



How To

The links below highlight some of our favourite content on this site and the web that will help you get started with messaging and RabbitMQ. If you are just starting out with messaging and RabbitMQ, please take a look at our **Get Started tutorials**. If you feel we have missed something or would like to suggest more links please **contact us**.

Overviews and Introductions

✧ Alexis' Introduction to RabbitMQ

Alexis' presentation at Thoughtworks 'London Geek Night', May 2009, where he introduces RabbitMQ "An open source message broker that just works" .

✧ RabbitMQ: Messaging in the Cloud

Matthew's presentation to VMworld 2010 that covers an introduction to messaging with common use cases, an AMQP 101 and an overview of RabbitMQ including its features and application to cloud messaging.

✧ RabbitMQ: Messaging that just works

A recording of Emile's webinar that introduces messaging and RabbitMQ. Some prominent features introduced in recent releases are discussed and the webinar concludes with a Q&A session with members of the audience.

✧ It's the message, stupid

A presentation by Muharem Hrnjadovic discussing why messaging is a good thing and when and how to use it. Muraham covers an introduction to messaging concepts and how the AMQP model can be used to implement common messaging patterns. A **video** is also available.

✧ Introduction to AMQP and Messaging with RabbitMQ

Presentation by Dmitriy Samovskiy on slideshare.net. Good primer on AMQP messaging concepts and RabbitMQ in general.

✧ AMQP 0.9.1 Model Explained

Michael Klishin's Guide to using AMQP with RabbitMQ. Clear explanations of messaging concepts and AMQP 0-9-1. Written for a Ruby audience, but suitable for wider readership. Progresses to discussion and examples of messaging patterns and error handling.

✧ Multi-platform Messaging with RabbitMQ

Rob Harrop demonstrates how to use RabbitMQ from a variety of languages (Java, Python, Ruby and Erlang) and different environments using AMQP and STOMP for multi-platform communication.

✧ The RabbitMQ Team's Introduction to RabbitMQ and AMQP

A video of the RabbitMQ team presenting their Tech Talks at Google London, Oct 2008. Alexis explains what is meant by messaging and why you might need a messaging broker. Matthias provides a technical overview of the RabbitMQ broker and why Erlang was the right choice to implement it. Tony then discusses the future of RabbitMQ and AMQP with a focus on messaging at internet scale.

✧ Why Rubyists Should Care About Messaging

A high level introduction into why you should be using messaging in your applications. Not just for Rubyists.

✧ A Technical Look at RabbitMQ and Erlang

Matthias' slides from a talk at FITEclub in 2009 where he presents a technical overview of RabbitMQ

✧ Getting Started with AMQP and RabbitMQ

Article on infoq.com by Joern Barthel that provides an excellent discussion the AMQ model and its implementation in RabbitMQ. Lots of code examples are provided in Ruby.

✧ RabbitMQ: Python and Ruby Staring at the Looking Glass

A slide show from Paolo Negri that offers an excellent introduction to the AMQP model and RabbitMQ with code samples in python and ruby. He explores the different routing models available and goes on to explain a number of use cases and some common messaging patterns, including pubsub.

✧ The Attention Deficit Disorder Guide to RabbitMQ

Blog post for those who want to get started with RabbitMQ quickly and easily. Assumes you know the basics about messaging and AMQP.

✧ Installing RabbitMQ

Video showing how to get a RabbitMQ server installed and running in 20 seconds.

✧ RabbitMQ and Messaging in General

Slides from a presentation by Lenz Gschwendtner at erlounge in Wellington, July 2009. Another great introduction.

✧ Rabbits and Warrens

Blog post. Provides an excellent introduction to messaging, RabbitMQ, AMQP and using them with Python. Well worth a read for ophidians and non-ophidians alike.

✧ Wikipedia on AMQP

Read all about AMQP including the origins of the protocol, the AMQP model and the other specifications that cover the same or similar space as AMQP.

✧ Databases Suck for Messaging

Slides from presentation given by Alexis at Oxford Geek Night, May 2009. Examination of why messaging architectures beat database polling for pubsub.

✧ What Problem Does Messaging Solve?

A Q&A discussion that covers a variety of use cases for messaging.

