GSE
GUIDE SHARE EUROPE

Session: 001

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THINK GLOBAL – ACT LOCAL

Hursley Comes To You

(« Hursley vient à votre rencontre »)

MQv8 Introduction

Agenda

- Welcome
- Quick review
- MQ v8

La journée

09h00 – 09h30 Réception, café

09h30 – 10h30 Introduction, Annonce MQ V8 en bref

10h30 – 12h00 MQ v8 New Features, toutes plates-formes - Deep Dive

12h00 – 13h00 Déjeuner

13h00 – 14h00 MQ Gem What's new (MO71, MQSX, …)

14h00 – 15h00 MQ v8 on z/OS New Features - Deep Dive

15h00 – 16h00 Discussion ouverte avec nos invités, café

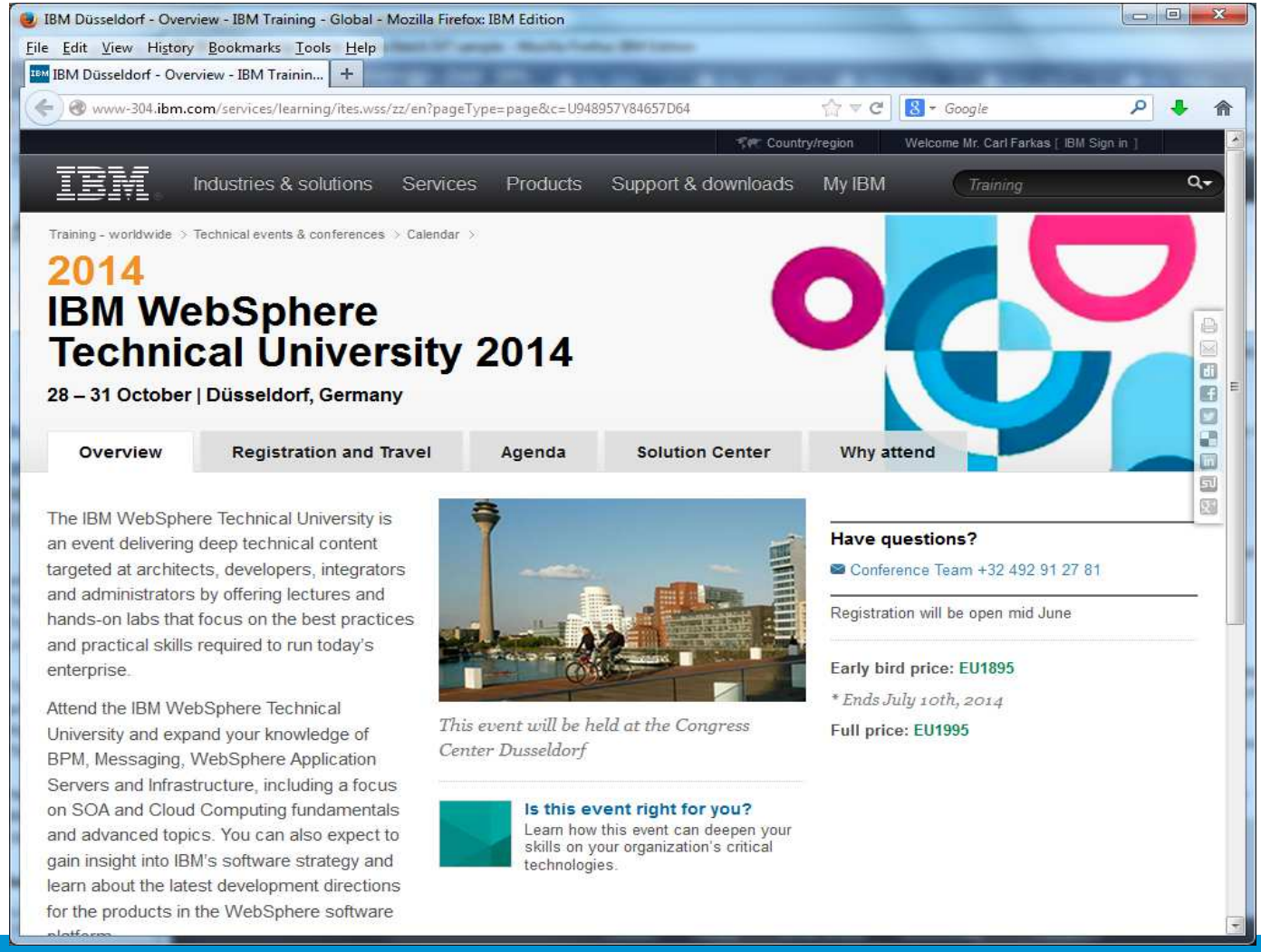
IMPACT2014 - Messaging Sessions this Week

