the use of SRMs that are registered to product resellers. The SRM contain pertinent information for linking sales transactions with compensation to the reseller.

[0003] The invention, "Customized Data Insertion Technology," (CD-IT) is a method that provides for the reselling of products using SRMs that are distributed to product buyers or resellers. Registered resellers of the product receive SRMs for distribution. When a new buyer purchases the product by accessing the SRM, the reseller is compensated. In addition to reselling data, digital content products

are resold using special SRMs that contain the digital content. CD-IT completes SRM digital content resale by converting the inserted digital content product of the SRM into its original format.

[0004] Reselling of the product is permitted, according to the buyer and seller features that are accessible through the SRM. The features provide marketing, licensing, selling, reselling and pricing options determined by the product provider or representative, and offer feature choices for distributor, retailer, Internet site, buyer, seller and reseller or others involved with the sales and distribution of the product.

[0005] The prevalence of the Internet and widespread use of digital recording media has transformed the accessibility of products and services. After a buyer purchases products or services, there is usually a sales transaction record consisting of a simple receipt or extensive additional records if a credit card purchase is made. CD-IT extends the recording of sales transactions to include the generation of registered SRMs for buyers who elect to become resellers of their purchases. The SRM allows the buyer to receive compensation as a reseller when a new buyer completes a product purchase by accessing the former buyer's SRM.

[0006] SRMs are distributed at Internet websties, e-mails, peer to peer networks or through physical digital media such as smart media, flash media, DVDs or CDs. Buyers who access the SRMs are redirected to sites where products are sold. Redirection to Internet sites, or through physical transporting of SRMs or written codes of SRMs to product sale sites is permitted.

[0007] The CD-IT invention provides enhanced sales and distribution of digital content products by:

1) Legally managing the sales and distribution of digital content

2) Allowing consumers, business, government and members of the greater international community; 1) ubiquitous legal purchases, 2) unparalleled availability of digital content products through the CD-IT SRM

DEPARTURE FROM CURRENT SCHEMES

[0008] The current scheme for the legal sale of digital content products does not provide for the reselling of the purchased products by the purchaser, where the purchaser as "reseller" is rewarded monetarily or by other methods. The present CD-IT invention, departs from existing schemes that record ancillary data with sales transaction data, by specifically providing a method of allowing the purchaser to copy, transfer, swap, or resell the purchased digital content product to a third party as specified by the "reseller features" selected. All transactions of the present invention, - original sales or resale - are controlled by the "reseller features", which are authorized by the product provider or representative.

[0009] The appeal of the CD-IT invention is that technology allows a purchased digital content to be recorded in many different digital media types and locations, that are easily accessible to other than the original purchaser, when those other parties have interest in obtaining the said digital content. The present CD-IT invention provides the resources for such an interested party to purchase the accessed digital content, according to its "reseller features". Digital content is purchased and resold in presently

existing schemes. However, CD-IT differs from such schemes by specifically providing a method of perpetuating the reselling of the purchased digital content in a self-replicating manner.

[0010] There is thus a need for a CD-IT invention that provides a method for the "reselling" of digital content, through a method of authorized copying of said content, or redirected copying of said content from another source, or through the physical transfer of recorded media to the purchaser and providing a method of recording associated transaction data for new reselling.

[0011] The method of reselling digital content is applicable to the reselling of other products and services. CD-IT provides a method of expanding the sales and distribution of products and services within an e-commerce or conventional environment.

SUMMARY OF THE INVENTION

[0012] The CD-IT invention provides a method of extending the licensing, sale, rental, lease, or other transfer of ownership, title, or license, permanent or temporarily (henceforth, "resell" or "reselling"), of products, among end users and/or resellers, through the use of SRMs that provide buyer access to products and services.

INTERNATIONAL

[0013] The International use of the invention follows geographical differentiation of deployment, for example a single CD-IT for a small country, a similar system but with distributed subparts for a larger country, or, independently operated systems for various combinations of country or regional areas. The Internet or other digital communications allows access of the invention within prescribed areas of differentiation.

NEED FOR CD-IT

[0014] The case for CD-IT for the sales and distribution of digital content products is twofold:

1. The suppression of digital piracy by matching the depth and availability of pirated product offerings, with a greater level of legitimate digital content availability through the distribution of CD-IT SRMs.

2. The conversion of former pirates into legitimate buyers and sellers of copyrighted digital content through the CD-IT reseller feature.

The combination of these two CD-IT features encourages honest end users to defer from piracy, and encourages would-be pirates to return to legitimate merchandising practices, providing a twofold approach to curbing and abating the tide of digital piracy.

CD-IT FUNCTIONAL DESCRIPTION

[0015] A method of recording buyer and seller transaction data

[0016] A method of tagging product sales transaction with SRMs that record reselling and other features selected by reseller

[0017] A method of retrieving reseller features for controlling disbursement of fees or other incentives to reseller for sale of product to buyer who completes sales transaction through SRM registered to reseller.

DETAILED DESCRIPTION OF AN EXEMPLARY EMBODIMENT

[0018] In an exemplary embodiment of the present invention, an example of the reselling of digital content products is provided. The reselling of non-digital content products or services follows a similar embodiment without digital content being inserted into the SRM.

[0019] The method of SRM certification by digital content product provider or representative is managed by a remote SRM processing method or Centralized Repository Database Management System (CRDBMS).

[0020] The content providers or representatives register with the CRDBMS and receive unique codes for identification and unique codes for encryption of content

[0021] The content provider or representative opens a monetary account with the CRDBMS for receiving payments

[0022] The content provider or representative receives a client based SRM processing application that communicates with the CRDBMS using the unique identification code

[0023] The content provider or representative develops a schedule of reseller payments for the reselling of the digital content product that is accessible to resellers who are registered with the CRDBMS

[0024] The content provider or representative specify licensing, contractual or other terms of reselling such as expiration period for reselling of certified SRMs developed using CRDBMS

[0025] The SRM file is assembled using an un-encrypted public header, an encrypted private header and encrypted or un-encrypted digital content inserted into the SRM file as exemplified in figure 1. The fields of the un-encrypted header are duplicated in the encrypted header. A unique code or SRM delimiter that is not found within the fields separates each field. The encrypted header has two additional fields; preamble 1 and preamble 2. These are fields of random sizes and random non-SRM delimiter characters. The size of the preambles is recorded by the CRDBMS as part of the SRM record. The second preamble is appended to the end of the content file that is inserted into the SRM. The encrypted header precedes the encrypted content file that is inserted within the SRM. The preambles serve to mask the starting and ending position of the content file within the SRM file.

[0026] Figure 2 is a detailed illustration of the SRM headers. The fields are duplicated within the encrypted and un-encrypted headers except for the file fields. The un-encrypted header has public files such as content pre-view, promotional or contractual files. The encrypted portion of the SRM contains the actual content file. The fields' order varies between the encrypted and encrypted headers also.

[0027] The SRM version field of figure 2 identifies the file as the SRM type. The fields count is the number of fields that follow the fields count field. The seller code field is the unique identification code that the CRDBMS uses to identify the reseller of the SRM. The seller name is the company name or user name of the previous seller. The artist is the name of the content artist. The SRM type specifies the type of SRM. This type code allows the program to identify the correct number of fields and the position of the fields within the SRM.

[0028] The reseller name is the company name or user name of the reseller or rights holder of the SRM. The SRM Tags are the CRDBMS codes for the SRMs. The code for the current SRM is recorded in the un-encrypted header. The codes of all SRMs linked in the reselling of the current SRM and including the code of the current SRM is recorded in the encrypted header. The content segment records the music, video, text or software category of the content.

[0029] The resell level records the level of reselling. Code 1 is the content provider, code 2 is the distributor, and code 3 is the retail, Internet or vendor level. Resellers are level 4 through 7. These codes are used to indicate what level of reselling is permitted, e.g., level 1 sells to level 2, level 2 sells to level 3, level 3 sells to level 4 and level 4 sells to level 4 through 7.

[0030] The content code is the CRDBMS code used to identify the content. The source seller code is the CRDBMS code of the client that processes the SRM. If a reseller is purchasing a SRM from a seller at the seller's site, the source seller code is that of the seller. If a reseller is purchasing a SRM and is using the reseller's own SRM processing system, the source seller code is the reseller CRDBMS code. The code is used by the CRDBMS to determine whether the encrypted header is encrypted in the seller or reseller encryption code.

[0031] The optional CRDBMS address is the address of the remote SRM processing method. The address is optional since an alternative implementation includes it in the client SRM processing method. Whether within the SRM or within the client SRM processing method, the address allows multiple CD-IT processing sites for multiple CD-IT implementations.

[0032] The product address allows the client SRM processing method to access an alternative source for the digital content. The SRM files contain the digital content product, the reseller contract, content preview or other files associated with the SRM. The files are inserted into the SRM according to the structure of figure 3.

[0033] The client SRM processing method flowchart is illustrated in figure 4. The method displays un-encrypted header information of all SRMs. When the client is the rights holder of the SRM, the processing method is able to convert the encrypted content into its original format. The processing method is also able to access non-client SRM and purchase rights to reselling and using the content through the CRDBMS. The created SRM is accessible for purchase via the client's SRM processing method or distributed as a SRM file or in brevity as SRM tags.

[00034] The CRDBMS provides a central method of recording SRM for clients. The invention allows for multiple CRDBMS to be implemented along product types, geographical areas or other areas of differentiation.

[0035] Various features expressed are redundant, - such as double recording of SRM headers that are encrypted or un-encrypted or the use of the CRDBMS address within the SRM or within the client based SRM processing method.

[0036] Various terms such as Centralized Repository Database Management System (CRDBMS), header, and data record are used as generic terms and do not imply a particular implementation scheme.

[0037] The present SRM invention claims all variants or combinations of the features that achieve the stated objectives of "self-replicating" authorized reselling.

