

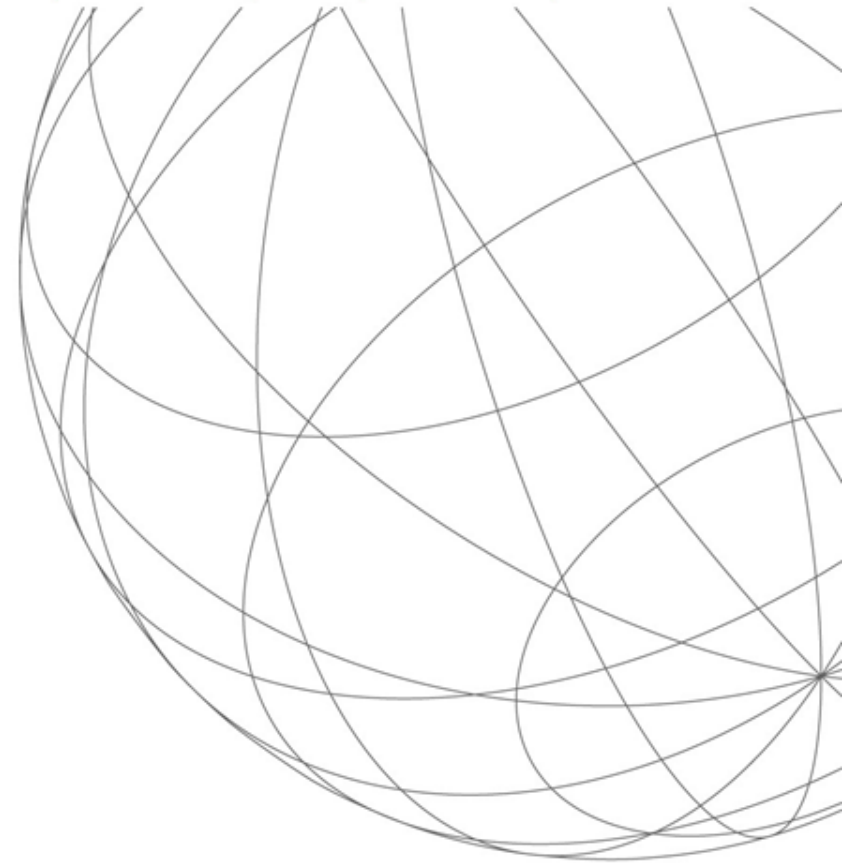


Insurance Data Standards
Life & Annuity • P&C • Reinsurance

nonprofit • industry developed • solution provider neutral

IT Club

December 2007

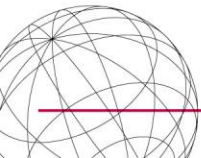


Agenda

- **A Non-technical perspective of Infrastructure and Architecture**
 - Gateways, Hubs & Trading Platforms
 - ▶ What, Why, How & Who?
 - ▶ When can we take the technology for granted?
 - What does ACORD Offer?
 - What is the future direction?

- **MRO Update**

- **ACORD Update**



A Non-technical perspective of Infrastructure and Architecture

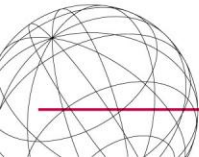
Gateways, Hubs & Trading Platforms

What, Why, How & Who?

When can we take the technology
for granted?

What does ACORD Offer?

What is the future direction?

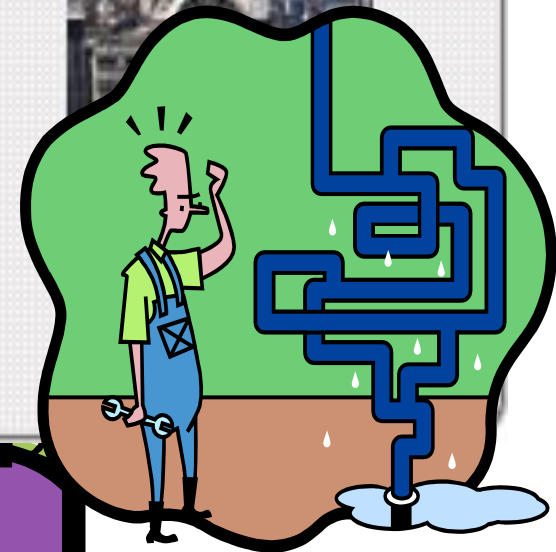


Infrastructure & Architecture

■ Grand words

- What do we mean?
- What does it mean to brokers and underwriters?

■ Aren't we in the plumbing business?



Freedom of Choice

- **London Market**
 - 160 Brokers
 - 45 Lloyd's Managing Agents
 - 40 IUA Companies
 - Other service providers
- **They all communicate with each other**
 - At different times
 - For different purposes
- **Technology ranges from**
 - Low cost entry

