I. Comparison of Petition at pp. 15-20 with Declaration at ¶¶36-47

Petition at pp. 15-20	Caloyannides Declaration, EX1002 at ¶¶36-47
C. Ground 1: *Turner* anticipates claims 1, 2, 7, 27, 28, 29, 34, 54, 72, 73, 74, 92, 93 and 111 under 35 U.S.C. 102(b)	**~~C.~~A. Ground 1: *Turner* anticipates claims 1, 2, 7, 27, 28, 29, 34, 54, 72, 73, 74, 92, 93 and 111 under 35 U.S.C. § 102(b)**
Turner discloses a computerized method and system for routing calls between parties at different locations. EX1003, Abstract. Calling and called parties can be located on private networks such as Internet Protocol networks connected to a gateway, or on public networks such as a PSTN. EX1003, FIG. 1, EX1002 ¶ 36.	36. *Turner* discloses a computerized method and system for routing calls between parties at different locations. EX1003, Abstract. Calling and called parties can be located on private networks such as Internet Protocol networks connected to a gateway, or on public networks such as a PSTN. ~~EX1003~~*Id.*, FIG. 1~~, EX1002 ¶ 36~~. [...]
[...] A call agent receives a called address from an IP gateway associated with a caller, after the caller dials a number of a callee. EX1003 at 9:13-22. The addresses of the caller and callee are cross-translated and reformatted to be analyzed and compared. *Id.* at 9:22-30, EX1002 ¶ 37.	37. A call agent receives a called address from an IP gateway associated with a caller, after the caller dials a number of a callee. ~~EX1003~~ *Id.* at 9:13-22. The addresses of the caller and callee are cross-translated and reformatted to be analyzed and compared. ~~*Id.*~~EX1003 at 9:22-30~~,~~ ~~EX1002 ¶ 37~~.
The call agent then sends a query to a directory server for a caller profile that is associated with the caller, and the directory server retrieves the caller's profile. EX1003 at 22:9-15; FIG. 6, elements 602-606. The caller's profile includes information including, for example, an ID or customer address, preferences, user profile data. *Id.* at FIG. 3, EX1002 ¶ 38. [...]	38. The call agent then sends a query to a directory server for a caller profile that is associated with the caller, and the directory server retrieves the caller's profile. ~~EX1003~~ *Id.* at 22:9-15~~;~~, FIG. 6, ~~elements~~ 602-606. The caller's profile includes information including, for example, an ID or customer address, preferences, user profile data. *Id.* at FIG. 3~~, EX1002 ¶ 38~~. [...]
The user profile and linked network address object (data structure) include information associated with the	39. The user profile and linked network address object (data structure) include information associated with the

caller such as a customer address (CA) and network address (NA). EX1003 at 7:29-61. The network address and customer address include information such as a telephone number or number indicative of a location of the caller. *Id.* at 9:13-36, 10:25-53. For example, the CA and NA are indicative of a network in which the caller is located, a gateway associated with the caller, and/or a location of the caller. *Id.* The NA can be updated to reflect a current location if the caller roams to a new location. *Id.* at 22:2-8. Thus, the data stored and accessed by the Directory Server for a caller includes data associated with the caller (caller attributes) such as addresses and preferences. EX1002 ¶ 39.	caller such as a customer address (CA) and network address (NA). ~~EX1003~~ *Id.* at 7:29-61. The network address and customer address include information such as a telephone number or number indicative of a location of the caller. *Id.* at 9:13-36, 10:25-53. For example, the CA and NA are indicative of a network in which the caller is located, a gateway associated with the caller, and/or a location of the caller. *Id.* The NA can be updated to reflect a current location if the caller roams to a new location. *Id.* at 22:2-8. ~~Thus,~~This means the data stored and accessed by the Directory Server for a caller includes data associated with the caller (caller attributes) such as addresses and preferences. ~~EX1002 ¶ 39.~~
After retrieving the caller's profile, the call agent determines whether the called party is within the same gateway as the caller. EX1003 at 9:24-36. *Turner's* example discusses translating a called CA number to a NA, such as by translating "2002" to "313-555-2002." *Id.* The translated NA is then compared to the caller number (313-555-2001), and the call agent determines that the matching numbers ("333-555") indicate that the caller and callee are within the same gateway. *Id.*	40. After retrieving the caller's profile, the call agent determines whether the called party is within the same gateway as the caller. EX1003 at 9:24-36. *Turner's* example discusses translating a called CA number to a NA, such as by translating "2002" to "313-555-2002." *Id.* The translated NA is then compared to the caller number (313-555-2001), and the call agent determines that the matching numbers ("333-555") indicate that the caller and callee are within the same gateway. *Id.*
Another example from *Turner* discusses that a caller may dial a number (3001), and that the call agent may assign the NA identifying the caller as "313-555-2002." EX1003 at 10:25-48. The call agent then queries the Directory Server, which retrieves a user profile for the caller and translates the	41. Another example from *Turner* discusses that a caller may dial a number (3001), and that the call agent may assign the NA identifying the caller as "313-555-2002." EX1003 at 10:25-48. The call agent then queries the Directory Server, which retrieves a user profile for the caller and translates the

