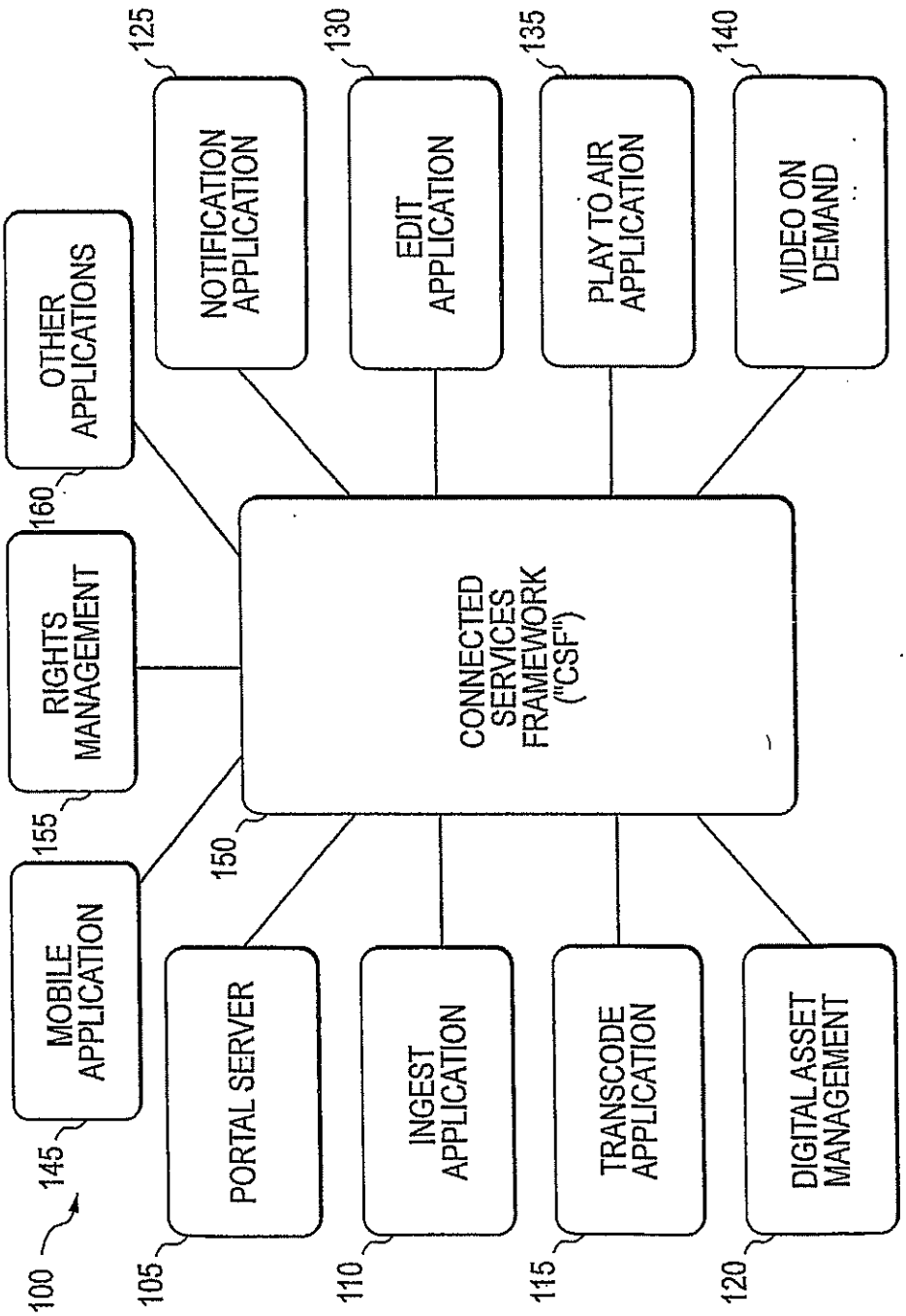

CONNECTED SERVICES FRAMEWORK ("CSF")
150
NOTIFICATION APPLICATION
125
EDIT APPLICATION
130
PLAY TO AIR APPLICATION
135
VIDEO ON DEMAND
140
OTHER APPLICATIONS
160
RIGHTS MANAGEMENT
155
MOBILE APPLICATION
145
100
PORTAL SERVER
105
INGEST APPLICATION
110
TRANSCODE APPLICATION
115
DIGITAL ASSET MANAGEMENT
120

FIG. 1

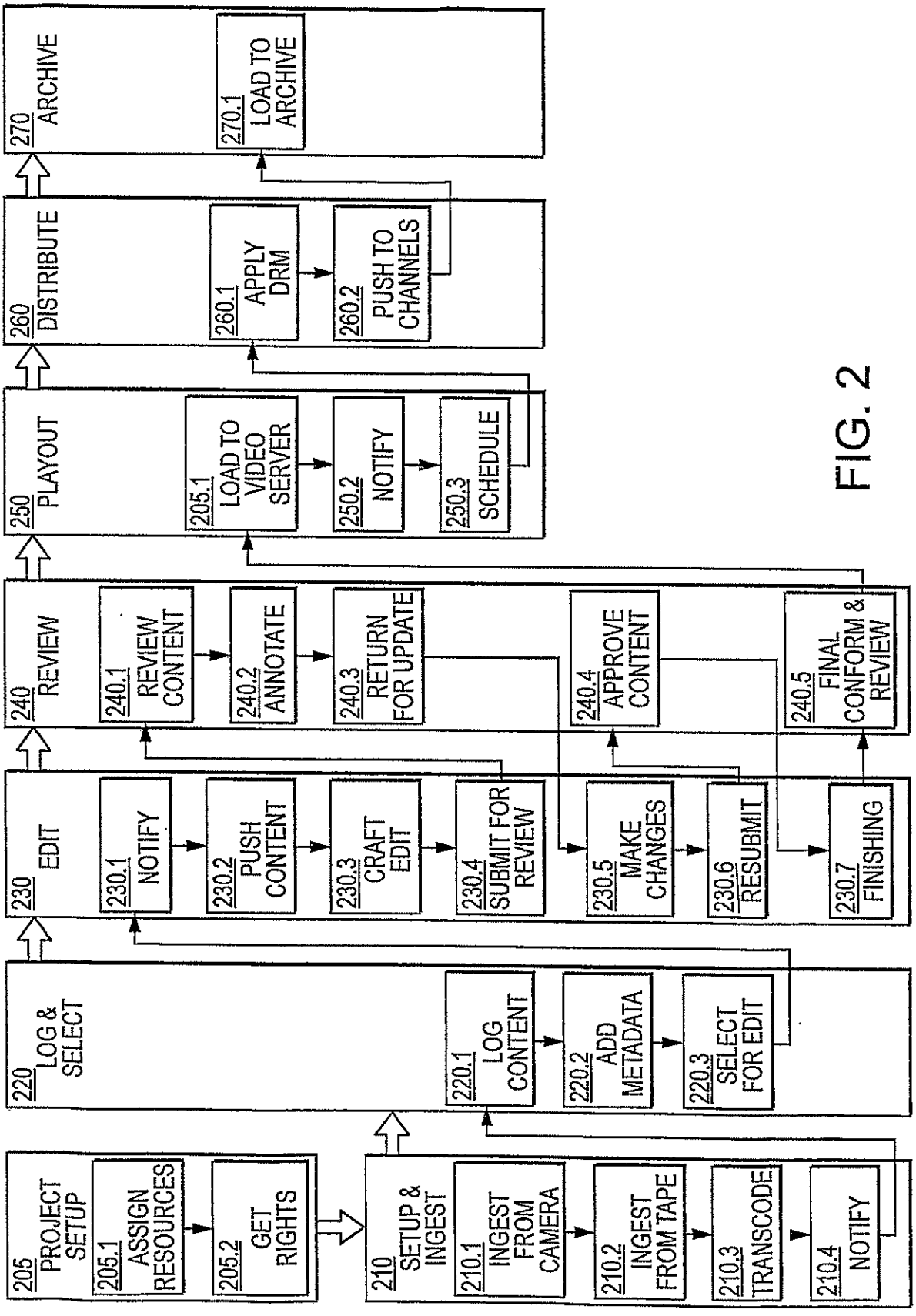

205 PROJECT SETUP
205.1 ASSIGN RESOURCES
205.2 GET RIGHTS
210 SETUP & INGEST
210.1 INGEST FROM CAMERA
210.2 INGEST FROM TAPE
210.3 TRANSCODE
210.4 NOTIFY
220 LOG & SELECT
220.1 LOG CONTENT
220.2 ADD METADATA
220.3 SELECT FOR EDIT
230 EDIT
230.1 NOTIFY
230.2 PUSH CONTENT
230.3 CRAFT EDIT
230.4 SUBMIT FOR REVIEW
230.5 MAKE CHANGES
230.6 RESUBMIT
230.7 FINISHING
240 REVIEW
240.1 REVIEW CONTENT
240.2 ANNOTATE
240.3 RETURN FOR UPDATE
240.4 APPROVE CONTENT
240.5 FINAL CONFORM & REVIEW
250 PLAYOUT
205.1 LOAD TO VIDEO SERVER
250.2 NOTIFY
250.3 SCHEDULE
260 DISTRIBUTE
260.1 APPLY DRM
260.2 PUSH TO CHANNELS
270 ARCHIVE
270.1 LOAD TO ARCHIVE