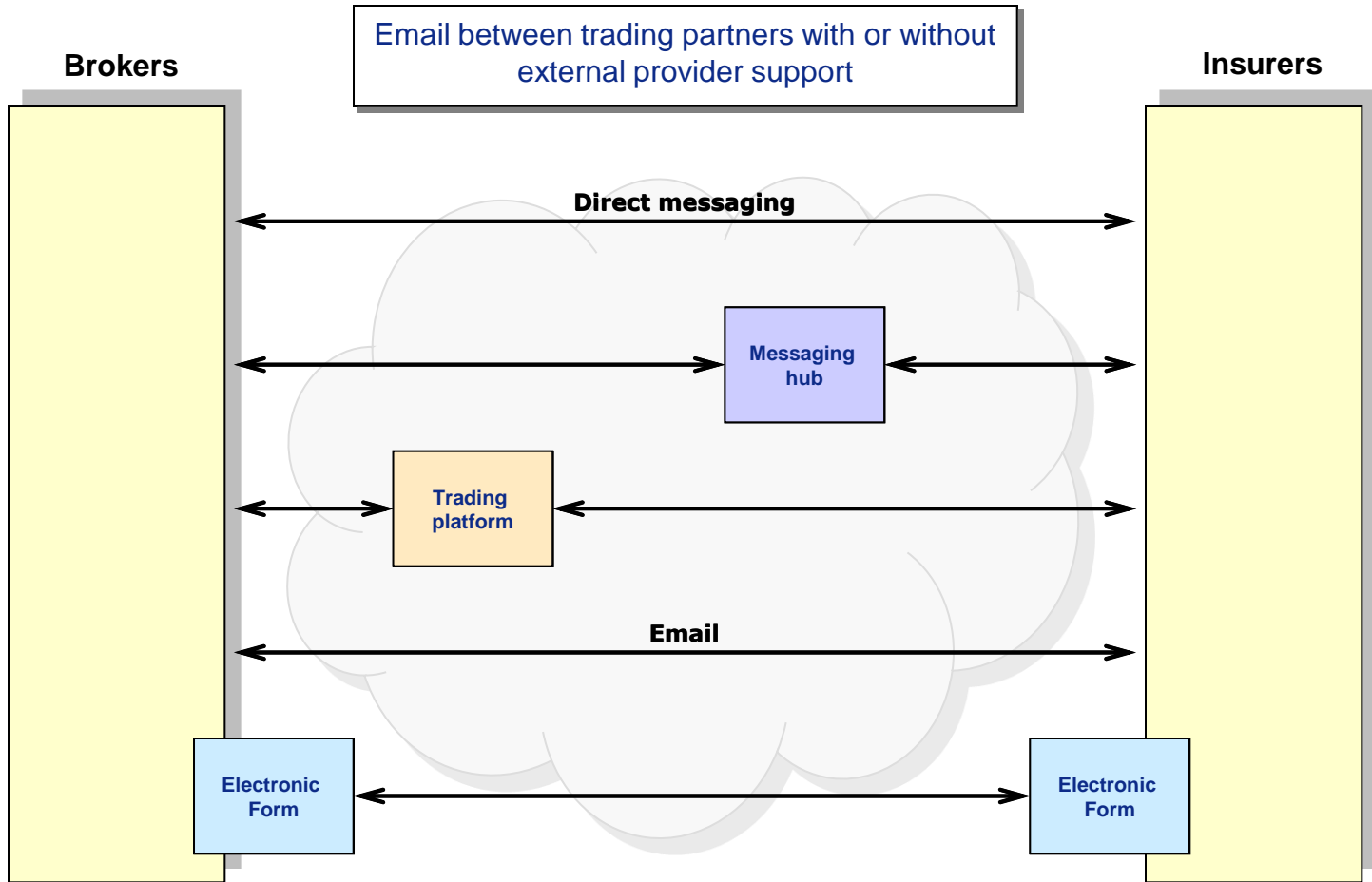
To

 - fully integrated sophisticated enterprise systems



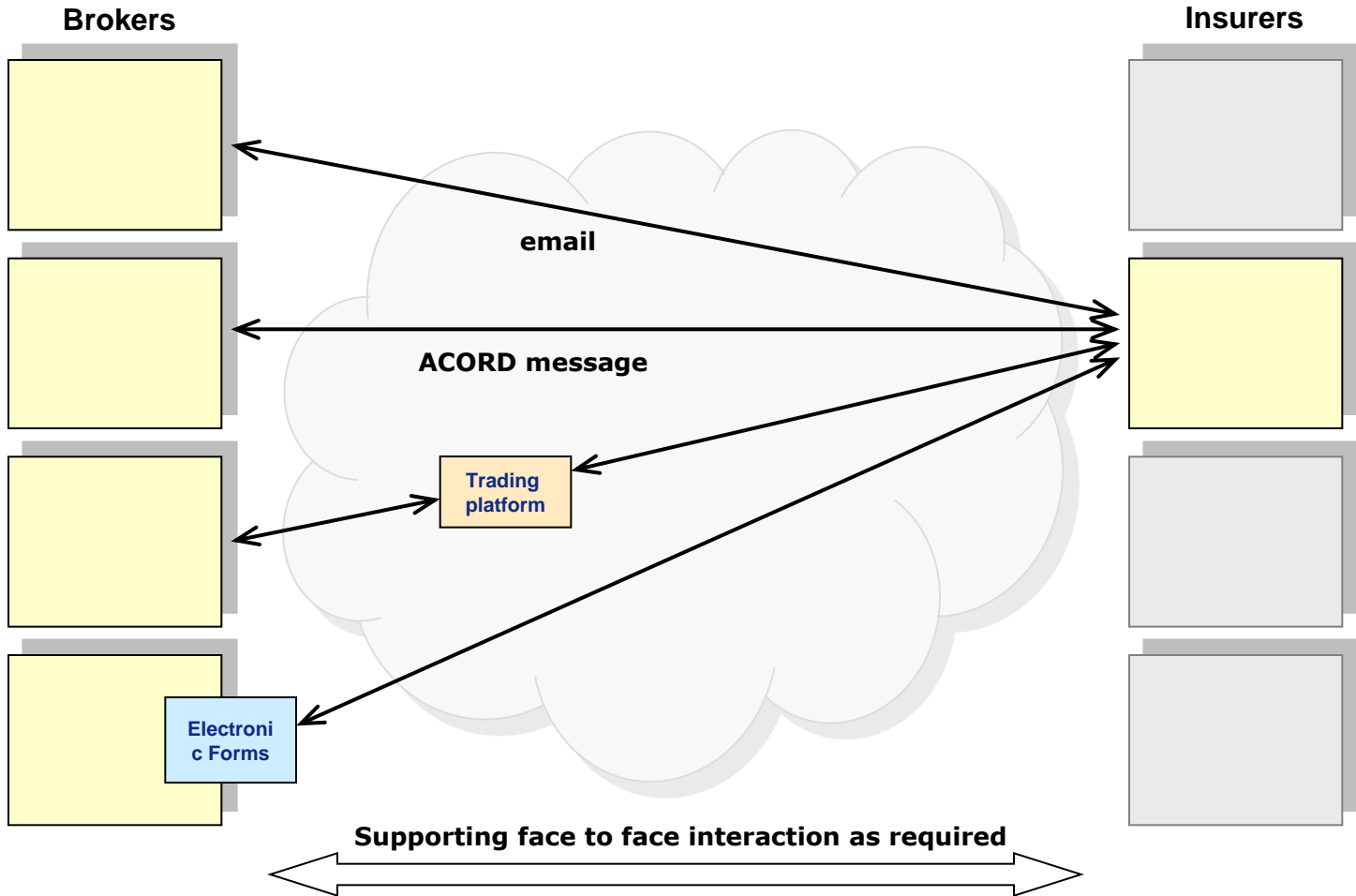
Multiple technologies for exchanging data electronically

