

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

QUALIQUOTE, LLC,

Plaintiff,

v.

AVOLUTION, INC., and  
AVOLUTION PTY. LTD.,

Defendants.

Case No.

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

This is an action for patent infringement in which QualiQuote, LLC (“QualiQuote” or “Plaintiff”) makes the following allegations against Avolution, Inc. and Avolution Pty. Ltd. (collectively “Avolution” or “Defendant”).

**PARTIES**

1. Plaintiff QualiQuote is a Texas limited liability company with its principal place of business at 207-B North Washington Ave., Marshall, TX 75670.

2. On information and belief, Avolution, Inc. is a Virginia corporation with its principal place of business at 1934 Old Gallows Rd., Ste. 350, Vienna, VA 22182. On information and belief, Avolution, Inc. may be served with process by serving its registered agent, Corporation Service Company at Bank of America Center, 16<sup>th</sup> Fl., 1111 E, Richmond, VA 23219.

3. On information and belief, Avolution Pty. Ltd. is a corporation organized under the laws of Australia with its principal place of business at Level 6, 90 Mount St., North Sydney, NSW 2060, Australia. On information and belief, Avolution Pty. Ltd. may be served with

process at its principal place of business in the United States, Avolution, Inc., located at 1934 Old Gallows Rd., Ste. 350, Venna, VA 22182.

### **JURISDICTION AND VENUE**

4. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

5. Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). On information and belief, Avolution has transacted business in this district, and has committed acts of patent infringement in this district.

### **COUNT I INFRINGEMENT OF U.S. PATENT NO. 5,630,069**

6. Plaintiff is the owner by assignment of United States Patent No. 5,630,069 (“the ‘069 Patent”) entitled “Method and Apparatus for Creating Workflow Maps of Business Processes” – including all rights to recover for past and future acts of infringement. The ‘069 Patent issued on May 13, 1993. A true and correct copy of the ‘069 Patent is attached hereto as Exhibit A.

7. On information and belief, Avolution has been and now is infringing the ‘069 Patent in this judicial district, and elsewhere in the United States through its use of at least an business process management and workflow software suite. Acts of infringement by Avolution include, without limitation, utilizing computer based systems and methods for creating a representation of a business process and its associated workflows that include every element of at least one claim of the ‘069 Patent within the United States. Such infringing acts include methods, for example, such as those used by Avolution in executing its ABACUS software

(“Accused Methods”). Avolution is thus liable for infringement of the ‘069 Patent under 35 U.S.C. § 271.

8. Avolution infringes at least Claim 26 of the ‘069 Patent, by way of example only, and without limitation on QualiQode’s assertion of infringement by Avolution of other claims of the ‘069 Patent. Claim 26 of the ‘069 Patent reads as follows:

26. A computer based method for creating a representation of a business process and its associated workflows, said method comprising the steps of:

a) executing a computer program by a computer;

b) said program generating when said program is executed by said computer i) a component representation of at least a predetermined subset of said business process in terms of its workflows, ii) at least a predetermined subset of links between said workflows based upon a predetermined set of workflow rules, and iii) conditional links between said workflows, each of said conditional links including a conditional junction, an origin link between a source workflow and said conditional junction and at least one target link between said conditional junction and a corresponding number of target workflows.

9. Avolution practices through its Accused Methods at least “a computer based method for creating a representation of a business process and its associated workflows.” This is made clear by Avolution’s compliance with the Business Process Modeling Notations (BPMN) standards in its Accused Methods. Avolution has stated that its ABACUS platform “supports all of the major business modeling notations that are popular today including Business Process Modeling Notation (BPMN) 1.0, BPMN 2.0 and Event-driven Process Chains (EPC) – all out of the box.” See the Avolution Business Process Management Solutions webpage retrieved from <http://www.avolution.com.au/solutions/business-process-management>, a true and correct copy of which is attached as Exhibit B. The BPMN standard is described by OMG as “BPMN provides multiple diagrams, which are designed for use by the people who design and manage Business Processes. BPMN also provides a mapping to an execution language of BPM systems (WSBPPEL). Thus, BPMN would provide a standard visualization mechanism for Business