✧ RabbitMQ Internal Architecture

Talk by Tony Garnock-Jones at Google London, May 2009. Explains the internals of RabbitMQ and how RabbitMQ can be

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used in federation and achieving redundancy for high availability.

✧ **Une Alternative à JMS?**

An excellent introduction, in French, to messaging with AMQP. (Or read the **English translation**, which is almost as good.)

✧ **RabbitMQ on del.icio.us**

We present a list of useful searches on the social bookmarking site.

Cloud Configurations

✧ **Cloud Messaging Use Cases**

Alexis' presentation on use cases for cloud messaging at the Cloud and Grid Exchange 2010. The talk discusses what is messaging and why it is useful for cloud computing by way of illustrating use cases from RabbitMQ customers. (Download a **PDF of the slides**, 3.2MB).

✧ **Why RabbitMQ for Cloud?**

Holly Edelson explains why RabbitMQ is ideal for implementing a cloud messaging solution.

✧ **A World Made of Messages**

James Governor discusses how messaging in the cloud, specifically with RabbitMQ, is changing the way applications are architected. The slides on that page (by Matt Biddulph) are definitely worth a look.

✧ **Generating Thousands of PDFs on EC2 with Ruby**

Describes how it is possible to leverage the cloud and RabbitMQ to scale-out a massive PDF generation task.

✧ **Replacing Amazon SQS with something faster and cheaper**

Illustrates the use of RabbitMQ as a alternative to SQS for message queuing on AWS.

✧ **Idiot's Guide to Linux on Amazon EC2**

Walk through of how to set up Ubuntu for use with RabbitMQ on AWS.

✧ **Run RabbitMQ on EC2**

Describes how to get started with RabbitMQ on Amazon's EC2.

✧ **Scaling your Python application on EC2**

A video presentation from Py Con 2010 on how **Reddit** scaled as its traffic doubled using the Amazon cloud and messaging.

✧ **TwitYour!-Map/Reduce in CEP Land**

Video about how to do complex event processing to derive intelligence about twitter streams. Uses RabbitMQ on EC2.

✧ **RabbitMQ Cloud Use Cases on del.icio.us**

More links to cloud use cases at delicious.com.

Management and Monitoring

Management and monitoring capabilities are provided by **rabbitmqctl** and **the management plugin**.

In addition there are several community-maintained tools. Please treat these as experimental and send feedback to **the list**.

✧ **RabbitMQ Management Plugin**

The management plugin provides a web interface and HTTP API for managing and monitoring RabbitMQ.

✧ **Nagios Plugins for RabbitMQ**

A set of Nagios checks useful for monitoring a RabbitMQ server. They interface with the RabbitMQ Management plugin over HTTP and therefore have a very light profile on the Nagios server.

✧ **Munin Plugins for RabbitMQ**

Plugins for monitoring a RabbitMQ server with **Munin**.

✧ **RabbitMQ Administration Console**

RAC is an administration console for RabbitMQ written in PHP. (See **this screenshot**).

✧ **Alice and Wonderland**

Provide RESTful administration and monitoring of RabbitMQ nodes and a WebUI. Please read the **release notes** first.

✧ **Chef Cookbook**

A cookbook for managing RabbitMQ with Chef.

✧ **Monitoring RabbitMQ with Zabbix**

A simple example of how to configure Zabbix (an open source monitoring and graphing tool) to monitor queue and exchange statistics in RabbitMQ.

✧ **Humpty**

A Sinatra/Ruby application to administer RabbitMQ over REST (via **alice**) and AMQP.

✧ **Monitoring RabbitMQ with Zenoss**

A video showing you how to monitor RabbitMQ with **Zenoss**

✧ **AMQP Event Monitor on Zenoss**

A daemon for monitoring AMQP with **Zenoss**

✧ **Cony**

A HTTP based service written in Python for providing insight into running RabbitMQ processes.

✧ **Trixx**

An administration and monitoring tool written in Clojure so available for all languages that run on JVM.

✧ **RabbitMQ Management and RabbitMQ Monitoring on del.icio.us**

More links to what others are doing to manage and monitor RabbitMQ.