A number of different routes are possible for an electronic transaction



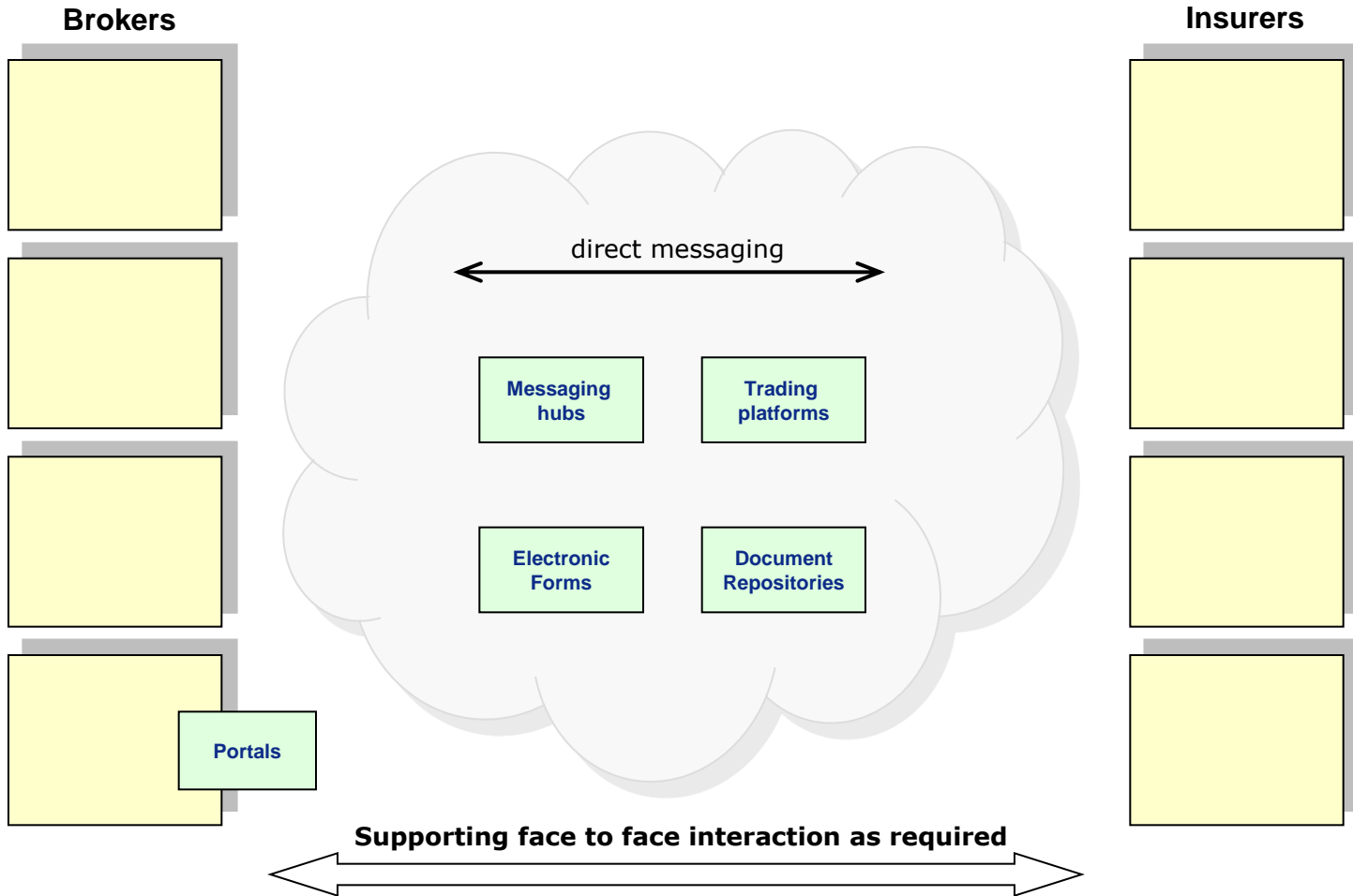
Multiple trading partner connections

Insurers may be faced with different forms of input from different brokers (or even the same broker ... and vice versa).