	Monday	Tuesday	Wednesday	Thursday
09:00				1868: IBM WS MQ: Disaster Recovery 1870: IBM WS MQ: Using Pub Sub in an MQ Network 1924: Roundtable: IBM WS MQ Light in a IBM WS MQ Infrastructure
10:30	1880: Secure Messages with IBM WS MQ Advanced Message Security 1866: Introduction to IBM Messaging Capabilities 2640: MQ Telemetry Transport (MQTT) Details	3134: Meet the Experts: IBM MessageSight 1924: Roundtable: IBM WS MQ Light in a IBM WS MQ Infrastructure 1896: How to Develop Responsive Applications with IBM WS MQ Light	1885: IBM WS MQ on z/OS & Distributed Platforms - Are They Like Oil & Water 1917: Hands-on Lab: Developing a First Application with IBM WS MQ Light	1294: Enable Active-Active Business Through Enterprise High-availability Messaging Technology 1873: IBM WS MQ Security: Latest Features Deep Dive
12:00	LUNCH	LUNCH 3420: Managing What Needs to Be Managed - It Shouldn't Matter Where It Is	LUNCH	LUNCH
13:00	1227: How Not to Run a Certificate Management Center of Excellence 1869: IBM WS MQ: Using the Publish Subscribe Messaging Paradigm 1863: What's New in IBM Messaging	1872: IBM WS MQ: Managing Workloads, Scaling & Availability with MQ Clusters	1879: Using IBM WS MQ in Managed File Transfer Environments 1922: Roundtable: IBM Messaging Feedback	1883: Where Is the Message - Analyze IBM WS MQ Recovery Logs, Trace Routes, & Look In Applications
14:15		1800: IBM WS MQ for z/OS & CICS: Workload Balancing in a Plexed World 1863: What's New in IBM Messaging	1924: Roundtable: IBM WS MQ Light in a IBM WS MQ Infrastructure 1876: IBM WS MQ for z/OS: Latest Features Deep Dive	1229: The IBM WS MQ Toolbox: 20 Scripts, One-liners, & Utilities for UNIX & Windows 1804: Mean Time to Innocence: IBM WS MQ Problem Determination
16:00	1877: IBM WS MQ for z/OS: Performance & Accounting 1894: What Is IBM WS MQ Light & Why It Matters	15:45 1882: Building a Scalable & Continuously Avail-able IBM WS MQ Infrastructure with Travelport 1720: Building a Managed File Transfer Service at ADP 1897: Messaging in the Cloud with IBM WS MQ Light & IBM BlueMix	1916: Hands-on Lab: IBM WS MQ 3133: Meet the Experts: IBM Messaging 1874: IBM WS MQ: Performance & Internals Deep Dive (Not zOS) 1866: Introduction to IBM Messaging Capabilities	2454: Using IBMs Managed File Transfer Portfolio to Maximize Data Effectiveness
17:15	1881: Using IBM WS MQ with IBM WAS & Liberty Profile 1873: IBM WS MQ Security: Latest Features Deep Dive	17:00 1878: IBM WS MQ for zOS: Shared Queues 1922: Roundtable: IBM Messaging Feedback	1867: IBM WS MQ: High Availability 1922: Roundtable: IBM Messaging Feedback 2646: Discover the Value IBM Software Delivers On Top of Open Source	

WebSphere Technical University, 28-31 oct 2014

- De retour suite à votre demande !

- http://www-304.ibm.com/services/learning/ites.wss/zz/en?pageType=page&c=U948957Y84657D64