FIG. 2

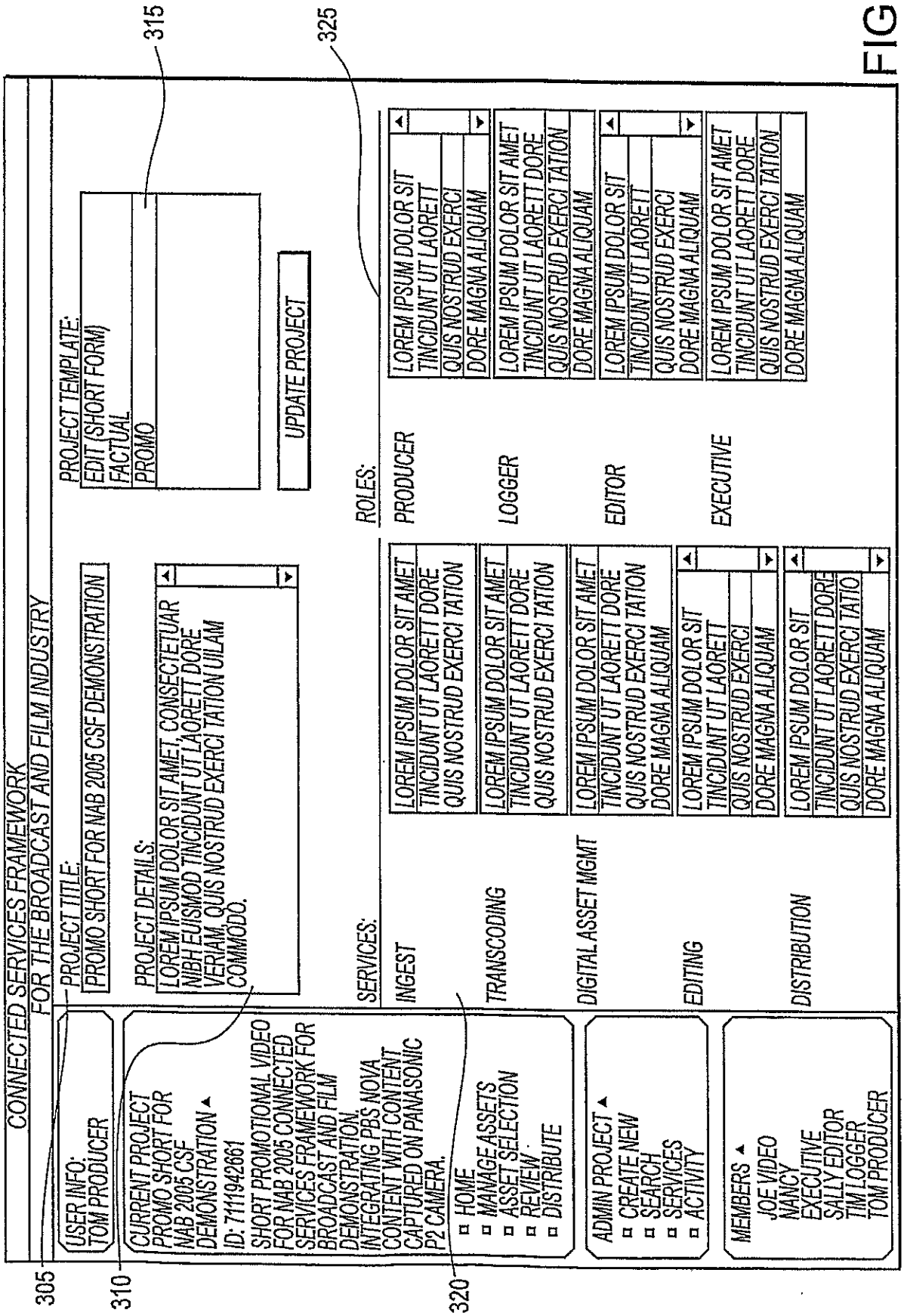

CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO:
TOM PRODUCER
CURRENT PROJECT
PROMO SHORT FOR NAB 2005 CSF DEMONSTRATION
ID: 7111942661
SHORT PROMOTIONAL VIDEO FOR NAB 2005 CONNECTED SERVICES FRAMEWORK FOR BROADCAST AND FILM DEMONSTRATION. INTEGRATING PBS NOVA CONTENT WITH CONTENT CAPTURED ON PANASONIC P2 CAMERA.
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
CREATE NEW
SEARCH
SERVICES
ACTIVITY
MEMBERS
JOE VIDEO
NANCY EXECUTIVE
SALLY EDITOR
TIM LOGGER
TOM PRODUCER
PROJECT TITLE:
PROMO SHORT FOR NAB 2005 CSF DEMONSTRATION
PROJECT DETAILS:
LOREM IPSUM DOLOR SIT AMET, CONSECTETUAR NIBH EUISMOD TINCIDUNT UT LAORETT DORE VERIAM, QUIS NOSTRUD EXERCI TATION ULLAM COMMODO.
SERVICES:
INGEST
TRANSCODING
DIGITAL ASSET MGMT
EDITING
DISTRIBUTION
LOREM IPSUM DOLOR SIT AMET
TINCIDUNT UT LAORETT DORE
QUIS NOSTRUD EXERCI TATION
PROJECT TEMPLATE:
EDIT (SHORT FORM)
FACTUAL
PROMO
UPDATE PROJECT
ROLES:
PRODUCER
LOGGER
EDITOR
EXECUTIVE
LOREM IPSUM DOLOR SIT
TINCIDUNT UT LAORETT
QUIS NOSTRUD EXERCI
DORE MAGNA ALIQUAM
LOREM IPSUM DOLOR SIT AMET
TINCIDUNT UT LAORETT DORE
QUIS NOSTRUD EXERCI TATION
DORE MAGNA ALIQUAM
305
310
315
320
325

FIG. 3

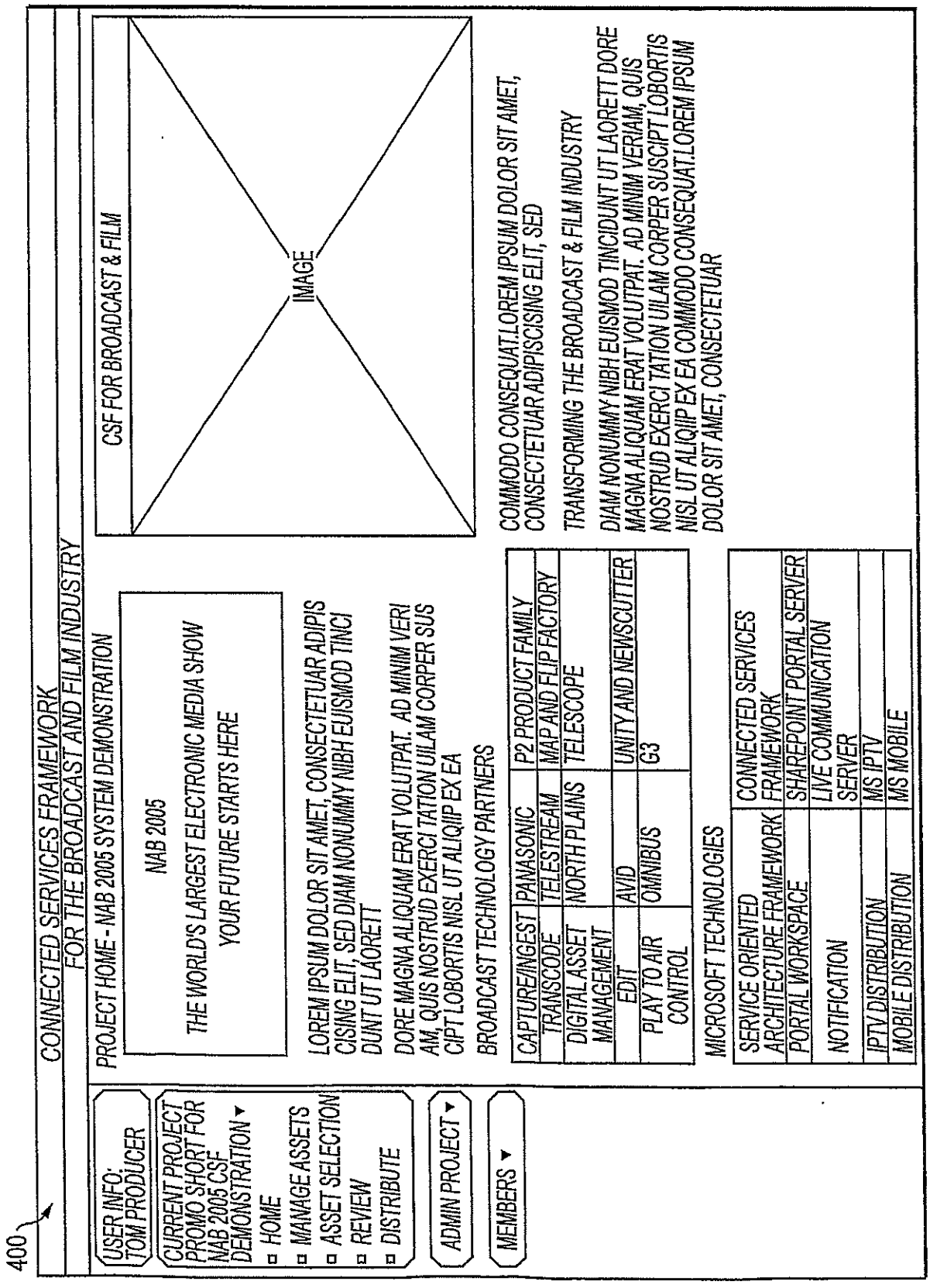

400
CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO:
TOM PRODUCER
CURRENT PROJECT
PROMO SHORT FOR
NAB 2005 CSF
DEMONSTRATION
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
MEMBERS
PROJECT HOME - NAB 2005 SYSTEM DEMONSTRATION
NAB 2005
THE WORLD'S LARGEST ELECTRONIC MEDIA SHOW
YOUR FUTURE STARTS HERE
LOREM IPSUM DOLOR SIT AMET, CONSECTETUAR ADIPIS CISING ELIT, SED DIAM NONUMMY NIBH EUISMOD TINCI DUNT UT LAORETT
DORE MAGNA ALIQUAM ERAT VOLUTPAT. AD MINIM VERI AM, QUIS NOSTRUD EXERCI TATION UILAM CORPER SUS CIPT LOBORTIS NISL UT ALIQIP EX EA
BROADCAST TECHNOLOGY PARTNERS
CAPTURE/INGEST
TRANSCODE
DIGITAL ASSET MANAGEMENT
EDIT
PLAY TO AIR CONTROL
PANASONIC
TELESTREAM
NORTH PLAINS
AVID
OMNIBUS
P2 PRODUCT FAMILY
MAP AND FLIP FACTORY
TELESCOPE
UNITY AND NEWSCUTTER
G3
MICROSOFT TECHNOLOGIES
SERVICE ORIENTED ARCHITECTURE FRAMEWORK
PORTAL WORKSPACE
NOTIFICATION
IPTV DISTRIBUTION
MOBILE DISTRIBUTION
CONNECTED SERVICES FRAMEWORK
SHAREPOINT PORTAL SERVER
LIVE COMMUNICATION SERVER
MS IPTV
MS MOBILE
CSF FOR BROADCAST & FILM
IMAGE
COMMODO CONSEQUAT.LOREM IPSUM DOLOR SIT AMET, CONSECTETUAR ADIPISCISING ELIT, SED
TRANSFORMING THE BROADCAST & FILM INDUSTRY
DIAM NONUMMY NIBH EUISMOD TINCIDUNT UT LAORETT DORE MAGNA ALIQUAM ERAT VOLUTPAT. AD MINIM VERIAM, QUIS NOSTRUD EXERCI TATION UILAM CORPER SUSCIPT LOBORTIS NISL UT ALIQIP EX EA COMMODO CONSEQUAT.LOREM IPSUM DOLOR SIT AMET, CONSECTETUAR