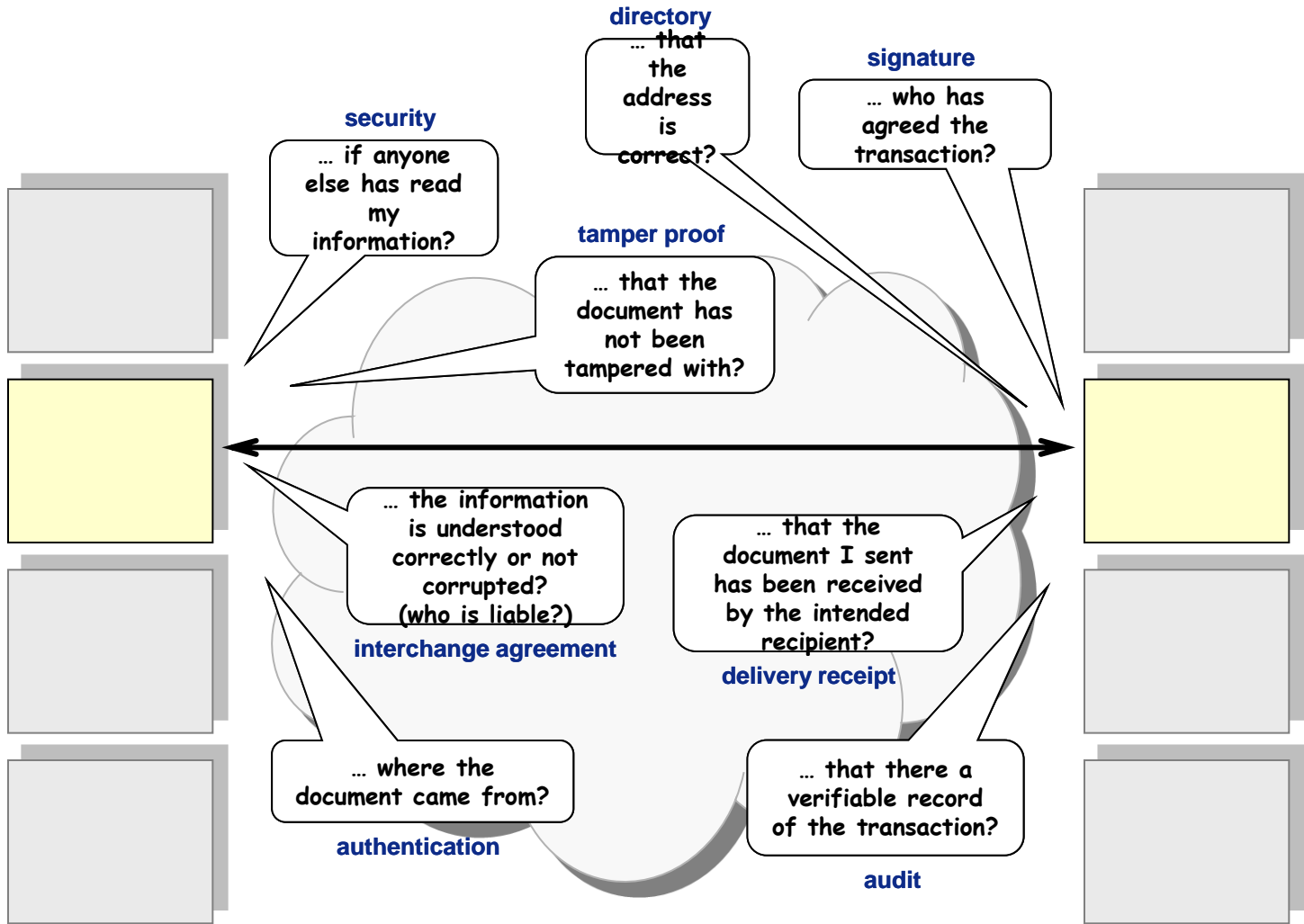


Multiple messaging architectures can co-exist

The market is likely to evolve into an environment of mixed peer-to-peer and multi-hub messaging rather than a single central infrastructure.

