

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re covered business method review of:

U.S. Patent 8,340,260 to Rae et al.

Filed: Herewith

For: **Inmate Management and Call  
Processing Systems and Methods**

Atty. Docket: 3210.048CBM1

**Declaration of Dr. Leonard J. Forys in Support of  
Petition for Covered Business Method Review of U.S. Patent No. 8,340,260**

**Attn: Patent Trial and Appeal Board**

Commissioner for Patents

PO Box 1450

Alexandria, VA 22313-1450

Commissioner:

I, Dr. Leonard J. Forys, declare as follows:

1. I have been retained on behalf of Global Tel\*Link Corporation (“GTL”) for the above-captioned covered business method proceeding. I understand that this proceeding involves U.S. Patent No. 8,340,260 (“the ’260 patent”) titled “Inmate Management and Call Processing Systems and Methods” by Robert L. Rae, et al., and that the ’260 patent is currently assigned to Securus Technologies, Inc.

2. I have reviewed and am familiar with the specification of the '260 patent. I understand that the '260 patent is a continuation of U.S. Patent No. 7,529,357 filed July 12, 2007 which in turn is a continuation-in-part of U.S. Patent No. 7,899,167 (“the '167 patent”) filed on August 15, 2003. I understand that the Patent Owner represented that the remaining claims of the '260 patent (claims 2, 5, 8, 9, 11, 12, and 14-18) are only entitled to claim priority to the July 12, 2007 filing date of the '357 patent. While I disagree with the Patent Owner’s representation, I used July 12, 2007 as the alleged priority date for the challenged claims in this proceeding.

3. I have reviewed and am familiar with the file history of the '260 patent. I have reviewed and am familiar with the file history of the prior *inter partes* review proceeding involving the '260 patent (IPR2014-00824).

4. I have also reviewed and am familiar with the following prior art used or cited in the Petition for Covered Business Method Review, the prior *inter partes* review of the '260 patent and the prior *inter partes* review of the '167 patent:

**U.S. Patent No. 7,505,406** to Spadaro, titled “Public Telephone Control with Voice over Internet Protocol Transmission,” (“Spadaro”) was filed on July 13, 2001, prior to the earliest possible priority date of the '260 patent. I understand that Spadaro is provided as GTL 1014.

**U.S. Patent No. 7,333,798** to Hodge, titled “Telecommunication Call Management and Monitoring System,” (“Hodge”) was filed on August 8, 2002, prior to prior to the earliest possible priority date of the ’357 patent. In my declaration, I cite to the earlier publication of the Hodge patent: U.S. Publication No. 2004/0029564, which is provided as GTL 1005.

**SR-4717, Voice Over Packet in Next Generation Networks: An Architectural Framework** by Bellcore (“Bellcore”) published in January 1999, more than 4 years prior to the earliest possible priority date of the ’260 patent. I understand that Bellcore is provided as GTL 1004.

**U.S. Patent No. 6,831,556** to Boykin, titled “Composite Mobile Digital Information System,” (“Boykin”) was filed on May 16, 2001, prior to the earliest possible priority date of the ’260 patent. I understand that Boykin is provided as GTL 1006.

**U.S. Patent No. 6,665,380** to Cree, titled “Inmate Messaging System and Method,” (“Cree”) was filed on January 11, 1999, more than four years prior to the earliest possible priority date of the ’260 patent.

**U.S. Patent No. 5,861,810** to Nguyen, titled “System and Method for Providing Crime Victims Updated Information and Emergency Alert Notices,” (“Nguyen”) issued on January 19, 1999, more than four years prior to the earliest possible priority date of the ’260 patent. I understand that Nguyen is provided as GTL 1007.

**Criminal Calls: A Review of the Bureau of Prisons' Management of Inmate Telephone Privileges** (“Criminal Calls”) by the U.S. Department of Justice, Office of the Inspector General published in August 1999. I understand that Criminal Calls is provided as GTL 1008.

**U.S. Patent No. 4,054,756** to Comella, titled “Method and Apparatus for Automating Special Service Call Handling,” (“Comella”) issued on October 18, 1977. I understand that Comella is provided as GTL 1010.

**PacketCable™ 1.0 Architecture Framework Technical Report, PKT-TR-ARCH-V01-001201**, by Cable Television Laboratories, Inc. published in 1999. I understand that PacketCable is provided as GTL 1011.

**Voice Over Internet Protocol (VoIP), Proceedings of the IEEE, Vol. 90, No. 9, 1495–1517** (“Goode”) published in September 2002. I understand that Goode is provided as GTL 1012.

**U.S. Patent No. 7,899,167** to Rae, titled “Centralized Call Processing” (“Rae”) issued on March 1, 2011. I understand that Rae is provided as GTL 1013.

**Science Dynamics, SciDyn BubbleLINK** (“BubbleLink”) archived June 18, 2006. I understand that BubbleLink is provided as GTL 1015.

**BOP Historical Timeline**, accessed October 11, 2016. I understand that BOP Historical Timeline is provided as GTL 1016.

**SENTRY Audit Report No. 0325** (“SENTRY Audit Report”) published in July 2003. I understand that SENTRY Audit Report is provided as GTL 1017.

**Privacy Impact Assessment for the SENTRY Inmate Management System** (“SENTRY Impact Assessment”) published in July 2012. I understand that the SENTRY Impact Assessment System is provided as GTL 1018.

**Inmate Security Designation and Custody Classification Program Statement** (“SENTRY Program Statement”) published in September 2006. I understand the SENTRY Program Statement is provided as GTL 1019.

**U.S. Patent No. 7,197,560** to Caslin, titled “Communications System with Fraud Monitoring” (“Caslin”) issued on March 27, 2007. I understand that Caslin is provided as GTL 1020.

**SIP and IPLink and the Next Generation Network** (“SIP and IPLink”) published in 2001. I understand that SIP and IPLink is provided as GTL 1021.

**Commander II** published March 6, 2002. I understand that Commander II is provided as GTL 1022.

**SR-2275, Bellcore Notes on the Networks** (“Notes on Networks”) published December 1997. I understand that Bellcore Notes is provided as GTL 1023.

**Engineering and Operations in the Bell System** (“Engineering and Operations”) published in 1984. I understand that Engineering and Operations is provided as GTL 1024.

**U.S. Patent No. 4,191,860** to Weber, titled “Data Base Communication Call Processing Method” (“Weber”) issued March 4, 1980. I understand that Weber is provided as GTL 1026.

5. The '260 patent describes “systems and methods that provide centralized or nodal inmate management and telephone processing capabilities.” (Ex. 1001, '260 patent, Abstract.) I am familiar with the technology described in the '260 patent as of its filing date of March 24, 2009.

6. I have been asked to provide my technical review, analysis, insights, and opinions regarding the '260 patent and the references discussed in the covered business method review of the '260 Patent.

## **I. Qualifications**

7. I have nearly 50 years of experience in the telecommunications industry working for corporations including AT&T Bell Telephone Laboratories for almost two decades and Bellcore (formerly Bell Communications Research), the research and development organization for the Bell Operating Companies (e.g., Bell Atlantic, Southwestern Bell, U S West, etc.), for over a decade. As detailed below,

I have worked on many projects and technologies highly relevant to the subject matter of the '260 patent.

8. My academic background in electrical engineering and computer science provides a technical foundation for work in telephone communications networks. I received a Bachelor of Science Degree in Electrical Engineering from the University of Notre Dame in 1963. I received both a Master of Science in Electrical Engineering and the degree of Electrical Engineer from the Massachusetts Institute of Technology in 1965. I received a degree of Doctor of Philosophy in Electrical Engineering and Computer Science from the University of California at Berkeley in 1968.

9. While at Berkeley, I was an Assistant Professor of Electrical Engineering and Computer Science, teaching courses in network theory, systems theory and communications theory, performing research in communications systems and serving as faculty advisor to 20 undergraduates.

10. From 1968 to 1973, I was a member of the technical staff at Bell Telephone Laboratories (known commonly as Bell Labs). I engaged in various research activities involving network engineering and performance management in telephone networks. I taught several in-house courses in performance analysis and traffic engineering in telephone networks.

11. From 1973 to 1984, I was Technical Supervisor at Bell Telephone Laboratories, heading a group of technical experts, primarily Ph.D.'s. I was responsible for performance management/analysis and development of traffic engineering algorithms for various telecommunications networks and their components, primarily processor based voice switches, automatic call distributors, and Private Branch Exchanges ("PBXs"). As part of this effort, I successfully rescheduled the processor tasks in several of these systems to increase their capacity and improve their performance. I also was responsible for all of the call center staffing algorithms for the Bell System and for the engineering of the network elements used for call centers such as the TSPS (Traffic Service Position System), Rockwell ACDs, and the #5 CrossBar ACD. ACDs are Automatic Call Distributors, special purpose switches used to provide call center functionality. In particular, these network elements were used during this time period to provide collect calling for inmate phones as they handled both automatic and operator assisted coin phones and automatic and assisted collect calling. I note that these network elements were centralized, deployed remotely from the prison facilities and served multiple prison facilities.

