

EXHIBIT K-3

All Continuations of Christie Patents

	A	B	C	D	E	F	G
1	Number	Publication Number	Title	Application Date	Priority Date	Examiner - Primary	First or Exemplary Claim
76	75	US2004037328 A1	Method system and apparatus for telecommunications control	8/4/2003	2003-08-04 1998-05-20 1995-12-07 1994-05-05		What is claimed: <input type="checkbox"/> 1. A communication network comprising: <claim-text>a processing system configured to process one of a Signaling System #7 (SS7) signaling message and a Q.931 signaling message for a call to select packet routing information for the call and to transfer a control message indicating packet routing information; and </claim-text> <claim-text>a communication system configured to receive a user communication for the call and the control message, and in response.
77	76	US6999463	Number portability in a communications system	8/6/2003	2003-08-06 2002-02-15 1999-03-19 1996-11-22	Patel; Ajit	1. A method of operating a signaling processor for a call having a signaling message and a user communication, the method comprising: <p>receiving the signaling message for the call indicating a called number;</p> <p>processing the called number to transfer a number portability query;</p> <p>receiving a number portability response indicating a route number;</p> <p>processing the route number to select an identifier for routing the user communication; and</p>
78	77	US2004057427 A1	Number portability in a communications system	8/6/2003	2003-08-06 2002-02-15 1999-03-19 1996-11-22		We claim: <input type="checkbox"/> 1. A method of operating a signaling processor for a call having a signaling message and a user communication, the method comprising: <claim-text>receiving the signaling message for the call indicating a called number; </claim-text> <claim-text>processing the called number to transfer a number portability query; </claim-text> <claim-text>receiving a number portability response indicating a route number; </claim-text> <claim-text>processing the route number to select an identifier for routing the user communication; and </claim-
79	78	US2004085990 A1	System and method for providing enhanced services for a telecommunication call	10/8/2003	2003-10-08 2003-01-06 1999-03-18 1996-11-22		What is claimed is: <input type="checkbox"/> 1. A method to handle a call from a caller, the method comprising: <claim-text>receiving and processing signaling for the call to transfer a control message; </claim-text> <claim-text>exchanging user communications for the call with a communication device in a time division multiplex format; </claim-text> <claim-text>in response to the control message, interworking the user communications between the time division multiplex format and a packet format; </claim-text> <claim-text>processing the user communications in the packet format to
80	79	US2004085975 A1	Broadband telecommunications system interface	10/9/2003	2003-10-09 2002-09-09 2001-03-07 1999-10-06 1996-11-22		We claim: <input type="checkbox"/> 1. A method of operating a communication system, the method comprising: <claim-text>transferring a dial tone from a bearer interface for a caller; </claim-text> <claim-text>receiving Dual Tone Multi-Frequency (DTMF) signals from the caller into the bearer interface; </claim-text> <claim-text>processing the DTMF signals in the bearer interface to determine a called number; </claim-text> <claim-text>transferring a first message indicating the called number from the

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81	80	US2004090973 A1	ATM gateway system	10/15/2003	2003-10-15 2002-04-10 1999-09-09 1998-07-27 1996-02-02 1995-12-07 1994-05-05		We claim: 1. A method of operating a signaling processor to process a Signaling System Seven (SS7) message for a call having a called number and a caller number, wherein a first gateway will receive user communications for the call, the method comprising: <claim-text>receiving the SS7 message into an Integrated Services User Part (ISUP) process; </claim-text> <claim-text>if the SS7 message is an Initial Address Message (IAM), then creating an origination process for
82	81	US2004081107 A1	Broadband telecommunications system	10/16/2003	2003-10-16 2002-08-05 1999-11-12 1995-09-08		1. A telecommunications signaling processing system for a call from a caller number to a called number comprising: <claim-text>a signaling interface configured to receive a signaling message; </claim-text> <claim-text>a validation table to determine if the call should be allowed based on whether the caller number is delinquent on payment; </claim-text> <claim-text>echo control to enable an echo canceller if the call is a voice call and to disable the echo canceller if the call is a