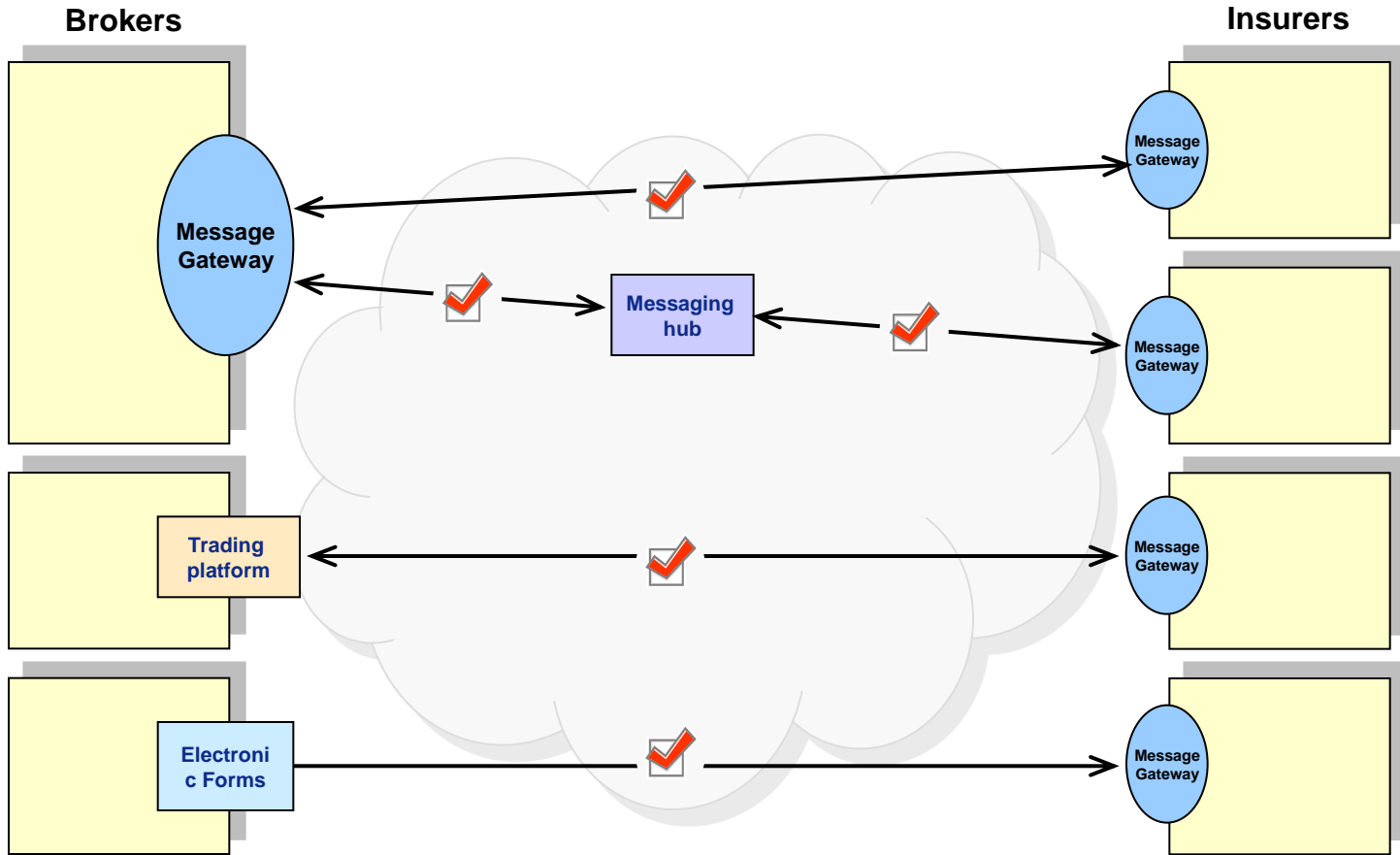


For electronic processing how do I know ...