Messaging Patterns and Common Scenarios

✧ **Enterprise Integration Patterns for RabbitMQ**

A library of sample implementations of common messaging patterns described in the **EIP book**. See also the **accompanying**

video and **slides**. The patterns currently implemented are:

- **Consumer**
- **Control Bus**
- **Detour** (watch the **video demonstration**)
- **Smart Proxy** (watch the **video demonstration**)
- **Wire Tap**

✧ **Rabbit on a Leash - Rate Limited AMQP Subscriptions**

Doug Barth describes how to implement rate controlled message processing using AMQP's *prefetch_count*, client acks and a blocking token bucket.

✧ **RabbitMQ Web Chat Post Mortem**

A write up of what happens when you build a web **chat room with RabbitMQ** and issue an open **invitation to break it**.

✧ **Building a Real-time Feed with RabbitMQ, Node.js, AMQP and MySQL**

A walk through of how to build a browser-based pubsub system.

✧ **An Army of Zombie Minions for RabbitMQ**

Alvaro Videla showcases his **RabbitMQ messaging patterns** library by creating "control enabled messaging endpoints". These are message consumers that dynamically alter their behaviour in response to out-of-band control messages.

✧ **Eventing Data with RabbitMQ and Riak**

John Brisbin, author of the **Riak custom exchange type** and **Riak postcommit hook** for RabbitMQ, presents some use cases for Riak and RabbitMQ.

✧ **Visualising data in real time using Drizzle and RabbitMQ**

A demonstration of delivering real time data to the browser using Drizzle (a database forked from MySQL and optimised for cloud and web applications), RabbitMQ and websockets.

✧ **Routing Topologies for Performance and Scalability**

Designing a good routing topology for a highly-scalable system can be like mapping a graph. Helena Edelson explains the things you need to consider such as the problem domain, the constraints of the environment, the messaging implementation and performance strategies.

✧ **On Rabbits and Elephants**

Or how to use RabbitMQ to stream data events across PostgreSQL databases. The **code is available on github**.

✧ **Using RabbitMQ, Spring AMQP and Spring Integration**

Shane Witbeck describes a proof of concept in which he demonstrates how these open source technologies combined with proven enterprise integration patterns results in code that is easier to maintain, easier to test and is faster than the legacy system it replaces.

✧ **High Availability AMQP Messaging With Redundant Queues**

Introducing Beetle - a high availability messaging solution that uses a redundant configuration combined with message deduplication to boost reliability.

✧ **Patterns for Messaging with RabbitMQ**

Scott Brooks presents an overview of the AMQ model and goes on to describe some advanced topics. He highlights a set of common messaging use cases with RabbitMQ including delayed job queues, event logging, back-end decoupling and cross platform interoperability.

✧ **RPC over RabbitMQ**

Alvaro Videla discusses how to implement a request-response pattern using RabbitMQ and AMQP.

✧ **Multiprotocol Asynchronous Job Server**

Tomas Doran builds an AMQP- and JSON-based job and event server with RabbitMQ (**code available on github**). The presentation contains an excellent introduction to AMQP and examples of why you might need messaging in your application.

✧ **Interoperability with RabbitMQ**

Alvaro Videla explains how RabbitMQ is the perfect solution to the interoperability problem where different applications need to work together to share real time data at scale.

✧ **User Interaction with RabbitMQ using MagooClient**

MagooClient - a SOA/MOM client aimed primarily at XML-based applications - now comes with a RabbitMQ transport. This allows MagooClient to be plugged into a RabbitMQ architecture providing an instant user client for prototyping, testing or scenarios where direct user interaction with exchanges is required. No coding necessary and topic/direct exchange models are fully supported.

✧ **Using RabbitMQ Beyond Queuing**

Dmitriy Samovskiy blogs about how RabbitMQ can be used beyond simple queuing and pubsub. Gets you started on the path to "achieve a distributed messaging nirvana".

✧ **Advanced Messaging & Routing with AMQP**

Ilya Grigorik explains how to get started with AMQP in Ruby and provides some advanced AMQP recipes for a variety of messaging use cases.

✧ **Message Queues, Django and Celery QuickStart**

Rich Leland's quick start guide provides a great explanation of how to set up an asynchronous task queue with RabbitMQ, Celery and Python, all on a Mac.