FIG. 4

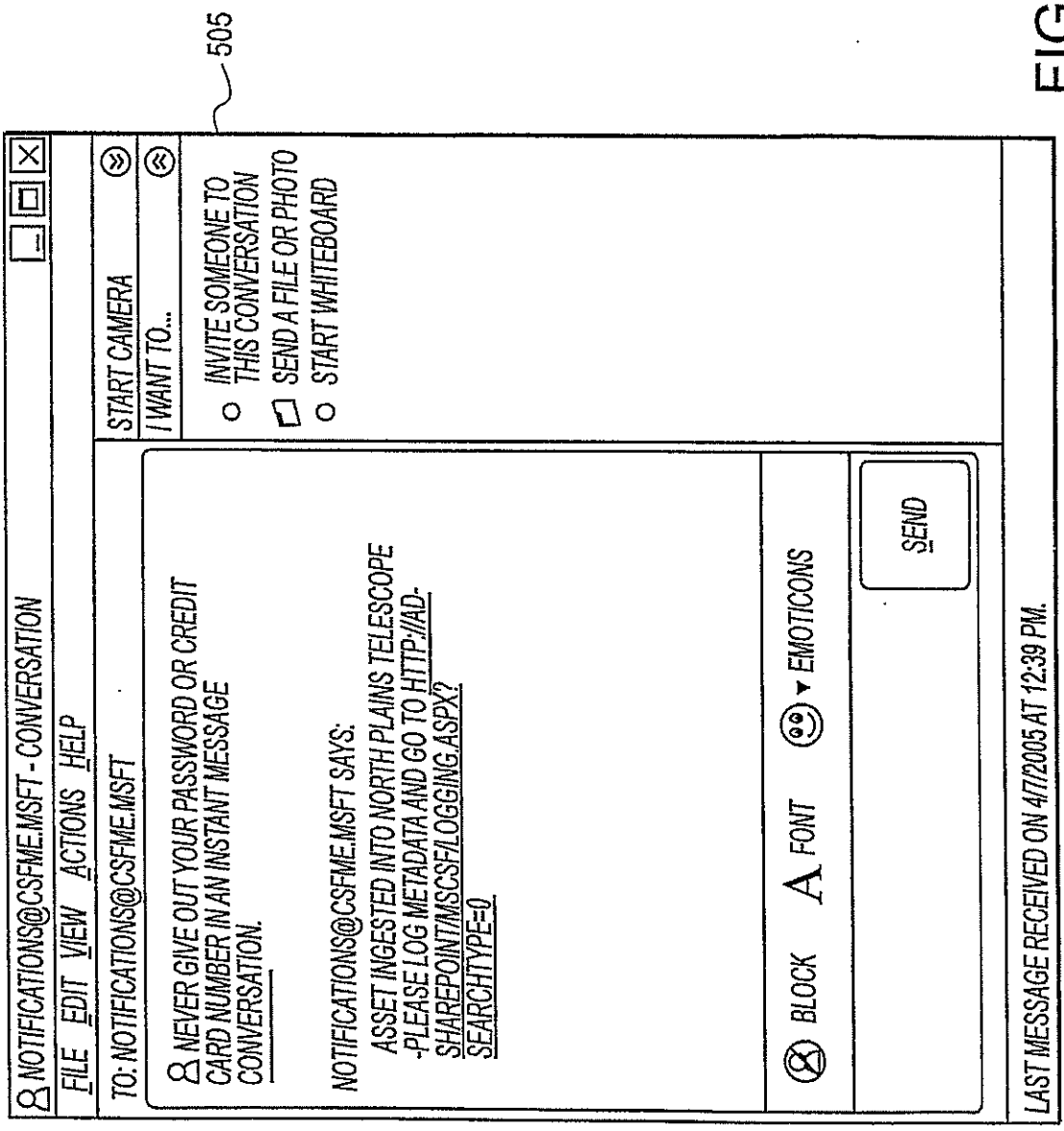

505
NOTIFICATIONS@CSFME.MSFT - CONVERSATION
FILE EDIT VIEW ACTIONS HELP
TO: NOTIFICATION@CSFME.MSFT
START CAMERA
I WANT TO...
INVITE SOMEONE TO THIS CONVERSATION
SEND A FILE OR PHOTO
START WHITEBOARD
NEVER GIVE OUT YOUR PASSWORD OR CREDIT CARD NUMBER IN AN INSTANT MESSAGE CONVERSATION.
NOTIFICATIONS@CSFME.MSFT SAYS:
ASSET INGESTED INTO NORTH PLAINS TELESCOPE -PLEASE LOG METADATA AND GO TO HTTP://AD-SHAREPOINT/MSCSF/LOGGING.ASPX?SEARCHTYPE=0
BLOCK
FONT
EMOTICONS
SEND
LAST MESSAGE RECEIVED ON 4/7/2005 AT 12:39 PM.

FIG. 5

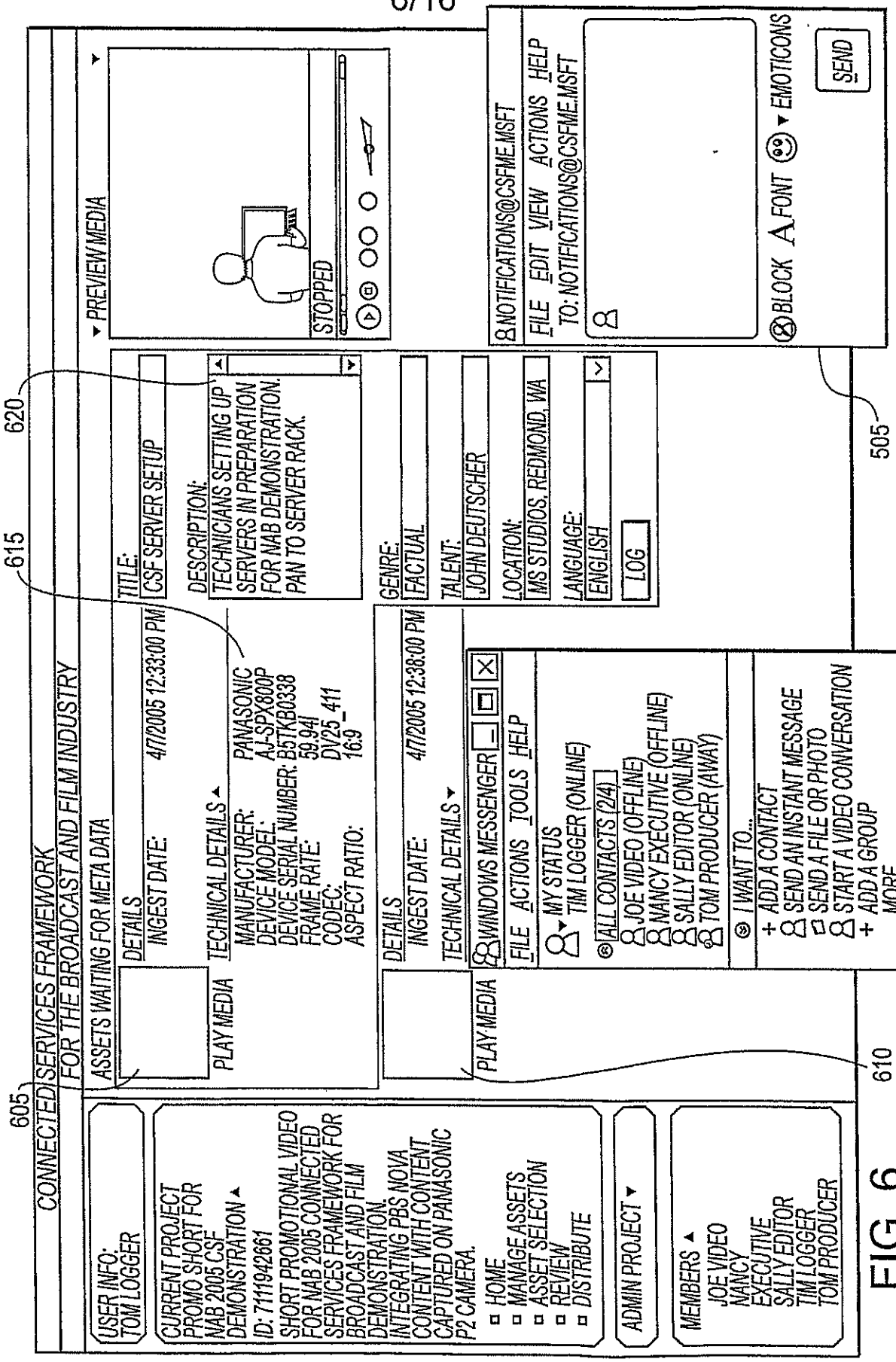

CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
605
615
620
610
505
USER INFO:
TOM LOGGER
CURRENT PROJECT
PROMO SHORT FOR
NAB 2005 CSF
DEMONSTRATION
ID: 7111942661
SHORT PROMOTIONAL VIDEO FOR NAB 2005 CONNECTED SERVICES FRAMEWORK FOR BROADCAST AND FILM DEMONSTRATION. INTEGRATING PBS NOVA CONTENT WITH CONTENT CAPTURED ON PANASONIC P2 CAMERA.
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
MEMBERS
JOE VIDEO
NANCY EXECUTIVE
SALLY EDITOR
TIM LOGGER
TOM PRODUCER
ASSETS WAITING FOR META DATA
DETAILS
INGEST DATE: 4/7/2005 12:33:00 PM
PLAY MEDIA
TECHNICAL DETAILS
MANUFACTURER: PANASONIC
DEVICE MODEL: AJ-SPX800P
DEVICE SERIAL NUMBER: B5TKB0338
FRAME RATE: 59.94I
CODEC: DV25_411
ASPECT RATIO: 16:9
TITLE:
CSF SERVER SETUP
DESCRIPTION:
TECHNICIANS SETTING UP SERVERS IN PREPARATION FOR NAB DEMONSTRATION. PAN TO SERVER RACK.
GENRE:
FACTUAL
TALENT:
JOHN DEUTSCHER
LOCATION:
MS STUDIOS, REDMOND, WA
LANGUAGE:
ENGLISH
LOG
PREVIEW MEDIA
STOPPED
DETAILS
INGEST DATE: 4/7/2005 12:38:00 PM
TECHNICAL DETAILS
PLAY MEDIA
WINDOWS MESSENGER
FILE ACTIONS TOOLS HELP
MY STATUS
TIM LOGGER (ONLINE)
ALL CONTACTS (24)
JOE VIDEO (OFFLINE)
NANCY EXECUTIVE (OFFLINE)
SALLY EDITOR (ONLINE)
TOM PRODUCER (AWAY)
I WANT TO...
+ ADD A CONTACT
SEND AN INSTANT MESSAGE
SEND A FILE OR PHOTO
START A VIDEO CONVERSATION
+ ADD A GROUP
MORE
NOTIFICATIONS@CSFME.MSFT
FILE EDIT VIEW ACTIONS HELP
TO: NOTIFICATIONS@CSFME.MSFT
BLOCK FONT EMOTICONS
SEND