UN-ENCRYPTED HEADER	ENCRYPTED HEADER	ENCRYPTED CONTENT	ENCRYPTED TRAILER

SRM DELIMITER	ENCRYPTED SRM DELIMITER		RANDOM PREAMBLE 2
SRM FIELD 1	RANDOM PREAMBLE 2		
SRM DELIMITER	ENCRYPTED SRM DELIMITER		

SRM FIELD N	ENCRYPTED SRM FIELD M
SRM DELIMITER	ENCRYPTED SRM DELIMITER
	RANDOM PREAMBLE 1
	ENCRYPTED SRM DELIMITER
	ENCRYPTED SRM FIELD P
	ENCRYPTED SRM DELIMITER

Figure 1: Self Replicating Media (SRM) Data Structure

SRM VERSION	FIELDS COUNT N	SELLER CODE	SELLER NAME	ARTIST	SRM TYPE	RESELLER NAME	SRM TAG	CONTENT SEGMENT
RESELL LEVEL	CONTENT CODE	SOURCE SELLER	CRDBMS ADDRESS	PRODUCT ADDRESS	SRM FILES			

Figure 2: Self-Replicating Media (SRM) Header

FILE COUNT N	FILE 1 NAME	FILE 1 SIZE	FILE 1	• • •	FILE N NAME	FILE N SIZE	FILE N

Figure 3: SRM Generic Files Data Structure

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┌─────────────────────┐
│   OPEN SRM FILE     │
└─────────────────────┘
          │
          ▼
┌─────────────────────┐                                              ┌─────────────────────┐
│  READ UN-ENCRYPTED  │          NOT EQUAL                            │  OBTAIN STORED      │
│  HEADER USER ID     │─────►◄  COMPARE  ►◄───────────────────────────│  USER ID & DATA     │
└─────────────────────┘                                              └─────────────────────┘
                              EQUAL                                            │
                                │                                              ▼
                     ┌─────────────────────┐                        ◄  LIST ENDED?  ►
                     │  DECRYPT SRM        │
                     │  ENCRYPTED HEADER   │
                     └─────────────────────┘                                   │
                                │                                              ▼
                     ┌─────────────────────┐                        ┌─────────────────────┐
                     │  DECRYPT SRM        │                        │  DISPLAY UN-        │
                     │  CONTENT            │                        │  ENCRYPTED HEADER   │
                     └─────────────────────┘                        │  DATA               │
                                │                                    └─────────────────────┘
                     ┌─────────────────────┐
                     │  DISPLAY HEADER     │
                     └─────────────────────┘
```
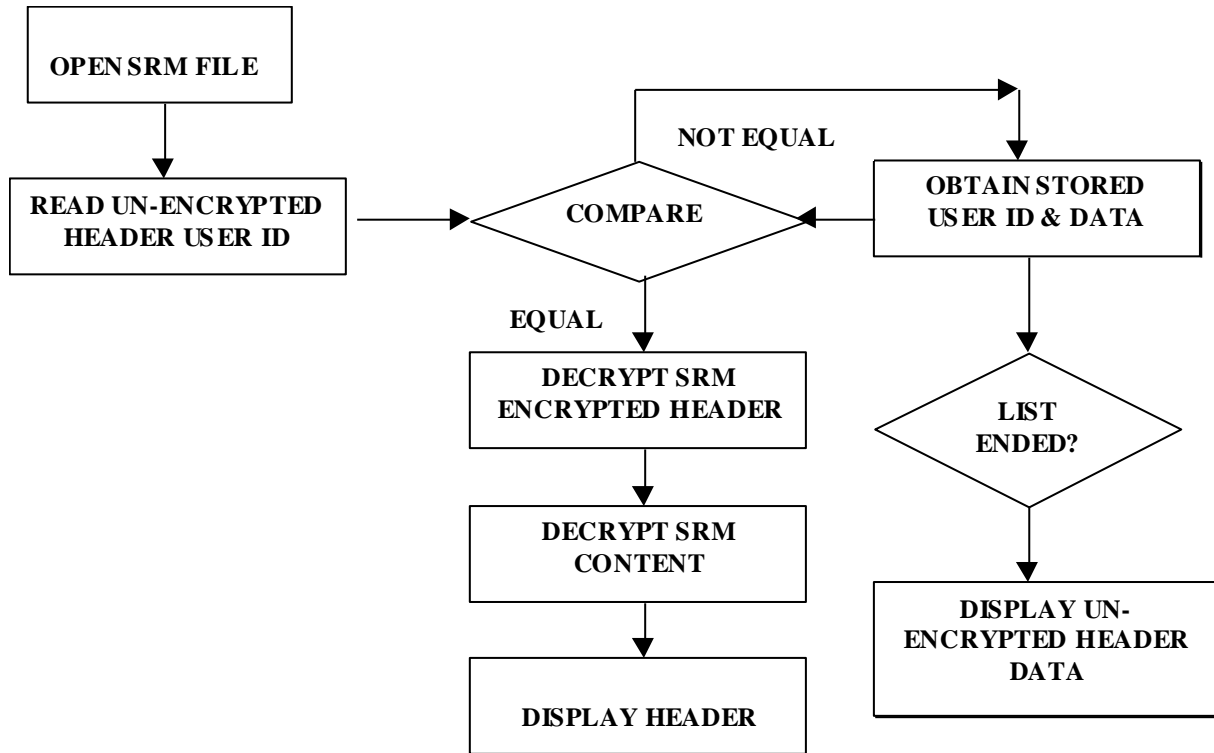
Figure 4: Self-Replicating Media (SRM) Content Processing Flowchart

