AMQP as a Message Oriented Middleware(MOM)

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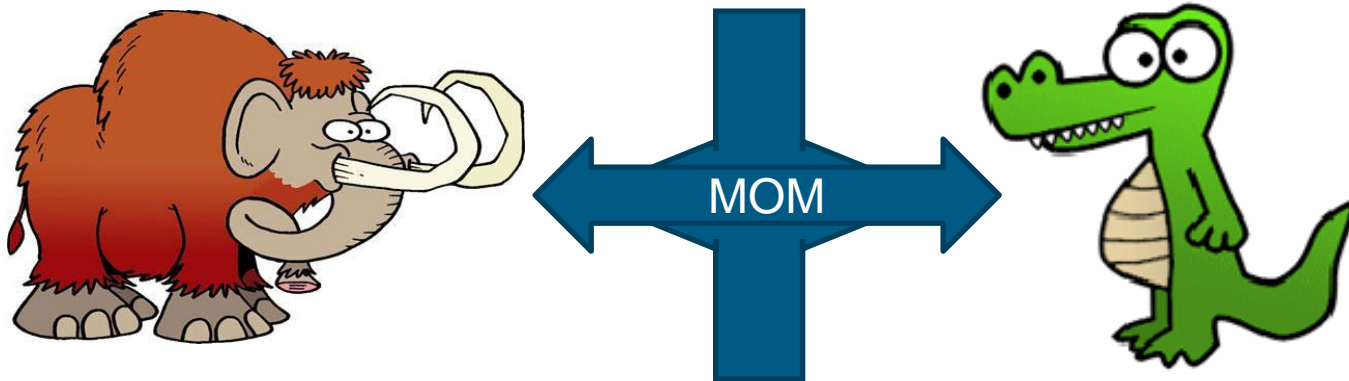
INTRODUCTION
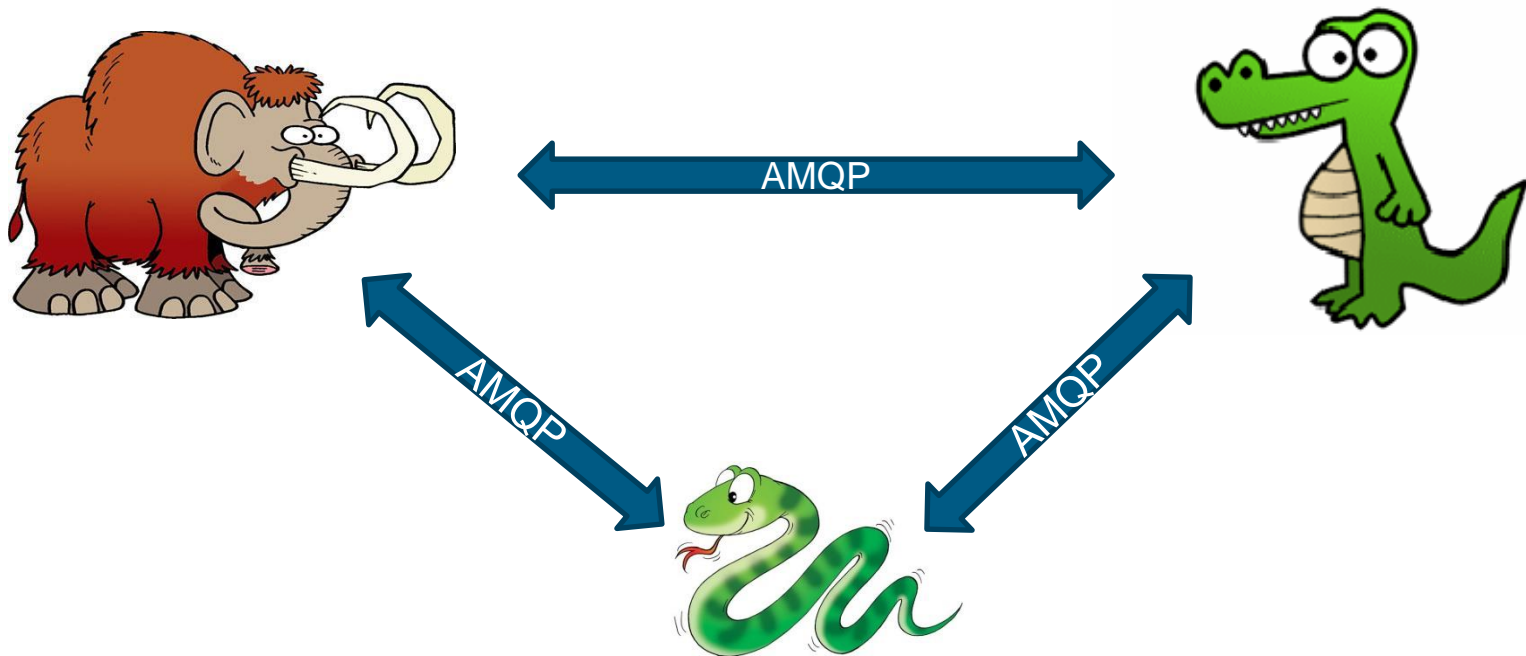
MOM

- What is **MOM**?
  - software or hardware infrastructure supporting sending and receiving messages between distributed systems.