FIG. 6

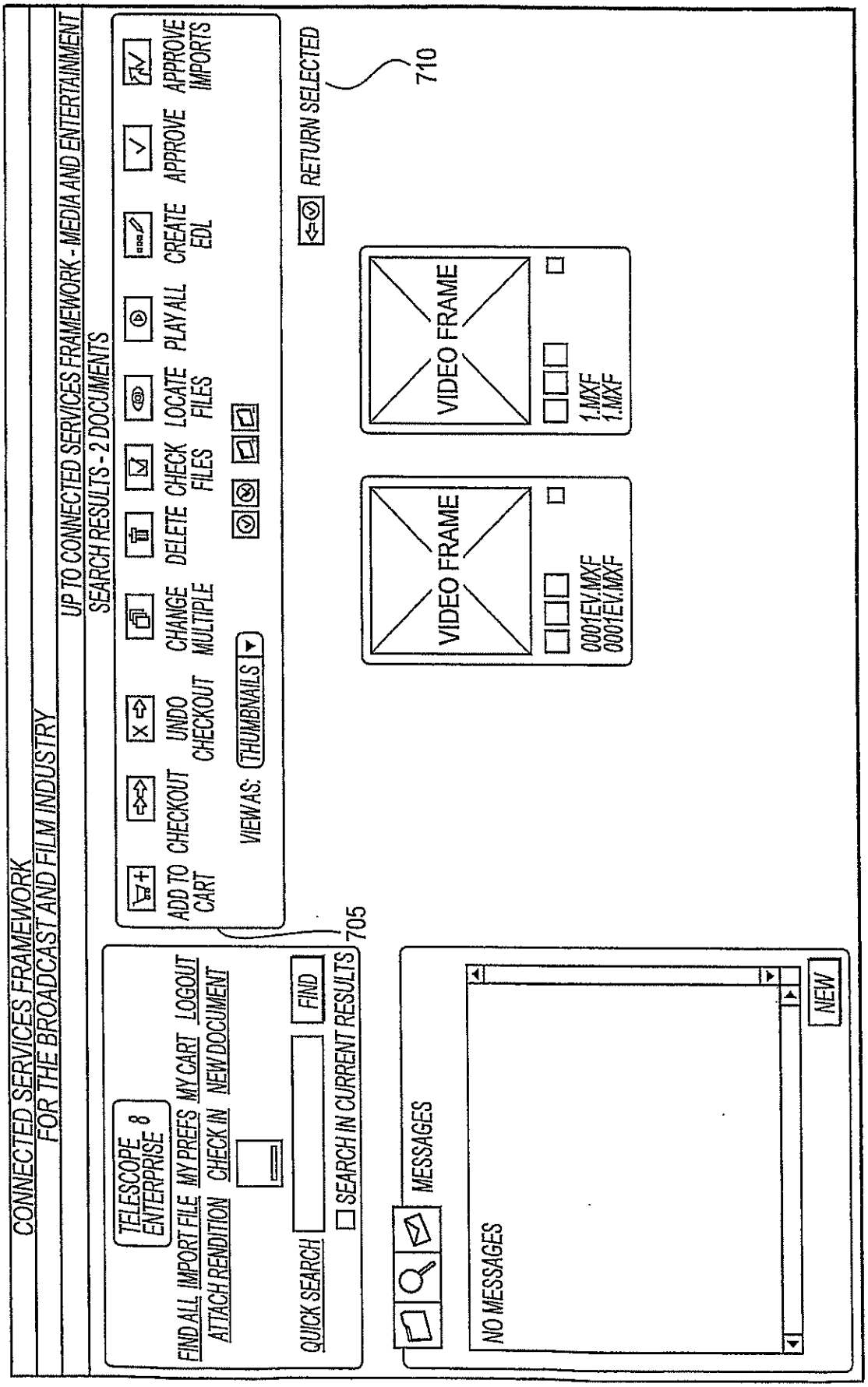

CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
UP TO CONNECTED SERVICES FRAMEWORK - MEDIA AND ENTERTAINMENT
SEARCH RESULTS - 2 DOCUMENTS
TELESCOPE ENTERPRISE 8
FIND ALL IMPORT FILE MY PREFS MY CART LOGOUT
ATTACH RENDITION CHECK IN NEW DOCUMENT
QUICK SEARCH
FIND
SEARCH IN CURRENT RESULTS
705
ADD TO CART
CHECKOUT
UNDO CHECKOUT
CHANGE MULTIPLE
DELETE
CHECK FILES
LOCATE FILES
PLAY ALL
CREATE EDL
APPROVE
APPROVE IMPORTS
VIEW AS:
THUMBNAILS
RETURN SELECTED
710
VIDEO FRAME
0001EV.MXF
0001EV.MXF
VIDEO FRAME
1.MXF
1.MXF
MESSAGES
NO MESSAGES
NEW

FIG. 7

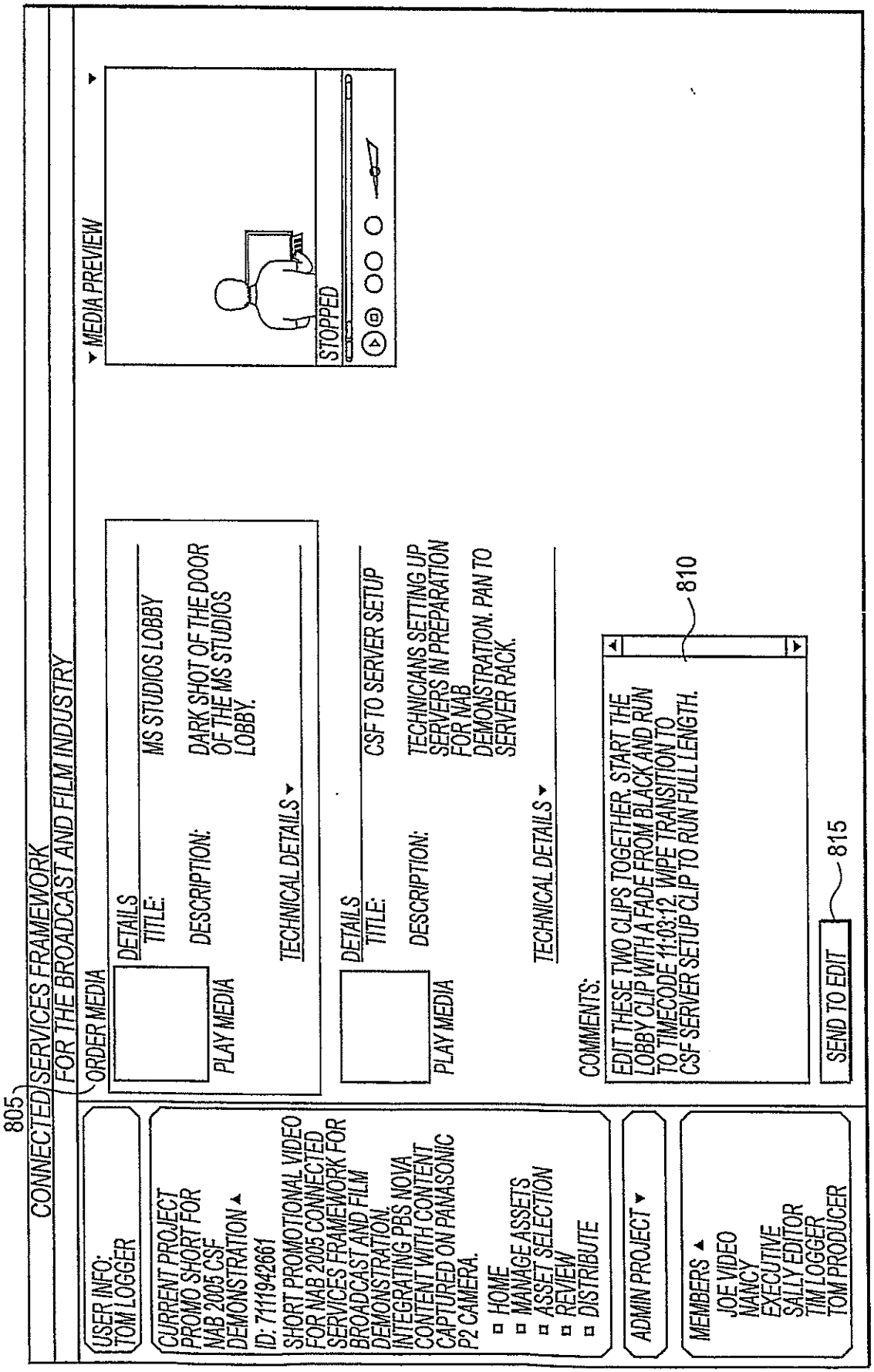

805
CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO:
TOM LOGGER
CURRENT PROJECT
PROMO SHORT FOR
NAB 2005 CSF
DEMONSTRATION
ID: 7111942661
SHORT PROMOTIONAL VIDEO FOR NAB 2005 CONNECTED SERVICES FRAMEWORK FOR BROADCAST AND FILM DEMONSTRATION. INTEGRATING PBS NOVA CONTENT WITH CONTENT CAPTURED ON PANASONIC P2 CAMERA.
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
MEMBERS
JOE VIDEO
NANCY
EXECUTIVE
SALLY EDITOR
TIM LOGGER
TOM PRODUCER
ORDER MEDIA
DETAILS
TITLE:
MS STUDIOS LOBBY
DESCRIPTION:
DARK SHOT OF THE DOOR OF THE MS STUDIOS LOBBY.
PLAY MEDIA
TECHNICAL DETAILS
DETAILS
TITLE:
CSF TO SERVER SETUP
DESCRIPTION:
TECHNICIANS SETTING UP SERVERS IN PREPARATION FOR NAB DEMONSTRATION. PAN TO SERVER RACK.
PLAY MEDIA
TECHNICAL DETAILS
COMMENTS:
EDIT THESE TWO CLIPS TOGETHER. START THE LOBBY CLIP WITH A FADE FROM BLACK AND RUN TO TIMECODE 11:03:12. WIPE TRANSITION TO CSF SERVER SETUP CLIP TO RUN FULL LENGTH.
810
SEND TO EDIT
815
MEDIA PREVIEW
STOPPED

