**(1) Charter of the Technical Committee**

**(a) Name of the TC**

OASIS Advanced Message Queuing Protocol (AMQP) Bindings and Mappings Technical Committee (TC).

**(b) Statement of Purpose**

The purpose of the AMQP Bindings and Mappings TC is to define bindings of AMQP 1.0 core protocol [1] to underlying transports other than TCP, to define mappings of the AMQP 1.0 core protocol to existing well-known programming APIs, and mapping of the AMQP message format to other representations. A binding of AMQP to an alternative transport MUST preserve the semantics associated with the performatives defined in the core AMQP specification, and MUST preserve the encoding of AMQP messages. A mapping of the core AMQP protocol to a Programming API MUST NOT rely on any extensions to the AMQP core specification, except through the use of the defined extension capability registries. Any such extensions SHOULD be kept to a minimum, and MUST be generally meaningful and not restricted to the use of the given API mapping.

**(c) Scope of Work**

The TC will accept as input relevant technical contributions and will produce an OASIS Standard version of the AMQP binding and mappings specifications (JMS, WCF, SOAP, SCTP, and WebSockets bindings).

Features of the AMQP JMS mapping include:

* Define a mapping between the JMS API v1.1 and the AMQP v1.0 involving:
	+ Provide a standard mapping between JMS and AMQP types.
	+ Provide a standard mapping between the JMS Message model and the AMQP message model.
	+ Define which extensions capabilities (if any) to the core AMQP specification are necessary for an AMQP container to act as a full JMS Message Provider to any JMS client written in accordance with the AMQP JMS Mapping specification.

Features of the AMQP WCF mapping include:

* Define a mapping between the WCF channel model and AMQP v1.0. This includes:
	+ Mapping between the .NET and AMQP type systems
	+ Mapping between the WCF Message and the AMQP Message. This includes a mechanism to expose AMQP Message Headers and Properties via the WCF Message.
	+ Mapping between the WCF API concepts (Channel, ChannelFactory, ChannelListener etc.) and AMQP concepts (Connection, Sessions, Links).
	+ Mapping transaction and grouping semantics between the .NET programming model and the AMQP capabilities.

Features of the AMQP SOAP mapping include:

* TBD

Features of the AMQP SCTP binding include:

* Binding of AMQP connection semantics to SCTP
* Wire format definition for AMQP frames on a SCTP connection
* The relationship between AMQP channels and SCTP streams

Features of the AMQP WebSockets binding include:

* Binding of AMQP connection semantics to WebSockets
* Wire format definition for AMQP frames on a WebSocket connection
* The relationship between the core AMQP security model, and the authentication mechanisms associated with an HTTP session.

Out of scope: Any feature not mentioned in the Scope of Work section is deemed to be out of scope. Contributions to this TC which are out of scope for this charter may be accumulated and taken into consideration for potential development of a charter for another technical committee that may be created to address future extensions or modifications.

The TC shall conduct business as described in the [OASIS Technical Committee Process](http://www.oasis-open.org/committees/process.php) and will take advantage of the services provided by OASIS, including e-mail lists and archives, and web servers for tracking progress. E-mail archives will be visible to the public.

**(d) Deliverables**

The TC shall produce the OASIS Standard versions of the AMQP binding and mapping specifications (JMS, WCF, SOAP, SCTP, and WebSockets bindings) before July 2013. Following that, the TC may advance the OASIS Standard version of the aforementioned specifications to ISO/IEC JTC 1 through the JTC 1 PAS Transposition Process.

Maintenance:

Once the TC has successfully produced the deliverables, the TC will enter into a maintenance mode.

The purpose of the maintenance mode is to provide minor revisions to previously adopted deliverables, in order to clarify ambiguities, inconsistencies, and obvious errors.  The maintenance mode will not functionally enhance a previously adopted deliverable, or extend its functionality.

The TC will collect issues raised against the deliverables and periodically process those issues. Issues that require extended or enhanced functionality shall be recorded and set aside for potential development of a charter for another technical committee that may be created to address them. Issues that result in the clarification or non-substantive correction of the deliverables shall be processed. The TC shall maintain a list of the adopted clarifications and shall create a new minor revision of the deliverables incorporating those adopted clarifications.

**(e) IPR Mode**

This TC will operate under RF on RAND Terms IPR mode as defined in the [OASIS Intellectual Property Rights (IPR) Policy](http://www.oasis-open.org/who/intellectualproperty.php) effective 15 October 2010.

**(f) Anticipated Audience**

The anticipated audience for this work includes:

* Business messaging users
* Business messaging middleware vendors

**(g) Language**

TC business will be conducted in English.

**References**

[1] Advanced Message Queuing Protocol (AMQP) v1.0 Final
<https://www.amqp.org/resources/download> - This link contains the latest version; the final version is expected soon.

**(2) Non-normative information regarding the startup of the TC**

**(a) Similar Work**

Some of the existing messaging protocol standards include ebXML, Web Services Reliable Exchange (WS-RX), and XMPP. Those messaging protocols define bindings to various other protocols and APIs.

Some of the defining characteristics of AMQP as compared to those protocols are:

* It is a binary protocol that operates directly over TCP (instead of over HTTP).
* It incorporates efficient binary encodings of the protocol (as opposed to XML).