83	82	US2004125814 A1	System for managing telecommunications	12/11/2003	2003-12-11 1999-03-25 1995-09-08		What is claimed is: 1. A telecommunication processing system comprising: <claim-text>a first signaling interface configured to receive a first signaling message from a narrowband network element; </claim-text> <claim-text>a message handler configured process the first signaling message to recognize a trigger, identify a communication service responsive to the trigger, obtain data to implement the communication service, and process the data to generate a route instruction; </claim-text> <claim-
84	83	US2004208198 A1	System and method for interfacing a local communication device	5/4/2004	2004-05-04 1999-10-20 1996-11-22		1. A method of operating a communication system comprising: <claim-text>receiving GR-303 signaling into a signaling processing system; </claim-text> <claim-text>in the signaling processing system, processing the GR-303 signaling to select an identifier for a header of a user communication, wherein the selected identifier is for routing the user communication in a packet format; </claim-text> <claim-text>transferring a control message from the signaling processing
85	84	US2005207435 A1	Telecommunications system	5/23/2005	2005-05-23 2002-02-04 1999-02-02 1996-11-22 1995-12-07 1994-05-05		1. A communication system to route user communications for a telecommunication call, the communication system comprising: <p>a processing system configured to receive a Signaling System Seven (SS7) Initial Address Message (IAM) message that indicates an originating connection and a called number for the call, enter a first data structure with the originating connection to identify a second data structure, enter the second data structure with the called number to identify interworking information, and transfer a control instruction
86	85	US2005254496 A1	Broadband telecommunications system	6/21/2005	2005-06-21 2002-10-01 2000-02-04 1996-11-22		1. A method of operating a communication system to transfer user communications from user Customer Premises Equipment (CPE) to one of a plurality of circuit switches, the method comprising: <p>receiving and processing a first message from the user CPE to select the one circuit switch from the plurality of circuit switches, and selecting an identifier and a DS0 to route user communications from the user CPE to the one circuit switch; </p> <p>transferring a second

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1	Number	Publication Number	Title	Application Date	Priority Date	Examiner - Primary	First or Exemplary Claim
87	86	US2006203984 A1	System for managing telecommunications	5/16/2006	2006-05-16 1999-03-25 1995-09-08 1994-05-05		<p>1. A signaling processor to process signaling for a call from a caller; <p>a signaling interface configured to receive a first signaling message indicating a called telephone number for the call; </p> <p>a call manager configured to process the called telephone number from the first signaling message to determine if call validation is required, and if the call validation is not required, then to process the called telephone number to determine routing information without the call</p>
88	87	US2007076753 A1	METHOD, SYSTEM AND APPARATUS FOR TELECOMMUNICATIONS CONTROL	11/17/2006	2006-11-17 2003-08-04 1998-05-20 1995-12-07 1994-05-05		<p>1. A method of operating a telecommunication system, the method comprising: <p>receiving first signaling from customer premises equipment into a communication control processor; </p> <p>processing the first signaling in the communication control processor to select an address of a network element; </p> <p>transferring second signaling indicating the address from the communication control processor; </p> <p>transferring third signaling</p>

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7	US6108541	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Aji	What is claimed is: 1. A telecommunications network that comprises: a plurality of devices wherein a plurality of the devices are switches; a processor that communicates with the switches only through telecommunications signaling, wherein the processor is operational to receive telecommunications signaling messages from outside of the telecommunications network, process the telecommunications signaling messages to select characteristics for communications paths for telecommunications network users, and generate and transmit new telecommunications signaling messages that are based at least in part on the selected characteristics.
8	US6185219	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Aji	What is claimed is: 1. A method for processing messages for a call, the method comprising: (a) receiving a set-up message for the call into a processor, wherein the processor is external to devices on a communications path for the call; (b) processing the set-up message in the processor to select at least one characteristic for the communications path for the call; (c) generating a first instruction message in the processor that incorporates the selected characteristic; (d) transmitting the first instruction message from the processor to at least one of the devices on the communications path.