Processes defined in an execution optimized business process language. BPMN provides businesses with the capability of understanding their internal business procedures in a graphical notation and will give organizations the ability to communicate these procedures in a standard manner.” See the Business Process Model and Notation (BPMN) Specification from OMG Version 2.0 of January 2011 (“BPMN Spec.”) retrieved from <http://www.omg.org/spec/BPMN/2.0/PDF>, a true and correct copy of which is attached as Exhibit C, at page 51.

10. Avolution practices through its Accused Methods the first step of Claim 26, “executing a computer program by a computer.” Avolution must by necessity practice this step as its Accused Methods are described as “the ABACUS software is available via the cloud or installed locally on your PC within minutes and our Enterprise Servers are usually installed within hours.” See the Avolution Products webpage retrieved from <http://www.avolution.eu/products/>, a true and correct copy of which is attached as Exhibit D.

11. On information and belief, Avolution practices through its Accused Methods the next step of Claim 26, “said program generating when said program is executed by said computer i) a component representation of at least a predetermined subset of said business process in terms of its workflows.” As stated, the Accused Methods utilize the BPMN standard, the specification for which discloses how to represent, in the form of component representations (e.g. symbols), at least one business process in terms of its parts, including workflows. This is evidenced by the BPMN Spec. attached as Exhibit C. “[A] process describes a sequence or flow of Activities in an organization with the objective of carrying out work. In BPMN, a Process is depicted as a graph of Flow Elements, which are a set of Activities, Events, Gateways, and Sequence Flows that define finite execution semantics (see Figure 10.1).” BPMN Spec. at

Exhibit C, p. 145. In that same specification, Sequence Flow is defined as “[a] connecting object that shows the order in which activities are performed in a Process and is represented with a solid graphical line. Each Flow has only one source and only one target.” BPMN Spec. at Exhibit C, p. 502. Activity is defined as “[w]ork that a company or organization performs using business processes ... The types of activities that are part of a Process Model are: Process, Sub-Process and Task.” BPMN Spec. at Exhibit C, p. 499. And a Task is defined as, “[a]n atomic activity that is included within a Process. A Task is used when the work in the Process is not broken down to a finer level of Process Model detail. Generally, an end-user, an application, or both will perform the Task.” BPMN Spec. at Exhibit C, p. 502.

12. On information and belief, Avolution practices through its Accused Methods the next step of Claim 26, “ii) at least a predetermined subset of links between said workflows based upon a predetermined set of workflow rules.” Avolution practices this step using the BPMN standard, as the specification dictates that predetermined workflow rules determine the subset of links between workflows. See, for example, Figure 11.44 which illustrates an origin link from Task 1 into a decision point (conditional junction) and to two target links (condition 1 and condition 2). BPMN Spec. at Exhibit C, p. 357. The specification also states that “Choreographies MAY contain natural language descriptions of the Gateway’s Conditions to document the alternative paths of the Choreography (e.g., ‘large orders’ will go down one path while ‘small orders’ will go down another path).” BPMN Spec. at Exhibit C, p. 345 (emphasis in original), see also pp. 339-362. Further, “BPMNEdge represents a depiction of a relationship between two (source and target) BPMN model elements.” BPMN Spec. at Exhibit C, p. 375, see also, section 12 generally of the BPMN Spec. at Exhibit C, pp. 367-424.