FIGURE 5: CONTENT S&D ON PEER TO PEER NETWORK

Five procedures for the sale of SRM on a peer to peer network with SRM content. In step 1, end user scans through contents on peer to peer network. After choosing particular content, CDIT is contacted in step 2 by peer to peer reseller. In step 3, CDIT receives payment from end user and authorizes (step 4) peer to peer reseller to start content transfer to end user.   In step 5, CDIT disburses payments to parties after confirmation of content transfer to end user. The peer to peer network is made up of many resellers. The payment to each reseller is determined by the reseller's position in the list of previous resellers.
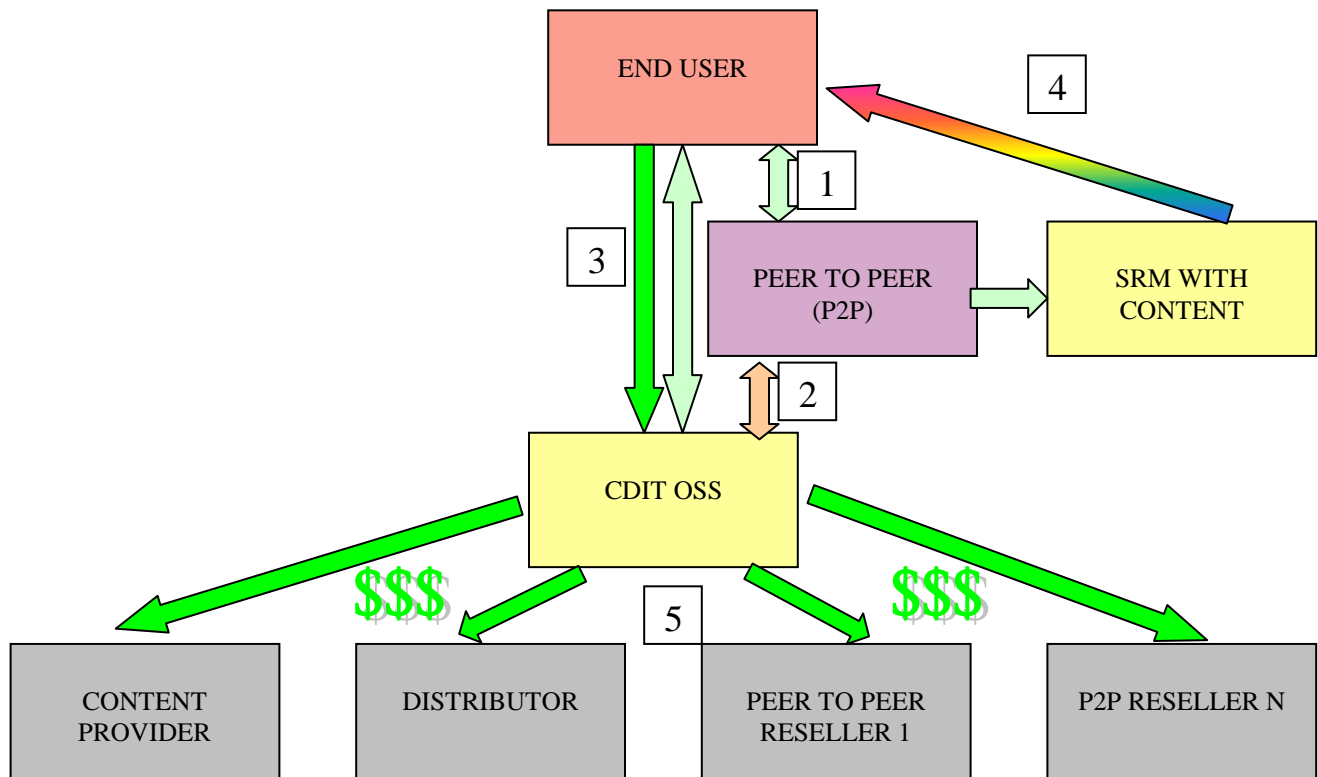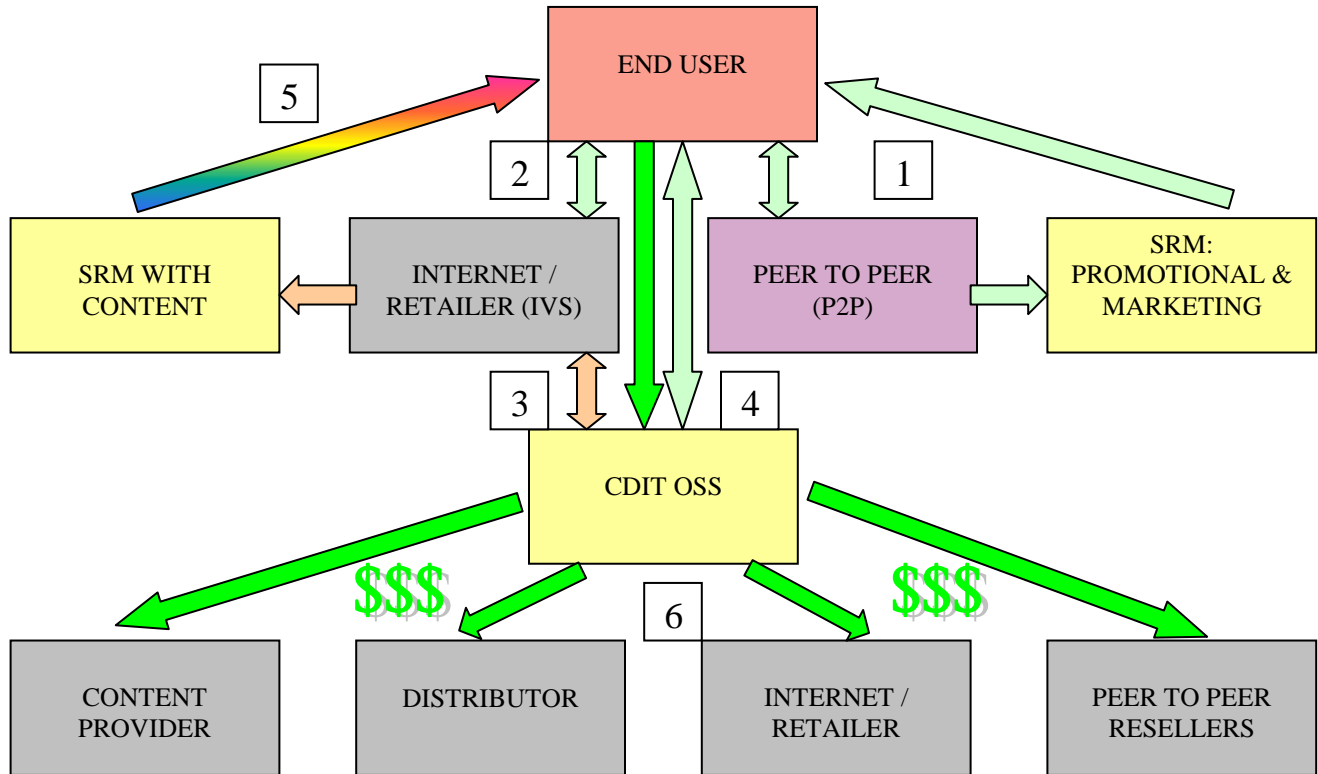
FIGURE 6: NON-CONTENT S&D ON PEER TO PEER

Six procedures for the sale of SRM on peer to peer network without SRM content. In step 1, end user scans through promotional & marketing contents on peer to peer network. In step 2, end user accesses link to reseller source (Internet / retailer shown) where particular SRM content is located. After choosing particular content, CDIT is contacted in step 3 by reseller. In step 4, CDIT receives payment from end user and authorizes (step 5) reseller to start content transfer to end user. In step 6, CDIT disburses payments to parties after confirmation of content transfer to end user.

	PROMOTIONAL & MARKETING CONTENT	PROMOTIONAL COUPON
SELF-REPLICATING MEDIA	USER	BUYER ACCOUNT
TRANSACTIONS PROCESSING	LICENSE	SELLER ACCOUNT
PRODUCTIVITY TOOLS	CONTENT	
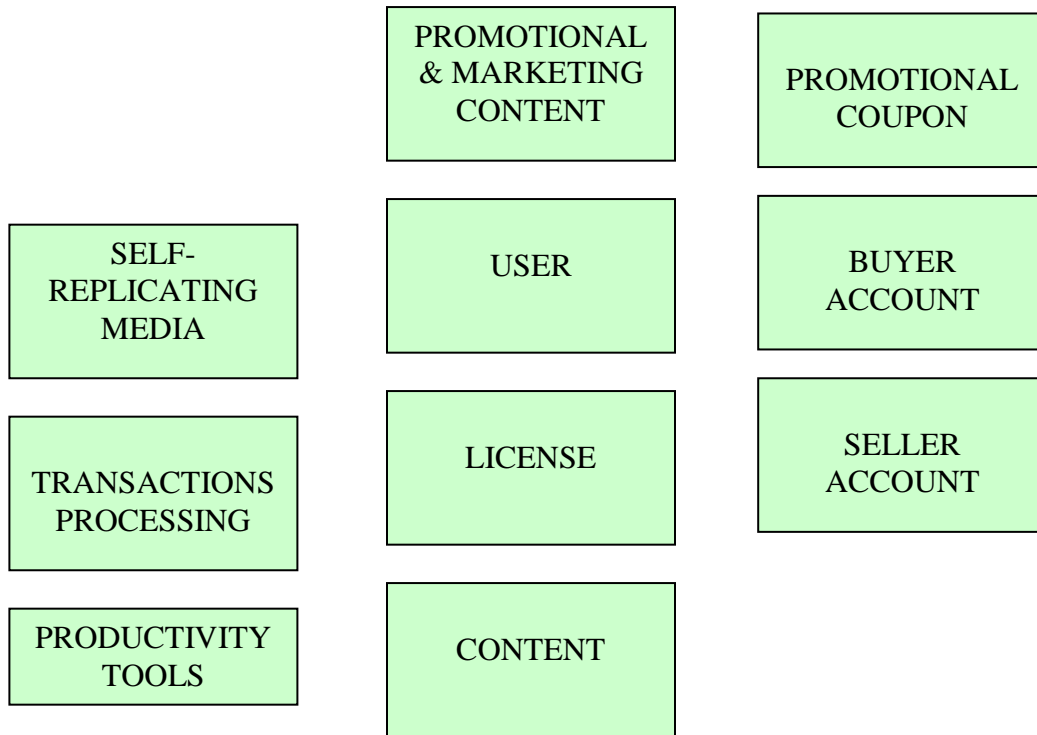
FIGURE 7: CDIT CRDBMS APPLICATION BLOCK DIAGRAM

SELF-REPLICATING MEDIA	PROMOTIONAL & MARKETING CONTENT	
CDIT USER APPLICATION	USER	CONTENT
PRODUCTIVITY TOOLS	LICENSE	
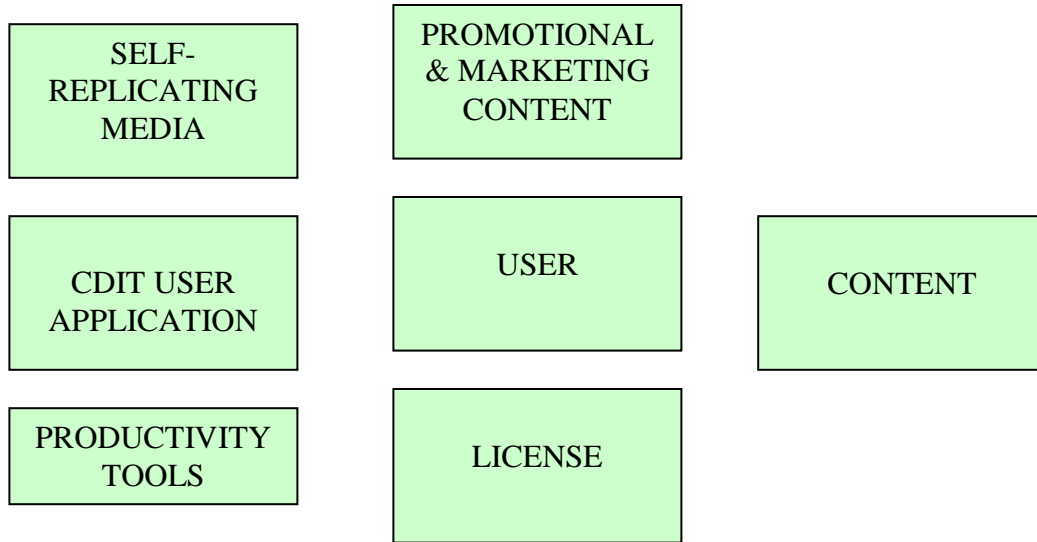
FIGURE 8: CDIT S&D APPLICATION BLOCK DIAGRAM

SRM_STACK TABLE
SRM_TAG
TTT
PM_TAG
SELLER_TAG
BUYER_TAG
BUYER_LICENSE_ TAG
CONTENT_TAG
SEQUENCE_TAG
SEQUENCE_COUNT
CONTENT_PRICE_ TAG
CONTENT_MEDIA
CONTENT_FORMAT
DATE_TIME_STAMP
SRM_GROUP_ COUNT
PREVIOUS_ SELLER_STACK
GROUP_SALE_ STACK
PREVIOUS_ SRM TAG
PREVIOUS_ TTT

SRM-CACHE TABLES

SRM_TAG1_ TABLE
SRM-STACK RECORD
LAST-TIME-USED

*
*
*

SRM_TAGN_ TABLE
SRM-STACK RECORD
LAST-TIME-USED

SRM TABLE
START-DATE-TIME STAMP
END-DATE-TIME STAMP
SRM-TAG

FIGURE 9: SRM DATA STRUCTURE