9	US6200660	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Aji	What is claimed is: 1. A method of extending a communications path in a communications system in response to signaling, wherein the communications system is comprised of a processor, an Asynchronous Transfer Mode (ATM) multiplexer, and an ATM switch, wherein the method comprises: (a) receiving the signaling into the processor; (b) processing the signaling in the processor to select a first characteristic and a second characteristic for the communications path; (c) generating a first message and a second message in the processor wherein the first message incorporates the first characteristic and the second message incorporates the second characteristic.
10	US6212193	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Aji	What is claimed is: 1. A method for extending a communications path from a first network to a second network, wherein the method comprises: in a first device in the first network, selecting a connection for extending the communications path from the first device to a second device in the second network; in the first device, generating a first message that identifies the connection; transmitting the first message to a processor, wherein the processor is external to the first device and the second device; receiving the first message into the processor and generating a second message, wherein the second message identifies the connection.
11	US6304572	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Aji	What is claimed is: 1. A method for processing telecommunications signaling that comprises: (a) receiving in-band telecommunications signaling into a first telecommunications device coupled to a first connection; (b) in the first telecommunications device, converting the in-band telecommunications signaling to an out-of-band telecommunications signaling message; (c) routing the out-of-band telecommunications signaling message from the first telecommunications device to a processor that is external to the first telecommunications device and a second communication device; (d) processing the out-of-band telecommunications signaling message in the processor to select a second connection coupled to the first telecommunications device.
12	US6306586	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Aji	What is claimed is: 1. A method of operating a processing system to control a packet communication system for a user communication, the method comprising: receiving a signaling message for the user communication from a narrowband communication system into a signaling processing system; processing the signaling message in the signaling processing system to generate a query message; transferring the query message from the signaling processing system to a service processing system; processing the query message in the service processing system to select a network

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Number	Publication Number	Title	Application Date	Priority Date	Examiner - Primary	First or Exemplary Claim
13	US6424652	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Ajit	<p>What is claimed is: <input type="checkbox"/></p> <p>1. A method of processing telecommunications signaling for a telecommunication network that includes a first network element, a second network element, and a plurality of connections between the first network element and the second network element, the method comprising: <input type="checkbox"/></p> <p>receiving a Signaling System #7 signaling message into a processing system that is external to any telecommunication switches; <input type="checkbox"/></p> <p>in the processing system, processing the Signaling System #7 signaling message to select one of the connections between the first network element and the second network element; <input type="checkbox"/></p> <p>in the processing system, generating a first control message indicating the selected</p>
14	US6463052	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Ajit	<p>What is claimed is: <input type="checkbox"/></p> <p>1. A method of transferring a user communication to a packet communication system, the method comprising: <input type="checkbox"/></p> <p>receiving the user communication into a device; <input type="checkbox"/></p> <p>receiving signaling formatted for a narrowband system into a processing system; <input type="checkbox"/></p> <p>in the processing system, processing the signaling to select a network code that identifies a network element to provide egress for the user communication from the packet communication system; <input type="checkbox"/></p> <p>transferring an instruction indicating the network code from the processing system to the device; and <input type="checkbox"/></p>
15	US6643282	Method, system and apparatus for telecommunications control	5/20/1998	1998-05-20/1995-12-07/1994-05-05	Patel, Ajit	<p>What is claimed is: <input type="checkbox"/></p> <p>1. A communication network comprising: <input type="checkbox"/></p> <p>a packet communication system configured to receive a user communication; <input type="checkbox"/></p> <p>a call processor configured to process a signaling message from a narrowband communication system to select a network code that identifies a network element to provide egress from the packet communication system for the user communication; <input type="checkbox"/></p> <p>an interface configured to receive the signaling message for the user communication from the narrowband communication system and transfer a control message indicating the network code to the packet communication system; and wherein <input type="checkbox"/></p> <p>the packet communication system is configured to use the network code to route the</p>