AMQP

Advanced **M**essaging and **Q**ueuing **P**rotocol

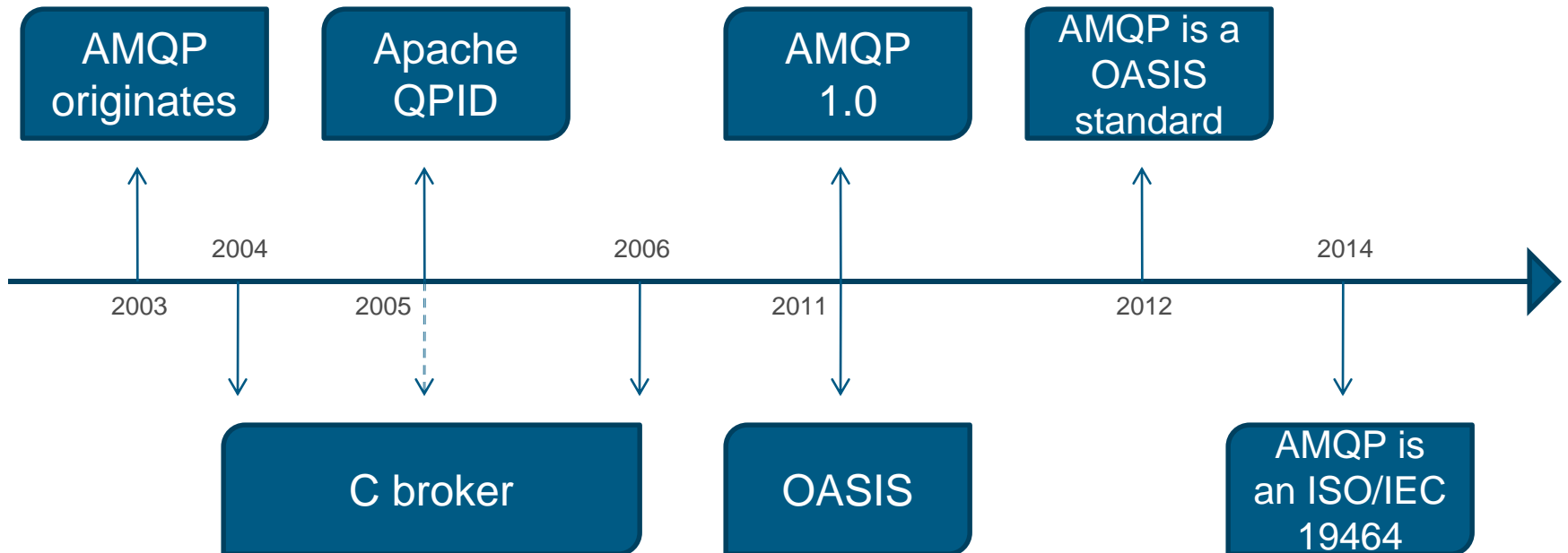➢ Open standard for passing business messages between applications and organizations.

Once upon a time…
A BRIEF HISTORY

HISTORY

AMQP originates	Apache QPID		AMQP 1.0	AMQP is a OASIS standard		

2004		2006		2014

| 2003 | 2005 | | 2011 | 2012 | |

	C broker		OASIS		AMQP is an ISO/IEC 19464

ADVANTAGES

ADVANTAGES

- INTEROPERABLE

- RELIABLE

- UNIFIED

- COMPLETE

- OPEN

- SAFE

INTEROPERABLE

- All AMQP clients can talk to all AMQP servers.

- Legacy messaging brokers can be retrofitted.

- Messaging can be enabled as a cloud service.

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RELIABLE

- Capable of eliminating the communication gaps and slowdowns.

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UNIFIED

- Provide a core set of messaging patterns via a single manageable protocol

COMPLETE

- Provides a wire level transports for applications

- Broadly applicable and can be leveraged by any language

OPEN

- Enables cross platform applications to be built using brokers, libraries and frameworks from different vendors.

SAFE

- Secure way of transporting messages across organizations.

DURABILITY AND PERSISTANCE

EXCHANGES AND QUEUES

- Durability of exchanges
  - Exchanges can be DURABLE or TRANSIENT
  - DURABLE exchanges survive broker restart.

- Durability of queues
  - Durable queues are persisted to disk and thus survive broker restart.
  - Only durable queues can be bound to durable exchanges.

MESSAGE

- Message persistence
  - Messages may be published as persistent
  - They will survive server restart

- Downside
  - Durability comes with a little cost of performance.

DEMO

POPULAR BROKERS

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AMQP downloaded

AMQP protocol specification can be downloaded from
http://www.amqp.org/resources/download

RabbitMQ broker and client can be downloaded from
https://www.rabbitmq.com/download.html

Any W's and H?

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Thank you!!!