✧ **Common Messaging Patterns (.NET Client Library User Guide)**

Whether or not you use .NET, section 3 of this guide describes ways of working with AMQP and a number common messaging patterns and interaction styles.

✧ **Listening to the System**

Blog post from Ben Hyde examining some ideas how topic routing in AMQP is a good solution for building a message hub for real-time monitoring.

✧ **Integration with Graphite**

Tools written in Python that facilitate sending data to Graphite via RabbitMQ rather than connecting directly via TCP. Demonstrates how the AMQP model decouples producers and consumers of data.

✧ Drizzle replication using RabbitMQ

Marcus Eriksson has implemented a transaction log replicator for Drizzle using RabbitMQ as the transport. (See also the [updated post](#) and the follow up [Better replication from Drizzle to Cassandra](#).)

✧ Messaging Patterns on del.icio.us

See more links to articles on messaging patterns at delicious.com.

Specific Use Cases and Examples

✧ Building a Node.js Events Application using RabbitMQ

James Burkhart builds a scalable platform to orchestrate round-table events in which chat, tweets and other activities are broadcast to thousands of participants in as close to real-time as possible.

✧ Powerful, Open Source, VoIP Cloud Services

James Aimonetti describes a open-source product that automatically deploys, scales and distributes VoIP calls across the Internet on commodity or virtualized servers. It fully utilizes Erlang for VoIP logic and on other Erlang products like CouchDB and RabbitMQ.

✧ How Digg is Built

Dave Beckett describes how Digg, a social news and content sharing website, rebuilt their infrastructure. Digg use RabbitMQ to bridge their on-line applications and asynchronoud backend systems, queuing up events that have happened and jobs to perform.

✧ RabbitMQ, node.js and Java

James Carr creates a sample application demonstrating how RabbitMQ and **Spring-AMQP** can be used to connect a website written in node.js to established JEE infrastructure using an asynchronous, event-driven architecture.

✧ Social Networks and the Richness of Data [PDF 9.2 MB]

An excellent presentation describing how scale social network activity streams with RabbitMQ, Redis and NoSQL in general.

✧ Unibet [PDF 10.3 MB]

Stefan Norberg's presentation on use of RabbitMQ and Kaazing and Terracotta for European scale real time betting at Unibet.

✧ NASA's NEBULA Cloud Computing Platform

Overview of how NASA are using RabbitMQ in their Nebula SaaS platform. Please also see [this interview with The Register](#) and [these slides](#) from Chris C. Kemp, the CIO of NASA Ames Research Center, and the thought-leader behind the NEBULA project.

✧ Application of RabbitMQ at the BBC

Video of a talk by Mike Bridgen at Google London, May 2009, where he illustrates how RabbitMQ can be used within a real world application integrating the news feeds at the BBC.

✧ Untangling the BBC's data feeds

More on the use of RabbitMQ at the BBC on Mike Bridgen's blog.

✧ Soocial.com run RabbitMQ on Amazon EC2

Soocial.com provide an address book and contact management solution running on the Amazon Elastic Compute Cloud. They use RabbitMQ as their message bus to move data between their service and mobile devices.

✧ Use Cases on del.icio.us

See more links to articles on RabbitMQ use cases at delicious.com.

Going Further

✧ Advanced Message Queuing Protocol

More information on the open standard from the AMQP working group.

✧ RabbitMQ Source Code Repository

Browse the source.

✧ HOWTO: Creating plugins for RabbitMQ

A video by Alvaro Videla demonstrating how to create plugins for RabbitMQ using the [RabbitMQ Public Umbrella](#).

✧ HOWTO: Writing plugins with RabbitMQ

Noah Gift and Michael Vierling present an overview of how to go about building a plugin for RabbitMQ. The slides are available [on slideshare](#) or [as a PDF](#).

✧ HOWTO: Set up a RabbitMQ cluster and enable plugins

A beginners guide to RabbitMQ explaining how to set up a cluster of RabbitMQ brokers and enable plugins.

✧ HOWTO: Take control of cluster management

Describes how to configure *rabbitmq.conf* to pass environment variables to the Erlang runtime with the goal of simplifying the management of RabbitMQ clusters. Note that the name of the environment configuration file has changed to *rabbitmq-env.conf* since writing.