13. On information and belief, Avolution practices through its Accused Methods the last step of Claim 26, “iii) conditional links between said workflows, each of said conditional links including a conditional junction, an origin link between a source workflow and said conditional junction and at least one target link between said conditional junction and a corresponding number of target workflows.” Avolution practices this step by using the BPMN standard, as the BPMN specification provides for conditional links in the form of an origin link, a conditional junction, and a target link. See for example Figure 11.44 which illustrates an origin link from Task 1 into a decision point (conditional junction) and to two target links (condition 1 and condition 2). BPMN Spec. at Exhibit C, p. 357. The specification also states that “Choreographies MAY contain natural language descriptions of the Gateway’s Conditions to document the alternative paths of the Choreography (e.g., ‘large orders’ will go down one path while ‘small orders’ will go down another path).” BPMN Spec. at Exhibit C, p. 345 (emphasis in original), see also pp. 339-362. Further, “BPMNEdge represents a depiction of a relationship between two (source and target) BPMN model elements.” BPMN Spec. at Exhibit C, p. 375, see also, section 12 generally of the BPMN Spec. at Exhibit C, pp. 367-424.

14. As a result of Avolution’s infringement of the ‘069 Patent, QualiCode has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made by Avolution of the invention, together with interest and costs as fixed by the court.

## COUNT II INFRINGEMENT OF U.S. PATENT NO. 5,734,837

15. Plaintiff is the owner by assignment of United States Patent No. 5,734,837 (“the ‘837 Patent”) entitled “Method and Apparatus for Building Business Process Applications in Terms of its Workflows” – including all rights to recover for past and future acts of

infringement. The '837 Patent issued on March 31, 1998. A true and correct copy of the '837 Patent is attached hereto as Exhibit E.

16. On information and belief, Avolution has been and now is infringing the '837 Patent in this judicial district, and elsewhere in the United States through its use of at least computer based systems and methods for building business process applications. Acts of infringement by Avolution include, without limitation, utilizing systems and methods for building business process applications that include every step of at least one claim of the '837 Patent within the United States. Such infringing acts include methods, for example, such as those used by Avolution in executing its ABACUS software ("Accused Methods"). Avolution is thus liable for infringement of the '837 Patent under 35 U.S.C. § 271.

17. Avolution infringes at least Claim 32 of the '837 Patent, by way of example only, and without limitation on QualiCode's assertion of infringement by Avolution of other claims of the '837 Patent. Claim 32 of the '837 Patent reads as follows:

32. A method for building business process applications utilizing a computer which executes a program, said method comprising the steps of:

a) creating a set of business process definitions for storage in a database and a set of business process applications for execution by a processor, said business process definitions and said business process applications for use with a business process and its associated workflows,

b) generating:

i) a component representation of at least a predetermined subset of said business process in terms of its workflows, and

ii) at least a predetermined subset of links between said workflows.

18. Avolution practices through its Accused Methods at least "a method for building business process applications utilizing a computer which executes a program" by its compliance with the Business Process Modeling Notations (BPMN) standards. Avolution has stated that its

ABACUS platform “supports all of the major business modeling notations that are popular today including Business Process Modeling Notation (BPMN) 1.0, BPMN 2.0 and Event-driven Process Chains (EPC) – all out of the box.” See the Avolution Business Process Management Solutions webpage at Exhibit B. The BPMN standard is described by OMG as “BPMN provides multiple diagrams, which are designed for use by the people who design and manage Business Processes. BPMN also provides a mapping to an execution language of BPM systems (WSBPEL). Thus, BPMN would provide a standard visualization mechanism for Business Processes defined in an execution optimized business process language. BPMN provides businesses with the capability of understanding their internal business procedures in a graphical notation and will give organizations the ability to communicate these procedures in a standard manner.” See the BPMN Spec. at Exhibit C, p. 51.

19. Avolution practices through its Accused Methods the first step of Claim 32, “creating a set of business process definitions for storage in a database and a set of business process applications for execution by a processor, said business process definitions and said business process applications for use with a business process and its associated workflows.” The specification for BPMN provides for this functionality by mapping the BPMN graphical models to WS-BPEL scripts for producing executable code using the BPMN BPEL Process Execution Conformance. See the BPMN Spec. at Exhibit C, p. 445. Avolution lists among the Product Features of ABACUS the ability to “Create a new project from over 100 different libraries” including BPMN, which can then be Exported to “BPMs: BPEL\*, XPD\*”. See the Avolution ABACUS Product Features webpage retrieved from [http://www.avolution.eu/product\\_features/](http://www.avolution.eu/product_features/), a true and correct copy of which is attached as Exhibit F. This makes it clear that Avolution’s



ABACUS platform utilizes BPMN BPEL Process Execution Conformance to enable BPMN models to be executed using the BPEL engine.