12. From 1984 to 1994, I was District Manager for Bell Communications Research ("Bellcore"), heading a group of 7 to 15 technical experts, primarily Ph.D.'s. I was responsible for the specification and testing of a variety of voice

network components. This work included writing sections of the requirements used by the Bell Operating Companies to buy network components in their networks. I also tested the compliance (to the requirements) of several voice switches made by various companies, e.g., Nortel, Lucent, Ericsson, Fujitsu, NET, and Siemens.

13. During this time period, I further consulted on the engineering and performance of various supplemental telephonic services such as Voice Mail systems, including those manufactured by Boston Technologies, Unisys, and Digital Sound Corporation, as well as supporting equipment such as SMDI (Simplified Message Display Interface) links. Thus, I am familiar with the types of recording technologies available to record inmate conversations prior to the earliest possible priority date of the '260 patent. I also participated and contributed to various national and international voice and data standards organizations.

14. During this period, I continued my involvement with call center technology. In particular, I was responsible for the engineering of all call centers for the Bell Operating Companies. This included analyzing specific network elements used to handle inmate telephone calls such as Nortel's TOPS (Traffic Operator Position System) and MPP (Multi-Purpose Position) systems and AT&T's No. 5 OSPS (Operator Services Position Station).

15. Another of my responsibilities while at Bellcore was analyzing and providing engineering algorithms for data network components used by the Bell Operating Companies. As part of this endeavor, I was a leader in developing novel traffic engineering methods for Internet data networks and other high speed data networks such as Asynchronous Transfer Mode (ATM) and Frame Relay. This included characterizing Internet traffic and developing loading guidelines for network components including routers and switches. Through this effort, I worked on some of the earliest deployed packet-based networks, some of which included voice over packet technologies.

16. I was Bellcore's prime technical leader for determining root causes of, and proposed solutions for, several Signaling System No. 7 ("SS7") data network outages, including the famous 1990 AT&T nationwide outage, as well as the 1991 Washington, D.C., Pittsburgh, and Los Angeles outages. I was responsible for writing new sets of requirements for SS7 networks and was involved in a large scale testing and analysis program for a wide variety of SS7 network components.

17. I was named a Bellcore Fellow in 1992, only the fifth person to receive such an award.

18. From 1994 to 1995, I was a Chief Scientist at Bellcore, overseeing the technical work of 50 technical experts, many of whom had Ph.D.'s. I was involved

in the teaching of teletraffic engineering and performance management to various bodies, including the Federal Communications Commission, which included various aspects of both voice and data networks, including voice mail systems. I served as a “trouble shooter,” responsible for identifying root causes for diverse network problems involving a variety of technologies including both high speed data networks as well as telephone networks. I analyzed the potential impact of earthquakes and other natural disasters on telecommunications network performance. The National Science Foundation sponsored me to be the sole U.S. telecommunications industry representative at the First International Joint U.S.-Japan Earthquake Symposium in 1993.

19. Since 1995, I have been President of my own company, The Forys Consulting Group, Inc., providing consulting in voice and data communications services. Relevant to the subject matter of this case, I used HP’s SS7 network monitoring capabilities to analyze Internet traffic patterns in a large metro area. As part of a team of international experts, I investigated a wide range of issues involving the introduction of a new line of vendor products in a foreign national network.

20. As a consultant to a large telephone company, I advised them on quality of service issues in providing voice over ATM (with and without IP), Internet and

Multiprotocol Label Switching (MPLS) networks. I further analyzed various supplier components for providing hybrid fiber coax access in cable networks. I consulted with a large company on the economic and technical problems associated with providing voice and data communications over a foreign cable network.

21. During this period, I also performed extensive consulting for various data communications systems, including Internet access using satellite systems including LAN in the sky technologies for airplanes. I analyzed the performance, provided traffic inputs and helped specify traffic network management/congestion controls for three satellite data communications systems capable of handling both packetized voice as well as Internet traffic.

22. I experimented with some of the first VoIP systems, including a 1996 version of the Vocaltec's Internet Phone.

23. My Curriculum Vitae is attached as Exhibit 1003, which contains further details on my education, experience, publications, and other qualifications to render an expert opinion. My work on this case is being billed at a rate of \$400.00 per hour, with reimbursement for actual expenses. My compensation is not contingent upon the outcome of this covered business method review.

## **II. My Understanding of Claim Construction**

24. I understand that, during an covered business method review, claims are to be given their broadest reasonable construction in light of the specification as would be read by a person of ordinary skill in the relevant art.

25. I understand in the prior *inter partes* review proceeding the Board construed the term “*call application management system*” as a system that performs the enumerated function of “connecting a call to or from the telephone terminals over telephone carrier network responsive to receiving a request for connecting the call.” (IPR2014-00824, Final Written Decision, p. 26.) For purposes of this proceeding, I adopt this construction.

## **III. Level of Ordinary Skill in the Art**

26. I understand the Board in the prior *inter partes* review proceeding determined that one of ordinary skill in the art would have a B.S. degree in Electrical Engineering, Computer Science, or an equivalent field as well as at least 3 years of academic or industry experience in telephony systems. (IPR2014-00824, Final Written Decision, p. 29.) The Board’s construction is consistent with the level of ordinary skill that I proposed in the prior IPR proceeding. For purposes of this proceeding, I adopt the Board’s level of ordinary skill in the art.

#### **IV. Overview of the '260 Patent**

27. The '260 patent describes “systems and methods that provide centralized or nodal inmate management and telephone call processing capabilities.” ('260 patent, Abstract.) Centralization of information management, according to the '260 patent, provides the benefits of data sharing, aggregation, and analysis across multiple served facilities. (*See, e.g.*, '260 patent, 3:65-4:6.)

28. I understand that the '260 patent is a continuation of the '357 patent which is a continuation-in-part of U.S. Patent No. 7,899,167. The claims of the '167 patent are directed to the “telephone call processing capabilities” of the system. Independent claim 1 of the '167 patent (reproduced below) includes a networking device, an unauthorized call activity detection system, a call application management system, and a billing system.

1. A centralized call processing system for providing call processing services to a plurality of prison facilities, comprising:

a networking device connected via digital data links to call processing gateways at the plurality of prison facilities to collect outgoing Voice over Internet Protocol (VoIP) data packets associated with calls from the plurality of prison facilities and to distribute incoming VoIP data packets associated with the calls to the plurality of prison facilities, the plurality of prison facilities located remotely from the call processing gateways, each of the

plurality of prison facilities including at least one telephone terminal;

an unauthorized call activity detection system co-located with the networking device and connected to the networking device for detecting three-way call activity associated with the calls placed from one or more of the plurality of telephone terminals, the three-way call activity detection not performed at the plurality of the prison facilities;

a call application management system co-located with the networking device and connected to the networking device and the unauthorized call activity detection system for at least processing the outgoing VoIP data packets from the plurality of prison facilities into outgoing call signals and transmitting the outgoing call signals to a first telephone carrier network, the call application management system receiving incoming call signals from the first telephone carrier network and processing the incoming call signals into the incoming VoIP data packets for distribution to the plurality of prison facilities by the networking device; and

a billing system co-located with said call application management system and located remotely from the call processing gateways, the billing system connected to the call application management system for providing accounting of the calls.

29. I understand that the Board found all claims of the '167 patent unpatentable over the applied art. ('167 patent, Final Written Decision). I further understand that the Federal Circuit affirmed the Board's findings. *Securus*

*Technologies, Inc. v. Global Tel Link Corporation*, Appeal No. 2016-1372, 2016-1373, Fed. Cir. R. 36 Affirmance (December 8, 2016).)

30. I further understand that claims 1, 3, 4, 6, 7, 10, 13, 19, and 20 of the '260 patent were found unpatentable over the applied prior art in the prior *inter partes* review proceeding. Independent claim 1 of the '260 patent (reproduced below) has two call processing limitations, “networking device” and the “call application management system,” and a single data storage/management system component: “inmate management system.” These claims merely add the component of centralized data storage and management to portions of the telephone call processing capabilities recited in the '167 patent and found unpatentable by the Board in the '167 IPR proceeding. The '260 patent does not add or purport to add any new call processing capabilities. The recited information management, networking, and call processing components recited in claim 1 of the '260 patent are conventional and operate for their usual and intended purpose.

1. A computer-based system, at a plurality of facilities, for managing inmate information, each of the facilities having one or more telephone terminals and computer terminals, the computer-based system located remotely from at least one of the plurality of facilities, the system comprising:

a networking device exchanging Voice over Internet Protocol (VoIP) data packets with call processing gateways at the

plurality of facilities over digital data links, the call processing gateways processing the VoIP data packets to or from the telephone terminals for transmission over the digital data links;

an inmate management-system coupled to the networking device for providing shared data access of inmate records to computer terminals at said plurality of facilities, said inmate records created with first inmate information collected from a first computer terminal at a first facility of the plurality of facilities and modified responsive to collecting second inmate information from a second computer terminal at a second facility of the plurality of facilities; and

a call application management system connecting a call to or from the telephone terminals over a telephone carrier network responsive to receiving a request for connecting the call and the call being authorized based on the inmate records provided by the inmate management system.