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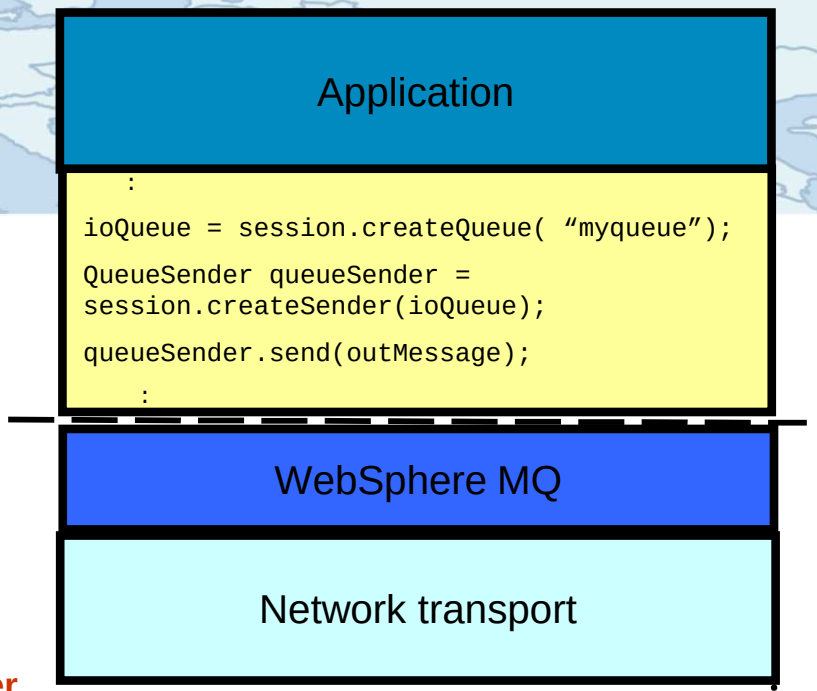
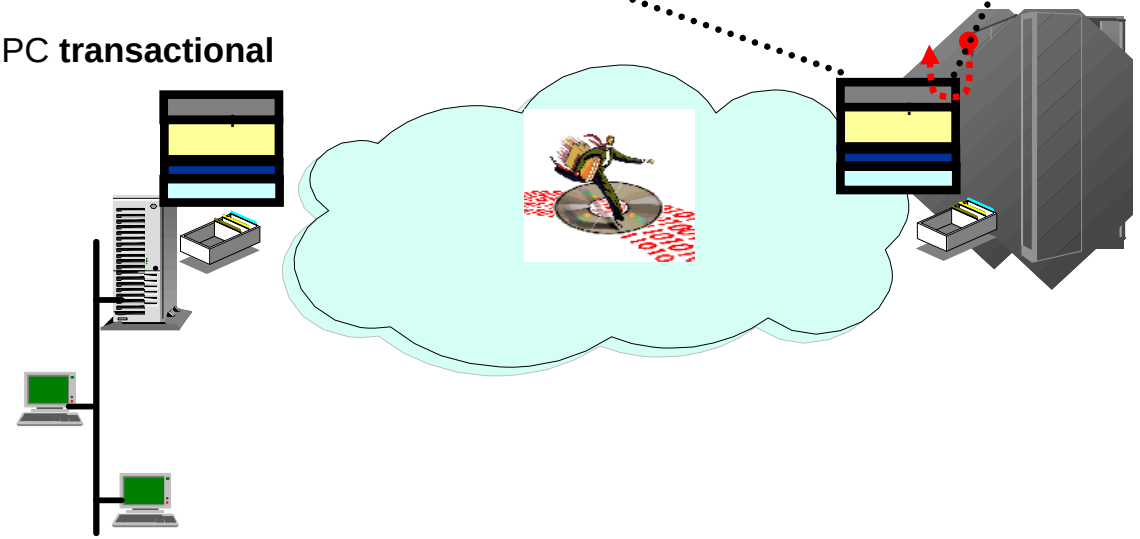
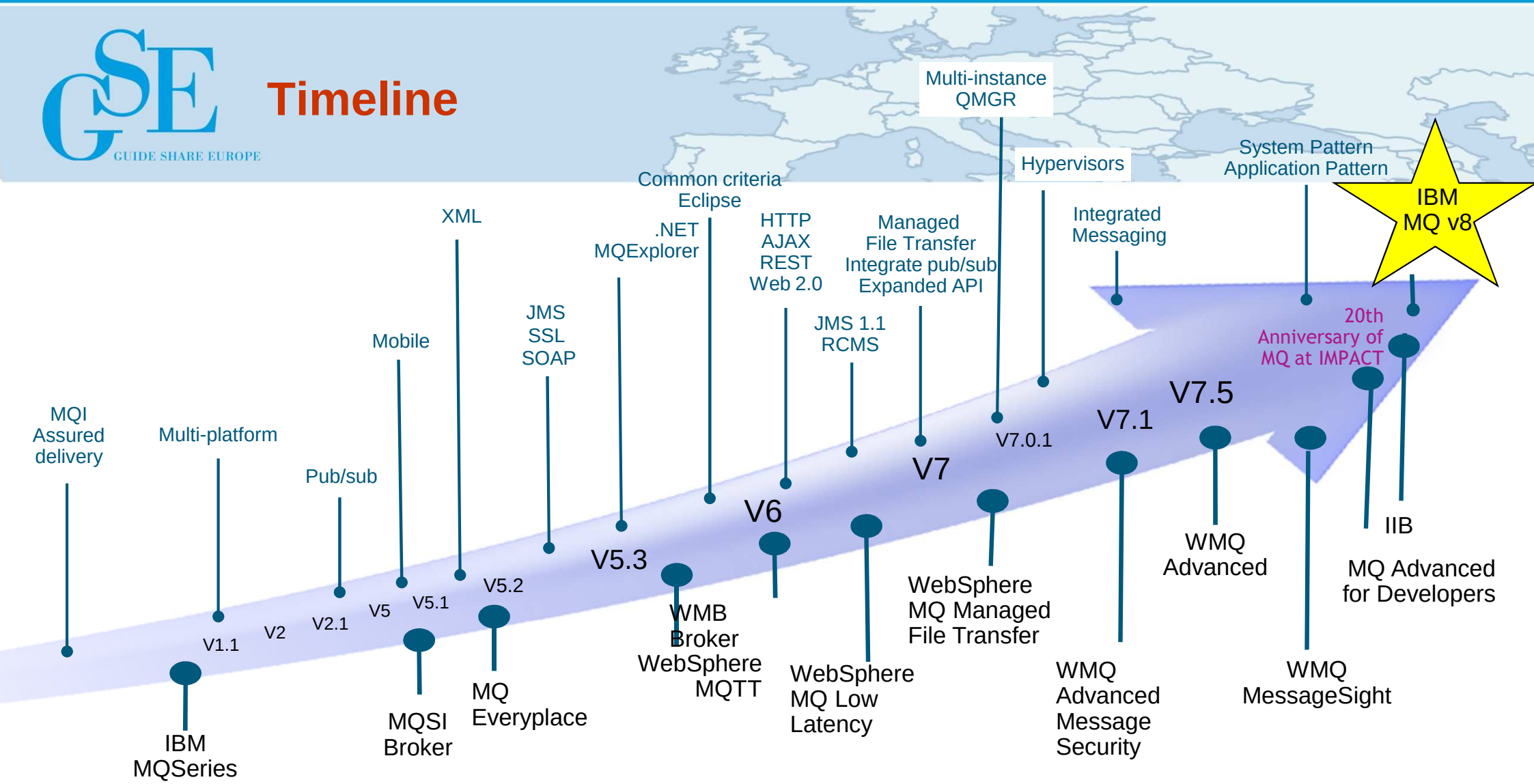
What's WebSphere MQ?

- **A simple, efficient API for sending/receiving data messages**
- **Enables fast, reliable asynchronous messaging from application to application**
- **An industry standard for Message-Oriented-Middlewares (MOM) with 65-80% of the market.**
- **Can be used on over 45 different platforms (Windows, Linux, AIX, Solaris, HP-UX, IBM I (AS/400), etc, and of course…… System Z !)**
- **Can be used from all major programming languages (C, C++, COBOL, Fortran, BAL, PL/I, Java/JMS, VB, RPG, etc.)**
- **Includes support for the MQ Client – a remote API accessing the queue manager resources.**
- **Other unique features of MQ…**
  - Provides a 2PC syncpoint manager for distributed MQ and full 2PC **transactional** participation on z (CICS, IMS, RRS)
  - Support for high-availability and load-balancing via **MQ Cluster** as well as **Shared queues** with Sysplex on Z
  - Support for **point to point** and **pub/sub** messaging
  - Support for message grouping and segmentation
  - Support for **SSL** authentication and encryption
  - Support for message compression
  - Exploits each platform, and in particular z/OS, taking full advantage of RACF, Sysplex, SMF, CICS & IMS Bridges, etc.