FIG. 8

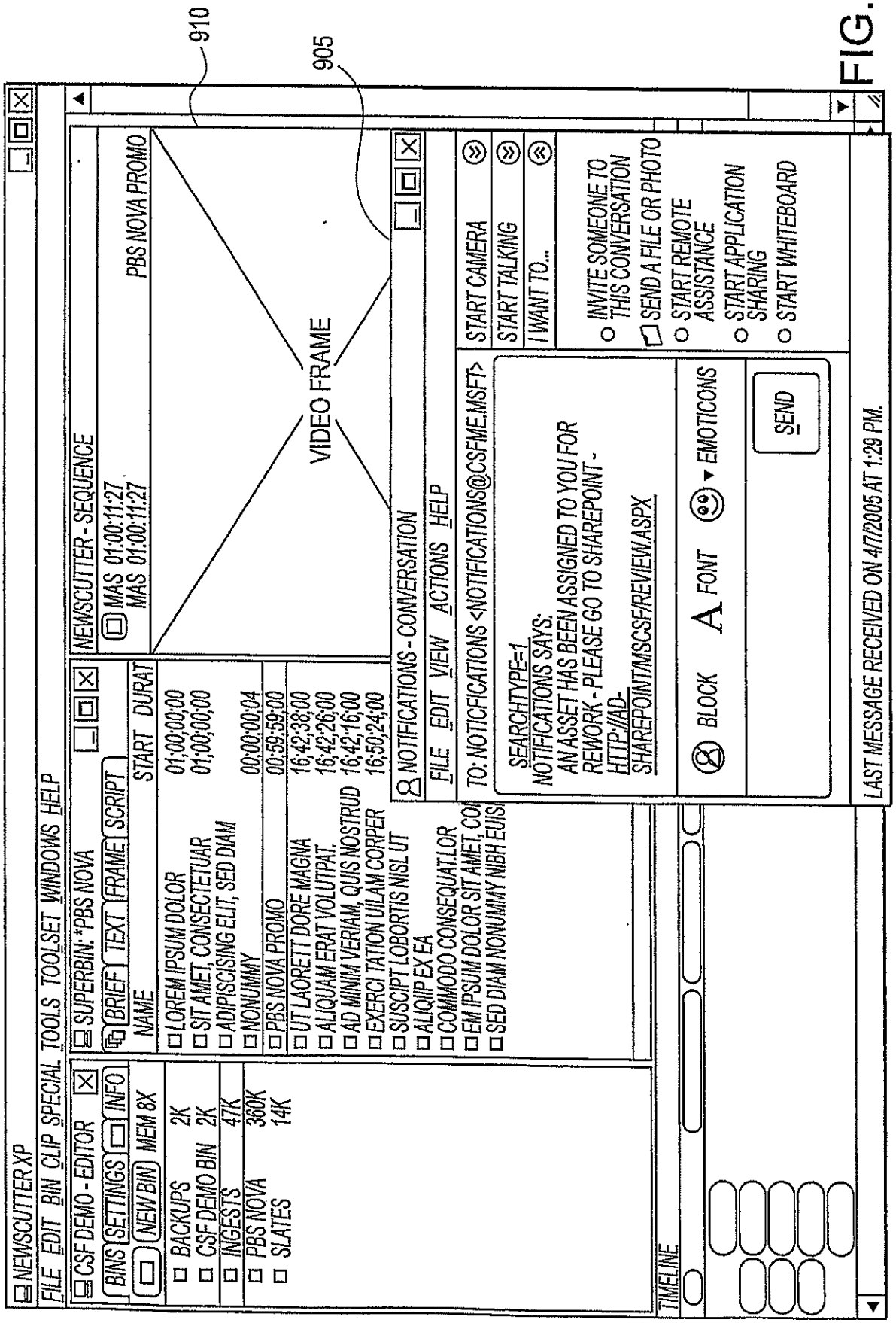

910
905
VIDEO FRAME
NEWSCUTTER XP
FILE EDIT BIN CLIP SPECIAL TOOLS TOOLSET WINDOWS HELP
CSF DEMO - EDITOR
BINS SETTINGS INFO
NEW BIN MEM 8X
BACKUPS 2K
CSF DEMO BIN 2K
INGESTS 47K
PBS NOVA 360K
SLATES 14K
SUPERBIN: *PBS NOVA
BRIEF TEXT FRAME SCRIPT
NAME START DURAT
LOREM IPSUM DOLOR 01;00;00;00
SIT AMET, CONSECTETUAR 01;00;00;00
ADIPISCISING ELIT, SED DIAM
NONUMMY 00;00;00;04
PBS NOVA PROMO 00;59;59;00
UT LAORETT DORE MAGNA 16;42;38;00
ALIQUAM ERAT VOLUTPAT. 16;42;26;00
AD MINIM VERIAM, QUIS NOSTRUD 16;42;16;00
EXERCI TATION ULLAM CORPER 16;50;24;00
SUSCIPT LOBORTIS NISL UT
ALIQIP EX EA
COMMODO CONSEQUAT.LOR
EM IPSUM DOLOR SIT AMET, CO
SED DIAM NONUMMY NIBH EUIS
NEWSCUTTER - SEQUENCE
MAS 01:00:11:27
MAS 01:00:11:27
PBS NOVA PROMO
NOTIFICATIONS - CONVERSATION
FILE EDIT VIEW ACTIONS HELP
TO: NOTICFICATIONS <NOTIFICATIONS@CSFME.MSFT>
SEARCHTYPE=1
NOTIFICATIONS SAYS:
AN ASSET HAS BEEN ASSIGNED TO YOU FOR REWORK - PLEASE GO TO SHAREPOINT - HTTP://AD-SHAREPOINT/MSCSF/REVIEW.ASPX
START CAMERA
START TALKING
I WANT TO...
INVITE SOMEONE TO THIS CONVERSATION
SEND A FILE OR PHOTO
START REMOTE ASSISTANCE
START APPLICATION SHARING
START WHITEBOARD
BLOCK
FONT
EMOTICONS
SEND
LAST MESSAGE RECEIVED ON 4/7/2005 AT 1:29 PM.
TIMELINE