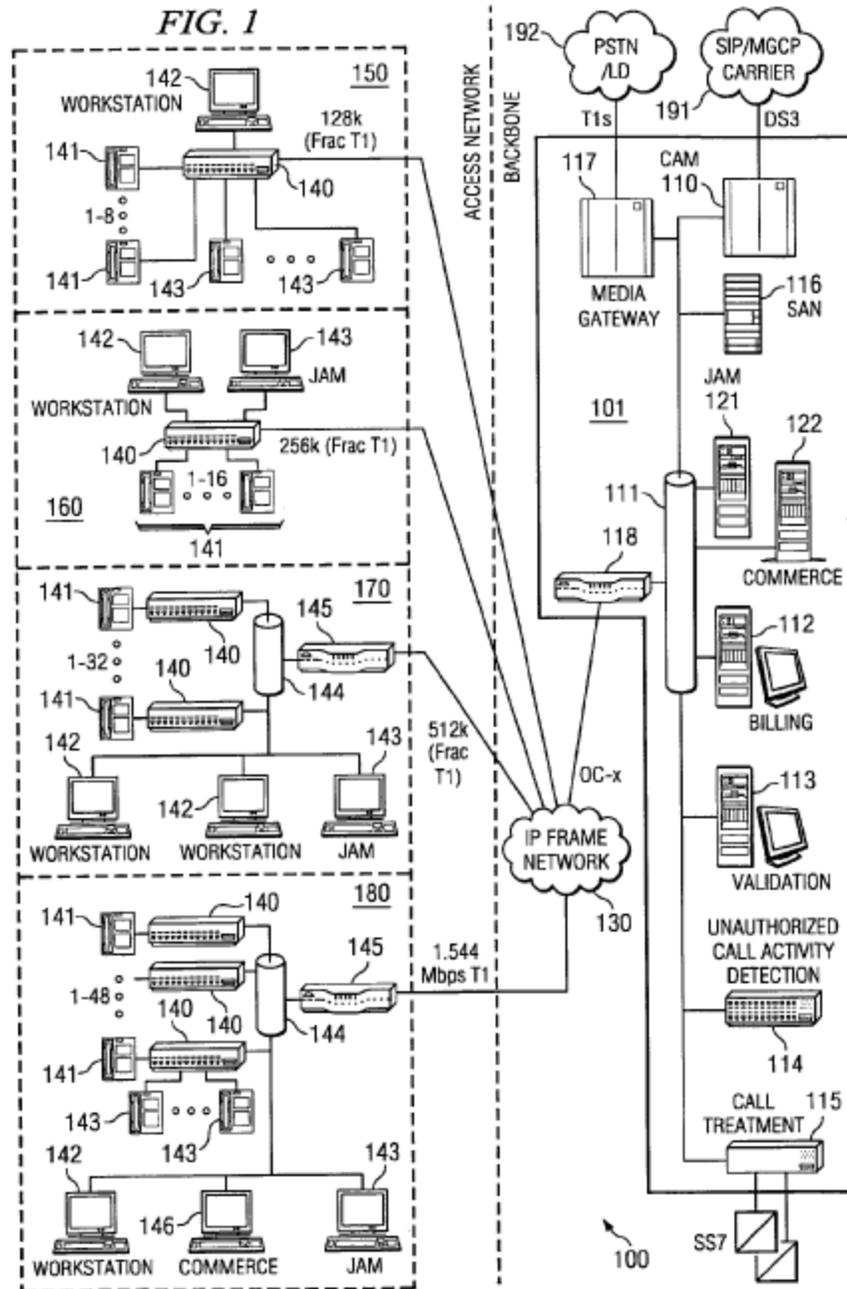
Independent claim 10 is a method claim corresponding to system claim 1.

Claim 10 recites the same conventional actions performed by the conventional components of claim 1.

31. As I detail below, the centralized storage and management of data (including inmate data) was not only known but it was conventional before the alleged priority date (July 12, 2007) of the challenged claims. For example, the Federal BOP used a centralized system (SENTRY) to store and manage inmate

data as early as 1978, as I discuss in further detail below. (*See, e.g.*, Ex. 1017, SENTRY Audit Report; Ex. 1019, SENTRY Program Statement.) Thus, the '260 patent claims conventional inmate management and permits access to the centralized inmate management system from multiple remote facilities. Further, the ability to create inmate records from data collected at a first terminal at a first facility and a second terminal at a different location to modify that record was standard and in-use in database systems prior to July 12, 2007. The SENTRY system is designed to provide exactly this functionality. The Board recognized that claims 1, 3, 4, 6, 7, 10, 13, 19, and 20 were obvious over the applied Spadaro grounds in the prior IPR proceeding. The remaining dependent claims merely use the conventional technology recited in independent claims 1 and 10 and the claims of the '167 patent in well-known and routine ways.

32. FIG. 1 of the '260 patent (reproduced below) illustrates “an inmate management and call processing system according to an embodiment of the present invention.” ('260 patent, 6:25-26.) The call processing system 100 includes a “computer-based platform 101 in communication with facilities 150-180 via network 130.” ('260 patent, 6:40-42.)



33. As illustrated in FIG. 1, one or more call processing gateways 140 are disposed “at or near sites for which inmate management and call processing services are to be provided, here facilities 150-180.” (’260 patent, 6:67-7:3.) The call processing gateways 140 “provide interfacing and arbitration between a

number of protocols, signals, and/or interfaces.” (’260 patent, 7:3-5.) The ’260 patent acknowledges that the use of VoIP, including call processing gateways that convert calls to and from VoIP, existed in the prior art: “Embodiments of the present invention utilize commercially available devices, such as the IAD 2400 series of integrated access devices available from Cisco Systems, Inc., San Jose, Calif., in providing a call processor gateway.” (’260 patent, 7:20-23.)

34. Computer-based platform 101 “includes router-switch 118 coupling network 130 to various systems and components comprising computer-based platform via network 111.” (’260 patent, 8:41-44.) The claims refer to router/switch 118 as a “networking device [that] exchange[s] Voice Over Internet Protocol (VoIP) data packets with call processing gateways.” Routers and switches capable of exchanging VoIP traffic with other components were known and in common use before July 12, 2007. For example, Bellcore discloses a core network that uses routers for IP voice traffic (Ex. 1004, Bellcore, p. 5-56); and both PacketCable and Goode disclose the use of routers for VoIP network traffic (Ex. 1011, PacketCable, p. 10; Ex. 1012, Goode, p. 2). Exchanging IP packets (including VoIP packets) is a conventional function of a router/switch. Thus, the ’357 patent uses its “networking device” (router/switch) for its ordinary purpose. Computer-based platform 101 also includes multiple functional components: a call

application management system 110, a billing system 112, a validation system 113, an unauthorized call activity detection system 114, and a call recording system.

## **V. Background of the Technologies Disclosed in the '260 Patent**

### **A. Voice over IP Networks**

35. The first commercial VoIP product was introduced by VocalTec Communications Ltd. in 1995. Over the next eight years, VoIP implementations by telecommunications carriers increased dramatically. In 1999, industry experts estimated that approximately 10% of all voice traffic would be carried over a VoIP network by 2003. (Bellcore, 1-1.) By the alleged July 12, 2007 priority date of the challenged claims, the use of VoIP for voice communications was well-established and routine.

36. The underlying VoIP architecture disclosed and claimed in the '260 patent was well-known prior to the alleged priority date of the challenged claims (July 12, 2007). This VoIP architecture was used by local exchange carriers (e.g., Verizon), interexchange carriers (e.g., MCI and Level 3), and even cable providers (e.g., Cox) before 2007. For example, SR-4717, Voice over Packet in Next Generation Networks: An Architecture Framework by Bellcore, published over eight years before the '260 patent, describes VoP networks used by carriers. U.S. Patent No. 7,197,560 to Caslin, *et al*, filed more than 5 years and published before

alleged priority date,<sup>1</sup> depicts a VoIP architecture utilized by an interexchange carrier. “PacketCable 1.0 Architecture Framework Technical Report”<sup>2</sup> published in 1999 (more than 7 years before the alleged priority) depicts a VoIP architecture utilized by cable providers. “SIP and IPLink in the Network Generation Network”<sup>3</sup> by Intel published in 2001 also discloses a VoIP architecture.

37. Additionally, during the covered business method review of the parent patent of the ’260 patent, U.S. Patent No. 7,899,167, the Patent Owner submitted exhibits that depict VoIP architectures in existence before the filing date of the ’260 patent. For example, “Voice Over Internet Protocol (VoIP)” by Bur Goode<sup>4</sup> published in September 2002 describes VoIP architectures including an architecture in which end user customers (e.g., businesses) have local gateways to access an IP network. (Goode, p. 2, Figure 1.) Additionally, the Science Dynamics documents including BubbleLink document architecture and the Commander II

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<sup>1</sup> U.S. Patent No. 7,197,560 to Caslin, *et al* is provided as GTL 1020.