Timeline



1990s 2000s 2010s

WebSphere MQ V7.1: Feature Summary (Nov 2011)

New Feature	*Benefits*	*Details*
Multi-Version Install capability on Distributed platforms	Makes it easier to deploy and upgrade systems and stage version to version migration	Unix and Windows support for multiple versions of MQ V7.x (AND one copy of MQ V7.0.1) down to fixpack levels. Relocatable installation support. Applications can connect to any Qmgr
Enhanced Security	Simplified Configuration Enhanced Authorisation and Auditing	IP address Authorisation capability Additional crypto algorithms More granular authorisation for non-local queues Application Activity Reports
Cloud Support	Simplifies and support Cloud deployments	Additional HVE images
Enhanced Clustering	Improves ease-of-use	Authorisation on Cluster Q rather than XMIT Q on Dist. Platforms Bind-on-Group Support
Multicast capability	New messaging QoS provides low latency with high fan-out capability	MQ Pub/Sub Topic space can now map to multicast Group Addresses Provides direct interoperability with MQ LLM
Improved scalability and availability on z/OS	Further exploitation of z196 Customer control over CF storage use for Shared Queues. CF Connectivity Loss improvements	Code contention reduced to improve multi-processor linear scaling Use of MQ Datasets rather than DB2 significantly improves “large” message capability Structure rebuild capability for CF Connectivity Loss scenarios
Improved Performance on Dist platforms	Improved multiprocessor exploitation	Various code improvements

WebSphere MQ V7.5: Feature Summary (June 2012)

- **For Windows, Unix and Linux**

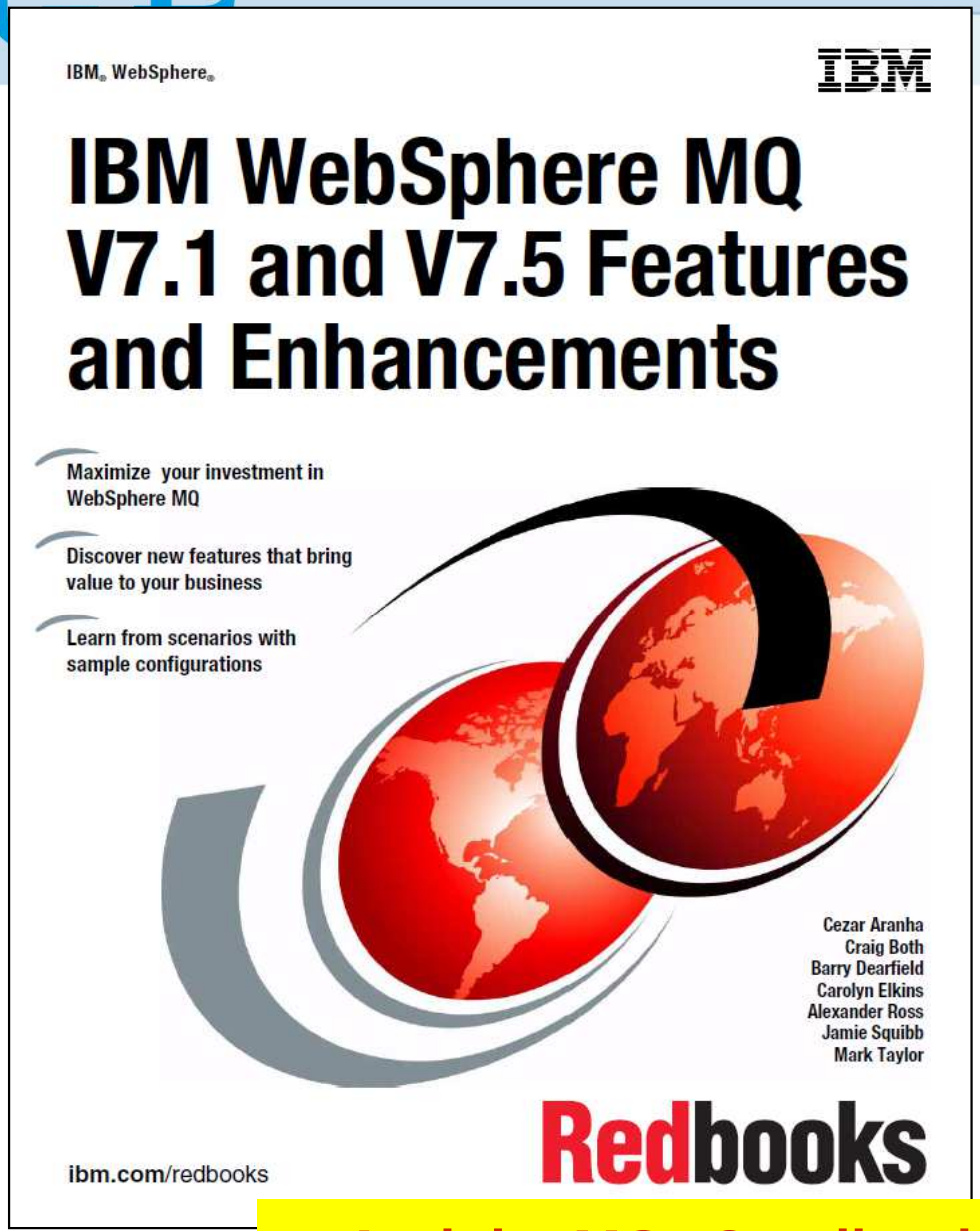
New Feature	*Benefits*	*Details*
Integrated Installation	Makes it easier to deploy systems Simpler licensing	Combines several products into a single package Common experience
Enhanced Clustering	Improves ease-of-use Improves application isolation	Split Cluster Transmission Queue
Java Application Identification	Makes it easier to distinguish applications	Applications no longer to all have the same name
AMS channel interception	Provides a level of message protection even when application environment cannot run AMS	Interception in the SVRCONN still protects messages before hitting queues
FTE Logger Options	Can write FTE audit records to flat file	No longer a requirement for an enterprise database Easier to read data immediately