The SRM data structure is divided into three parts. The first SRM table defines the starting and ending date and time between which a specific table of SRMs is recorded. The second table is a cache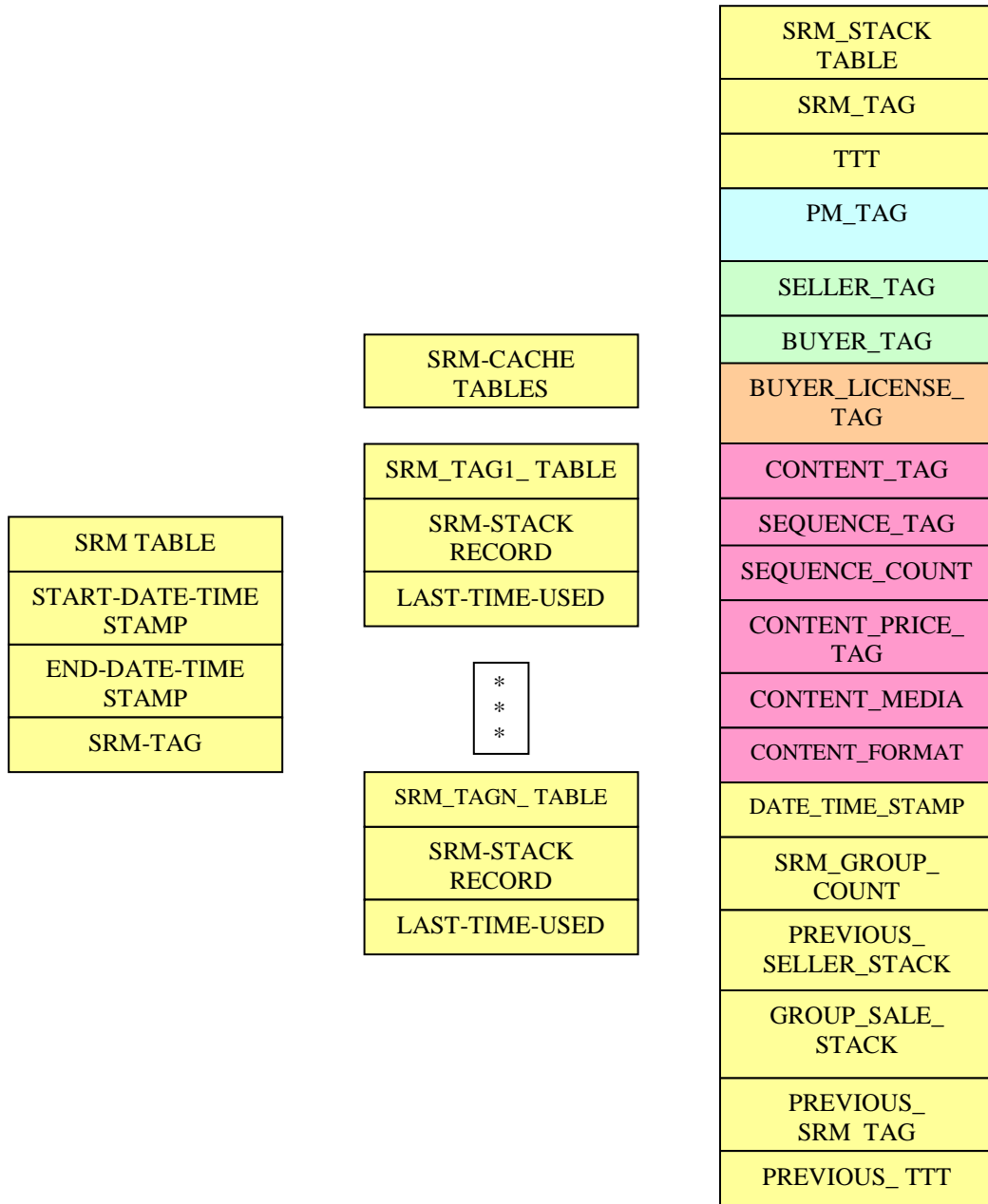 interface to current SRM transaction records. The third tables are current and previous SRM tables consisting of stacks of SRM transaction records. A SRM-NEXT-TTT field tracks the next TTT for a single purchase of a group of SRMs. The SRM-PREVIOUS-TTT tracks the previous SRM of a single purchase for a group of SRMs. This permits generating reports for a single purchase of a group of SRMs. The SRM stack tables provide better database management by allowing the stacking of large number of SRM transaction records into a single table.

P-M TABLE

TYPE

GENRE

SUB-GENRE

P-M-LINK

ARTIST

PRODUCER

WRITER

PUBLISHER

P-M-DISCO TAG

P-M-CONTENT STACK

P-M-DISCO TABLE

P-M-CONTENT-STACK

START-DATE-TIME

END-DATE/TIME

DISCOUNT

COUPON

COUNT

P-M-CONTENT STACK TABLE

CONTENT TAG

SEGMENT TABLE

SEGMENT_TAG

SEGMENT

USER_TYPES TABLES

USER_TYPES_TAG

SEGMENT_TAG

SELL/BUY_USERS TABLES

SELL/BUY_USER_TAG

USER_TYPES_TAG

USER_FIRST

USER_LAST

USER_STREET

USER_STREET2

USER_CITY

USER_STATE

USER_ZIPCODE

USER_COUNTRY

USER_EMAIL

USERNAME

USER-PASWD

LICENSE_STACK TABLE

LICENSE_STACK_TAG

LICENSE_CONTENT TAG

LICENSE_CONTENT TABLE

LICENSE_CONTENT_TAG

USER_TYPES_TAG

LICENSE TABLE

LICENSE_TAG

LICENSE_CONTENT_TAG

LICENSE_LINK

LICENSE_TYPE_TAG

LICENSE_TYPE TABLE

LICENSE_TYPE_TAG

LICENSE_TYPE

CONTENT TABLE

CONTENT_TAG

LICENSE_STACK_TAG

PRICE-TAG

GENRE_TAG

SUBGENRE_TAG

BLANK-STACK

ARTIST/AUTHOR

AGENT/PRODUCER

PUBLISHER

START-PRICE TAG

START-PRICE DATE

PRICE_TAG

CONTENT_P_M TABLE

CONTENT_P_M_TAG

P-M TAG

FIGURE 10: CDIT LEVEL II DATABASE DATA STRUCTURES

SELL TABLE
SELL_TAG
CDIT_SELL_TAG
PROVIDER_TAB
PROVIDER_LAST_ TAB
DISTRIBUTOR_TAB
DISTRIBUTOR_ LAST_TAB
RETAIL_TAB
RETAIL_LAST_TAB
INTERNET_TAB
INTERNET_LAST_ TAB
VENDOR_TAB
VENDOR_LAST_ TAB
RESELLER_TAB
RESELLER_LAST_ TAB
ENDUSER_TAB
ENDUSER_LAST_ TAB

CDIT_SELL TABLE
CDIT_SELL_TAG
SELL_ACCNT_TAG
CONTENT_TAG
CONTENT_TAB
CONTENT_LAST_ TAB
RESELLER_TAB
RESELLER_LAST_ TAB
SELL_COUNT
RESELL_ THRESHOLD
RESELL_SCH_TAG
RESELL_START_ TAG

USER_TYPES TABLE
USER_TYPES_TAG
USER_TYPES
USER_LEVEL

RESELL_THRESH TABLE
RESELL_THRESH_ TAG
USER_TYPES_TAG
RESELL_THRESHOLD

RESELL_SCH TABLE
RESELL_SCH_ TAG
RESELL_SCH_N_TAG

RESELL_SCH _N TABLE (GENERIC)
RESELL_SCH_ TAG
RESELL_THRESH_ TAG
SCHEDULE RECORD

SELL_ACCNT TABLE
SELL_ACCNT_TAG
SELL_USERS_TAG
ACCNT_TYPE
ACCNT_CODE
ACCNT_ACCESS
ACCNT_DEPOSIT
CDIT_SELL_STACK
DEPOSIT_ SCHEDULE
DEPOSIT_TIME
DEPOSIT_DAY
DEPOSIT_DATE

FIGURE 11: CDIT SELLER- USER DATA STRUCTURES

BUY TABLE
BUY_TAG
BUY_ACCNT_TAG