<sup>2</sup> The PacketCable<sup>TM</sup> 1.0 Architecture Framework Technical Report, PacketCable 1.0 is provided as GTL 1011.

<sup>3</sup> “SIP and IPLink<sup>TM</sup> in the Next Generation Network: An Overview” is provided as GTL 1021.

<sup>4</sup> “Voice over Internet Protocol (VoIP)” is provided as Exhibit 1012.

document, illustrate that VoIP products were used in prison environments prior to the alleged July 12, 2007 priority date of the challenged claims.

## **B. Centralization**

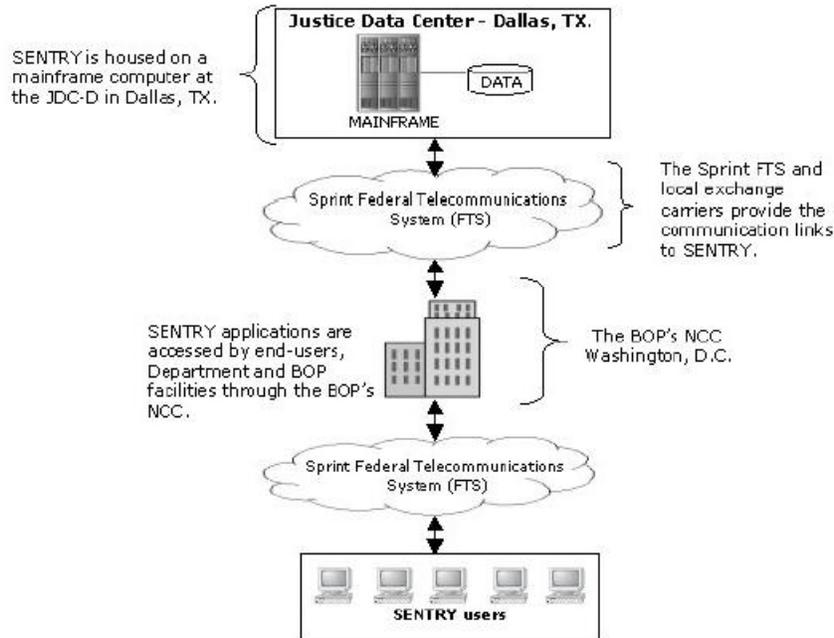
38. The '260 patent describes “systems and methods that provide centralized or nodal inmate management and telephone call processing.” ('260 patent, Abstract.) In this architecture, certain call processing functions are centralized (located remotely from facilities). The “Background of the Invention” section of the '260 patent sets out a list of motivations for moving from a distributed architecture in which functionality is implemented locally at each location where service is provided to a centralized architecture in which a single piece of equipment serves multiple locations. These motivations include simplifying maintenance ('260 patent, 5:44-64); and increasing data sharing, aggregation, and statistical analysis ('260 patent, 3:65 – 4:6). In addition, the '167 patent (to which the '260 claims priority) also touts the benefits of reducing the cost and complexity of introducing new features (Ex. 1013, '167 patent, 2:46-52). As explained below, these are the same motivations that drove telecommunications carriers to centralized architectures for call processing and information management decades before the earliest possible priority date of the '260 patent.

39. Centralization of inmate management was also routine decades before the July 2007 filing date of the '260 patent. The Three Prisons Act in 1891

established the Federal Prison System. (Exhibit 1016, Historical Timeline, p. 1.)

The Federal Bureau of Prisons (BOP) recognized the need for centralization of inmate data and since 1978, the BOP has employed a centralized electronic “inmate management system” called SENTRY to monitor and track federal inmates. (SENTRY Audit Report, p. 1.) As described by the Office of the Inspector General, “[a]ll inmate information, which is critical to the safe and orderly operation of BOP facilities, is collected, maintained, and reported within SENTRY.” (SENTRY Audit Report, p. 1.) The following Figure (reproduced from the SENTRY Audit Report) depicts the centralized management of inmate information. SENTRY “resides on a BOP mainframe computer located at the Justice Data Center in Dallas, Texas (JDC-D) operated by the Department of Justice (Department) Justice Management Division’s (JMD) Computer Services.” (*Id.*, p. 2.) Personal computers “at approximately 200 facilities in the Department and BOP” access SENTRY “by way of the BOP’s Washington, D.C., Network Control Center.” (*Id.*) “The remote sites include federal correctional facilities, regional offices, Community Corrections Offices (CCO), and other selected offices.” (*Id.*, p. 2.) Through this centralized architecture, “SENTRY allows concurrent sharing of data among multiple users.” (*Id.*, p. 3.)

### SENTRY Network Configuration



40. Prior to the alleged 2007 priority date of the '260 patent, SENTRY centrally stored and managed a wide-range of data about federal inmates including general inmate data, the financial responsibility of inmates (court-ordered financial obligations imposed on an inmate), inmate discipline (infraction of institution rules filed against an inmate) and sentence monitoring. (*See, e.g., SENTRY Audit Report, p. 2.*) The following figure depicts the inmate load and security designation data forms used to populate the SENTRY database. (SENTRY Program Statement, p. 41.) As highlighted in this figure, a centralized inmate record stored in SENTRY includes, among other data, the inmate's name, physical description of the inmate (height, weight, hair color, eye color), social security number of the inmate,

offense/sentence, and severity of the offense. (See, SENTRY Program Statement, pp. 26-41.)

BP-337 INMATE LOAD AND SECURITY DESIGNATION FORM		FEDERAL BUREAU OF PRISONS		
INMATE LOAD DATA				
1. REGISTER NUMBER				
2. LAST NAME		3. FIRST NAME		4. MIDDLE
5. SUFFIX		6. RACE		7. SEX
8. ETHNIC ORIGIN		9. DATE OF BIRTH		
10. OFFENSE/SENTENCE				
11. FBI NUMBER			12. SSN NUMBER	
13. STATE OF BIRTH		14. OR COUNTRY OF BIRTH		15. CITIZENSHIP
16. ADDRESS-STREET				
17. CITY		18. STATE		19. ZIP
20. OR FOREIGN COUNTRY		21. HEIGHT FT IN		22. WEIGHT LBS
23. HAIR COLOR		24. EYE COLOR		
25. ARS ASSIGNMENT				
SECURITY DESIGNATION DATA				
1. JUDGE		2. REC FACILITY		3. REC PROGRAM
4. USM OFFICE		5. VOLUNTARY SURRENDER STATUS		
0 = NO		(-3) = YES		
IF YES, MUST INDICATE: 5a. VOLUNTARY SURRENDER DATE: _____				
5b. VOLUNTARY SURRENDER LOCATION: _____				
6. MONTHS TO RELEASE _____				
7. SEVERITY OF CURRENT OFFENSE		0 = LOWEST		3 = MODERATE
1 = LOW MODERATE		5 = HIGH		7 = GREATEST
8. CRIMINAL HISTORY SCORE		0 = 0-1		4 = 4-6
2 = 2-3		6 = 7-9		8 = 10-12
10 = 13 +				
8a. SOURCE OF DOCUMENTED CRIMINAL HISTORY - PRESENTENCE INVESTIGATION REPORT or - NCIC III				
9. HISTORY OF VIOLENCE		NONE		>15 YEARS
MINOR 0		1		10-15 YEARS
SERIOUS 0		2		5-10 YEARS
		3		<5 YEARS
		4		5
		6		7
10. HISTORY OF ESCAPE OR ATTEMPTS		NONE		>15 YEARS
MINOR 0		1		>10 YEARS
SERIOUS 0		3 (S)		5-10 YEARS
		1		<5 YEARS
		2		3
		3 (S)		3 (S)
		3 (S)		3 (S)
11. TYPE OF DETAINDER		0 = NONE		3 = MODERATE
1 = LOWEST/LOW MODERATE		5 = HIGH		7 = GREATEST
12. AGE		0 = 55 and over		4 = 25 through 35
2 = 36 through 54		8 = 24 or less		
13. EDUCATION LEVEL		0 = Verified High School Degree or GED		
1 = Enrolled in and making satisfactory progress in GED Program				
2 = No verified High School Degree/GED and not participating in GED Program				
13a. HIGHEST GRADE COMPLETED _____				
14. DRUG/ALCOHOL ABUSE		0 = Never/>5 Years		1 = <5 Years
15. SECURITY POINT TOTAL				
16. PUBLIC SAFETY FACTORS		A-NONE		I-SENTENCE LENGTH (males only)
B-DISRUPTIVE GROUP (males only)		C-GREATEST SEVERITY OFFENSE (males only)		K-VIOLENT BEHAVIOR (females only)
F-SEX OFFENDER		G-THREAT TO GOVERNMENT OFFICIALS		L-SERIOUS ESCAPE
H-DEPORTABLE ALIEN				M-PRISON DISTURBANCE
				N-JUVENILE VIOLENCE
				O-SERIOUS TELEPHONE ABUSE
17. REMARKS				
18. OMDT REFERRAL (YES/NO) _____				

## MAINTENANCE

41. According to the '167 patent, maintenance is generally viewed as encompassing “operations, administration, maintenance, and provisioning (OAM&P)” functions. ('167 patent, 2:12-34). These OAM&P functions are typically performed by systems referred to as Operations Support Systems (OSSs).