Some of the general characteristics of AMQP are:

* It is API agnostic, but has been designed for integration into existing mainstream messaging and integration technologies including Java Message Service and Microsoft Windows Communication Foundation, so that interoperability between them is possible.
* It has been designed to be used with a broker; providing a safe place to exchange messages with 3rd party systems, and to store and forward messages when the recipient is unavailable.
* It brings together frequently used combinations of message exchange patterns in one protocol (asynchronous publish/subscribe and direct delivery patterns such as queuing) that incorporates message level flow control.

In summary, AMQP sets out to provide efficient, high performance, internet scale business messaging. This translates into: a reliable binary transport for sending and receiving messages over WAN and LAN, that integrates with existing messaging products, but can scale to the needs of modern environments such as "cloud applications". Given the diverse environments AMQP can be used, it is necessary to define AMQP bindings for other protocols and APIs used in those environments.

**(b) Date, Time, and Location of First Meeting**

The first meeting of the AMQP Bindings TC will be a face-to-face meeting to be held in TBD on January TBD, 2012 from 9 AM ET to 5 PM ET. This meeting will be sponsored by TBD.

**(c) On-Going Meeting Plans & Sponsors**

It is anticipated that the AMQP Bindings TC will meet via teleconference every week for 60 minutes at a time determined by the TC members during the TC's first meeting. It is anticipated that the AMQP Bindings TC will meet face-to-face every 2-3 months at a time and location to be determined by the TC members. The actual pace of face-to-face and teleconference meetings will be determined by the TC members. One of the proposers, as listed below, will sponsor the teleconferences unless other TC members offer to donate their own facilities.

**(d) Proposers of the TC**

John O’Hara, john.ohara1@baml.com, Bank of America

Abbie Barbir, abbie.barbir@bankofamerica.com, Bank of America

Andreas Moravec, andreas.moravec@deutsche-boerse.com, Deutsche Börse AG

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Matthew Arrott, marrott@novgp.com, Individual Member

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Paul Fremantle, paul@wso2.com, WSO2

**(e) Statement of Support**

Abbie Barbir, abbie.barbir@bankofamerica.com, Bank of America – As the OASIS Primary Representative for Bank of America, I am pleased to offer our support for the creation of the OASIS AMQP Bindings Technical Committee.

Andreas Moravec, andreas.moravec@deutsche-boerse.com, Deutsche Börse AG – As the Primary Representative for Deutsche Börse AG, I am pleased to offer our support for the creation of this Technical Committee.

Andreas Mueller, am@iit.de, IIT Software GmbH – As the Primary Representative for IIT Software GmbH, I am pleased to offer our support for the creation of this Technical Committee.

Angus Telfer, angus.telfer@inetco.com, INETCO Systems Ltd. – As the Primary Representative for INETCO, I am pleased to offer our support for the creation of this Technical Committee.

Allan Beck, allan.beck@jpmorgan.com, JPMorgan Chase Bank N.A – As the Primary Representative for JPMorgan Chase Bank, I am pleased to offer our support for the creation of this Technical Committee.

John Fallows, john.fallows@kaazing.com, Kaazing – As Primary Representative for Kaazing, I am pleased to offer our strong support for the creation of this Technical Committee.

Ram Jeyaraman, ram.jeyaraman@microsoft.com, Microsoft – As the Primary Representative for Microsoft, I am pleased to offer our support for the creation of this Technical Committee.

Alexandros Kritikos, alex.kritikos@my-channels.com, my-Channels – As the Primary Representative for my-Channels, I am pleased to offer our support for the creation of the OASIS AMQP Bindings Technical Committee.

Jaime Meritt, jmeritt@progress.com, Progress Software – As the Primary Representative for Progress Software, I am pleased to offer our support for the creation of the OASIS AMQP Bindings Technical Committee.

Mark Little, mlittle@redhat.com, Red Hat – As the Primary Representative for Red Hat, I offer our support for the creation of this Technical Committee.

Prasad Yendluri, prasad.yendluri@softwareag.com, Software AG – As the Primary Representative for Software AG, I am pleased to offer our support for the creation of this Technical Committee.

Ross Cooney, ross.cooney@stormmq.com, StormMQ Limited – As the Primary Representative for StormMQ Limited, I am pleased to offer our support for the creation of this Technical Committee.

Winston Bumpus, wbumpus@vmware.com, VMware, Inc. – As Primary Representative for VMware, Inc., I am pleased to offer our strong support for the creation of this Technical Committee.

Paul Fremantle, paul@wso2.com, WSO2 – As Primary Representative for WSO2, I am pleased to offer WSO2's strong support for the creation of this Technical Committee.

**(f) TC Convener**

The TC Convener for the first meeting will be Angus Telfer from INETCO Systems Ltd.

**(g) Affiliation to Member Section**

It is intended that the AMQP Bindings TC will be affiliated with the AMQP Member Section.

**(h) List of anticipated contributions**

TBD

**(i) Frequently Asked Questions (FAQ) relating to the planned scope of the TC**

None

**(j) Proposed working title and acronym for the specification(s) to be developed by the TC**

None