FIG. 9

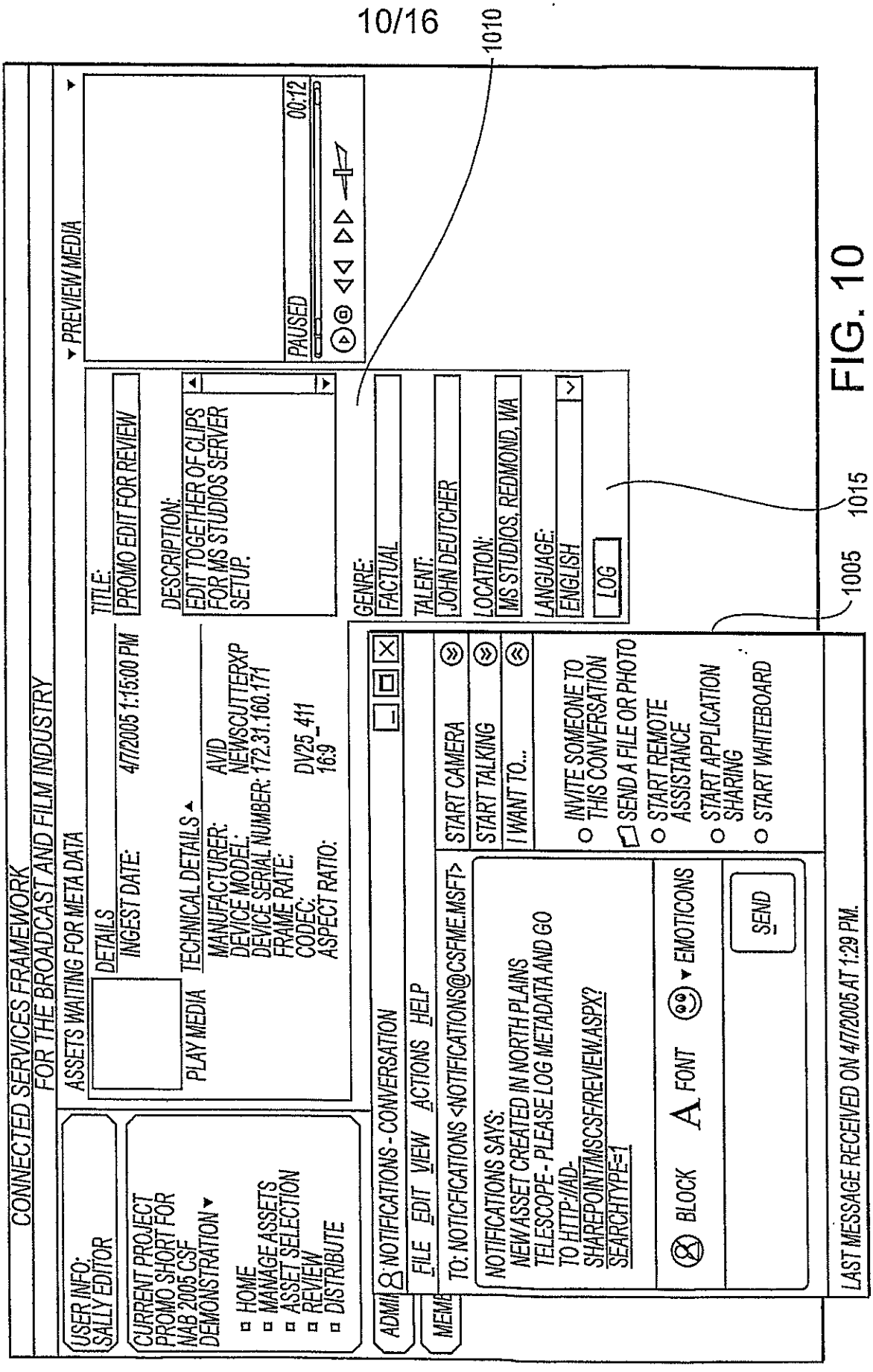

CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO:
SALLY EDITOR
CURRENT PROJECT
PROMO SHORT FOR
NAB 2005 CSF
DEMONSTRATION
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ASSETS WAITING FOR META DATA
DETAILS
INGEST DATE: 4/7/2005 1:15:00 PM
PLAY MEDIA
TECHNICAL DETAILS
MANUFACTURER: AVID
DEVICE MODEL: NEWSCUTTERXP
DEVICE SERIAL NUMBER: 172.31.160.171
FRAME RATE: DV25_411
CODEC:
ASPECT RATIO: 16:9
TITLE:
PROMO EDIT FOR REVIEW
DESCRIPTION:
EDIT TOGETHER OF CLIPS
FOR MS STUDIOS SERVER
SETUP.
GENRE:
FACTUAL
TALENT:
JOHN DEUTCHER
LOCATION:
MS STUDIOS, REDMOND, WA
LANGUAGE:
ENGLISH
LOG
PREVIEW MEDIA
PAUSED 00:12
1010
1015
1005
ADMIN
NOTIFICATIONS - CONVERSATION
FILE EDIT VIEW ACTIONS HELP
MEMB
TO: NOTIFICATIONS <NOTIFICATIONS@CSFME.MSFT>
NOTIFICATIONS SAYS:
NEW ASSET CREATED IN NORTH PLAINS
TELESCOPE - PLEASE LOG METADATA AND GO
TO HTTP://AD-
SHAREPOINTMSCSF/REVIEW.ASPX?
SEARCHTYPE=1
START CAMERA
START TALKING
I WANT TO...
INVITE SOMEONE TO
THIS CONVERSATION
SEND A FILE OR PHOTO
START REMOTE
ASSISTANCE
START APPLICATION
SHARING
START WHITEBOARD
BLOCK
FONT
EMOTICONS
SEND
LAST MESSAGE RECEIVED ON 4/7/2005 AT 1:29 PM.

FIG. 10

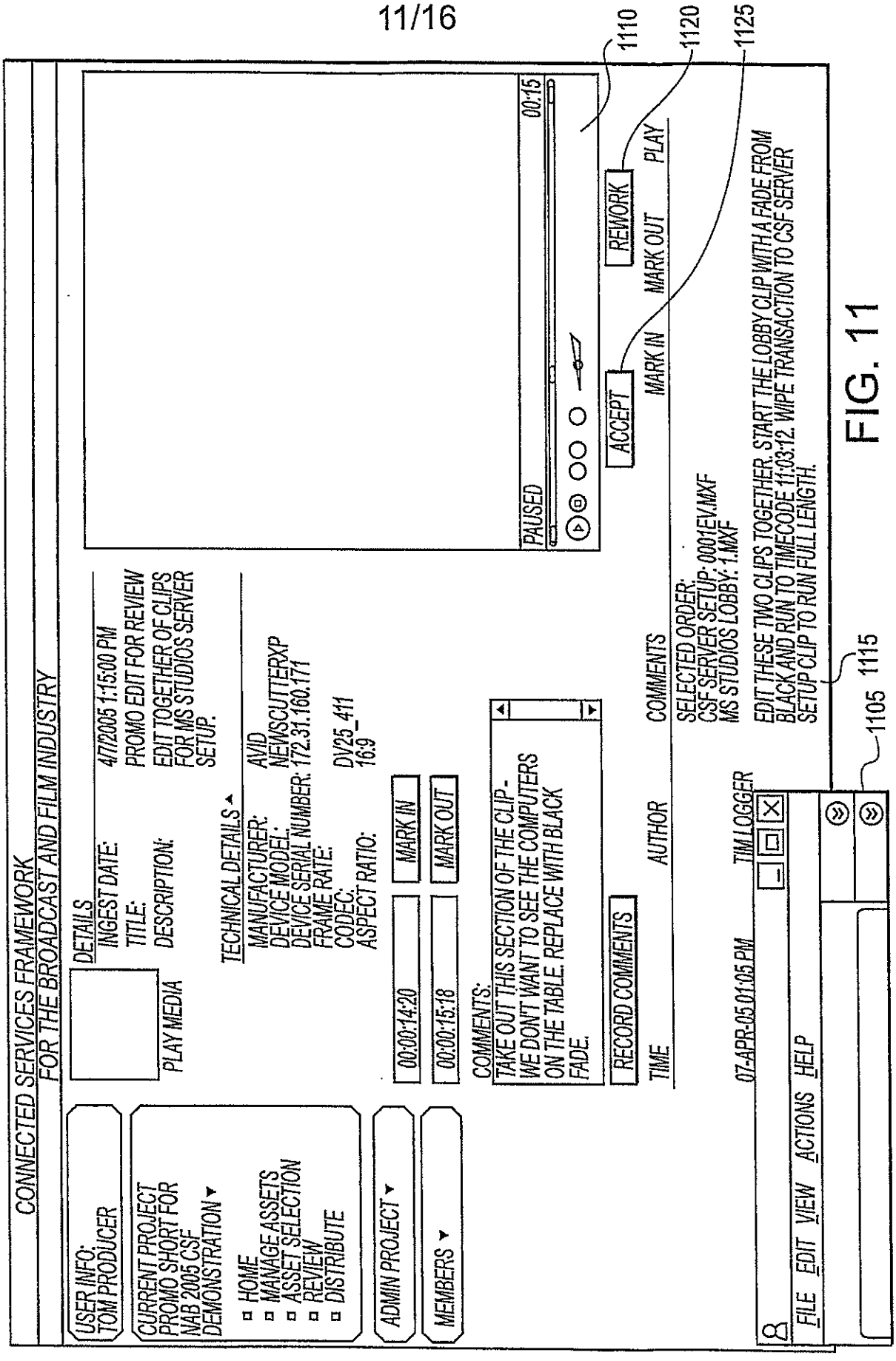

CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO:
TOM PRODUCER
CURRENT PROJECT
PROMO SHORT FOR
NAB 2005 CSF
DEMONSTRATION
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
MEMBERS
PLAY MEDIA
DETAILS
INGEST DATE: 4/7/2005 1:15:00 PM
TITLE: PROMO EDIT FOR REVIEW
DESCRIPTION: EDIT TOGETHER OF CLIPS FOR MS STUDIOS SERVER SETUP.
TECHNICAL DETAILS
MANUFACTURER: AVID
DEVICE MODEL: NEWSCUTTERXP
DEVICE SERIAL NUMBER: 172.31.160.171
FRAME RATE:
CODEC: DV25_411
ASPECT RATIO: 16:9
00:00:14:20
MARK IN
00:00:15:18
MARK OUT
COMMENTS:
TAKE OUT THIS SECTION OF THE CLIP - WE DON'T WANT TO SEE THE COMPUTERS ON THE TABLE. REPLACE WITH BLACK FADE.
RECORD COMMENTS
TIME
AUTHOR
COMMENTS
07-APR-05 01:05 PM
TIM LOGGER
SELECTED ORDER:
CSF SERVER SETUP: 0001EV.MXF
MS STUDIOS LOBBY: 1.MXF
EDIT THESE TWO CLIPS TOGETHER. START THE LOBBY CLIP WITH A FADE FROM BLACK AND RUN TO TIMECODE 11:03:12. WIPE TRANSACTION TO CSF SERVER SETUP CLIP TO RUN FULL LENGTH.
PAUSED
00:15
ACCEPT
REWORK
MARK IN
MARK OUT
PLAY
FILE EDIT VIEW ACTIONS HELP
1110
1120
1125
1115
1105