42. By 1997, “[t]he maintenance plans for most Local Exchange Carrier (LEC) networks ha[d] evolved to a **centralized** method of operational and administrative control.” (Ex. 1023, Notes on Networks<sup>5</sup>, 8-1.)(emphasis added.) In fact, as noted in the 1997 Bellcore Notes on Networks, “[c]entralized databases and work forces make it possible to effectively maintain the precision and stability required for the current public switched network.” (Notes on Networks, 8-1.)

43. In the PSTN, these centralized databases and OSSs are known by their acronyms: CAROT (Centralized Automatic Reporting on Trunks), CATLAS (Centralized Automatic Trouble Locating and Analysis System), TIRKS (Trunks Integrated Network Keeping System), TNDS (Total Network Data System), EADAS (Engineering and Administration Data Acquisition System), etc. The CAROT, CATLAS, TIRKS, TDNS and EADAS systems existed and were in use at least two decades before the earliest possible priority date of the '260 patent.

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<sup>5</sup> SR-2275, “Bellcore Notes on the Networks” is provided as GTL 1023.

(Ex. 1024, Engineering and Operations in the Bell System<sup>6</sup>, pp. 605-11, 622-32, 638 and 650) Many of these systems are enormous. For example, TIRKS is a centralized system that supports the provisioning of many components of the PSTN. It is so large that it was rumored to require (at one point) 500 technical staff just to maintain it.

44. Another aspect of maintenance is network surveillance and monitoring. Systems for telecommunications network surveillance and monitoring have been centralized for more than four decades. For example, as early as 1962, the AT&T long distance network was centrally monitored from a Network Control Center in New York as depicted in the following photograph. (See, e.g., <http://www.corp.att.com/history>.)<sup>7</sup>

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<sup>6</sup> “Engineering and Operations in the Bell System,” Second Edition published by AT&T Bell Laboratories in 1983 is provided as GTL 1024.

<sup>7</sup> Pages from [www.corp.att.com/history](http://www.corp.att.com/history) are provided as GTL 1025.



AT&T Network Control Center, New York, 1960s.

45. In the 1970s, AT&T moved to a Network Operations Center (NOC) having domestic and international status boards, which automatically updated every 12 seconds, and computer databases to instantly provide managers with the information needed to reroute calls. By 1987, the centralized AT&T NOC had “a 75-screen video wall where computer-driven support systems provided information on multiple layers and categories of network activity. Managers used computer systems and terminals to find detailed information on any switch or route in the network. They then used those same systems to issue instructions to any place in the network.” A picture of the AT&T NOC in 1987 is provided below. (*See, e.g.,* <http://www.corp.att.com/history>.)

### 1970s: Network Operations Center



AT&T Network Operations Center, Bedminster, N.J., 1987.

## DATA SHARING, AGGREGATION, AND STATISTICAL ANALYSIS

46. The centralization of data was routine in telecommunications networks prior to the filing date of the '260 patent. One example of centralization of data is the Line Information Database (LIDB). LIDB stores data associated with customer accounts, identified by individual line (e.g., telephone numbers). (*See Notes on Networks*, p. 14-29.) LIDB stores the billing options for a line number/account including collect, calling card, and bill-to-third options for the account. (*Id.*) For certain types of billing options such as calling card, LIDB stores a PIN number for the account. (*Id.*, p. 14-38.) LIDB also stores non-billing information about the line/number account. (*Id.*, p. 14-29.) This non-billing information can include (e.g., zip code) customer name or any other data element required by a network service. (*Id.*, pp. 14-29 to 30.)

47. The centralized OSSs and network operation centers described above aggregated data created and/or edited from terminals provided at multiple locations

at a single network point. For example, the LIDB administrative system (AS/LIDB) is an OSS that maintains the data in LIDB. (*Id.*, p. 14-29.)

### **REDUCING THE COST AND COMPLEXITY OF INTRODUCING FEATURES**

48. The centralization of call processing functionality to reduce the cost of services (deployment and maintenance) and to facilitate the introduction of new features and functions was also well-known in the telecommunications industry prior to the alleged priority date of the challenged claims. For example, centralized switches that connected calls from telephones served by the switch to a carrier network were conventional and in use for more than 70 years. Key examples of centralization of call processing functionality also include toll free (800) services and the advanced intelligent network (AIN).

49. Toll-Free (800) service was first introduced in 1967. (Notes on Networks, 14-41.) At that time, toll-free calls “were handled by designated originating and terminating switching offices that employed a special 800 NXX routing and screening methodology.” (Notes on Networks, 14-41.) That is, calls to toll-free numbers were routed using a table at each central office switch. This distributed architecture required any updates, such as the addition of a new toll-free number, to be distributed to each of these multiple offices. As toll-free service grew in popularity, maintaining this distributed architecture became untenable.

Therefore, in 1981, AT&T centralized 800 service using a centralized “database containing Toll-Free Service information” to determine the routing for the dialed toll-free number. (Notes on Networks, 14-41.)<sup>8</sup>

50. The Advanced Intelligent Network (AIN) “is an outgrowth of the architectures that were deployed for the intelligent network 800 Database Service and Alternate Billing Service (ABS).” (Notes on Networks, 14-58.) Prior to AIN, call processing functionality was distributed in each switch. As explained in Notes on the Networks, the “basic concept of AIN is to migrate some service control functions from the switch to a LEC-programmable system so new services can be created rapidly and independently of the traditional switch vendor generic release cycles.” (Notes on Networks, 14-58.) That is, the call processing functionality is deployed in a centralized system, referred to as the Service Control Point (SCP). Through AIN, new features and updates to existing features can be made at a centralized point in the network rather than in each switch.

### **C. Creating and Updating Records Using Different Terminals**

51. With the advent of the Internet and other data networks, it was (and remains) commonplace to access, create and/or modify records in a centralized

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<sup>8</sup> Centralized 800 call handling is further described in U.S. Patent No. 4,191,860 to Weber, filed July 13, 1978. Weber is provided as GTL 1026.

database from a multiplicity of terminals at various locations. For example, prior to the filing date of the '260 patent, users could modify their bank account information using a computer at work and alternatively a computer at home, or even a laptop while travelling. The availability of terminal facilities at airports, hotels, libraries, prisons etc. allowed records to be modified without owning a computer. ATM machines allowed customers to update records as well, withdraw money from one machine, deposit money at another, pay credit card bills, transfer money between accounts, etc.

52. Further, as I discussed above, the Federal BOP recognized the need to centralize data and allow for the creation and updating of records using different terminals at different facilities. The centralized SENTRY database “resides on a BOP mainframe computer located at the Justice Data Center in Dallas, Texas (JDC-D) operated by the Department of Justice (Department) Justice Management Division’s (JMD) Computer Services.” (SENTRY Audit Report, p. 2.) Personal computers “at approximately 200 facilities in the Department and BOP” access SENTRY “by way of the BOP’s Washington, D.C., Network Control Center.” (*Id.*) One of ordinary skill in the art would understand that it was not only obvious, but routine, prior to the alleged July 12, 2007 priority date to use multiple terminals at different facilities to update records stored in databases including inmate records.

#### **D. History of Prison Communications**

53. Inmate communications systems also followed the industry trend of centralization. As I described above, the Federal BOP implemented centralized storage and management of inmate data via its SENTRY system in 1978. The centralization of call processing followed this trend. The use of telephones by prison inmates was nearly non-existent up until the early 1970s. (USDOJ/OIG Special Report, 2.2.2.)<sup>9</sup> Federal inmates were limited to one collect call every three months using staff telephones and this had to be reserved upon written request. (USDOJ/OIG Special Report, 2.2.2.) In the 1970s, payphones were installed throughout most of the federal prison system, with no restrictions on the number of calls that could be made. (USDOJ/OIG Special Report, 2.2.2.)

54. Collect calls and coin phones, including collect calls from prison facilities, were normally handled by operator services switches managed by a carrier such as AT&T. These operator services switches were centralized in the carrier network and handled calls from multiple remote prison facilities. For

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<sup>9</sup> “Criminal Calls: A Review of the Bureau of Prisons’ Management of Inmate Telephone Privileges” (U.S. Department of Justice, Office of the Inspector General, August 1999) is provided at GTL 1008.

example, U.S. Patent No. 4,054,756 to Comella<sup>10</sup>, issued in 1977, introduced a centralized call processing facility for handling collect calls. Using Automatic Number Identification (ANIs), the operator services switches, such as the switches described in Comella, would access a database to determine, for example, that the origination was from a coin phone at a prison. Using this information, the switch and operators who handled the collect calls would be aware of any restrictions that might be made on such prison-originated calls.