dialed number (3001) to a NA for the callee—in this example it is "709-555." *Id.* Based on the NA, the call agent recognizes the network locations of the caller and callee and recognizes that the called party is within the private network but is located on a different gateway. *Id.* Thus, the call agent determines matches between the numbers in the callee and caller information, as well as locations of the numbers based on stored information associated with the caller and callee numbers (e.g., attributes). EX1002 ¶ 41.	dialed number (3001) to a NA for the callee—in this example it is "709-555." *Id.* Based on the NA, the call agent recognizes the network locations of the caller and callee and recognizes that the called party is within the private network but is located on a different gateway. *Id.* ~~Thus, the~~The call agent, therefore, determines matches between the numbers in the callee and caller information, as well as locations of the numbers based on stored information associated with the caller and callee numbers (e.g., attributes). ~~EX1002 ¶ 41.~~
Based on the analysis of the NA and/or CA of the caller and the callee, as well as stored information associated with the NA and CA, the call agent of *Turner* determines whether the callee is within the same gateway as the caller and can be processed internally, such as a private network call. EX1002 ¶ 42. The call agent also determines whether the call is directed toward a callee on another gateway, such as a public network call. EX1003 at 9:30-36, FIG. 4A (portion reproduced to the right). Therefore, the call agent classifies the call as a private network call or a public network call. EX1002 ¶ 42.	42. Based on the analysis of the NA and/or CA of the caller and the callee, as well as stored information associated with the NA and CA, the call agent of *Turner* determines whether the callee is within the same gateway as the caller and can be processed internally, such as a private network call. ~~EX1002 ¶ 42.~~ The call agent also determines whether the call is directed toward a callee on another gateway, such as a public network call. EX1003 at 9:30-36, FIG. 4A (portion reproduced to the right). ~~Therefore~~Thus, the call agent of *Turner* classifies the call as a private network call or a public network call. ~~EX1002 ¶ 42.~~
In addition to the analysis of the CA and NA, the Directory Server analyzes the called address to identify codes or digits that are associated with the caller as being numbers for "private trunk network access" or "escape to the PSTN." EX1003 at 12:44-67. If the Directory Server recognizes such a code/digit, it returns the caller and callee	43. In addition to the analysis of the CA and NA, the Directory Server analyzes the called address to identify codes or digits that are associated with the caller as being numbers for "private trunk network access" or "escape to the PSTN." EX1003 at 12:44-67. If the Directory Server recognizes such a code/digit, it returns the caller and callee