20. On information and belief, Avolution practices through its Accused Methods the next step of Claim 32, “generating: i) a component representation of at least a predetermined subset of said business process in terms of its workflows.” Avolution practices by using the BPMN standard, as the specification discloses how to represent, in the form of component representations (e.g. symbols), at least one business process in terms of its parts, including workflows. Specifically, the specification states that “a process describes a sequence or flow of Activities in an organization with the objective of carrying out work. In BPMN, a Process is depicted as a graph of Flow Elements, which are a set of Activities, Events, Gateways, and Sequence Flows that define finite execution semantics (see Figure 10.1).” BPMN Spec. at Exhibit C, p. 145. The specification defines Sequence Flow as “[a] connecting object that shows the order in which activities are performed in a Process and is represented with a solid graphical line. Each Flow has only one source and only one target.” BPMN Spec. at Exhibit C, p. 502. Activity is defined as “[w]ork that a company or organization performs using business processes ... The types of activities that are part of a Process Model are: Process, Sub-Process and Task.” BPMN Spec. at Exhibit C, p. 499. A Task is defined as, “[a]n atomic activity that is included within a Process. A Task is used when the work in the Process is not broken down to a finer level of Process Model detail. Generally, an end-user, an application, or both will perform the Task.” BPMN Spec. at Exhibit C, p. 502.

21. On information and belief, Avolution practices through its Accused Methods the final step of Claim 32, “ii) at least a predetermined subset of links between said workflows.” Avolution practices this step due to the nature of the Accused Methods utilized in implementing

the BPMN specification, as the BPMN specification provides for conditional links in the form of an origin link, a conditional junction, and a target link. See for example Figure 11.44 which illustrates an origin link from Task 1 into a decision point (conditional junction) and to two target links (condition 1 and condition 2). BPMN Spec. at Exhibit C, p. 357. See also “Choreographies MAY contain natural language descriptions of the Gateway’s Conditions to document the alternative paths of the Choreography (e.g., ‘large orders’ will go down one path while ‘small orders’ will go down another path).” BPMN Spec. at Exhibit C, p. 345 (emphasis in original), see also pp. 339-362. Further, “BPMNEdge represents a depiction of a relationship between two (source and target) BPMN model elements.” BPMN Spec. at Exhibit C, p. 375, see also, section 12 generally of the BPMN Spec. at Exhibit C, pp. 367-424.

22. As a result of Avolution’s infringement of the ‘837 Patent, QualiCode has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made by Avolution of the invention, together with interest and costs as fixed by the court.

### **COUNT III INFRINGEMENT OF U.S. PATENT NO. 6,058,413**

23. Plaintiff is the owner by assignment of United States Patent No. 6,058,413 (“the ‘413 Patent”) entitled “Method and Apparatus for Utilizing a Standard Transaction Format to Provide Application Platform and Medium Independent Representation and Transfer of Data for the Management of Business Process and Their Workflows” – including all rights to recover for past and future acts of infringement. The ‘413 Patent issued on May 2, 2000. A true and correct copy of the ‘413 Patent is attached hereto as Exhibit G.

24. On information and belief, Avolution has been and now is infringing the ‘413 Patent in this judicial district, and elsewhere in the United States through its use of at least

computer program for interfacing a workflow enabled application to a workflow system. Acts of infringement by Avolution include, without limitation, utilizing at least one computer program for interfacing a workflow enabled application to a workflow system that include every element of at least one system claim of the '413 Patent within the United States. Such infringing systems include, for example, those used by Avolution in executing its ABACUS software ("Accused Systems"). Avolution is thus liable for infringement of the '413 Patent under 35 U.S.C. § 271.