16	US6026091	ATM gateway system	7/27/1998	1998-07-27/1996-02-02	Patel, Ajit	<p>We claim: <input type="checkbox"/></p> <p>1. A method of operating an ATM gateway system to handle a call wherein a first ATM system transmits ATM cells and telecommunications signaling for the call to the ATM gateway system, wherein the ATM cells from the first ATM system contain a first Virtual Path Identification/Virtual Channel Identification (VP/VC), wherein the ATM gateway system is connected to a second ATM system, and wherein the ATM gateway system comprises an ATM gateway and a signaling processor coupled to the ATM gateway, the method comprising: <input type="checkbox"/></p> <p>receiving the signaling for the call from the first ATM system into the signaling processor; <input type="checkbox"/></p> <p>processing the signaling in the signaling processor to select a second VP/VC for the</p>
17	US6272142	Telecommunications tandem system for circuit-based traffic	3/19/1999	1999-03-19/1996-11-22	Patel, Ajit	<p>We claim: <input type="checkbox"/></p> <p>1. A software product for controlling a tandem communications system, the software product comprising: <input type="checkbox"/></p> <p>call processing software operational when executed by a processor to direct the processor to receive signaling information associated with an incoming DSO, process the signaling information to select an identifier and a connection for an outgoing DSO, wherein the identifier is for asynchronous communication within the tandem communications system between the incoming DSO and the outgoing DSO, and transfer control information identifying the incoming DSO, the selected identifier, and the selected connection; <input type="checkbox"/></p>
18	US6785440	Telecommunications tandem system for circuit-based traffic	3/19/1999	1999-03-19/1996-11-22	Patel, Ajit	<p>We claim: <input type="checkbox"/></p> <p>1. A method for operating a tandem communications system, the method comprising: <input type="checkbox"/></p> <p>receiving incoming circuit-based traffic into an asynchronous interworking system; <input type="checkbox"/></p> <p>receiving signaling information associated with the incoming circuit-based traffic into a processor; <input type="checkbox"/></p> <p>processing the signaling information in the processor to select an identifier and a connection and generating control information identifying the selected identifier and the selected connection; <input type="checkbox"/></p> <p>transferring the control information from the processor to the asynchronous interworking system; <input type="checkbox"/></p>

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19	US6473429	Broadband telecommunications system	7/15/1999	1999-07-15 1995-09-08 1994-05-05	Patel, AJI	1. A communication method comprising: receiving information associated with a user communication into a processing system; processing the information in the processing system to select an identifier; generating a message containing the identifier; transmitting the message from the processing system; receiving the message into an interworking unit; receiving the user communication into the interworking unit from a DSO connection; in the interworking unit, converting the user communication into an asynchronous communication with the identifier in a header in response to the message; and transferring the asynchronous communication from the interworking unit.
20	US6526514	ATM gateway system	9/9/1999	1999-09-09 1998-07-27 1996-02-02 1995-12-07 1994-05-05	Patel, AJI	We claim: 1. A method of handling a telecommunications call, the method comprising: receiving an initial address message for the call in a call processor; receiving asynchronous communications for the call in a gateway wherein the asynchronous communications for the call include a first virtual identifier for routing the asynchronous communications; in the call processor, processing the initial address message to select a second virtual identifier for routing the asynchronous communications; transferring an instruction indicating the second virtual identifier from the call processor to the gateway.
21	US6304580	Broadband telecommunications system interface	10/6/1999	1999-10-06 1996-11-22 1996-11-22 1995-12-07 1994-05-05	Patel, AJI	1. A communication method comprising: receiving GR-303 signaling associated with a GR-303 communication into a processing system; processing the GR-303 signaling in the processing system to select an identifier for a non-GR-303 communication; generating first information including the identifier; transmitting the first information from the processing system; receiving the first information and the GR-303 communication into a bearer interface; in the bearer interface, converting the GR-303 communication into the non-GR-303.