FIG. 11

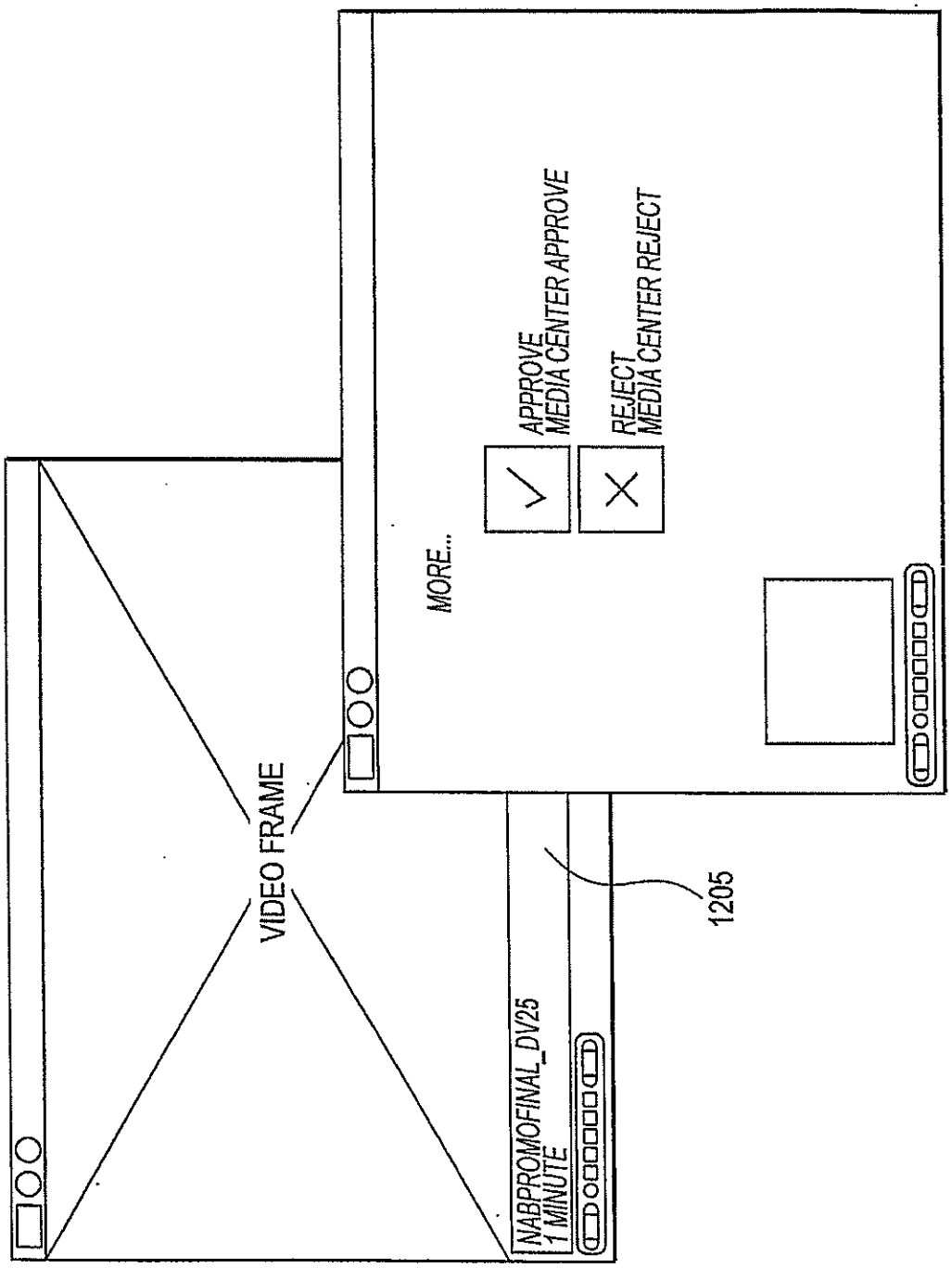

VIDEO FRAME
MORE...
APPROVE
MEDIA CENTER APPROVE
REJECT
MEDIA CENTER REJECT
NABPROMOFINAL_DV25
1 MINUTE
1205

FIG. 12

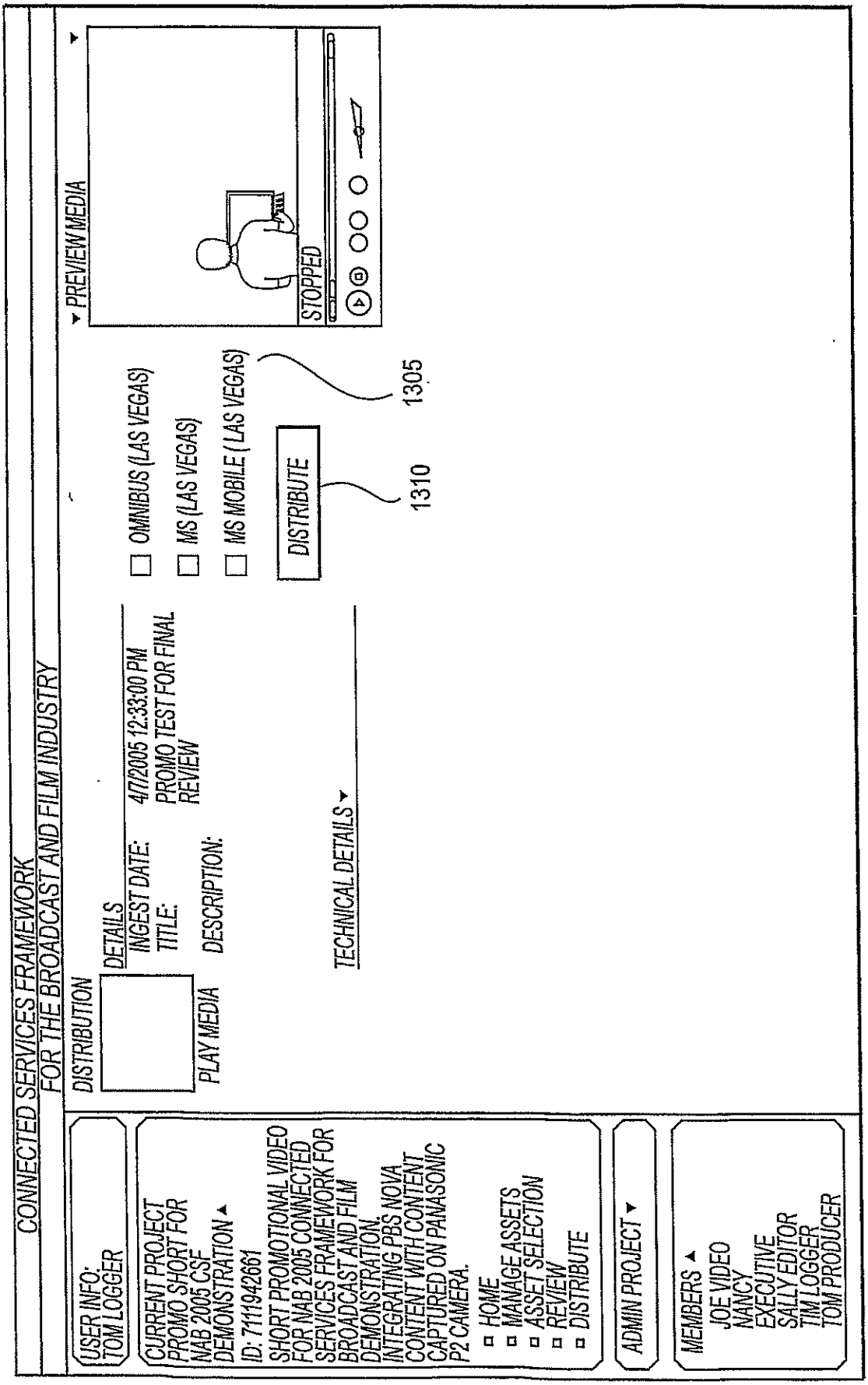

CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO:
TOM LOGGER
CURRENT PROJECT
PROMO SHORT FOR
NAB 2005 CSF
DEMONSTRATION
ID: 7111942661
SHORT PROMOTIONAL VIDEO
FOR NAB 2005 CONNECTED
SERVICES FRAMEWORK FOR
BROADCAST AND FILM
DEMONSTRATION.
INTEGRATING PBS NOVA
CONTENT WITH CONTENT
CAPTURED ON PANASONIC
P2 CAMERA.
HOME
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
MEMBERS
JOE VIDEO
NANCY
EXECUTIVE
SALLY EDITOR
TIM LOGGER
TOM PRODUCER
DISTRIBUTION
DETAILS
INGEST DATE:
TITLE:
DESCRIPTION:
4/7/2005 12:33:00 PM
PROMO TEST FOR FINAL
REVIEW
PLAY MEDIA
TECHNICAL DETAILS
OMNIBUS (LAS VEGAS)
MS (LAS VEGAS)
MS MOBILE (LAS VEGAS)
DISTRIBUTE
1310
1305
PREVIEW MEDIA
STOPPED