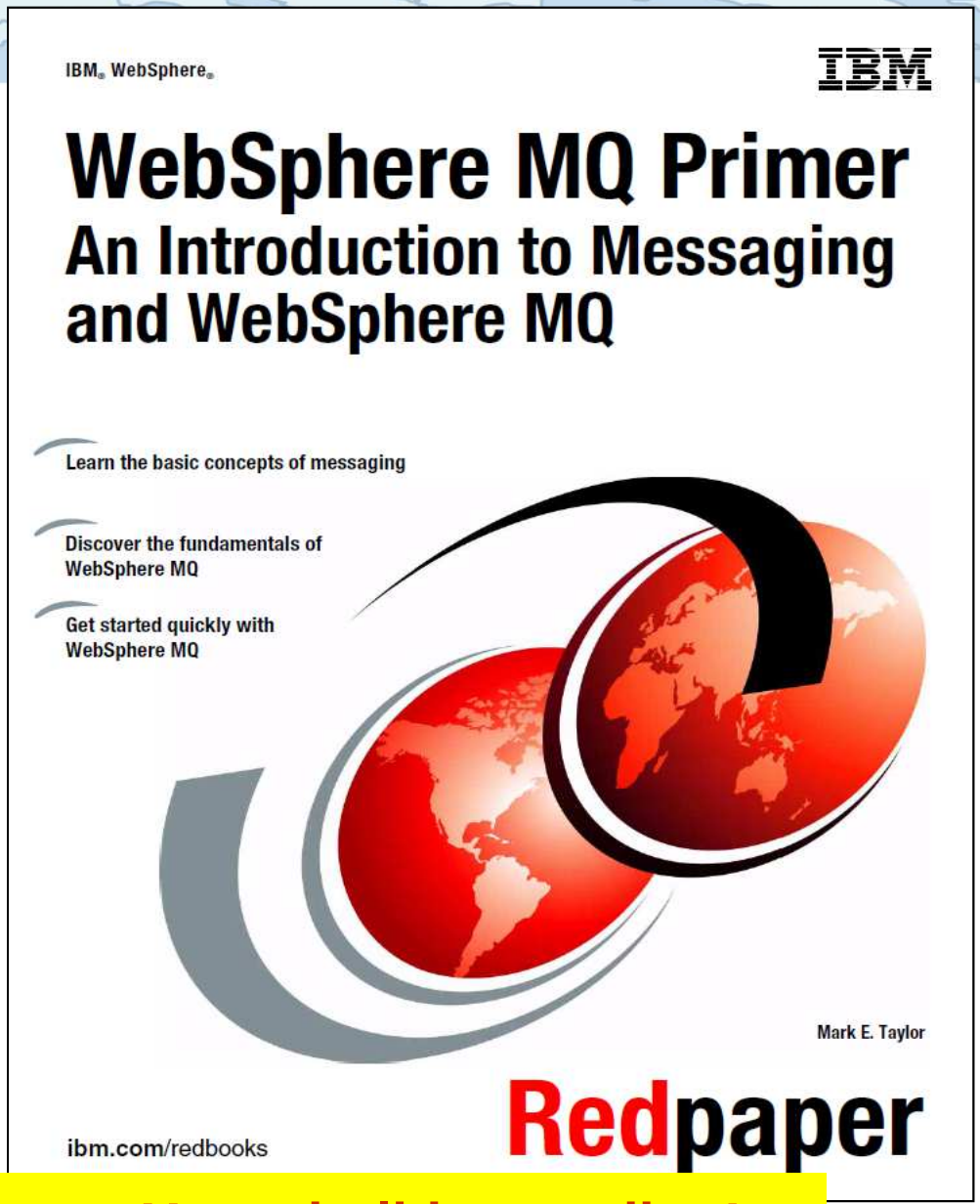
WebSphere MQ: Feature Summary (2013)

- **Updates to pricing and function during 2013**

New Feature	*Benefits*	*Details*
MQ 7.1 Value Unit Edition introduced for z/OS	One time charge (OTC) pricing for zNALC workloads	Queue managers supporting qualified workloads on System z New Application License Charge (zNALC) LPARs Includes WebSphere MQ Client Attach, allowing free-of-charge connections from MQ Clients to z/OS
SHA-2 CipherSpecs for SSL/TLS on z/OS	Stronger hashing algorithms Required/recommended by some authorities	Available from V7.1 GA on distributed platforms Now also available on z/OS 7.1, with two APARs*
Internet PassThru (MS81) refresh	Updates to SOE and crypto algorithms Consistent SSL/TLS support and certificate DN attributes with MQ V7.1	Uses JRE-provided Java Secure Sockets Extension (JSSE) Support for SHA-2 and elliptic curve encryption, in line with US NIST standard SP800-131A recommendation
MQ JCA RA support in WAS Liberty profile	MQ 7.5.0.2 RA is easily configured in Liberty Connects to any supported version of MQ	Liberty profile expects resource providers (database, messaging) to supply provider-specific classes Configure “wmqJmsClient.rar.location” variable in server.xml
MQ 7.1 Extended Transactional client for HP NSS platform	MQ V7.1 function for NonStop applications accessing MQ on other systems Free and fully supported	Supports C/C++, COBOL, pTAL, JMS Supports Guardian and OSS applications including OSS multi-threaded applications Available as SupportPac MAT1

Reading for the beach this summer?