BUY_CONTENT_ TAG
BUY_COUPONS_ TAG
DISCOUNT
COUNT
FINAL_PRICE

BUY_ACCNT TABLE
BUY_ACCNT_TAG
BUY_USER_TAG
ACCNT_TYPES_ TAG
BUY_CODE
BUY_ACCESS
BUY_BALANCE
BUY_WITHDRAWS

BUY_TYPES TABLE
BUY_TYPES_TAG
BUY_TYPES

BUY_CONTENT_ TABLE
BUY_CONTENT_ TAG
BUY_ACCNT_TAG
CONTENT_TAG

BUY_COUPONS TABLE
BUY_COUPONS_ TAG
BUY_ACCNT_TAG
P_M_TAG
COUPON
COUNT
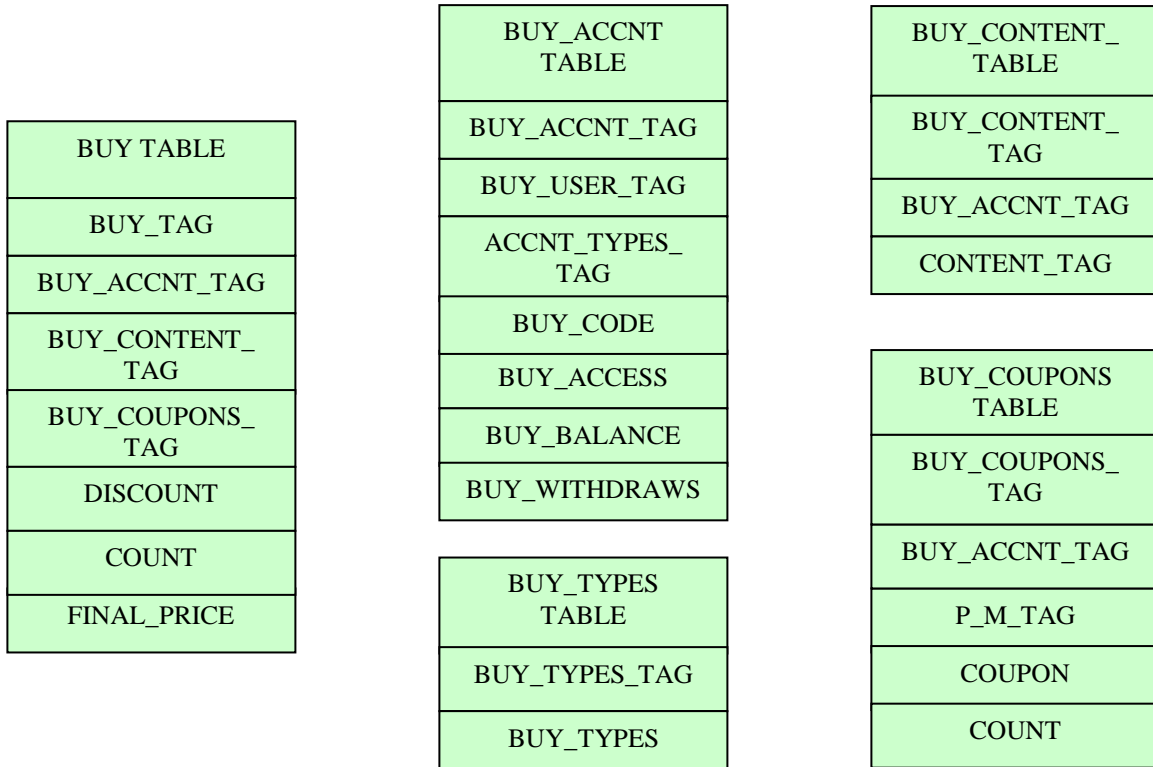
FIGURE 12: CDIT BUYER -USER DATA STRUCTURES

PRICE TABLE
PRICE_ TAG
PRICE_START_ DATE
NEXT_PRICE_DATE
PRICE
NEW-PRICE
NEXT_PRICE_TAG

FIGURE 13: PRICE TAG TABLE DATA STRUCTURE

CERTIFICATION	PROMOTIONAL & MARKETING	SELLING	BUYING
SELLING	P&M TABLE	SELL_USER TABLE	BUY_USER TABLE
CONTENT TABLE	CONTENT TABLE	SELL_ACCNT TABLE	BUY_ACCNT TABLE

P&M TABLE		CDIT_SELL TABLE (CONTENT)	BUY TABLE	BUY_ COUPONS TABLE
		SELL TABLE	P&M TABLE	

FIGURE 14: MAIN TABLES HIERARCHY

RESELLING	RESELL SCHEDULE	CREATION
USER TYPES	CDIT SELL	THRESHOLD UPDATE
RESELL THRESHOLD	SELL	RESELL SCH_Ns
RESELL SCHEDULE	SRM	CLEAN THRESHOLDS
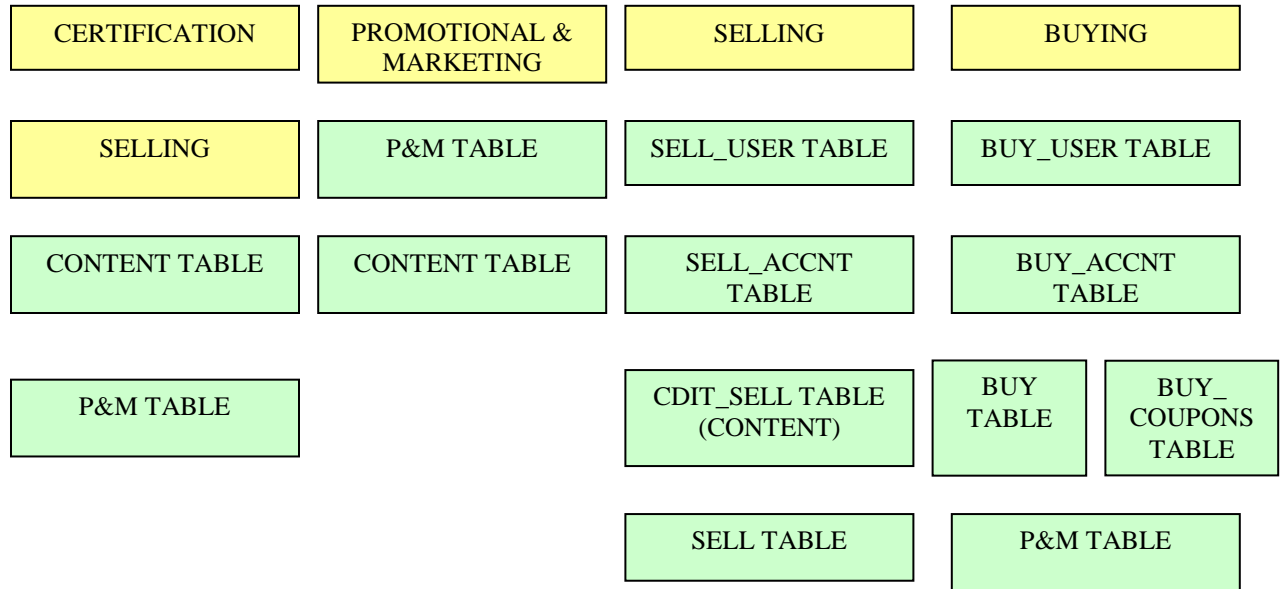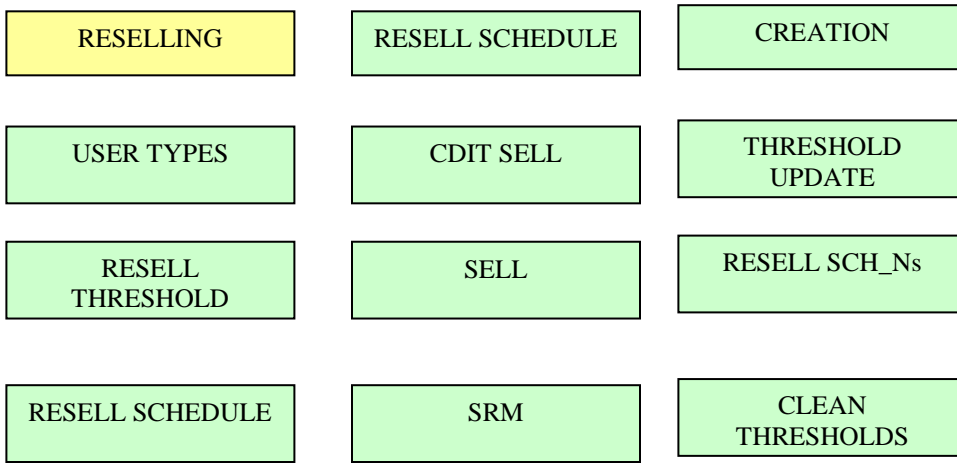
FIGURE 15: RESELLER TABLES HIERARCHY

MANUAL SCH_Ns DESIGN EDIT/DELETE	STRAIGHT SCH_Ns ALGORITHM	BREAK EVEN SCH_Ns ALGORITHM	BREAKEVEN CONTINUED
ZERO COST DESIGN	SELECT MAX N	SELECT MAX N	REPEAT FOR NEXT THRESHOLD> PREVIOUS THRESHOLD, INCREASE PAYRATE
COLLECTIVE COUNT DESIGN	MANUALLY ENTER BASE "0" PAYRATES FOR SCH_MAX_N	SELECT FIRST BREAKEVEN THRESH	
GROUP BY USER TYPES, ARTIST AND GROUP CONTENT COUNTS FOR SCHEDULE COUNTS	SELECT MAX THRESH	SELECT THRESHOLD "1" SALES BREAKEVEN PRICE=NORMAL "0" SALES	SELECT MAX PAYRATE FOR LAST "0" SALES> PREVIOUS PAYRATE &>BASE "0" PAYRATE
	MAX PAYRATE FOR N< MAX PAYRATE FOR N-1		REPEAT FOR PAYRATE_N-1, UNTIL PAYRATE1
DESIGN ZERO COST STOCKING USING STRAIGHT SCH_Ns AND LOWEST PAYRATES	REPEAT FOR NEXT THRESHOLD<MAX THRESHOLD		REPEAT FOR RESELL SCH_N-1 UNTIL RESELL SCH2

FIGURE 16: RESELLER DESIGN FEATURES AND ALGORITHMS

PRICING	PRICING
USER TYPES	COUPONS/ DISCOUNTS
CONTENT	RESELLER SCHEDULES
P&M DATE/TIME	XX
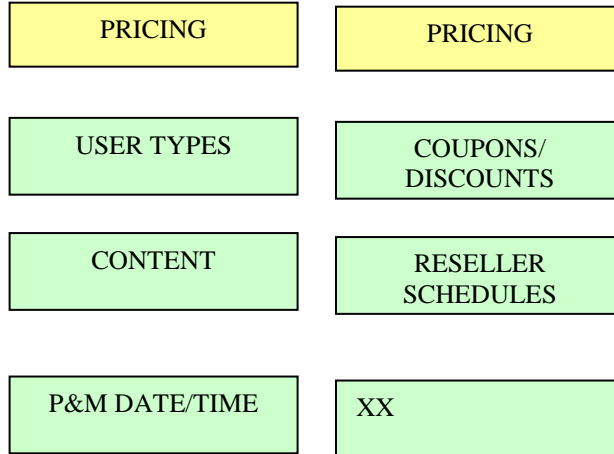
FIGURE 17: PRICING PARAMETERS

CONTENT PROVIDER
(SELLER)
DEPOSIT ACCOUNT
USER NAME
PASSWORD
CONTENT

TMS

USER TABLE

SRM TABLE
SRM RECORDS
(TTT FIELD)
(DATE/TIME STAMP)

SELLER-ACCNT TABLE

PROMO & MKTG TABLE

CONTENT TABLE

PRICE TABLE

CRDBMS

RESELLER SCH TABLE

SRM

CONTENT PROVIDER
CDIT PLATFORM

CDIT OSS
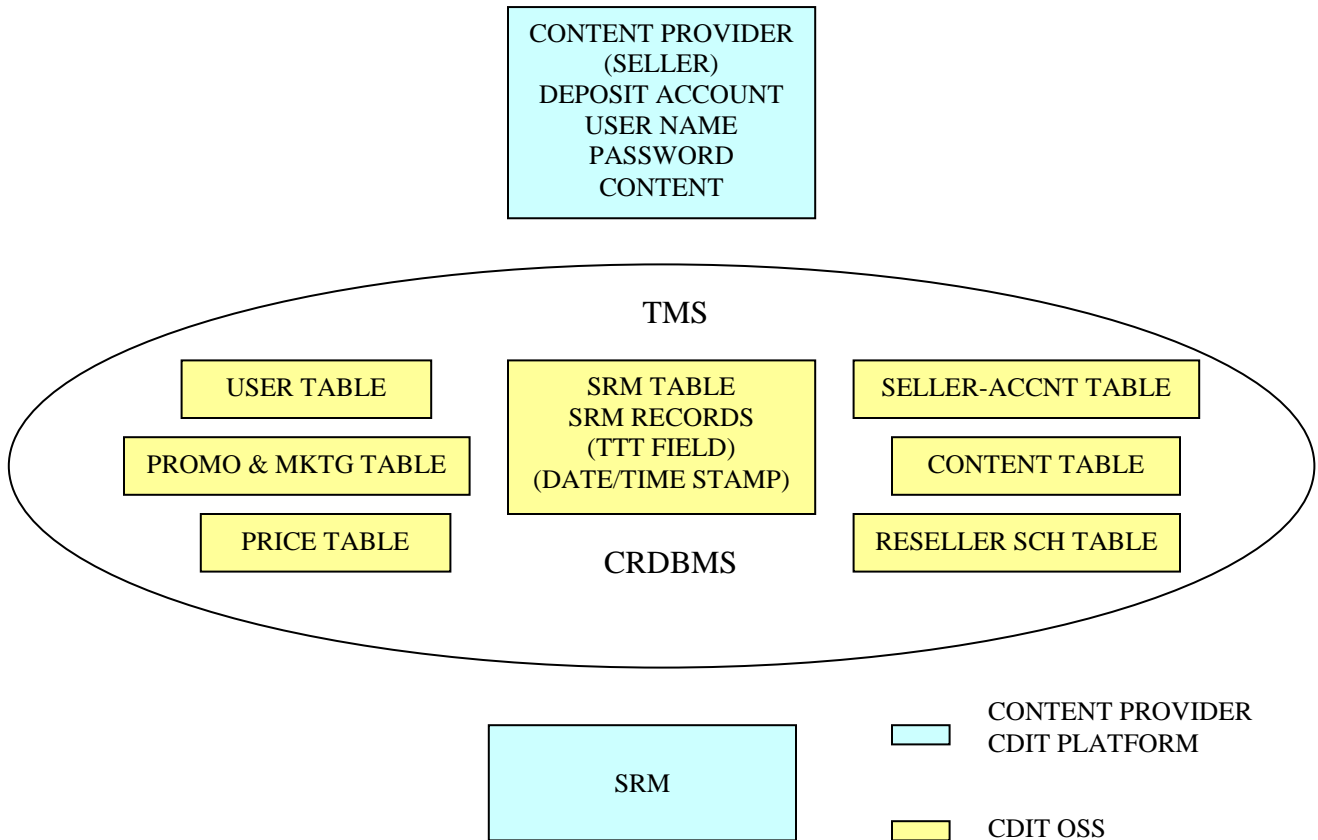
FIGURE 18: CERTIFICATION

BUYER
CDIT APPLICATION
DIGITAL MEDIA

BUYER
WITHDRAW ACCOUNT
USER NAME
PASSWORD