✧ HOWTO: Build a RabbitMQ Management Console

Walk through of how you might build a RabbitMQ management tool.

✧ HOWTO: Extend RabbitMQ with custom exchange types [PDF 7MB]

Tony Garnock-Jones' slides from Erlang Factory SF 2010 that explain how you can build your own custom exchange implementations to extend the functionality of RabbitMQ.

✧ RabbitMQ's Protocol Code Generator

Browse the source code used to auto-generate AMQP base classes from the protocol specification.

Blogs, Forums and Social

✧ LShift's Blogs

Read the blogs of the developers behind RabbitMQ.

✧ Ben's Blogs

Ben is a developer at LShift and is a contributor to the RabbitMQ project.

✧ **Dmitry's Blogs**

Dmitry is the author of **rabbitbal**, a reverse proxy for Rails and other frameworks, and blogs a lot about RabbitMQ.

✧ **Of Bunny and AMQP**

The blog of Chris Duncan, author the the Bunny AMQP client for Ruby. Good place to look if you're using AMQP with Ruby.

✧ **Daniel DeLeo's Blog: Kallistec**

Daniel is the author of Qusion - "an AMQP made-easy" library for Ruby. He regularly blogs on a variety of subjects including AMQP, RabbitMQ and Ruby.

✧ Get the latest buzz about **RabbitMQ on Addict-o-matic**

Books and Print Articles

✧ **RabbitMQ Cookbook**

✧ **RabbitMQ Essentials**

✧ **Instant RabbitMQ Messaging Application Development**

✧ **RabbitMQ in Action**

A complete guide to building applications with RabbitMQ by Alvaro Videla and Jason J.W. Williams.

✧ **Spring Integration in Action**

Contains several chapters on AMQP and messaging with RabbitMQ.

✧ **Scaling Clojure through messaging**

Chapter 11 in the book 'Clojure in Action' discusses how RabbitMQ can be used to scale Clojure applications.

✧ **AMQP with RabbitMQ**

An article in the Railsway Magazine, Issue 1, 2010: Messaging in Ruby with the AMQP broker RabbitMQ

✧ **Distributed Programming with Ruby**

See chapter eight 'AMQP/RabbitMQ'.

General Posts

✧ **Wikipedia on RabbitMQ**

Wikipedia's page on RabbitMQ.

✧ **Can AMQP break IBM's monopoly on middleware: Part 1, Part 2, Part 3**

Three part series from Open Enterprise on messaging middleware and AMQP. Includes an interview with RabbitMQ's very own Alexis Richardson.

✧ **AMQP will play a crucial role in the future of complex event processing**

Mark Palmer, CEO of StreamBase, predicts that interoperability between AMQP-enabled systems - particularly RabbitMQ - will play a major role in the evolution of innovative event-based processing stacks.

✧ **You Might Need Messaging If...**

A short presentation from Bob Pasker on what messaging systems are for.

✧ **Toward a commodity enterprise middleware**

Article in ACM Queue from June 2007 by John O'Hara, one of the original creators of AMQP. John discusses the origins of AMQP, how it came to be, and how you might go about integrating AMQP messaging with legacy middleware. The article entitled 'Toward a Commodity Enterprise Middleware' begins on the 50th page of the PDF.

✧ **Advanced Message Queueing Protocol**

Presentation from Pranta Das from Cisco giving a good background on AMQP, an overview of the the new information model in AMQP 1.0 and some general use cases for AMQP messaging.

✧ **Asynchronous Processing with Ruby on Rails**

Jon Dahl's presentation at Rail Conf 2008 describes why asynchronous processing is important and explains why messaging is useful here.

✧ **Henry Ford & Event Driven Architecture**

Ilya Grigorik explains how to scale your application with events and suggests that a little "AMQP kung fu" may help.

✧ **AMQP and Apache Qpid**

Microsoft discuss the challenges of enterprise messaging in a heterogeneous environment, and make a business case for AMQP, with Qpid as the example broker

✧ **To AMQP or to XMPP, that is the question**

Blog post by Kenneth Kalmer comparing AMQP and XMPP as messaging protocols.

✧ **A report of high performance tested by Intel in 2007**

Report of load testing of RabbitMQ conducted with Intel and an **analysis** by one of our team.