55. By the late 1980s, there was a movement away from only using collect calls at prison facilities. Because of this trend, functionality for processing inmate calls was distributed to systems within individual prison facilities. For example, an Inmate Telephone System (ITS) was developed for the Federal Bureau of Prisons (BOP) in 1988. The ITS system consisted of computer hardware and software programs that enabled the BOP to debit inmates' commissary accounts for the cost of their calls. ITS used a computer, a telephone switch, and software that could control and record data regarding calls placed on telephones. Under ITS, each inmate received a "phone access code" (PAC), much like the calling card PIN, to facilitate this debiting and to (at least theoretically) permit correctional staff to identify which inmate made each call without visually checking the telephone area.

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<sup>10</sup> U.S. Patent No. 4,054,756 to Comella, *et al* is provided as GTL 1010.

56. With the widespread deployment of VoIP in the late 1990s and early 2000s, inmate communications systems began to implement centralized call processing using VoIP technology. For example, U.S. Patent No. 7,505,406 to Spadaro<sup>11</sup> (filed over eight years before the '260 patent by Science Dynamics) applied the well-known centralization concept to inmate communications systems utilizing VoIP networks long before the filing date of the '260 patent. The documents cited by Patent Owner during the '167 patent IPR proceedings indicate that Science Dynamics also sold VoIP products targeted to prison facilities prior to July 12, 2007. I note that the Board found all claims of the '167 patent and independent claims 1 and 10 and dependent claims 3, 4, 6, 7, 13, 19 and 20 of the '260 patent unpatentable over the applied Spadaro grounds.

57. As I explained above, centralization of data management (including inmate management) and centralization of call processing was routine prior to the alleged priority date of the challenged claims. The prior art discussed above teaches that inmate management systems and call processing systems were conventional and well-known technology during the relevant timeframe. Below, when discussing the remaining claims of the '260 patent, I highlight that the '260 patent uses these existing systems in routine and logical ways to organize the activities and affairs of inmates, the way people in the federal prison system have

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<sup>11</sup> U.S. Patent No. 7,505,406 to Spadaro is provided as GTL 1014.

done for generations. Indeed, the '260 patent assumes that the recited information management, networking, and call processing components must operate in a conventional way. (*See, e.g.*, '260 patent, 25:33-35, 7:12-16, 7:20-23, 9:10-14, 11:57-60.) The '260 patent does not describe or claim any modification to the conventional operation of inmate management or call processing systems. The claims only require that the functions and steps be performed using generic computer-based systems, conventional telephones, and off-the-shelf networking equipment.

**VI. The subject matter of the dependent claims is not novel or nonobvious.**

**A. Claim 2.**

58. Claim 2 (reproduced below) depends from independent claim 1. I understand that the Board found that claim 1 was obvious over the combination of Spadaro and Hodge. Hodge discloses the subject matter recited in claim 2 which depends from independent claim 1

The system of claim 1, wherein said inmate records comprise at least one of physical description of inmates, social security numbers of the inmates, driver's license numbers of the inmates, biometric data of the inmates, information related to the arrest of the inmates, and contact information of third parties associated with the inmates.

59. The inmate records of Hodge include “*biometric data of the inmates.*” Hodge discloses that “biometric data may be required to access the system.” (Ex. 1005, Hodge, ¶[0056].) The biometric data “may be acquired from users...upon creation of a telephone account for use with the system” and “may be stored along with the user’s PIN in the user’s account profile or another storage means to be used later as an authentication device.” (Hodge, ¶[0056].) Therefore, Hodge discloses that the inmate records can comprise “*biometric data of the inmates.*”

60. The inmate records of Hodge also include “*contact information of third parties associated with the inmates.*” Hodge discloses that the call processing system “access[es] a list of telephone numbers that the inmate may not call.” (Hodge, ¶[0010].) These “blocked” telephone numbers are “*contact information*” belonging to individuals that the inmate is prohibited from contacting, particularly those that the inmate may threaten or harass: “For example, a convicted criminal would be blocked from ever calling his previous victims.” (Hodge, ¶[0328].)

61. In addition, Hodge discloses that an “inmate debit account may alternatively be controlled by the inmate’s family...The inmate’s family may add funds to the debit account and thereby control the call volume allowed to the inmate.” (Hodge, ¶[0007].) It would have been obvious to a person of ordinary skill in the art that where an inmate’s account is tied to a third party, information

about that third party (such as a billing or other contact address) would be stored in order to provide that third party with account and billing statements and other notifications.

62. I further note that it was well-known and routine to store the type of inmate data recited in claim 2 prior to the alleged July 12, 2007 priority date of the challenged claims. For example, the Federal BOP SENTRY system centrally stored and managed a wide-range of data about federal inmates including general inmate data, the financial responsibility of inmates (court-ordered financial obligations imposed on an inmate), inmate discipline (infraction of institution rules filed against an inmate) and sentence monitoring. (*See, e.g., SENTRY Audit Report, p. 2.*) The following figure depicts the inmate load and security designation data forms used to populate the SENTRY database. (*SENTRY Program Statement, p. 41.*) As highlighted in this figure, a centralized inmate record stored in SENTRY includes, among other data, the inmate's name, physical description of the inmate (height, weight, hair color, eye color), social security number of the inmate, offense/sentence, and severity of the offense. (*See, SENTRY Program Statement, pp. 26-41.*)

INMATE LOAD DATA				
1. REGISTER NUMBER				
2. LAST NAME		3. FIRST NAME		4. MIDDLE
6. RACE		7. SEX	8. ETHNIC ORIGIN	9. DATE OF BIRTH
10. OFFENSE/SENTENCE				
11. FBI NUMBER			12. SSN NUMBER	
13. STATE OF BIRTH		14. OR COUNTRY OF BIRTH		15. CITIZENSHIP
16. ADDRESS-STREET				
17. CITY		18. STATE		19. ZIP
21. HEIGHT FT. IN.		22. WEIGHT LBS.		23. HAIR COLOR
24. EYE COLOR		25. ARS ASSIGNMENT		
SECURITY DESIGNATION DATA				
1. JUDGE		2. REC FACILITY		3. REC PROGRAM
4. USM OFFICE				
5. VOLUNTARY SURRENDER STATUS      0 = NO      (-3) = YES IF YES, MUST INDICATE: 5a. VOLUNTARY SURRENDER DATE: _____ 5b. VOLUNTARY SURRENDER LOCATION: _____				
6. MONTHS TO RELEASE _____				
7. SEVERITY OF CURRENT OFFENSE      0 = LOWEST      3 = MODERATE      7 = GREATEST 1 = LOW MODERATE      5 = HIGH				
8. CRIMINAL HISTORY SCORE      0 = 0-1      4 = 4-6      8 = 10-12 2 = 2-3      6 = 7-9      10 = 13 +				
8a. SOURCE OF DOCUMENTED CRIMINAL HISTORY _____ - PRESENTENCE INVESTIGATION REPORT or _____ - NCIC III				
9. HISTORY OF VIOLENCE      NONE      >15 YEARS      10-15 YEARS      5-10 YEARS      <5 YEARS MINOR      0      1      1      3      5 SERIOUS      0      2      4      6      7				
10. HISTORY OF ESCAPE OR ATTEMPTS      NONE      >15 YEARS      >10 YEARS      5-10 YEARS      <5 YEARS MINOR      0      1      1      2      3 SERIOUS      0      3 (S)      3(S)      3(S)      3(S)				
11. TYPE OF DETAINEE      0 = NONE      3 = MODERATE      7 = GREATEST 1 = LOWEST/LOW MODERATE      5 = HIGH				
12. AGE      0 = 55 and over      4 = 25 through 35 2 = 36 through 54      8 = 24 or less				
13. EDUCATION LEVEL      0 = Verified High School Degree or GED 1 = Enrolled in and making satisfactory progress in GED Program 2 = No verified High School Degree/GED and not participating in GED Program				
13a. HIGHEST GRADE COMPLETED _____				
14. DRUG/ALCOHOL ABUSE      0 = Never/>5 Years      1 = <5 Years				
15. SECURITY POINT TOTAL _____				
16. PUBLIC SAFETY FACTORS      A-NONE      I-SENTENCE LENGTH (males only) B-DISRUPTIVE GROUP (males only)      K-VIOLENT BEHAVIOR (females only) C-GREATEST SEVERITY OFFENSE (males only)      L-SERIOUS ESCAPE F-SEX OFFENDER      M-PRISON DISTURBANCE G-THREAT TO GOVERNMENT OFFICIALS      N-JUVENILE VIOLENCE H-DEPORTABLE ALIEN      O-SERIOUS TELEPHONE ABUSE				
17. REMARKS				
18. OMDT REFERRAL (YES/NO) _____				

**B. Claim 5.**

63. Claim 5 (reproduced below) depends from claim 1. I understand the Board found claim 1 unpatentable over the combination of Spadaro and Hodge. Boykin discloses the subject matter recited in claim 5.

The system of claim 1, wherein said plurality of facilities comprise a mobile police station.