25. Avolution infringes at least Claim 1 of the '413 Patent, by way of example only, and without limitation on QualiCode's assertion of infringement by Avolution of other claims of the '413 Patent. Claim 1 of the '413 Patent reads as follows:

1. A computer program for interfacing a workflow enabled application to a workflow system comprising:

a) transporter means for i) receiving from said workflow enabled application incoming data and parsing said received data to extract from said received data workflow transaction information in a predetermined standard transaction format, said predetermined standard transaction format being adapted to address requirements of applications, platforms and medium independent representations and transfers of data related to business processes of said workflow system, and ii) sending to said workflow enabled application outgoing workflow transaction information which has been formatted in said predetermined standard transaction format;

b) transaction processor means for i) processing said workflow transaction information which has been received and parsed by said transporter means to prepare said workflow transaction information for sending to and use by an application program interface of said workflow system, and ii) processing workflow transaction information received from said application program interface of said workflow system for sending to said transporter means to prepare said received workflow transaction information for formatting into said predetermined standard transaction format, sending to and use by said workflow enabled application.

26. Avolution's Accused Systems comprise at least "a computer program for interfacing a workflow enabled application to a workflow system." Avolution's "ABACUS can reverse engineer application code and databases and forward-engineer to code, Business Process

Execution Language (BPEL).” See Avolution’s ABACUS Solution Architecture webpage available at <http://www.avolution.eu/solutions/solution-architecture>, a true and correct copy of which is attached as Exhibit H. Avolution’s Accused Systems, as a result of their compliance with the WS-BPEL standard, constitutes a computer program (including at least a business orchestration server) that interfaces and controls services, also referred to as partners, each of which constitute a workflow enabled application. See page 8 of OASIS’s April 11, 2007 version of the WS-BPEL v. 2.0 specification (“BPEL Spec.”) retrieved from <http://docs.oasis-open.org/wsbpel/2.0/OS/wsbpel-v2.0-OS.html>, a true and correct copy of which is attached as Exhibit I.

27. Avolution’s Accused Systems comprise the first element of Claim 1, “transporter means for i) receiving from said workflow enabled application incoming data and parsing said received data to extract from said received data workflow transaction information in a predetermined standard transaction format, said predetermined standard transaction format being adapted to address requirements of applications, platforms and medium independent representations and transfers of data related to business processes of said workflow system.” The Accused Systems as a result of their compliance with the WS-BPEL standard require all communications between a WSDL partner and the business process orchestration server specify at least a partnerlink name or “transaction identifier,” transaction types (e.g. “invoke” or “request”) and variables that are acted upon. See BPEL Spec. at Exhibit I, pp. 18, 21-23 and 24-29. Avolution’s Accused Systems must by necessity parse data from the workflow enabled applications (WSDL partners) to extract at least the above described data. Further, on information and belief, Avolution’s Accused Systems must utilize at least one messaging format

which is platform independent and adapted to address the requirements of the applications that use it, such as SOAP or a similar messaging format.

28. Avolution's Accused Systems also comprise the next element of Claim 1, "ii) sending to said workflow enabled application outgoing workflow transaction information which has been formatted in said predetermined standard transaction format." Just as the Accused Systems' orchestration server(s) parses data from workflow enabled applications (WSDL partners) to extract the above described data, Avolution's Accused Systems must also format the above described data for transmission (using a platform independent format such as SOAP) to workflow enabled applications. See BPEL Spec. at Exhibit I, pp. 18, 21-23 and 24-29.