22	US6343084	Broadband telecommunications system	11/12/1999	1999-11-12 1995-09-08 1994-05-05	Patel, AJI	1. A method of operating an interworking unit to handle a plurality of calls, the method comprising: receiving messages into the interworking unit on a call-by-call basis where each one of the messages indicates one of a plurality of synchronous connections and a corresponding one of a plurality of identifiers; receiving user communications for the calls from the synchronous connections indicated in the messages into the interworking unit; in response to the messages, converting the user communications from the
23	US6452928	Broadband telecommunications system	11/12/1999	1999-11-12 1995-09-08 1994-05-05	Patel, AJI	1. An Asynchronous Transfer Mode (ATM) communication method comprising: receiving signaling associated with a user communication into a processing system; processing the signaling in the processing system to generate and transmit instructions indicating a virtual identifier and echo cancellation requirements; receiving the instructions and the user communication into an ATM interworking multiplexer; in the ATM interworking multiplexer, canceling echo from the user communication in response to the instructions and converting the user communication into ATM cells with the virtual identifier in response to the instructions; and
24	US6563628	Broadband telecommunications system	11/12/1999	1999-11-12 1995-09-08 1994-05-05	Patel, AJI	1. A communication method comprising: receiving signaling associated with a call into a processing system; processing the signaling in the processing system to generate a first message identifying a first connection and an identifier, a second message identifying a second connection, and additional signaling associated with the second connection; transmitting the first message, the second message, and the additional signaling from the processing system and receiving the first message into a first interworking unit and receiving the second message into a second interworking unit; receiving user communications associated with the call from the first connection into the first interworking unit.

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25	US6449280	Broadband telecommunications system	11/12/1999	1999-11-12 1999-09-08 1995-12-07 1994-05-05	Patel, Ajit	I claim: 1. A communication method comprising: receiving signaling including a called number associated with a user communication into a processing system; processing the signaling in the processing system to generate and transmit a Service Control Point (SCP) query; receiving the SCP query into an SCP; processing the SCP query in the SCP to generate and transmit an SCP response; receiving the SCP response into the processing system; processing the SCP response in the processing system to translate the called number and select an asynchronous virtual identifier for the user communication; generating and transmitting a control instruction including the asynchronous virtual identifier out of the processing system; and
26	US6452932	Method, system and apparatus for telecommunications control	2/7/2000	2000-02-07 1998-05-20 1995-12-07 1994-05-05	Patel, Ajit	What is claimed is: 1. A method for handling a call having a first message and communications, the method comprising: receiving and processing the first message in a processing system external to narrowband switches to select one of the narrowband switches; generating a second message in the processing system based on the selected narrowband switch and transmitting the second message from the processing system; and
27	US6289064	Broadband telecommunications system	2/15/2000	2000-02-15 1998-07-15 1995-09-08 1994-05-05	Patel, Ajit	I claim: 1. A communication method for a call comprising: receiving set-up signaling associated with the call into a processing system; processing the set-up signaling in the processing system to select a DSO connection; generating a message identifying the DSO connection; transmitting the message from the processing system; receiving the message and an asynchronous communication associated with the call into an interworking unit; in the interworking unit, converting the asynchronous communication into a user
28	US6470009	Broadband telecommunications system interface	3/7/2001	2001-03-07 1999-10-09 1990-11-22	Patel, Ajit	We claim: 1. A communication system comprising: a digital channel cross-connect configured to cross-connect individual digital channels with one another based on channel control signals; a remote terminal configured to exchange analog user communications and analog signaling with user communication devices; interwork the analog user communications with digital user communications, interwork the analog signaling with digital signaling, and exchange the digital user communications and the digital signaling with the digital channels; a digital signal processor configured to exchange the digital user communications with the digital channels;