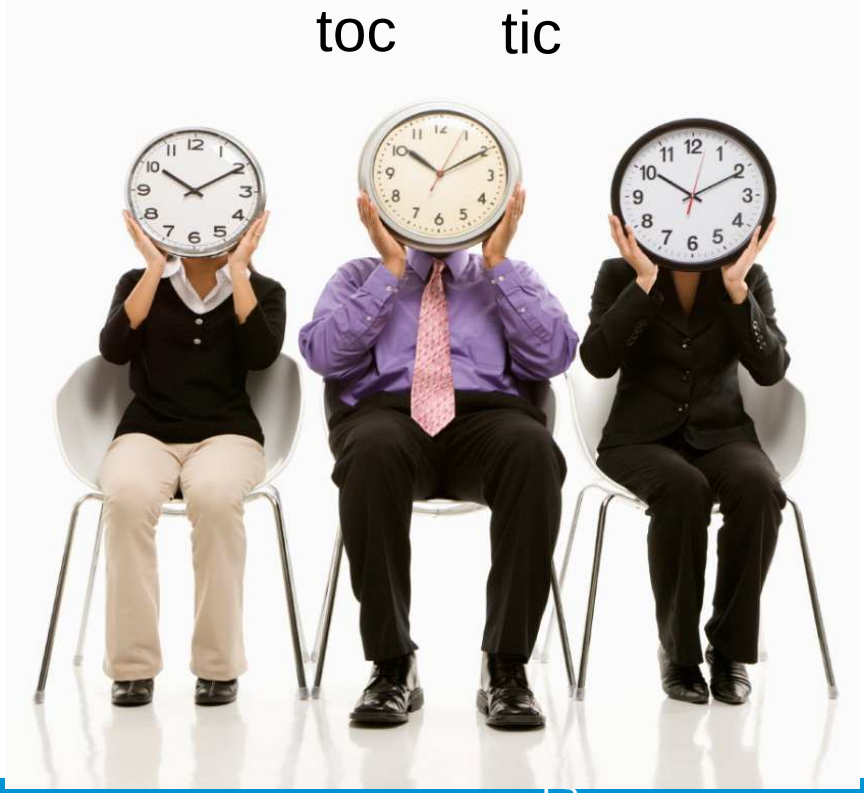




And the MQ v8 redbook for your Xmas holiday reading!

End-Of-Service for MQ v7.0

- IBM announced that WebSphere MQ v7.0 (eg. Windows, Unix, Linux, z/OS) will arrive at end of support on 30 September 2015.
- Avoid the holiday rush… start thinking about migrating to MQv7.1 or v8 now!
- For more details, see http://www.ibm.com/software/websphere/support/lifecycle/



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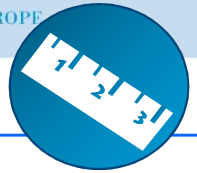
IBM MQ V8 delivering best in class enterprise messaging



Platforms & Standards	*Security*	*Scalability*	*System z exploitation*
64-bit for all platforms	Userid authentication via OS & LDAP	Multiplexed client performance	64-bit buffer pools in MQ for z/OS means less paging, more performance
Multiple Cluster Transmit Queue on all platforms	User-based authorisation for Unix	Queue manager vertical scaling	Performance and capacity
Support for JMS 2.0	AMS integration for IBM i & z/OS	Publish/Subscribe improvements	Performance enhancements for IBM Information Replicator (QRep)
Improved support for .Net and WCF	DNS Hostnames in CHLAUTH records	Routed publish/subscribe	Exploit zEDC compression accelerator
SHA-2 for z, i & NSS	Multiple certificates per queue manager	Announced 22 April 2014 GA Distrib 23 May GA z/OS 13 June	SMF and shared queue enhancements

RFEs – yes, we do value your input!

- **MQ v8 has delivered on many of the RFEs that YOU have requested (and amongst the most requested!)**
- **See** https://www.ibm.com/developerworks/community/blogs/messaging/entry/delivered_rfes_in_mq_v8?lang=en **for details**

RFE	Description
RFE 21982	CHLAUTH: Using DNS instead of IP
RFE 22361	WMQ/z 64-bit Buffer Pools
RFE 22368	WMQ/z Increase number of Buffer Pools
RFE 22568	Password validation
RFE 23674	Limit impact to MQ WTOs from OPSMVS automation rule processing
RFE 24104	Add option for Split Cluster Transmit Queues in the current version of MQ on z/OS
RFE 26417	Integrate SupportPac MO72 into base WebSphereMQ product
RFE 26672	Requesting the enhancement to support for SSL certificate per channel or group of channels
RFE 28672	WMQ Security Enhancement – Key/Cert Selection Based on Alias
RFE 29335	JMS / MQ Java: automatically add userid/password values into SecurityParms structure
RFE 29399	Lack of granularity for MQseries SMF type 116 - CLASS(1) records
RFE 30310	Default SUBUSER on DEFINE SUB command
RFE 30504	VS2010 XMS Build
RFE 30709	WMQ Authentication via LDAP
RFE 31523	support for usernames longer than 12 characters
RFE 31465	WebSphere MQ for z/OS, CSQ1LOGP
RFE 32645	[illegible] MQ better protects itself from a system ECSA shortage by abo[illegible]