CONTENT

TMS

| USER TABLE | SRM TABLE
SRM RECORDS
(TTT FIELD)
(DATE/TIME STAMP) | SELLER-ACCNT TABLE |

PROMO & MKTG TABLE

CONTENT TABLE

PRICE TABLE

CRDBMS

RESELLER SCH TABLE

SRM

SELLER PLATFORM
CDIT APPLICATION

CDIT OSS
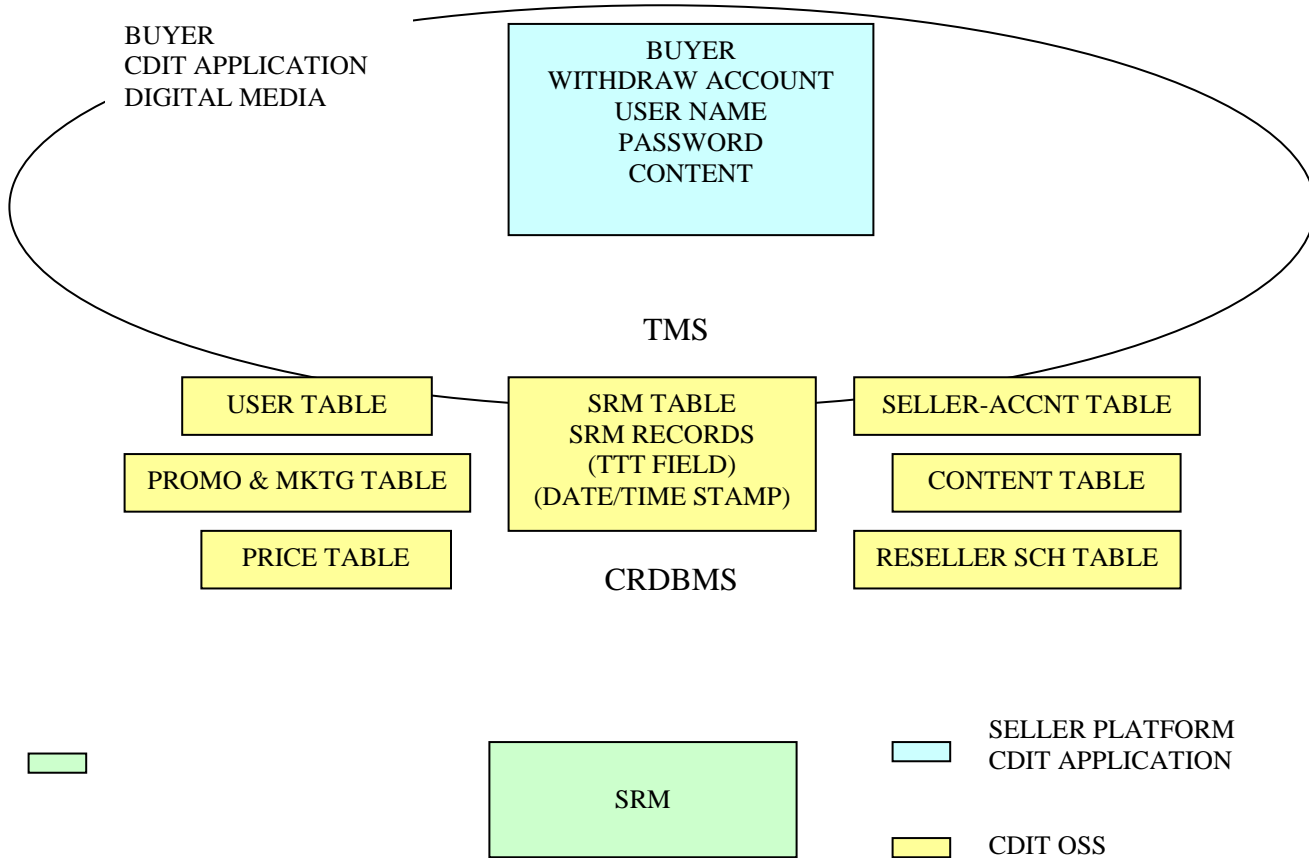
FIGURE 19: S&D, INTERNET, VENDOR TRANSACTION

BUYER
WITHDRAW ACCOUNT
USER NAME
PASSWORD
CONTENT

TMS

USER TABLE

SRM TABLE
SRM RECORDS
(TTT FIELD)
(DATE/TIME STAMP)

SELLER-ACCNT TABLE

PROMO & MKTG TABLE

CONTENT TABLE

PRICE TABLE

CRDBMS

RESELLER SCH TABLE

BUYER
DIGITAL MEDIA

SRM

SELLER PLATFORM
CDIT APPLICATION

CDIT OSS
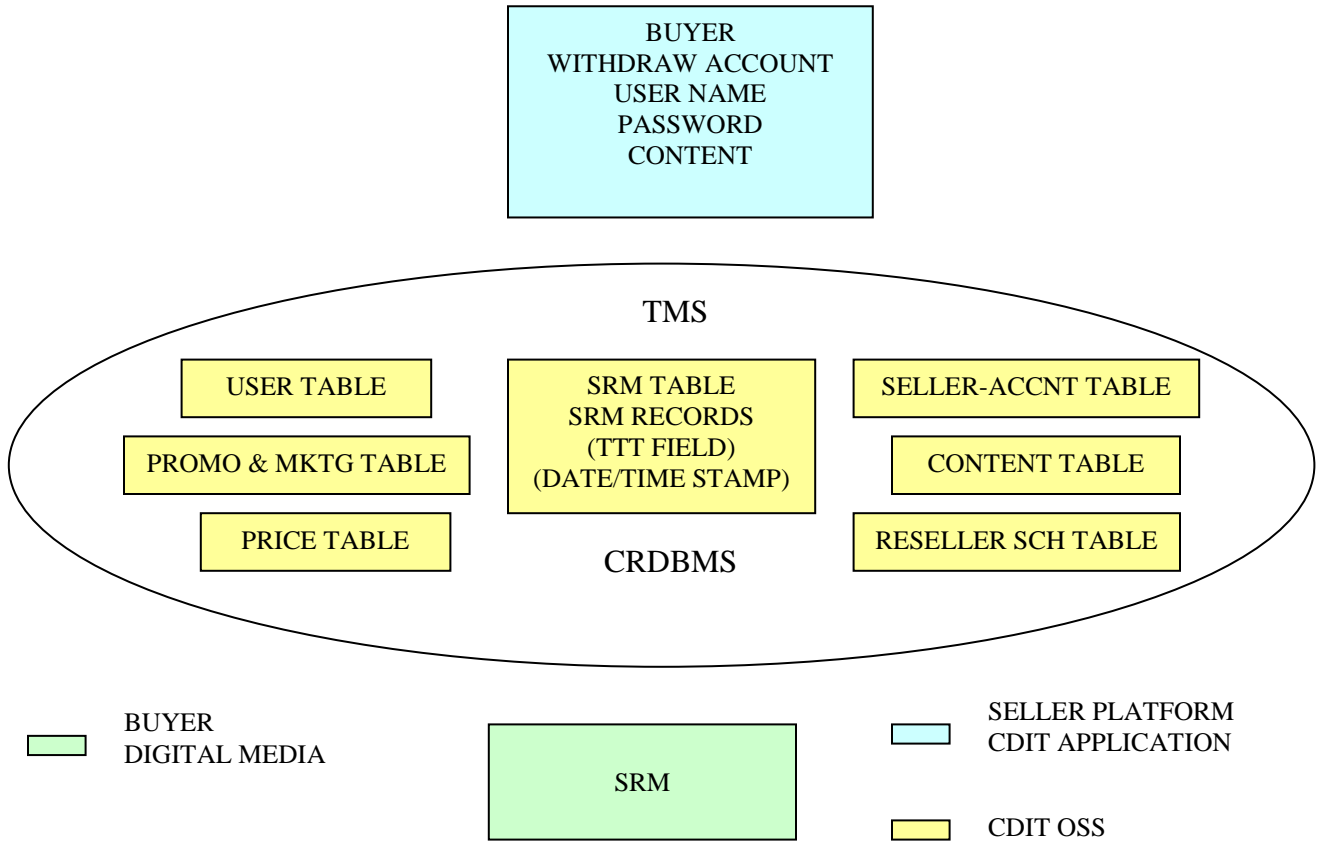
FIGURE 20: RETAIL TRANSACTION

HISTORICAL **CUSTOMIZED DATA INSERTION TECHNOLOGY (CD-IT):**
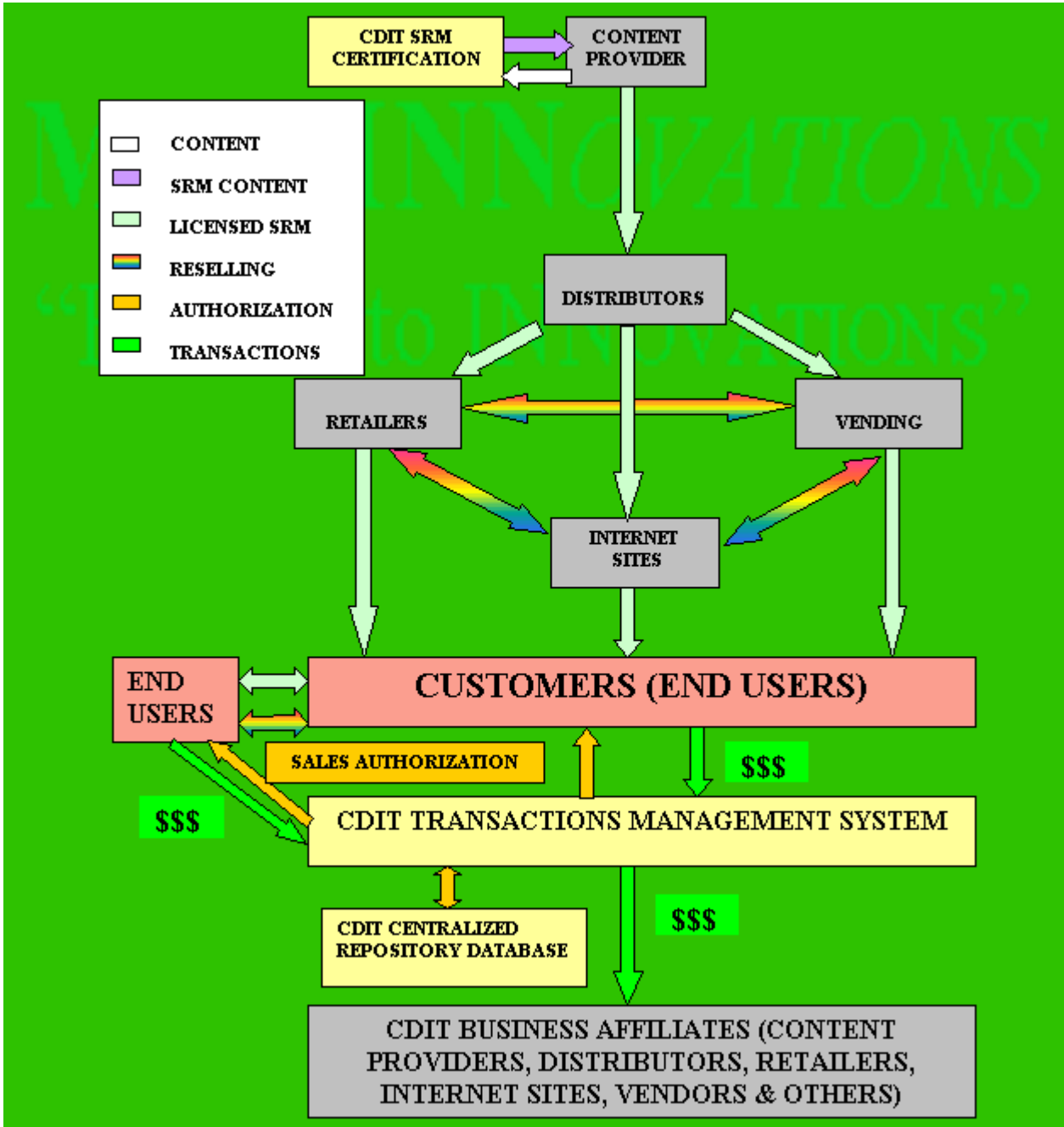
The world has changed since MCC INNovations started research on Customized Data Insertion Technology in 1990. During this time, the evolution and growth in digital media has surpassed 2004 projections with the advent of DVD, blueray, flash media, smart phones and i-pad (see CD-IT 2004 architecture , figure 1). The earlier CD-IT proposal for the sale and distribution of copyright content embraced a multi-level channel of sales and distribution. The tenet of the operation was the ability of buyers to continually resell the digital media they purchased with proceeds being shared with the seller and everyone upstream.

Research started in 1990 with various architectures for library use, sales of books, magazines, technical publications, software, games, music, software and   Figure 21: 2004 CD-IT

Architecture   other digital copyrights. Some of these architectures are illustrated in figures 2-5 under the fictitious name of Customer Access Systems Host Innovations (CASH INN) from the 1997 Decaps: On the threshold to Eternity (copyright registration txu000826338). What remains valid from the earlier architectures is the proprietary end to end schema offered by Apple iphones and the iPad which mimics the 1990 Readr. What is needed is a sales and distribution newsstand type arrangement whereby consumers may purchase copies of newspapers, magazines, software, books, music, technical journals and all other formats rendered in digitally through in-store digital copying.