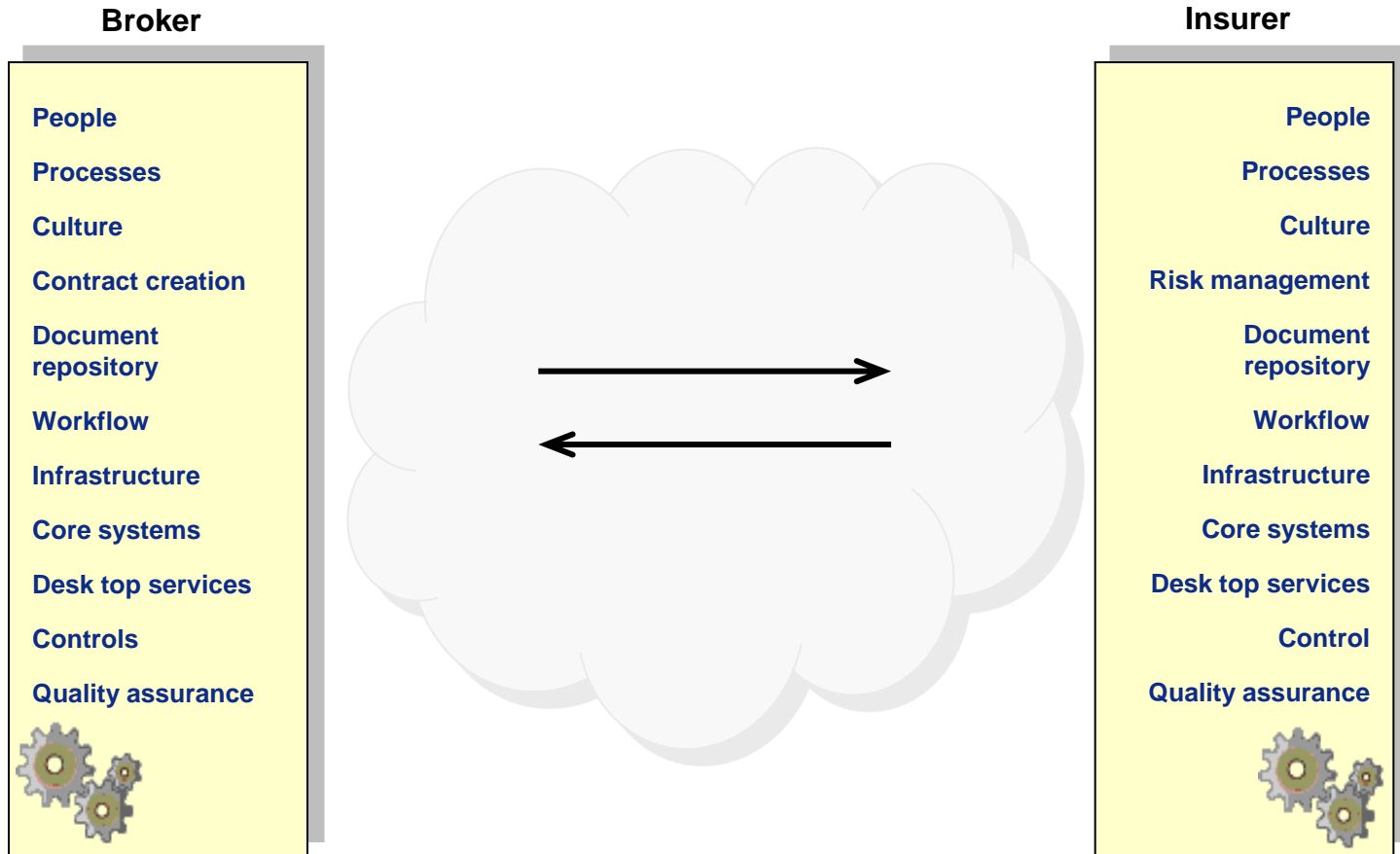
Message specification independent of route

Because a standard message is used, the same message can be used by all parties regardless of the route the message takes.



Internal reform determines benefits

The degree to which a firm benefits from electronic processing reform will depend on the degree to which they address change and reform in their own organisation.

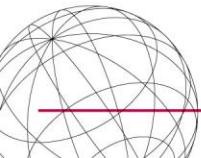


Gateways, Hubs & Trading Platforms

- Gateways



Abergavenny - Gateway to Wales





Gateway

Definition

A software product that acts as a front door to the organisation, allowing business messages and documents to be sent and received by the company, using ACORD Web Services.

Primary Function

Data and document exchange.

Sending and receiving ACORD standard placing messages.

Shredding incoming XML messages

Maintenance of partner connectivity, and ACORD upgrades.

Additional Services

Audit log of messages.

Simple relational database and document repository.

Error management functionality.

Business statistics.





LLOYD'S



Messaging Hub

Definition

A web-based application offering users the ability to route messages between trading partners.

Primary Function

Outsourced connectivity configuration.

Secure delivery of ACORD RLC and DRI messages.

Maintenance of partner connectivity, and ACORD upgrades.

Additional Services

Message validation.

Control features to manage partners gateway downtime.

Electronic links to market repositories.





LLOYD'S



Trading Platform

Definition

A web-based application offering users secure access to a trading environment which provides workflow and data management functionality via the internet.

Primary Function

Secure on-line trading.

Additional Services

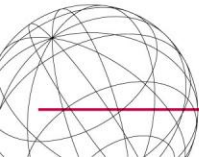
Structured ACORD-compliant message exchange.

Electronic links to market repositories.

Electronic links to market services.

Gateway, Message Hub and Trading Platform

The Players



Examples from LMA Landscape Analysis

■ Gateway Examples

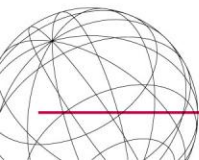
- Atos (WritePlace), IBM (Insurer Messaging Network), Perspective Technologies (onMessage), Trace Isys (TMMS), TriSystems InfoBahn (Universal Messaging Gateway), WebConnectivity (EnabledB2B, EnabledR2R)

■ Messaging Hub Examples

- Atos (WritePlace), Catex, IBM (Insurer Messaging Network), Kewill, SSP (Nexus), The Insurance Workplace.