64. Boykin describes “an effective and efficient method for capturing, transmitting, and storing potential evidentiary video and related information in mobile environments.” (Ex. 1006, Boykin, 1:47-50.) In Boykin, a mobile server is also provided for “integrating and storing the captured information in the vehicle” as well as for “transmitting the captured information from the vehicle to a second location, such as a building.” (Boykin, 1:57-60.) Boykin describes many different mobile environments in which his system can be employed, including “police, fire, and rescue vehicles.” (Boykin, 2:15-17.) The ’260 patent acknowledges that a police vehicle is a mobile police station (*See, e.g.*, ’260 15:28-30.)

65. Further, a person of ordinary skill in the art would recognize that any type of facility could use and benefit from centralized data and call management systems. Essentially, so long as a particular facility is able to establish a viable connection with the centralized system, the centralized system will be capable of supporting that facility. In the above example, Boykin indicates that the mobile environment is capable of transmitting captured data to “a second location, such as a building.” A person of ordinary skill in the art would understand that this capability would equally enable the mobile environment to transmit the data to the centralized location, either directly or via the second location. Thus, adding a new

facility such as a squad car to the multiple facility infrastructure of Spadaro and Hodge (which rendered claim 1 obvious) would have merely used conventional technology for its intended purpose.

**C. Claim 8.**

66. Claim 8 depends from claim 7 which in turn depends from claim 1. I understand that the Board found claim 7 obvious over the combination of Spadaro and Hodge. Hodge discloses the subject matter recited in claim 7. Claim 7 is reproduced below.

The system of claim 1, wherein the inmate management system is further configured to control access to the inmate records based on logon information received from the computer terminals.

67. *“Control[ling] access to the inmate records based on logon information received from the computer terminals”* was well known long before the alleged priority date of the challenged claims. Using information provided at login (e.g., password) to control access to a computer system has been a standard way to secure computer systems for decades. (*See, e.g.,* Bellcore Notes on Networks, p. 5-11.) Bellcore stresses the importance of data security in its VOP architecture. (Bellcore 5-85, 86.) Hodge discloses an even more robust approach to data security: Hodge describes “[s]ystem administration software” for institution staff members to customize inmate records. (Hodge, ¶[0253].) However, “only

authorized staff members may have access to customize system settings, based on individual staff member security levels.” (Hodge, ¶[0253].) The staff member security levels may be “determined when a user first logs into the system...based upon username and the access level that has been set for each user name by a user manager.” The user logs into the system from a computer terminal. (Hodge, ¶[0253].) Hodge’s use of the combination of logon credentials and access levels is a technique to control access to the inmate records based on logon information received from the computer terminals.

68. Hodge also discloses the subject matter recited in claim 8 (reproduced below).

The system of claim 7, wherein the inmate management system further stores inmate accounts for charging fees to the third parties associated with the inmates for connecting calls placed by the inmates from the plurality of telephone terminals.

69. I note that claim 8 references “the third parties associated with the inmates.” The only previous recitation of “third parties associated with the inmates” is in claim 2. However, claim 7 does not depend directly or indirectly from claim 2.

70. The inmate management system of Hodge “*stores inmate accounts for charging fees to the third parties associated with the inmates for connecting calls*”

*placed by the inmates from the plurality of telephone terminals.”* Hodge discloses that software of his call processing system “can create a debit account for each user.” (Hodge, ¶[0052].) Payment for an inmate’s call is then “subtracted from the account after its completion.” (Hodge, ¶[0052].) Hodge further discloses that a third party can control account funds: “The inmate debit account may alternatively be controlled by the inmate’s family...The inmate’s family may add funds to the debit account and thereby control the call volume allowed to the inmate.” (Hodge, ¶[0007].)

71. Thus, the inmate accounts of Hodge charge fees to third parties associated with the inmate (e.g., family members). These fees are for connecting calls placed by the inmates.

**D. Claim 9.**

72. Hodge discloses the subject matter recited in claim 9 (reproduced below).

The system of claim 8, wherein the inmate accounts are charged for expenses incurred by said inmates for an activity other than placing the calls.

73. As I discussed above for claim 8, Hodge discloses inmate accounts that are charged for placing calls. In Hodge, “[i]n addition, or alternatively, an inmate

may be assigned a commissary account.” (Hodge, ¶[0006].) The commissary account acts as the “inmate’s general prison spending account.” (Hodge, ¶[0284].) Hodge explains that as the funds increase in the commissary account “the inmate may apply these funds to the cost of placing telephone calls.” (Hodge, ¶[0006].) Thus, in this embodiment, Hodge discloses inmate accounts that are charged for expenses incurred by said inmates for an activity other than placing the calls.

**E. Claim 11.**

74. Claim 11 (reproduced below) depends from independent claim 10. I understand that the Board found claim 10 unpatentable over the combination of Spadaro and Hodge. Hodge discloses the subject matter recited in claim 11.

The method of claim 10, wherein said first inmate information is received upon said inmate’s arrest.

75. I note that in the background section of the specification, the ’260 patent acknowledges that receiving information about an inmate upon the inmate’s arrest was known in the art. Specifically, “[t]he arresting officer may then complete some paperwork identifying the individual, describing the reason for arrest or detention.” (’260 patent 2:4-6.) Hodge also discloses this timing limitation.

76. Hodge discloses that the “*first inmate information is received upon the inmate’s arrest.*” Hodge discloses that “telephone communication systems in penal institutions provide an inmate **with a telephone account upon arrival.**” (Hodge, ¶[0007].)(emphasis added) Hodge discloses a centralized call processing system that is not limited to use in a prison facility, but also can be used to serve other types of facilities. (See Hodge, ¶[0002].) For example, Hodge discloses that his system can be used in any “controlled institutional environment” in which there is a “need to monitor, control, record and provide detailed records of the usage of a telephone system” such as “penal institutions, military institutions, hospitals, schools, businesses, or specific types of government institutions.” (Hodge, ¶[0002].) A police station, where a person is **arrested**, is such a controlled environment, and is also a government institution. Therefore, a person of ordinary skill in the art would have understood that existing inmate data management systems described in Spadaro, Hodge and the SENTRY documentation could be used to service a police station or other similar facility, and that a telephone account could be provided to a person upon his “arrival” (e.g., arrest) at that location. And, as even a lay person would appreciate, an inmate would have a great need for access to a telephone just after his or her arrest.

**F. Claim 12.**

77. Claim 12 (reproduced below) depends from independent claim 10. I understand the Board found claim 10 unpatentable over the combination of Spadaro and Hodge. Boykin discloses the subject matter recited in claim 12.

The method of claim 10, wherein said first facility comprises a mobile police station.

78. In Boykin, a mobile server is also provided for “integrating and storing the captured information in the vehicle” as well as for “transmitting the captured information from the vehicle to a second location, such as a building.” (Boykin, 1:57-60.) Boykin describes many different mobile environments in which his system can be employed, including “police, fire, and rescue vehicles.” (Boykin, 2:15-17.) A police vehicle is “*a mobile police station.*”

79. Further, a person of ordinary skill in the art would recognize that any type of facility could use and benefit from centralized data and call management systems. Essentially, so long as a particular facility is able to establish a viable connection with the centralized system, the centralized system will be capable of supporting that facility. In the above example, Boykin indicates that the mobile environment is capable of transmitting captured data to “a second location, such as a building.” A person of ordinary skill in the art would understand that this

capability would equally enable the mobile environment to transmit the data to the centralized location, either directly or via the second location. Thus, adding a new facility such as a squad car to the multiple facility infrastructure of Spadaro and Hodge (which rendered claim 1 obvious) would have merely used conventional technology for its intended purpose.

**G. Claim 14.**

80. Claim 14 (reproduced below) depends from independent claim 10. I understand that the Board found that claim 10 was obvious over the combination of Spadaro and Hodge. Hodge discloses the subject matter recited in claim 14 which depends from independent claim 10:

The method of claim 10, wherein said inmate record comprises at least one of physical description of the inmate, social security number of the inmate, driver's license number of the inmate, biometric data of the inmate, information related to arrest of the inmate, and contact information of third party associated with the inmate.

81. The inmate records of Hodge include "*biometric data of the inmate.*" Hodge discloses that "biometric data may be required to access the system." (Hodge, ¶[0056].) The biometric data "may be acquired from users...upon creation of a telephone account for use with the system" and "may be stored along with the

user's PIN in the user's account profile or another storage means to be used later as an authentication device.” (Hodge, ¶[0056].) Therefore, Hodge discloses that the inmate records can comprise “*biometric data of the inmate.*”

82. The inmate records of Hodge also include “*contact information of third party associated with the inmate.*” Hodge discloses that the call processing system “access[es] a list of telephone numbers that the inmate may not call.” (Hodge, ¶[0010].) These “blocked” telephone numbers are “*contact information*” belonging to individuals that the inmate is prohibited from contacting, particularly those that the inmate may threaten or harass: “For example, a convicted criminal would be blocked from ever calling his previous victims.” (Hodge, ¶[0328].)