29. Avolution's Accused Systems also comprise the next element of Claim 1, "transaction processor means for i) processing said workflow transaction information which has been received and parsed by said transporter means to prepare said workflow transaction information for sending to and use by an application program interface of said workflow system." Avolution's ABACUS is software installed on client computers and servers. This shows that, by necessity, every computer utilizing Avolution's Accused Systems at any level must have at least one processor to handle transactions. The processor(s) of Avolution's Accused Systems are connected to at least the Accused Systems' orchestration server and are used to process the workflow transaction information to prepare it for sending to and use by an application program interface of Avolution's Accused Systems. Further, the central purpose of the Accused Systems' WS-BPEL compliant business process orchestration server, as described in the WS-BPEL standard, is to receive data (including workflow transaction information) from one WSDL partner, prepare it (such as performing necessary routing or other processing) and send it to the appropriate next WSDL partner. See BPEL Spec. at Exhibit I, pp. 33-34. See also

the BPEL Spec. at Exhibit I's basic activities described in section 10 (pp. 84-97) and the structure activities described in section 11 (pp. 98 to 114).

30. Avolution's Accused Systems also comprise the last element of Claim 1, "ii) processing workflow transaction information received from said application program interface of said workflow system for sending to said transporter means to prepare said received workflow transaction information for formatting into said predetermined standard transaction format, sending to and use by said workflow enabled application." In addition to preparing the transaction information to be sent to and used by application programs, the processor(s) of the computers connected to Avolution's Accused Systems' orchestration server(s) are also used to process workflow transaction information for formatting into the predetermined standard data format, such as SOAP, to be sent to workflow enabled applications. See BPEL Spec. at Exhibit I, pp. 33-34. See also the BPEL Spec. at Exhibit I's basic activities described in section 10 (pp. 84-97) and the structure activities describes in section 11 (pp. 98 to 114).

31. As a result of Avolution's infringement of the '413 Patent, QualiCode has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made by Avolution of the invention, together with interest and costs as fixed by the court.

**COUNT IV**  
**INFRINGEMENT OF U.S. PATENT NO. 6,073,109**

32. Plaintiff is the owner by assignment of United States Patent No. 6,073,109 ("the '109 Patent") entitled "Computerized Method and System for Managing Business Processes Using Linked Workflows" – including all rights to recover for past and future acts of infringement. The '109 Patent issued on June 6, 2000. A true and correct copy of the '109 Patent is attached hereto as Exhibit J.

33. On information and belief, Avolution has been and now is infringing the ‘109 Patent in this judicial district, and elsewhere in the United States through its use of at least a computer system and method for managing a plurality of business processes. Acts of infringement by Avolution include, without limitation, utilizing at least one computer system and method for managing a plurality of business processes that include every element of at least one system claim of the ‘109 Patent within the United States. Such infringing acts include for example, those used by Avolution in executing its ABACUS software (“Accused Systems”). Avolution is thus liable for infringement of the ‘109 Patent under 35 U.S.C. § 271.

34. Avolution infringes at least Claim 1 of the ‘109 Patent, by way of example only, and without limitation on QualiCode’s assertion of infringement by Avolution of other claims of the ‘109 Patent. Claim 1 of the ‘109 Patent reads as follows:

1. A computer system for managing a plurality of business processes, each business process having a business process definition with a plurality of linked workflows, each workflow having a corresponding workflow definition, said workflow definition representing commitments that a user having a predetermined role makes and completes to satisfy a customer of the workflow comprising:

a) workflow server means for providing services to workflow enabled applications that allow users to act taking one of a plurality of available acts defined in one of said business processes, said workflow server means including a transaction manager providing for each of said business processes:

transaction services for

1. receiving instructions to initiate and initiating workflows of said business processes;

2. taking actions in said workflow initiated business processes;

3. updating and maintaining workflow status after each act is taken in each of said initiated workflows of said business process and keeping track of pending workflow activities, wherein said taken act is one of an act of a user and an act automatically taken by the transaction manager based on said business process definition and said workflow definition of a predetermined one of said workflows of said business process, wherein said workflow status represents all acts that are pending for said user having a predetermined role in said initiated workflow;

4. making available to said workflow enables applications available business processes that a predetermined one of said workflow enabled applications can initiated and specifying available acts that a user of said predetermined workflow enabled application can take in each of the initiated workflows of each of the available business processes;

b) database means for storing records of business process transactions.