■ Trading Platform Examples

- Ri3K, eReinsure





Vendors Landscape Analysis

Examples of the technology choices

Internal infrastructure

Shared infrastructure

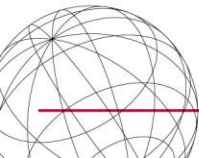
Placing data and documents

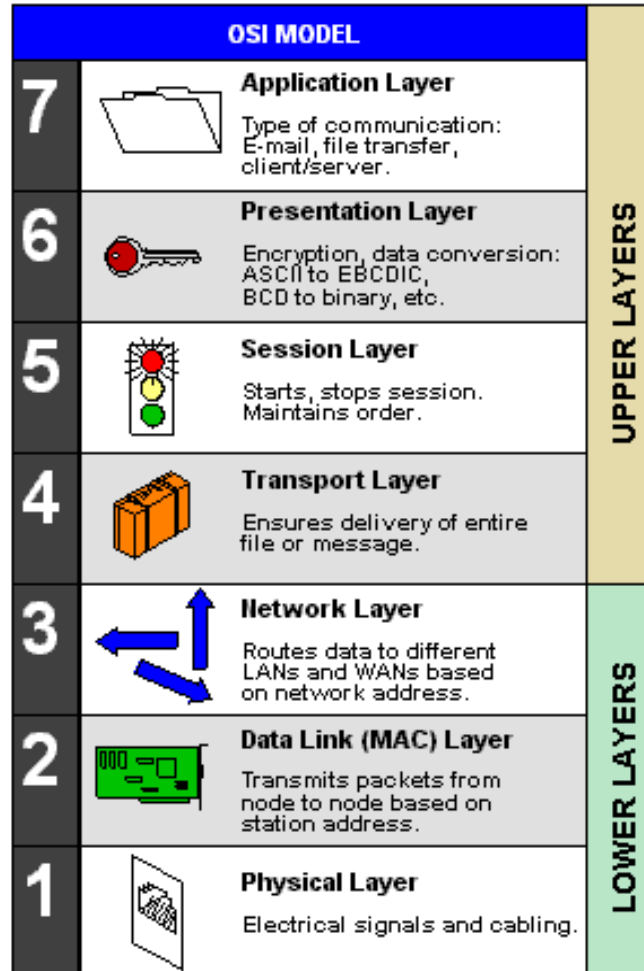
ACORD standard RLC/DRI messages

Broker Core System	U/W Core System	Document Management	Workflow	Gateway	Electronic Forms	Trading Platform	Messaging Hub	Market Repositories
Acturis	CGI GIOS	Alphabet Group TIW	Capita Total Documents Swordfish	Alphabet Group TIW	ATOS Origin	eReinsure	ATOS Origin WritePlace	ISO Market Wordings Database
Open GI Momentum	Eurobase Synergy	Capita Total Documents Swordfish	Knowledge Center	ATOS Origin	IBM eForms	Ri3K	IBM Insurer Messaging Network	Xchanging IMR
Sequel (SBS) Sectornet	Intech Open Box	Documentum	Microsoft Sharepoint	IBM Insurer Messaging Network	QKnow		Kewill	
Total Objects Global XP	ROOM Subscribe	Filenet	QKnow	Perspective onMessage	WCL Easy Placement			
Total Systems Ulfima	Sequel (SBS) Eclipse	Knowledge Centre	SourceCode K2	Trace Isys TMMS				
Trace Isys TWINS	Total Objects IMS	Microsoft Sharepoint		TriSystems UMG				
Xchanging Brokasure	Xchanging Genius	OpenText Hummingbird		WCL EnabledB2B				

When can we take the technology for granted?

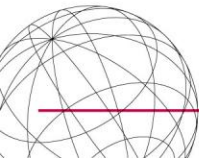
- Why not now?





UPPER LAYERS

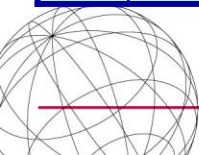
LOWER LAYERS



ACORD Messaging Service AMS

An XML message – from top to bottom

	<u>Standard</u>	<u>Description</u>	<u>Organisation</u>
Transport	HTTP 1.1	Transport protocol	IETF (RFC2616)
	SSL/TLS (HTTPS)	Connection security (encryption)	IETF (RFC2246)
	X.509	Security certificate format	IETF (RFC3280)
	MIME	Message format – what's in the message and where	IETF (RFC2045)
SOAP	SOAP 1.1	How to create a SOAP message	W3C
	SwA	Using SOAP and MIME together	W3C
	WS-I Basic 1.0	How to implement a web-service	WSI
	WSS 1.0	Message security (signing)	OASIS
Messaging	AMS	ACORD messaging	ACORD
	AMS Security Profiles 1.0	Guide to relevant parts of WSS	ACORD
Business	DRI or RLC (also available for PCS or L&A)	Payload	ACORD





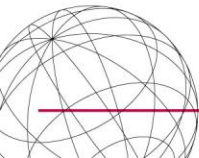
The business advantage area

OSI MODEL		UPPER LAYERS
7	Application Layer Type of communication: E-mail, file transfer, client/server.	
6	Presentation Layer Encryption, data conversion: ASCII to EBCDIC, BCD to binary, etc.	
5	Session Layer Starts, stops session. Maintains order.	
4	Transport Layer Ensures delivery of entire file or message.	
3	Network Layer Routes data to different LANs and WANs based on network address.	
2	Data Link (MAC) Layer Transmits packets from node to node based on station address.	
1	Physical Layer Electrical signals and cabling.	LOWER LAYERS

		SOAP	Messaging	Business
		SOAP 1.1	AMS	DRI or RLC (also available for PCS or L&A)
		SwA	AMS Security Profiles 1.0	
		WS-I Basic 1.0		
		WSS 1.0		

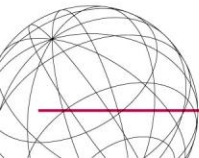


What does ACORD Offer?