numbers to the call agent, and the call agent recognizes the code/digit. *Id.* Then, the call agent sends a request to the appropriate gateway to route the call. *Id,* EX1002 ¶ 43. Once the call is classified as a public network call (e.g., internal gateway or IP network call) or a public network (e.g., PSTN) call, the call agent composes and sends gateway instructions to route the private network or public network call. EX1003 at 9:57-63, 10:12-22, 12:44-67, FIGS. 4B, 4C (reproduced below). [...] If the call can be processed internally and thus is classified as a private network call, the call agent sends setup instructions to the gateway, *id.* at FIG. 4B step 186, by composing a local IP address where the callee is located. *Id.* at 10:12-22. The call agent then sends the setup instructions to the gateway to route the call to the callee in the internal network. *Id.* If the call is classified as a public network call, such as a call that will be routed through the PSTN or to a PSTN destination, then the call agent sends instructions to the trunk gateway to set up the call using the PSTN. EX1003 at 9:57-63, 12:44-67, FIG. 4C step 193. [...]	numbers to the call agent, and the call agent recognizes the code/digit. *Id.* Then, the call agent sends a request to the appropriate gateway to route the call. *Id*~~, EX1002 ¶ 43~~. 44. Once the call is classified as a public network call (e.g., internal gateway or IP network call) or a public network (e.g., ~~PSTN~~PTSN) call, the call agent composes and sends gateway instructions to route the private network or public network call. EX1003 at 9:57-63, 10:12-22, 12:44-67, FIGS. 4B, 4C (reproduced below). [...] 45. If the call can be processed internally and thus is classified as a private network call, the call agent sends setup instructions to the gateway, *id.* at FIG. 4B step 186, by composing a local IP address where the callee is located. *Id.* at 10:12-22. The call agent then sends the setup instructions to the gateway to route the call to the callee in the internal network. *Id.* 46. If the call is classified as a public network call, such as a call that will be routed through the PSTN or to a PSTN destination, then the call agent sends instructions to the trunk gateway to set up the call using the PSTN. EX1003 at 9:57-63, 12:44-67, FIG. 4C step 193. [...]

II. Comparison of Petition at pp. 34-40 with Declaration at ¶¶48-59

Petition at pp. 34-40	Caloyannides Declaration, EX1002 at ¶¶48-59
D. Ground 2: *Kaczmarczyk* in view of *Turner* renders claims 1, 2, 7, 27, 28, 29, 34, 54, 72, 73, 74, 92, 93 and 111 obvious under 35 U.S.C. § 103(a) *Kaczmarczyk* discloses a call routing and signaling system that routes calls across different types of networks, such as calls from an IP network to a PSTN (public) network, or calls from a PSTN network to an IP network. EX1004, Abstract, 6:52-7:10, EX1002 ¶ 48. The system receives information for a call request (such as a number dialed) and translates the received information into a usable format. EX1004 at 6:62-7:10, 8:25-48. A call control engine then accesses tables stored in external databases and associated with the caller, such as a calling address attribute table, and route plan table. *Id.* at 7:47-59, FIG. 2B (reproduced below). [...] Using the accessed tables, the call control engine determines a call type and an appropriate route for the call. The call control engine locates the calling address in a calling address attribute table, and then "screens" the called address by comparing and analyzing the called address number to components from the calling address attribute table. *Id.* at 9:15-67, FIG. 4B (reproduced below), EX1002 ¶ 49. [...] To screen the called address	~~D.~~**B.** **Ground 2: *Kaczmarczyk* in view of *Turner* renders claims 1, 2, 7, 27, 28, 29, 34, 54, 72, 73, 74, 92, 93 and 111 obvious under 35 U.S.C. § 103(a)** 48. *Kaczmarczyk* discloses a call routing and signaling system that routes calls across different types of networks, such as calls from an IP network to a PSTN (public) network, or calls from a PSTN network to an IP network. EX1004, Abstract, 6:52-7:10~~, EX1002 ¶ 48~~. The system receives information for a call request (such as a number dialed) and translates the received information into a usable format. ~~EX1004~~ *Id.* at 6:62-7:10, 8:25-48. A call control engine then accesses tables stored in external databases and associated with the caller, such as a calling address attribute table, and route plan table. *Id.* at 7:47-59, FIG. 2B (reproduced below). [...] 49. Using the accessed tables, the call control engine determines a call type and an appropriate route for the call. The call control engine locates the calling address in a calling address attribute table, and then "screens" the called address by comparing and analyzing the called address number to components from the calling address attribute table. *Id.* at 9:15-67, FIG. 4B (reproduced below)~~, EX1002 ¶ 49~~. [...] 50. To screen the called address