35. Avolution's Accused Systems comprise at least "a computer system for managing a plurality of business processes, each business process having a business process definition with a plurality of linked workflows, each workflow having a corresponding workflow definition, said workflow definition representing commitments that a user having a predetermined role makes and completes to satisfy a customer of the workflow." Avolution's "ABACUS can reverse engineer application code and databases and forward-engineer to code, Business Process Execution Language (BPEL)." See Avolution's ABACUS Solution Architecture webpage at Exhibit H. Avolution's Accused Systems, based upon their compliance with the WS-BPEL standard, are built around the concept of business processes being comprised of constituent "partners," each of which have a "role" in completing the business process. BPEL Spec. at Exhibit I, p. 8. In Avolution's Accused Systems, each business process is defined by interdependently acting services or partners (linked workflows), where each such service or partner has a role (e.g. shipping partner, invoicing partner, scheduling partner) and, in the context of that role, provides certain data processing outputs (commitments) necessary to satisfy the entity which kicked off that particular process (customer).

At the core of the WS-BPEL process model is the notion of peer-to-peer interaction between services described in WSDL; both the process and its partners are exposed as WSDL services. A business process defines how to coordinate the interactions between a process instance and its partners. In this sense, a WS-BPEL process definition provides and/or uses one or more WSDL services, and provides the description of the behavior and interactions of a process instance relative to its partners and resources through Web Service interfaces. ... In particular, a WS-BPEL process represents all partners and interactions with these partners in terms of abstract WSDL interfaces.



BPEL Spec. at Exhibit I, p. 11.

36. Avolution's Accused Systems comprise the first element of Claim 1, "workflow server means for providing services to workflow enabled applications that allow users to act taking one of a plurality of available acts defined in one of said business processes, said workflow server means including a transaction manager providing for each of said business processes." Avolution's Accused Systems, in compliance with the WS-BPEL standard, provides for at least one orchestrating server which provides the workflow server means for providing services to the workflow enables applications, which allow users to act by taking one of the available acts defined in the business processes. This orchestrating server provides data and controls the processing logic to partner links (an example of providing services to workflow enables applications). Avolution's Accused Systems' orchestrating server is essential to enabling each partner (used) to take action as part of, and as required by, the business process. The Accused Systems include "partner links" and requires "at least one role" to be "specified." BPEL Spec. at Exhibit I, p. 21-23. "The <variables> section defines the data variables used by the process, providing their definitions in terms of WSDL message types, XML Schema types (simple or complex), or XML Schema elements. Variables allow processes to maintain state between message exchanges." BPEL Spec. at Exhibit I, p. 18. See also the list of all of the transaction types or "activities" which could make up a business process, along with the statement of the requirement that "[e]ach business process [have] one main activity." BPEL Spec. at Exhibit I, p. 24.

37. Avolution's Accused Systems also comprise the next element of Claim 1, "transaction services for 1. receiving instructions to initiate and initiating workflows of said business processes." Any implementation of the WS-BPEL standard, including Avolution's

Accused System, must by necessity have a component, or set of components, that function as a transaction manager to provide each of the following services. Partner links may, as an example, be initiated by an “invoke” command. BPEL Spec. at Exhibit I, p. 25. For Avolution’s Accused Systems to initiate the partner links, it must receive the “invoke” instruction to initiate, then actually initiate the workflows of the business processes.

38. Avolution’s Accused Systems also comprise the next element of Claim 1, “2. taking actions in said workflow initiated business processes.” Avolution’s Accused Systems include transaction services to enable actions in the workflow initiated business processes. Other commands constitute “actions” that can be taken in the workflow initiated business processes, including “receive,” “reply,” “invoke,” “assign,” “throw,” “exit,” “wait” and many others. See BPEL Spec. at Exhibit I, p. 24.