FIG. 13

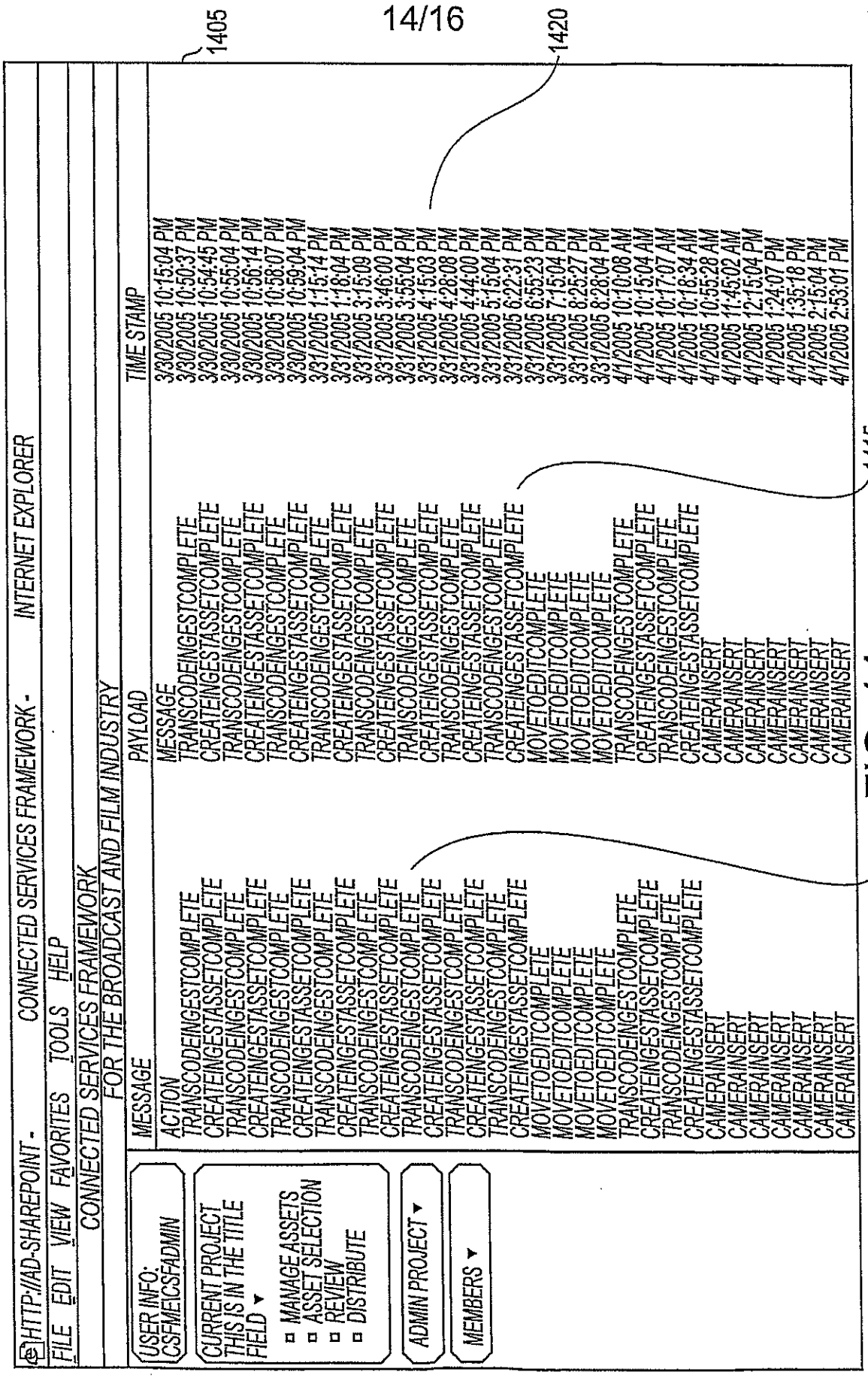

1405
1420
1415
1410
HTTP://AD-SHAREPOINT - CONNECTED SERVICES FRAMEWORK - INTERNET EXPLORER
FILE EDIT VIEW FAVORITES TOOLS HELP
CONNECTED SERVICES FRAMEWORK
FOR THE BROADCAST AND FILM INDUSTRY
USER INFO: CSFMEICSFADMIN
CURRENT PROJECT THIS IS IN THE TITLE FIELD
MANAGE ASSETS
ASSET SELECTION
REVIEW
DISTRIBUTE
ADMIN PROJECT
MEMBERS
MESSAGE
PAYLOAD
TIME STAMP
ACTION
MESSAGE
TRANSCODEINGESTCOMPLETE
CREATEINGESTASSETCOMPLETE
MOVETOEDITCOMPLETE
TRANSCODEINGESTCOMPLETE
CAMERAINSERT
3/30/2005 10:15:04 PM
3/30/2005 10:50:37 PM
3/30/2005 10:54:45 PM
3/30/2005 10:55:04 PM
3/30/2005 10:56:14 PM
3/30/2005 10:58:07 PM
3/30/2005 10:59:04 PM
3/31/2005 1:15:14 PM
3/31/2005 1:18:04 PM
3/31/2005 3:15:09 PM
3/31/2005 3:46:00 PM
3/31/2005 3:55:04 PM
3/31/2005 4:15:03 PM
3/31/2005 4:28:08 PM
3/31/2005 4:44:00 PM
3/31/2005 5:15:04 PM
3/31/2005 6:22:31 PM
3/31/2005 6:55:23 PM
3/31/2005 7:15:04 PM
3/31/2005 8:25:27 PM
3/31/2005 8:28:04 PM
4/1/2005 10:10:08 AM
4/1/2005 10:15:04 AM
4/1/2005 10:17:07 AM
4/1/2005 10:18:34 AM
4/1/2005 10:55:28 AM
4/1/2005 11:45:02 AM
4/1/2005 12:15:04 PM
4/1/2005 1:24:07 PM
4/1/2005 1:35:18 PM
4/1/2005 2:15:04 PM
4/1/2005 2:53:01 PM

FIG. 14

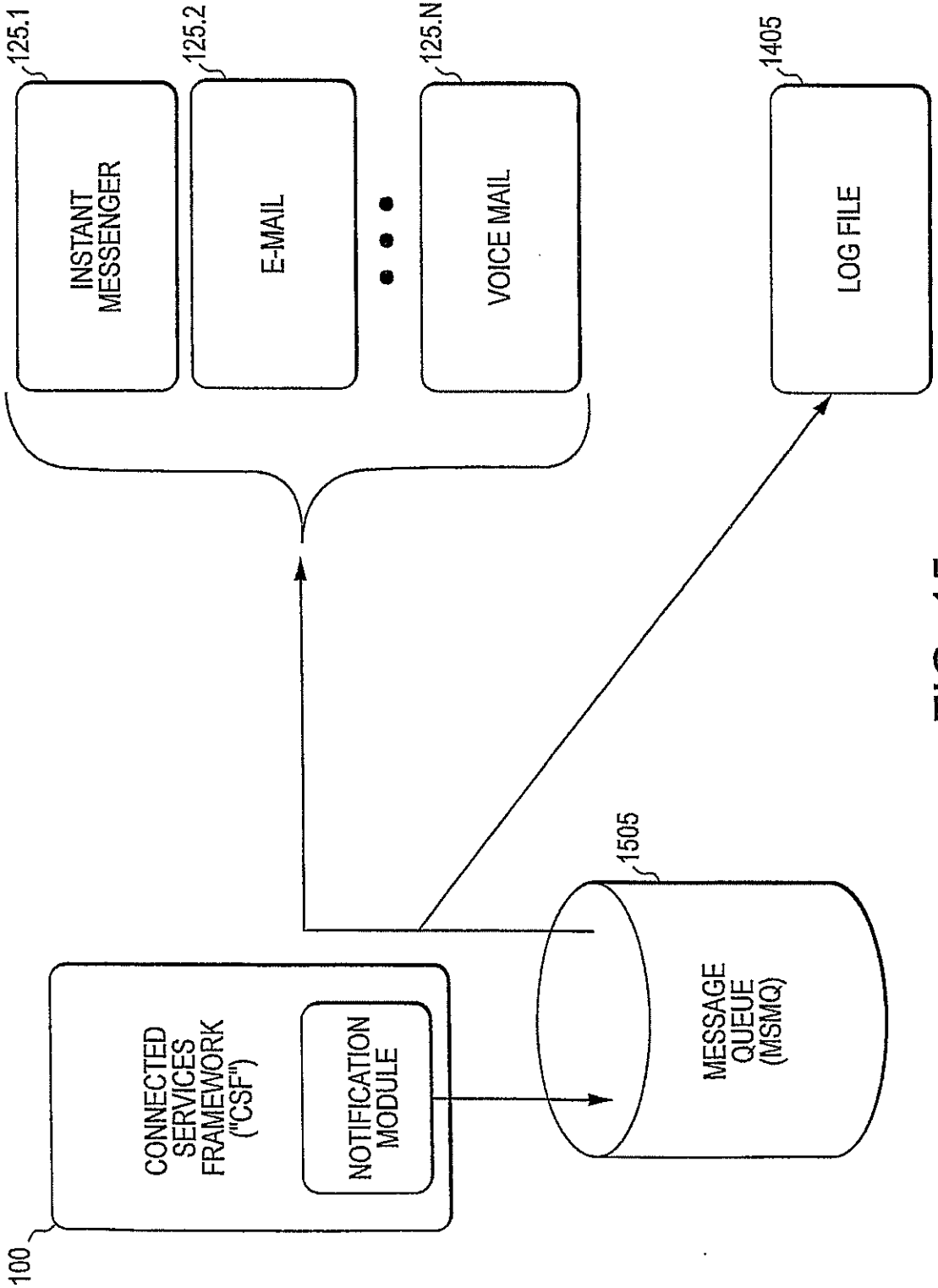

125.1
INSTANT MESSENGER
125.2
E-MAIL
125.N
VOICE MAIL
1405
LOG FILE
1505
MESSAGE QUEUE (MSMQ)
CONNECTED SERVICES FRAMEWORK ("CSF")
NOTIFICATION MODULE
100

FIG. 15

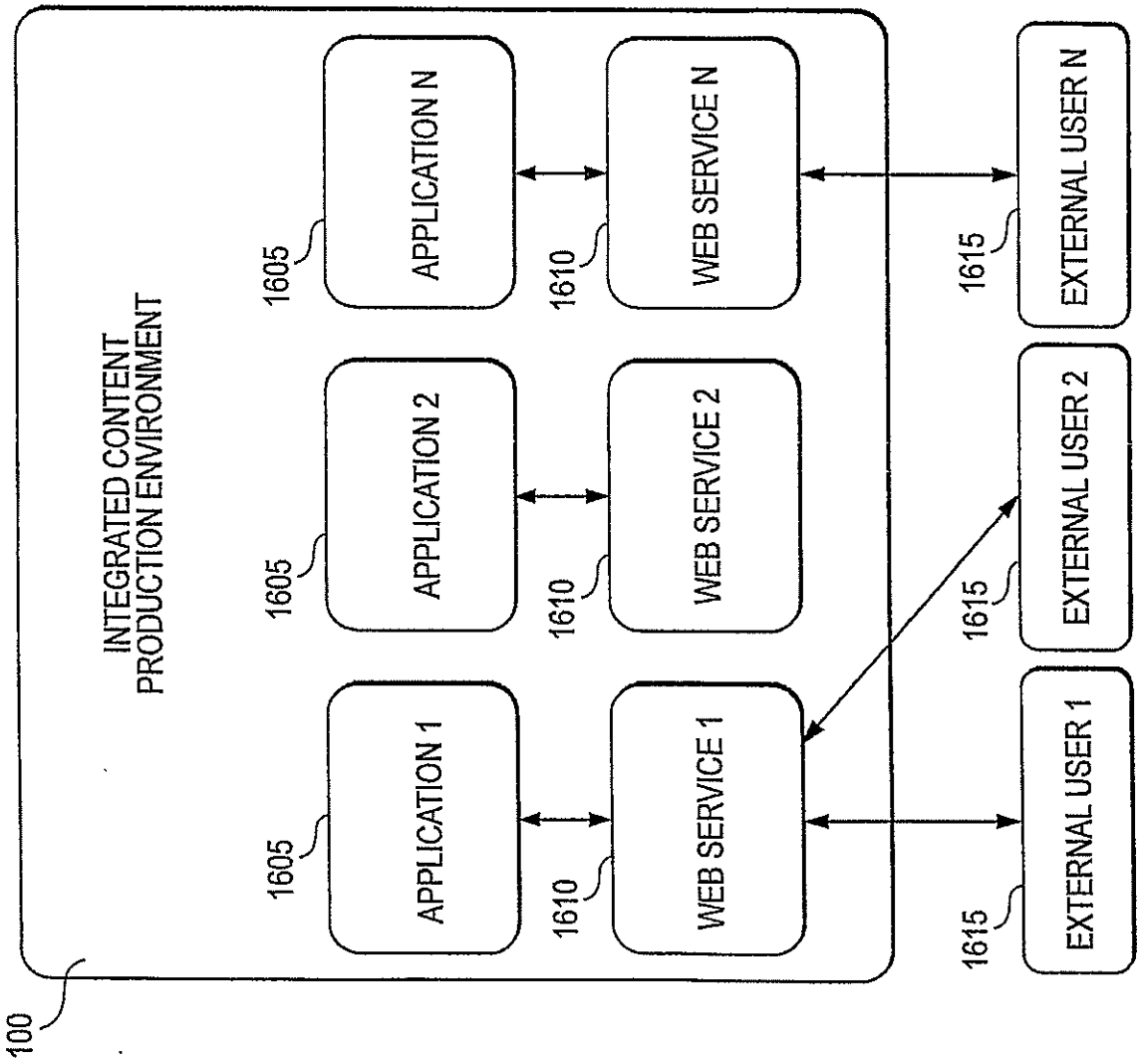

INTEGRATED CONTENT PRODUCTION ENVIRONMENT
100
APPLICATION 1
APPLICATION 2
APPLICATION N
1605
WEB SERVICE 1
WEB SERVICE 2
WEB SERVICE N
1610
EXTERNAL USER 1
EXTERNAL USER 2
EXTERNAL USER N
1615

FIG. 16