29	US6839661	Method, system and apparatus for telecommunications control	11/14/2001	2001-11-14 1998-05-20 1995-12-07 1994-05-05	Patel, Ajit	What is claimed is: 1. A method of operating a processing system to control a packet communication system for a user communication, the method comprising: receiving a signaling message for the user communication from a narrowband communication system into the processing system; processing the signaling message to select a network code that identifies a network element to provide egress from the packet communication system for the user communication; generating a control message indicating the network code; transferring the control message from the processing system to the packet communication system;

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Number	Publication Number	Title	Application Date	Priority Date	Examiner - Primary	First or Exemplary Claim
30	US6639912	Number portability in a communications system	2/15/2002	2002-02-15 1999-03-19 1996-11-22	Patel, Ajit	We claim: 1. A method for operating a communications system, the method comprising: receiving a call setup message including a called number into a signaling processor; processing the called number in the signaling processor to transmit a query; receiving a response message responsive to the query that includes number portability information for the called number; processing the number portability information to select an identifier for routing; transmitting a control message that indicates the identifier; receiving a Time Division Multiplex (TDM) user communication and the control message into an interworking system; converting the TDM user communication into packet communications that include the We claim: 1. A method of handling a telecommunications call, the method comprising: receiving an initial address message for the call in a call processor; receiving asynchronous communications for the call in a gateway wherein the asynchronous communications for the call include a first virtual identifier for routing the asynchronous communications; in the call processor, processing the initial address message to select a second virtual identifier for routing the asynchronous communications; transferring an instruction indicating the second virtual identifier from the call processor to the gateway; in the gateway, modifying the first virtual identifier in the asynchronous
31	US6683878	ATM gateway system	4/10/2002	2002-04-10 1999-09-09 1998-07-27 1998-02-02 1995-12-07 1994-05-02	Patel, Ajit	1 claim: 1. A telecommunication signal embodied in a tangible medium, the telecommunication signal comprising: a first signal component including user information from a narrowband communication signal; and a second signal component including an identifier for routing the user information, wherein the identifier is selected by processing a signaling message, wherein an interworking device receives the narrowband communication signal and a control
32	US6665294	Broadband telecommunications system	8/5/2002	2002-08-06 1996-11-12 1995-09-08 1994-05-05	Patel, Ajit	We claim: 1. A broadband system interface configured to communicate with a remote terminal and a broadband network, the broadband system interface comprising: a signaling interface configured to receive first signaling having a first format from the remote terminal, process the first signaling to generate second signaling having a second format, and transmit the second signaling; a signaling processor configured to receive the second signaling from the signaling interface, process the second signaling to select a connection in the broadband network, generate a control message that includes an identifier indicating the selected connection, and transmit the control message; and 1. A method of operating a signaling processor for a call having a signaling message and a user communication, the method comprising: receiving the signaling message for the call indicating a called number; processing the called number to transfer a number portability query; receiving a number portability response indicating a route number; processing the route number to select an identifier for routing the user communication; and transferring a control message indicating the user communication and the identifier to a communication system.
33	US6667982	Broadband telecommunications system interface	9/9/2002	2002-09-09 2001-03-07 1999-10-06 1996-11-07	Patel, Ajit	1. A method of operating a signaling processor for a call having a signaling message and a user communication, the method comprising: receiving the signaling message for the call indicating a called number; processing the called number to transfer a number portability query; receiving a number portability response indicating a route number; processing the route number to select an identifier for routing the user communication; and transferring a control message indicating the user communication and the identifier to a communication system.
34	US6699463	Number portability in a communications system	8/6/2002	2003-08-06 2002-02-15 1999-03-19 1996-11-22	Patel, Ajit	1. A method of operating a signaling processor for a call having a signaling message and a user communication, the method comprising: receiving the signaling message for the call indicating a called number; processing the called number to transfer a number portability query; receiving a number portability response indicating a route number; processing the route number to select an identifier for routing the user communication; and transferring a control message indicating the user communication and the identifier to a communication system.