39. Avolution’s Accused Systems also comprise the next element of Claim 1, “3. updating and maintaining workflow status after each act is taken in each of said initiated workflows of said business process and keeping track of pending workflow activities, wherein said taken act is one of an act of a user and an act automatically taken by the transaction manager based on said business process definition and said workflow definition of a predetermined one of said workflows of said business process, wherein said workflow status represents all acts that are pending for said user having a predetermined role in said initiated workflow.” The Accused Systems include transaction services to enable updating and maintain workflow status after each act is taken in each of the workflows and keeping track of pending workflow activities. For Avolution’s Accused Systems to comply with the WS-BPEL standard, at least the business process orchestration server must be state aware and track acts taken or pending using variables. “The WS-BPEL process defines how multiple service interactions with these partners are

coordinated to achieve a business goal, as well as the state and the logic necessary for this coordination.” BPEL Spec. at Exhibit I, p. 8. “WS-BPEL business processes represent stateful long-running interactions in which each interaction has a beginning, defined behavior during its lifetime, and an end.” BPEL Spec. at Exhibit I, p. 33.

Business processes specify stateful interactions involving the exchange of messages between partners. The state of a business process includes the messages that are exchanged as well as intermediate data used in business logic and in composing messages sent to partners. The maintenance of the state of a business process requires the use of variables. Furthermore, the data from the state needs to be extracted and combined in interesting ways to control the behavior of the process, which requires data expressions. ... Variables provide the means for holding messages that constitute a part of the state of a business process. The messages held are often those that have been received from partners or are to be sent to partners.

BPEL Spec. at Exhibit I, p. 45. Avolution’s Accused Systems must, to comply with the WS-BPEL standard, necessarily provide that the business process orchestration server be programmed to take actions based on the data received from the WSDL partners (users or workflow components) and the structure of the overall business process definition, as described above.

40. Avolution’s Accused Systems also comprise the next element of Claim 1, “4. making available to said workflow enabled applications available business processes that a predetermined one of said workflow enabled applications can initiate and specifying available acts that a user of said predetermined workflow enabled application can take in each of the initiated workflows of each of the available business processes.” The Accused Systems make available to workflow enabled applications available business processes that predetermined workflow enabled applications can initiate, in addition to specifying available acts that a user of the workflow enabled applications can take in each of the initiated workflows of each of the available business processes. Avolution’s Accused Systems must, to comply with the WS-BPEL

standard, provide that the orchestrating server has instructions which define what actions can be taken by a given partner link in the overall business process. Further, the orchestration server must make available to the partner links (workflow enabled applications) actions that a workflow enabled application can initiate and take in each available business process, as described above. See exemplary code in Section 5.1 of the BPEL Spec. at Exhibit I, including the code at pp. 16-18. See also the list of WS-BPEL activities in the BPEL Spec. at Exhibit I, p. 24.

41. Avolution's Accused Systems also comprise the last element of Claim 1, "b) database means for storing records of business process transactions." Avolution lists databases that its Accused Systems can import from as including "MS Access, MS SQL Server, CA ErWn\*, IBM DB2\*, Oracle\*, MySQL\*". See the Avolution ABACUS Product Features webpage at Exhibit F.

42. As a result of Avolution's infringement of the '109 Patent, QualiCode has suffered monetary damages and is entitled to a money judgment in an amount adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made by Avolution of the invention, together with interest and costs as fixed by the court.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests that this Court enter a judgment:

1. In favor of Plaintiff that Defendant has infringed the '069, '837, '413 and '109 Patents;
2. Requiring Defendant to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for Defendant's infringement of the '069, '837, '413 and '109 Patents as provided under 35 U.S.C. § 284;

3. Finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees; and

4. Granting Plaintiff any and all other relief to which Plaintiff may show itself to be entitled.

**DEMAND FOR JURY TRIAL**

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: February 24, 2014

Respectfully submitted,

/s/ Todd Y. Brandt

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