Progress into this future vision requires high bandwidth fiber optic connections in the gigabit per second range. This vision is a growth stimulus for the retail segment and provides additional legitimate outlets for obtaining copyright content. Also, retail stores, libraries and newsstands and other outlets, would have an offering limited only by the number of distributors and content providers accessible through their high bandwidth connections. As data rates increase, customers would be able to browse and purchase downloaded movies from a near unlimited selection at retail outlets from remote video servers. The earlier 1990 CD-IT vision was a world remote video servers. The earlier
1990 CD-IT vision was a world of seamless copyright sales and distribution at fair market prices. Such fair pricing and anti-piracy requires a robust sales and distribution system that offers competing outlets and accessibility to the buying public for products that are in demand. The short lifetime of copyright products facilitated by piracy demands that legitimate outlets grow in channel sales and distribution capacity to negate piracy sales and distribution.
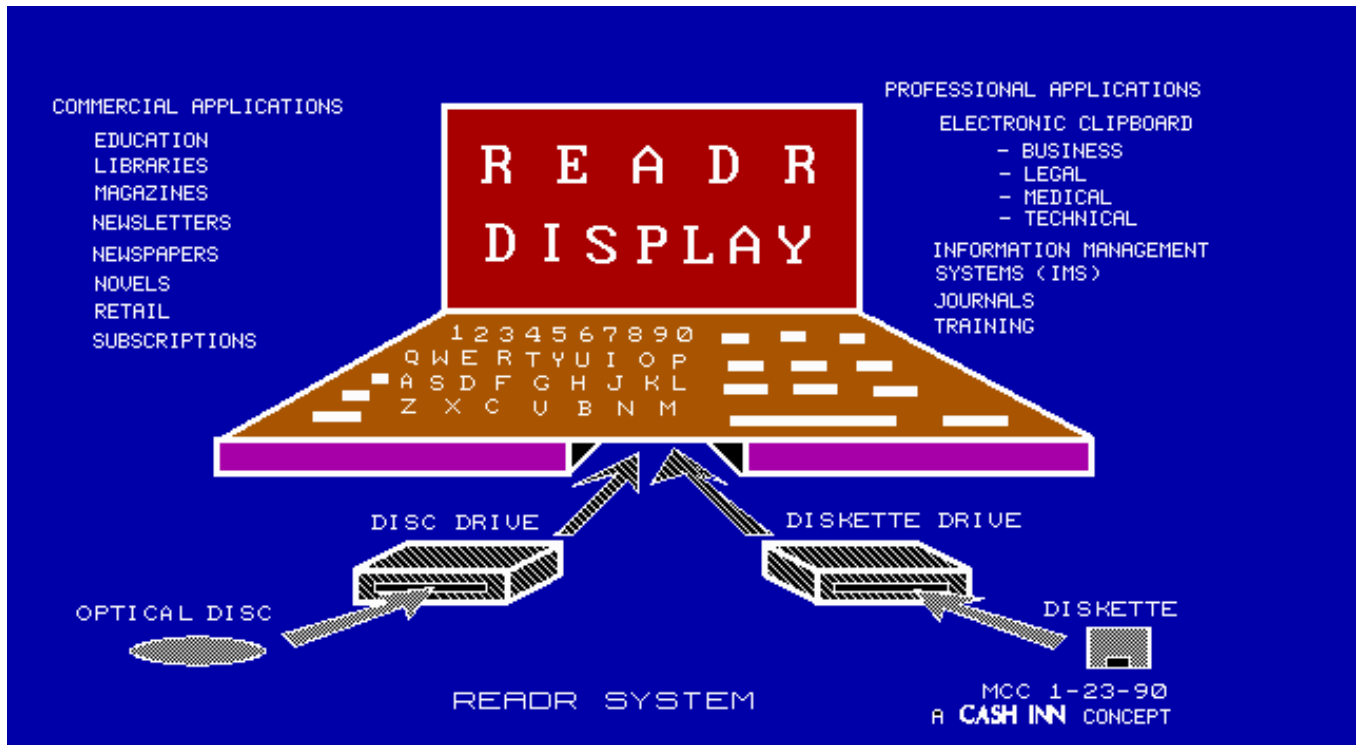

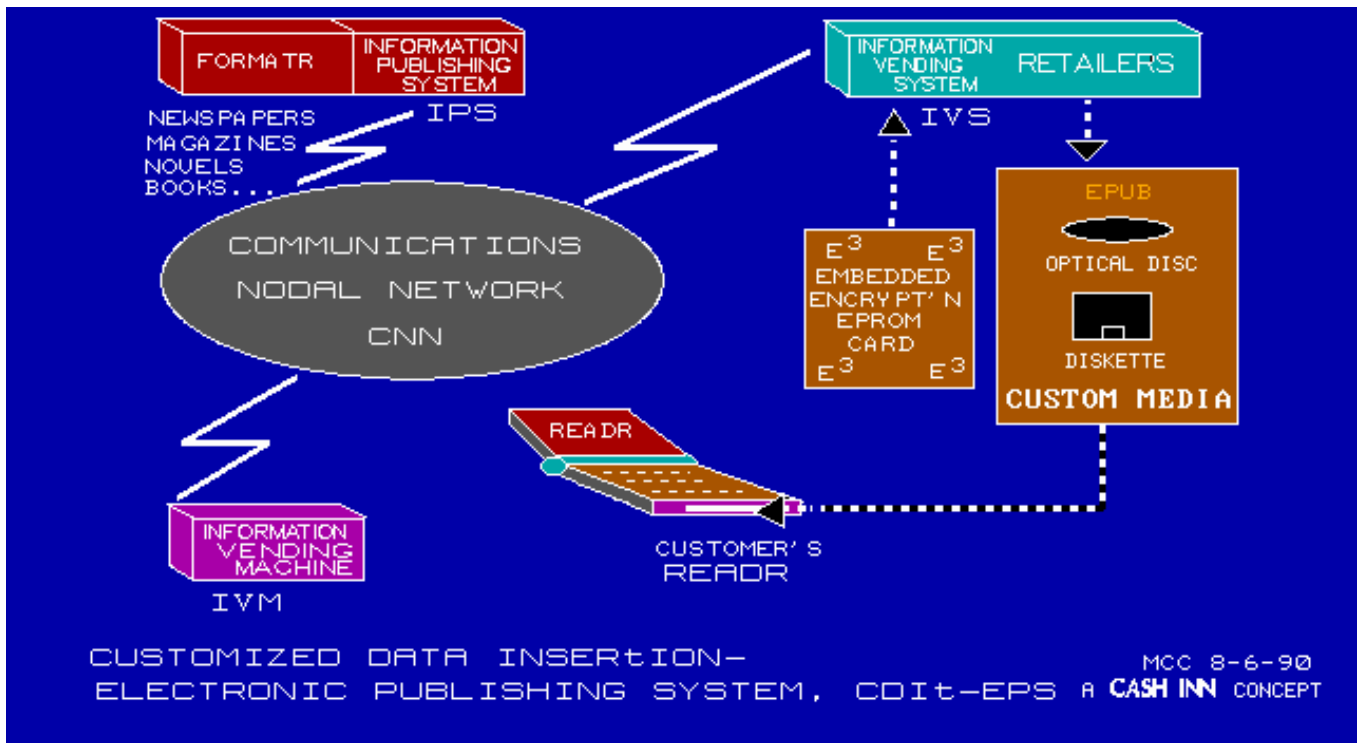Figure 22: 1990 CD-IT Readr device for reading print media

Figure 23: 1990 CD-IT secured encrypted publishing to end user Readr
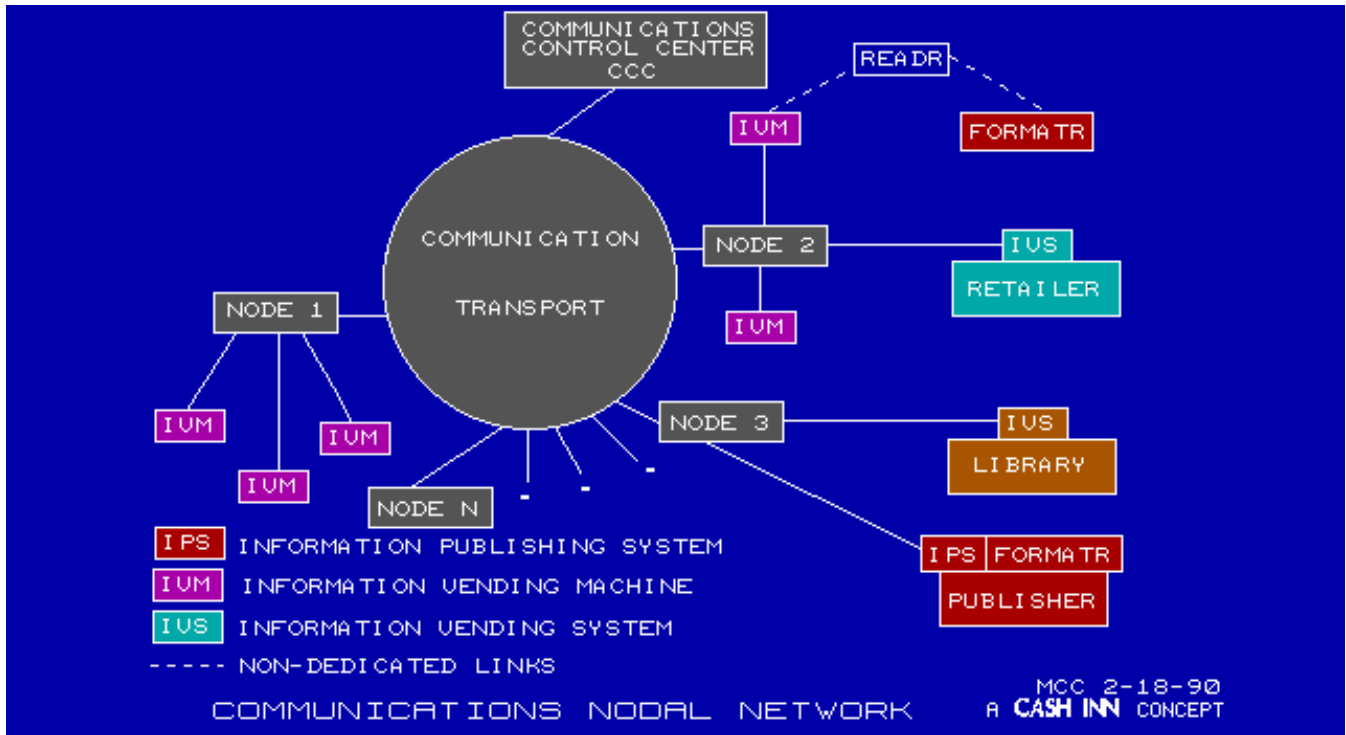
Figure 24: 1990 CD-IT multi-faceted sales and distribution system architecture
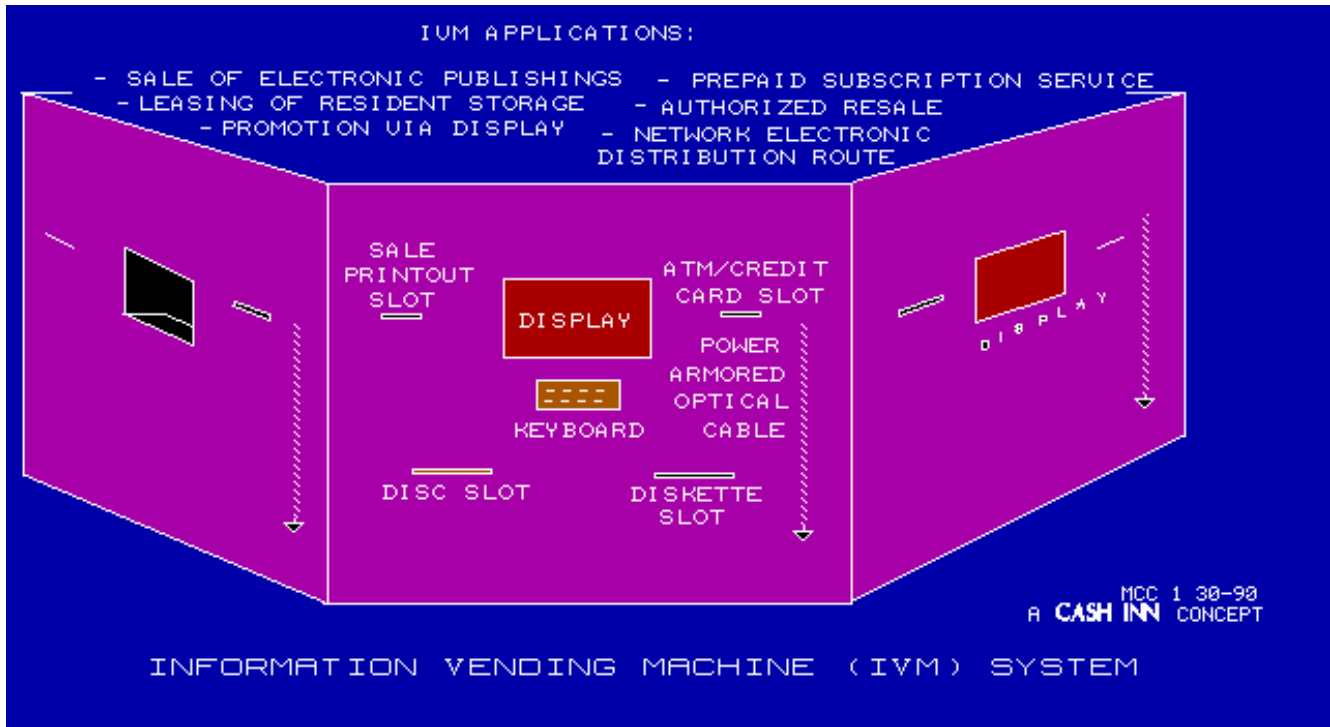
Figure 25: 1990 CD-IT On-Demand Sales and Distribution Information Vending Machine Kiosk
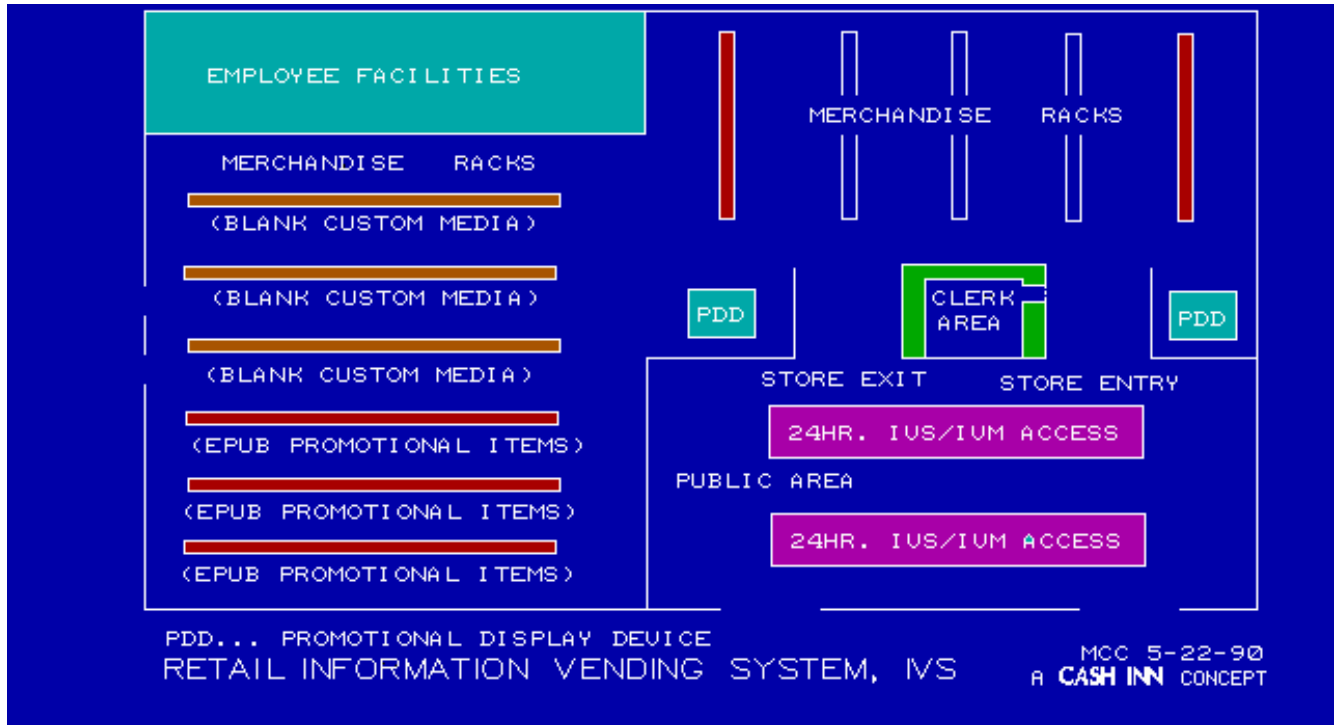
Figure 26: 1990 CD-IT Information Vending System Store (IVS Store)

 2010 vision is the use of fiber optic high speed data access to stores to provide on demand recording of digital copyright content in a seamless connection between content providers and end users.

2010 CD-IT VISION:

The 2010 CD-IT business model embraces massive digital outlets and a proliferation of content providers to flood the digital sales and distribution channels prior to the intervention of piracy. This is enhanced by the use of the 1990 retail information vending store (IVS) concept of on-demand recording of digital content. IVS stores possess servers for on sight recordings and gigabit per second connections to distributors and content providers. Local content sources such as authors, newspapers, musicians, software programmers and videographers are able to submit their digital masters to content providers such as Warner Brothers, or start their own Internet content provider service with their own web servers. Distributors may provide intermediate access to the expanding growth of content providers to the retail, Internet, and vending kiosks outlets. The vast proliferation of digital access is expected to allow a wider outlet for local talent, the restoration of the "printed" news media through kiosk newsstand-like sales of full featured newspapers and other formerly printed media.