MQ v8 pre-requisites

- z/OS v1.13
- AIX v7.1 TL2 POWER or v6.1 TL8 POWER
- HP-UX 11i v3 (11.31)
- Linux RHEL 6 Server Update 3 (x86-64, System p, System z)
  Linux SUSE (SLES) 11 SP2 (x86-64, System p, System z)
- Oracle Solaris 10 or 11 SPARC or x86-64
- Windows Server 2008 R2 SP1 Standard, Datacenter or Enterprise Editions (x86-64)
  Windows Server 2012 Standard or Datacenter Edition
  Windows Server 2012 R2 Standard or Datacenter Edition
  Windows 7 SP1 Ultimate, Professional or Enterprise Editions
  Windows 8 or 8.1 Standard, Professional or Enterprise Editions
- IBM i 7.1
- Java v7

For complete up-to-date requirements, always refer to
http://www.ibm.com/support/docview.wss?uid=swg27006467

MQ platform and product consistency

- **64-bit server support for all distributed queue manager platforms**
  - Completion of platform coverage by adding Windows 64-bit engine
  - Requires Windows 7 or later
  - Note: 32-bit MQ Client still available and supported

- **Multiple Cluster Transmit Queue availability on z/OS and IBM i platforms**
  - Permits separate monitoring of cluster traffic and prevents one message stream from affecting throughput of others

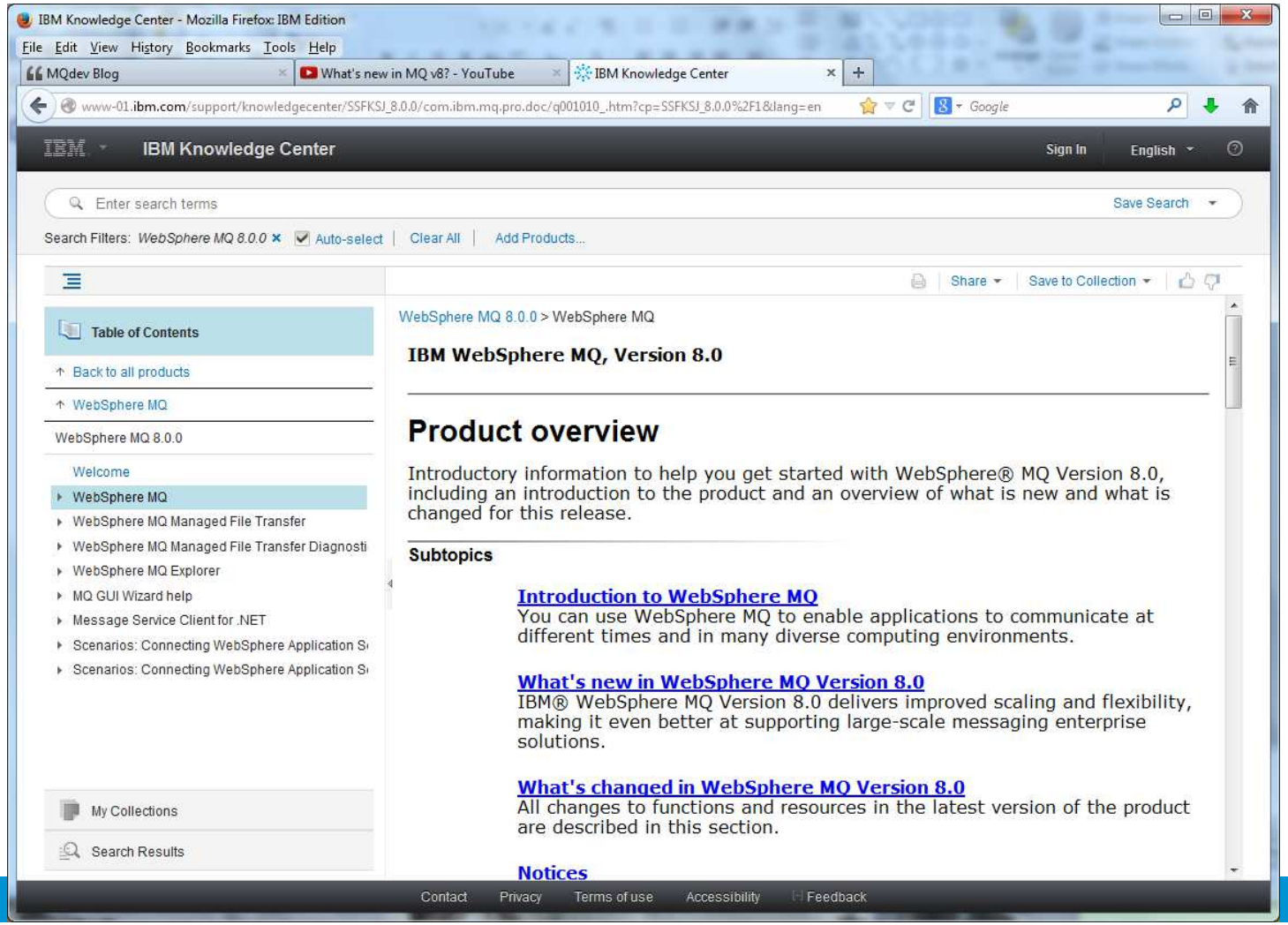
- **Integration of AMS capabilities into z/OS and IBM i platforms**
  - Previously separately installable products
  - Considerably simplifies AMS setup, and operations

Looking for more info?