number, the call control engine determines a call type based on comparing the called address to a "called digits analysis table," and attributes in the attributes tables. EX1004 at 9:41-53, FIG. 4B (right), 5A (portion reproduced below), EX1002 ¶ 50.	number, the call control engine determines a call type based on comparing the called address to a "called digits analysis table," and attributes in the attributes tables. EX1004 at 9:41-53, FIG. 4B (right), 5A (portion reproduced below)~~, EX1002 ¶ 50~~.
[...]	[...]
Based on the determined call type and analysis of attributes, the call control engine determines services available to the caller, and selects an appropriate route, such as routing a call from an IP network caller to a PSTN callee. EX1004 at 7:28-41, 9:53-67. Based on the selected route, the call routing and signaling system generates and sends instructions for routing the call through a media gateway to the PSTN. *Id.* at 6:62-7:10, 7:22-27, 8:42-48, 10:58-66, FIG. 4A (below), EX1002 ¶ 51. [...]	51. Based on the determined call type and analysis of attributes, the call control engine determines services available to the caller, and selects an appropriate route, such as routing a call from an IP network caller to a PSTN callee. EX1004 at 7:28-41, 9:53-67. Based on the selected route, the call routing and signaling system generates and sends instructions for routing the call through a media gateway to the PSTN. *Id.* at 6:62-7:10, 7:22-27, 8:42-48, 10:58-66, FIG. 4A (below)~~, EX1002 ¶ 51~~. [...]
Kaczmarczyk discloses routing calls across different networks such as from an IP network to a PSTN, or from a PSTN to an IP network. Therefore, *Kaczmarczyk* discloses routing calls from a private network to a public network, and vice versa. EX1002 ¶ 52. As *Kaczmarczyk's* disclosure focuses on techniques for signaling between IP networks and the PSTN, it is silent regarding routing calls in a private network, such as calls between individuals within an IP network. *Id.*	52. *Kaczmarczyk* discloses routing calls across different networks such as from an IP network to a PSTN, or from a PSTN to an IP network. ~~Therefore~~In other words, *Kaczmarczyk* discloses routing calls from a private network to a public network, and vice versa. ~~EX1002 ¶ 52. As *Kaczmarczyk's*~~Because *Kaczmarczyk's* disclosure focuses on techniques for signaling between IP networks and the PSTN, it is silent regarding routing calls in a private network, such as calls between individuals within an IP network.~~ *Id.*~~
Turner, a reference in an analogous art of trans-network call	53. *Turner,* as discussed above, is a reference in an analogous art of trans-