IVS stores are veritable publishing sites. They contain hardware for recording in addition to printing jewel inserts, CDs, DVDs and blue-ray media. Actual sales are expected to be through high speed USB to flash or other new technology media. Transfer rates and access points are set to minimize delays in a targeted sales volume. The printed media is sold as blank media for transfers on users computers.

US POSTAL SERVICE:

US Postal Service: The widespread transformation of print media into digital sales and distribution would continue to erode the bottom line for postal services. The postal service may be subsidized by across zip code sales transactions surcharges. It is expected that there will be several billion transactions per year and the per transactions charges will cost less than a postage stamp. Charges are set to offset deficits on previous year's transactions volumes. A replenishing account is used

such that if there is a charge of a penny per 100 transactions, a penny is charged for first transaction and another at the hundredth transaction etc. Again these charges are set to offset expected deficits in the postal system, a necessary business to the US infrastructure.

The nature of high speed digital infrastructure is that a public offering would always be at a higher speed than a residential offering. When residential high speed data rates are offered at gigabits per seconds, public infrastructure such at retail outlets, Internet cafes and libraries would be at a higher data rate. From this observation, USPS may offer public high speed access at community mail boxes for the electronic delivery of newspapers, magazines, movies and all other digital content. These kiosks may also be augmented at metropolitan mailboxes strategically dispersed throughout a city.

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Document Properties:
Filename: CD-IT Provisional Patent
Pages   38
Paragraphs   168
Lines   1042
Words   4269
Characters   21907
Characters (with space) 26117

The previous thirty-four pages of the document, "Customized Data Insertion Provisional Patent Application" represent the work of Michael C. Carroll, on this twentieth day of May 2010. I attest it to be true and representative of my work to this day.

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