The new IBM Knowledge Center has it all!

http://www.ibm.com/support/knowledgecenter/SSFKSJ_8.0.0/com.ibm.mq.pro.doc/q001010_.htm?cp=SSFKSJ_8.0.0%2F1&lang=en

- New strategic central post-sale information source for all IBM products
- Customizable
- Printable
- You can comment; you can like (or dislike!)



Looking for even more info?

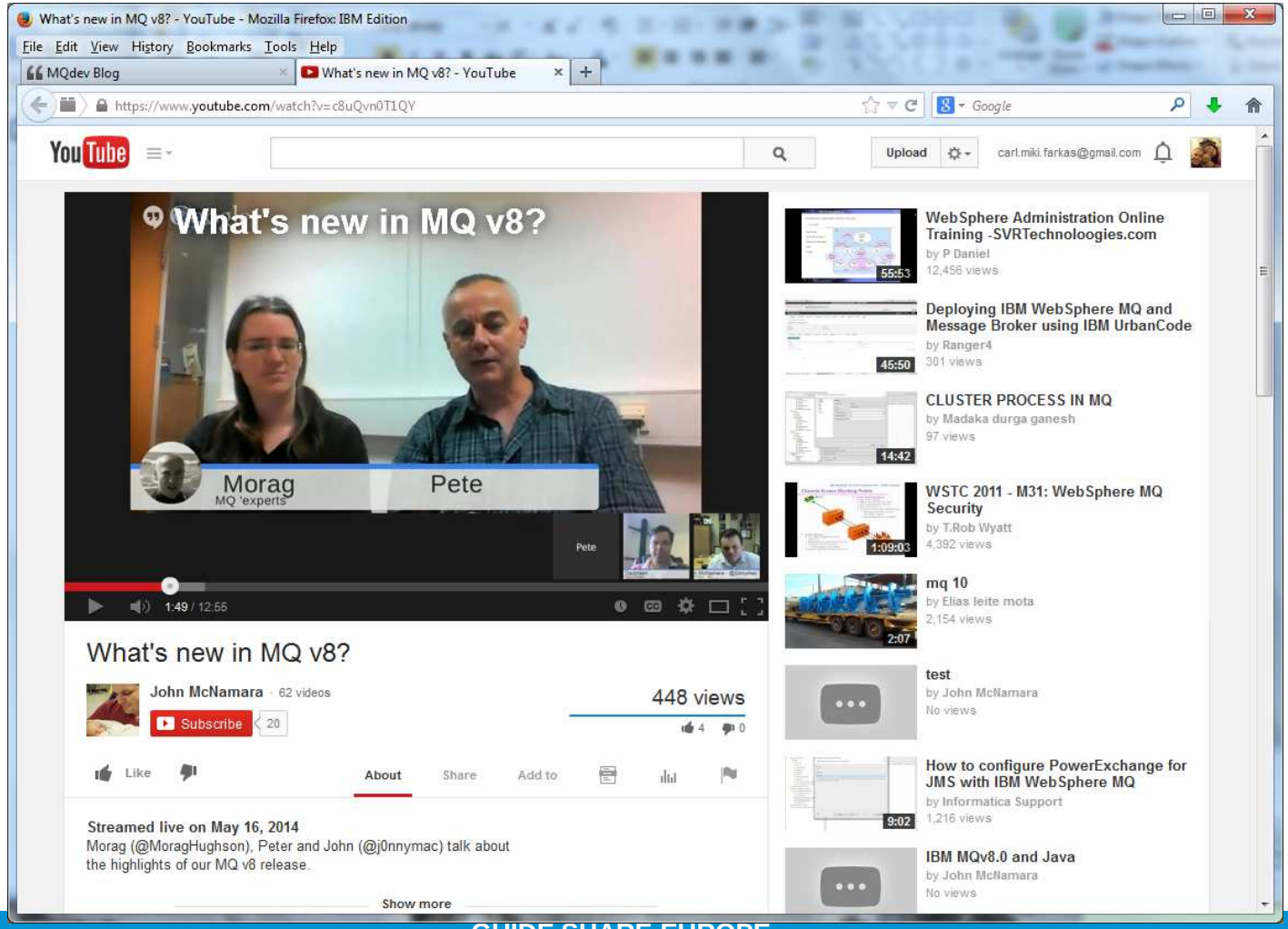
Try this blog on for size!

https://www.ibm.com/developerworks/community/blogs/messaging/tags/mq8%20bitesize?lang=en

Looking for moving info?

MQ Videos to explain and demo features

https://www.youtube.com/watch?v=c8uQvn0T1QY



Guide Share France

Savez-vous que le groupe GSF (« GUIDE Share France ») a un groupe de travail MQ en france (et WebSphere, et CICS, et IMS, et….) ?

- GUIDE Share France, association *indépendante* regroupe des professionnels utilisateurs d'infrastructure IBM, dont l'objectif est, grâce à l'organisation de groupes de travail de partage d'expériences entre entreprises utilisatrices un échange privilégié avec IBM
- Réunions tous les deux mois (club MQ)
- Plus de 800 personnes participent aux réunions GUIDE Share Europe
- Communauté d'experts
- Voir **http://www.gsefr.org** et **http://guide.webspheremq.fr/**
- Une échange constante d'idées et de technologie
- Pour vous inscrire sur la liste de distribution, contacter Monsieur Luc-Michel Demey à **lmd@demey-consulting.fr**

IBM continues to invest in all Messaging markets

- Enterprise Messaging where MQ continues to lead
- MQ leveraging each platform to give the best-of-breed messaging where you need it, how you need it
  - z/OS
  - Cloud
  - Mobile
  - M2M
- Helping developers use Application Messaging to create better applications