routing, cures the deficiencies of *Kaczmarczyk,* because *Turner* discloses the additional techniques of determining that a call is directed to a party within the same (i.e. private) network, and routing the call to the private network recipient. EX1002 ¶ 53. In particular, *Turner* discloses a call agent that receives a called address from an IP gateway associated with a caller, after the caller dials a number of a callee. *Id.* at 9:13-22. Similar to *Kaczmarczyk, Turner* discloses reformatting/translating the addresses of the caller, and then accessing a profile having information about the caller. *Id.* at 9:22-30, 22:9-15, FIG. 6, elements 602-606, FIG. 3, EX1002 ¶ 54. After retrieving the caller's profile, the call agent of *Turner* determines whether the called party is within the same gateway as the caller. EX1003 at 9:24-36. That is, based on the analysis of the NA and/or CA of the caller and the callee, as well as stored information associated with the NA and CA, the call agent of *Turner* determines whether the callee is within the same gateway as the caller and can be processed internally, such as a private network call. The call agent also determines whether the call is directed toward a callee on another gateway, such as a public network call. EX1003 at 9:30-36, FIG. 4A (portion reproduced to the right). Therefore, the call agent classifies the call as a private network call or a public network call. EX1002 ¶	network call routing~~,~~. *Turner* cures the deficiencies of *Kaczmarczyk,* because *Turner* discloses the additional techniques of determining that a call is directed to a party within the same (i.e. private) network, and routing the call to the private network recipient. ~~EX1002 ¶ 53.~~ 54. In particular, *Turner* discloses a call agent that receives a called address from an IP gateway associated with a caller, after the caller dials a number of a callee. *Id.* at 9:13-22. Similar to *Kaczmarczyk, Turner* discloses reformatting/translating the addresses of the caller, and then accessing a profile having information about the caller. *Id.* at 9:22-30, 22:9-15, FIG. 6, ~~elements~~ 602-606, FIG. 3~~,~~ ~~EX1002 ¶ 54~~. 55. After retrieving the caller's profile, the call agent of *Turner* determines whether the called party is within the same gateway as the caller. EX1003 at 9:24-36. ~~That is, based on the analysis of the NA and/or CA of the caller and the callee, as well as stored information associated with the NA and CA~~In other words, the call agent of *Turner* determines whether the callee is within the same gateway as the caller and can be processed internally, such as a private network call based on the analysis of the NA and/or CA of the caller and the callee, as well as stored information associated with the NA and CA. The call agent also determines whether the call is directed toward a callee on another gateway, such as a public network call. EX1003 at 9:30-36,

55. If the call can be processed internally and thus is classified as a private network call in the *Turner* system, the call agent sends setup instructions to the gateway, EX1004 at FIG. 4B step 186, by composing a local IP address where the callee is located. *Id.* at 10:12-22. The call agent then sends the setup instructions to the gateway to route the call to the callee in the internal network. *Id,* EX1002 ¶ 56. It would be have been obvious to POSA to combine *Kaczmarczyk's* trans-network call routing and signaling system with *Turner's* techniques for routing calls within a private network. EX1002 ¶ 57. Both *Turner* and *Kaczmarczyk* disclose call routing and signaling systems for both private and public communication networks, as demonstrated in the similarities between Figure 1 of *Turner:* [...] and FIG. 1 of *Kaczmarczyk:* [...] Furthermore, a POSA incorporating the features of *Turner* into the systems and methods of *Kaczmarczyk* would have expected the results to improve call management services in calls within a private network and calls that traverse between IP and public network. *See* EX1003 at 1:17-2:22, EX1002 ¶¶ 59, 60. [...]	FIG. 4A (portion reproduced to the right). ~~Therefore, the~~The call agent of *Turner,* therefore, classifies the call as a private network call or a public network call. ~~EX1002 ¶ 55.~~ 56. If the call can be processed internally and thus is classified as a private network call in the *Turner* system, the call agent sends setup instructions to the gateway, ~~EX1004~~*id.* at FIG. 4B step 186, by composing a local IP address where the callee is located. *Id.* at 10:12-22. The call agent then sends the setup instructions to the gateway to route the call to the callee in the internal network. *Id*~~, EX1002 ¶ 56~~. ~~It~~57. In my opinion, it would be have been obvious to POSA to combine *Kaczmarczyk's* trans-network call routing and signaling system with *Turner's* techniques for routing calls within a private network. ~~EX1002 ¶ 57.~~ Both *Turner* and *Kaczmarczyk* disclose call routing and signaling systems for both private and public communication networks, as demonstrated in the similarities between Figure 1 of *Turner:* [...] 58. and FIG. 1 of *Kaczmarczyk:* [...] ~~Furthermore, a~~59. A POSA, in my opinion, incorporating the features of *Turner* into the systems and methods of *Kaczmarczyk* would have expected the results to improve call management services in calls within a private network and calls that traverse between IP and public network. *See* EX1003 at 1:17-2:22~~, EX1002 ¶¶ 59, 60~~. [...]