83. In addition, Hodge discloses that an “inmate debit account may alternatively be controlled by the inmate's family...The inmate's family may add funds to the debit account and thereby control the call volume allowed to the inmate.” (Hodge, ¶[0007].) It would have been obvious to a person of ordinary skill in the art that where an inmate's account is tied to a third party, information about that third party (such as a billing or other contact address) would be stored in order to provide that third party with account and billing statements and other notifications.

84. I further note that it was well-known and routine to store the type of inmate data recited in claim 2 prior to the alleged July 12, 2007 priority date of the challenged claims. For example, SENTRY centrally stored and managed a wide-range of data about federal inmates including general inmate data, the financial responsibility of inmates (court-ordered financial obligations imposed on an inmate), inmate discipline (infraction of institution rules filed against an inmate) and sentence monitoring. (*See, e.g.*, SENTRY Audit Report, p. 2.) The following figure depicts the inmate load and security designation data forms used to populate the SENTRY database. (SENTRY Program Statement, p. 41.) As highlighted in this figure, a centralized inmate record stored in SENTRY includes, among other data, the inmate's name, physical description of the inmate (height, weight, hair color, eye color), social security number of the inmate, offense/sentence, and severity of the offense. (*See*, SENTRY Program Statement, pp. 26-41.)

#### **H. Claim 15**

85. Nguyen discloses the subject matter of claim 15. Claim 15 is reproduced below.

The method of claim 14, further comprising:

notifying said third party of said inmate's arrest based on the contact information.

86. Nguyen is directed to “a system and method for alerting the victims of the change of status of a defendant in the criminal justice system.” (Ex. 1007, Nguyen, 1:7-9.) Nguyen emphasizes the rights and protections of victims: “The rights of victims in the criminal justice system is receiving considerable attention today in the midst of a significant violent crime rate and early release of many offenders due to the over crowding of prisons.” (Nguyen, 1:10-13.)

87. Nguyen discloses that a “‘Registered Victim’ shall be **any person who has provided the system with his or her unique identifying communication address such as a telephone number or electronic address and selected a personal identifying number, i.e., a ‘PIN’.**” (Nguyen, 3:8-11.)(emphasis added) Thus, Nguyen anticipates the application of its notification system to any person that provides the system with their contact information. Providing a voice call notification to an individual such as a victim or other third party is just the application of conventional telecommunications technology for its usual and intended purpose. I note that the telecommunications network included capabilities to notify customers of events before July 12, 2007. (*See, e.g.*, Notes on Networks, pp. 5-12 through 14.) Therefore, a person of ordinary skill in the art would have found it obvious to apply Nguyen’s notification system to third parties who have an interest in the inmate’s status. It would further have been obvious to a person of ordinary skill in the art that family members of the inmate have a strong interest in

the status of their relative inmates. It would have been obvious to add such a notification to the centralized inmate management of Spadaro and Hodge as recited in independent claim 10, which was found unpatentable by the Board. Specifically, a POSITA would modify Hodge's central site server to provide notifications to third parties as taught by Nguyen because both solve related problems arising from the changing status of inmates. And a person of ordinary skill would have modified Hodge to provide the notification feature with a reasonable expectation of success, given that Hodge and Nguyen employ common, well-understood systems to achieve predictable results. Consequently, a person of ordinary skill in the art would have found it obvious to employ Nguyen's status notification system to update family members of the status of the inmate.

88. Nguyen describes that many different status changes can trigger victim notification: "Many states have passed legislation enacting the right of victims to be alerted to the early release **or other changes in status of defendants.**" (Nguyen, 1:13-16.)(emphasis added) Arrest of an inmate would easily have been understood by a person of ordinary skill in the art as constituting such "other changes in status" that would warrant notification to a victim. For example, the arrest of an inmate would require notification to the victim for the same reason as the inmate being released – the inmate's arrest has an appreciable impact on the

safety and/or well-being of the victim. Further, because Nguyen defines victims so as to encompass all who would provide their contact information, it would have been obvious to a person of ordinary skill in the art that other interested third parties (e.g., family members) would be suitable candidates for receiving inmate status notifications.

89. Nguyen further describes a “control station” that functions substantially similarly to Hodge’s central site server, by maintaining data records of various inmates: “The system itself includes a central processor or control station for storing in a data base information pertaining to a plurality of prison inmates and a plurality of victims.” (Nguyen, 1:55-58.) Upon being informed of the inmate’s change in status, the control station “automatically calls and informs the victim of the change.” (Nguyen, 2:3-5.)

#### **I. Claim 16.**

90. Claim 16 depends from Claim 14 which in turn depends from claim 10. I understand that the Board found claim 16 obvious over the combination of Spadaro and Hodge. Hodge discloses the subject matter recited in claim 16. Claim 16 is reproduced below.

The method of claim 14, further comprising:

establishing an inmate account for charging fees to the third party for connecting calls placed by the inmate associated with the inmate account.

91. The inmate management system of Hodge “*establish[es]an inmate accounts for charging fees to the third party for connecting calls placed by the inmate associated with the inmate account.*” As discussed above, Hodge discloses that software of his call processing system “can create a debit account for each user.” (Hodge, ¶[0052].) Payment for an inmate’s call is then “subtracted from the account after its completion.” (Hodge, ¶[0052].) Hodge further discloses that this account can be tied to a third party: “The inmate debit account may alternatively be controlled by the inmate’s family...The inmate’s family may add funds to the debit account and thereby control the call volume allowed to the inmate.” (Hodge, ¶[0052].)

**J. Claim 17.**

92. Hodge discloses the subject matter recited in claim 17 (reproduced below).

The method of claim 14, further comprising: charging said inmate account for an expense incurred by said inmate for an activity other than placing the calls.

93. As I discussed above for claim 8, Hodge discloses inmate accounts that are charged for placing calls. In Hodge, “[i]n addition, or alternatively, an inmate may be assigned a commissary account.” (Hodge, ¶[0006].) The commissary account acts as the “inmate’s general prison spending account.” (Hodge, ¶[0284].) Hodge explains that as the funds increase in the commissary account “the inmate may apply these funds to the cost of placing telephone calls.” (Hodge, ¶[0006].) Thus, in this embodiment, Hodge discloses inmate accounts that are charged for expenses incurred by said inmates for an activity other than placing the calls.

#### **K. Claim 18**

94. The combination of Hodge and Nguyen discloses the subject matter of claim 18. Claim 18 is reproduced below.

The method of claim 14, further comprising:

notifying said third party of transfer of the inmate from one facility of the multiple facilities to another facility of the multiple facilities; and

establishing another inmate account associated with said third party responsive to transferring the inmate to the other facility.

95. As discussed above, Nguyen describes that victims have “the right...to be alerted to the early release **or other changes in status of defendants.**” (Nguyen, 1:13-16.)(emphasis added) A transfer of an inmate would easily have

been understood by a person of ordinary skill in the art as constituting such “other changes in status” that would warrant notification to a victim. For example, a transfer of the inmate to a facility within the vicinity of his victim would require notification to the victim for the same reason as the inmate being released – the inmate’s status has an appreciable impact on the safety and/or well-being of the victim.

96. Further, Nguyen defines “victim” so as to encompass all who would provide their contact information. (*See* Nguyen, 3:7-11.) Thus, it would have been obvious to a person of ordinary skill in the art that other interested third parties (e.g., family members) would be suitable candidates for receiving inmate status notifications, either simply because they desire to be updated about their relative’s status, or because their safety and well-being may also be impacted depending on their relative’s status. Upon being informed of a change in status of a particular inmate, the control station “automatically calls and informs the victim of the change.” (Nguyen, 2:3-5.) Therefore, Nguyen discloses “*notifying said third party of transfer of the inmate from one facility of the multiple facilities to another facility of the multiple facilities.*”

97. In addition, Hodge discloses “establishing another inmate account associated with said third party responsive to transferring the inmate to the other

facility.” Although Hodge discloses that “[a] user must have a system account established in order to make telephone calls from a specific facility” (Hodge, ¶[0285]), Hodge states that “[w]hen an inmate is transferred from one facility to another, **only** the inmate’s account information, COS, and telephone lists are transferred to that facility.” (Hodge, ¶[0285].)(emphasis added) As discussed above in claim 2, in Hodge, an inmate’s family (third party) may “add funds” and “thereby control the call volume allowed to the inmate.” (Hodge, ¶[0007].) The transferred account information would include information associated with the family (third party). Thus, a person of ordinary skill in the art would recognize from Hodge that a new account will need to be made at the new facility, presumably based on the transferred account information.

## **VII. Conclusion**

98. In signing this declaration, I recognize that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I also recognize that I may be subject to cross-examination in the case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for cross-examination within the United States during the time allotted for cross-examination.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

Executed this 17th day of March 2017 in North Adelaide, South Australia.

Respectfully submitted

A handwritten signature in black ink, appearing to read "L. J. Forys". The signature is written in a cursive style with a large, sweeping initial "L".

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Leonard J. Forys