Membership

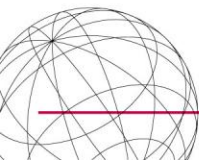
- **ACORD is a member run organisation**
 - a not-for-profit, global insurance standards organisation
- **Members define the standards**
 - With advice and guidance from ACORD staff
- **ACORD has nearly 500 worldwide members**



Standards Domains

- **ACORD aims to improve inter-working with related technology, insurance and other industry standards.**

- **ACORD uses the World Wide Web Consortium (W3C) as the basis for its own standards which cover three domains of insurance;**
 - **Property, Casualty and Surety (PCS, i.e. personal lines and small commercial)**
 - ▶ **Predominantly USA based – mixture of forms, EDI and now moving into XML**
 - **Reinsurance and Large Commercial (RLC)**
 - ▶ **Evolved from EDI operational in London Europe and North America since the late 1980's now XML**
 - **Life Annuity and Health (L&A)**
 - ▶ **Predominantly USA based – mixture of forms and XML**

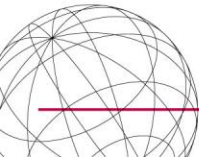


ACORD RLC Business Messages

- Placement
- Claims Movement
- Technical Account
- Financial Account
- Bordereau
- Acknowledgement
- DRI



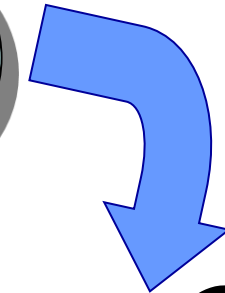
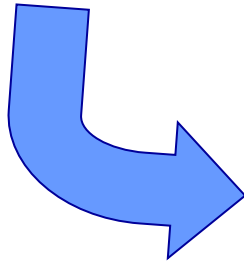
Testing Certification Facility (TCF)



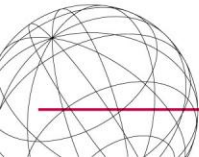
Without TCF



YOU



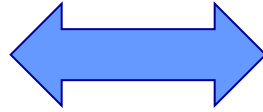
BUSINESS PARTNER



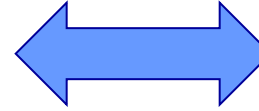
Test first with TCF...



YOU



- Connectivity
- Security
- Standards compliance



BUSINESS PARTNER

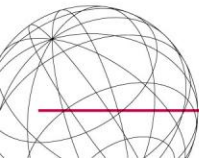
And get trouble-free implementation with partners...



YOU

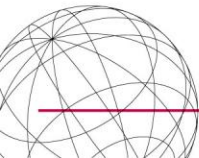


BUSINESS PARTNER



ACORD TCF – The Facts

- **Over 1,800 messages sent since August this year**
- **ACORD Message Service**
 - Fully implemented
 - Completed ~20 Certifications
- **Document Repository Interface**
 - Fully implemented, based on ACORD Guides
 - Completed ~18 Certifications
- **Reinsurance / Large Commercial Placing**
 - Fully implemented, based on ACORD Guides
 - Completed ~5 Certifications



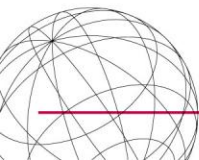
Certification

- **Transport**
- **Business Message**
- **Implementation Project Phases**
 - ▶ Schema Slice
- **Information**
 - ▶ Structured Data in stream
 - ▶ Structured Data as attachments
 - ▶ Other attachments
- **Process**
 - ▶ Function
 - ▶ Process Flows
 - ▶ Sequence



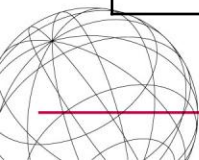
AMS Certification Granularity?

Mode of Operation	Role	Port	Mandatory Service	Optional Services	
Asynchronous Asymmetric	Client	Inbox	Post	ListIn	Status In
		Outbox	Retrieve	ListOut	StatusOut
	Server	Outbox	Retrieve	ListOut	StatusOut
		Inbox	Post	ListIn	Status In
Symmetric Asynchronous	Client	Inbox	Post	ListIn	Status In
	Server	Inbox	Post	ListIn	Status In
Synchronous	Client	Call			
	Server	Call			
Connectivity Test	Client	Ping			
	Server	Ping			



Placing Message Certification Granularity?

Process Step	Process Flow	Variations By Class of Business to be determined e.g. as defined in the Global Placing Document (GPD):
Request for line / binder	Broker to carrier	<ul style="list-style-type: none"> • COMMERCIAL PROPERTY • PROFESSIONAL LIABILITIES (PI, D&O, etc) • MARINE • AVIATION • SPECIE, FINE ART, JEWELLERS BLOCK, etc • FACULTATIVE REINSURANCE • TREATY REINSURANCE
Request additional information	Carrier to broker	
Supply additional information	Broker to carrier	
Withdraw Line	Carrier to broker	
Placement Cancelled NTU	Broker to carrier	
Indicative line	Carrier to broker	
Conditional line	Carrier to broker	
Acceptance of Conditions	Broker to carrier	
Decline Conditions	Carrier to broker	
Request to negotiate line	Broker to carrier	
Unconditional line	Carrier to broker	
Acceptance of line	Broker to carrier	
Decline line	Broker to carrier	
Sign Down	Broker to carrier	
Issue contractual documentation	Broker to carrier	
Placing closed	Broker to carrier	
Acknowledgement	Carrier to broker	
Acknowledgement	Broker to carrier	



What is the future direction?



Business flows

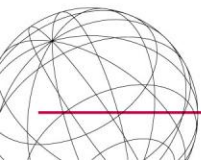
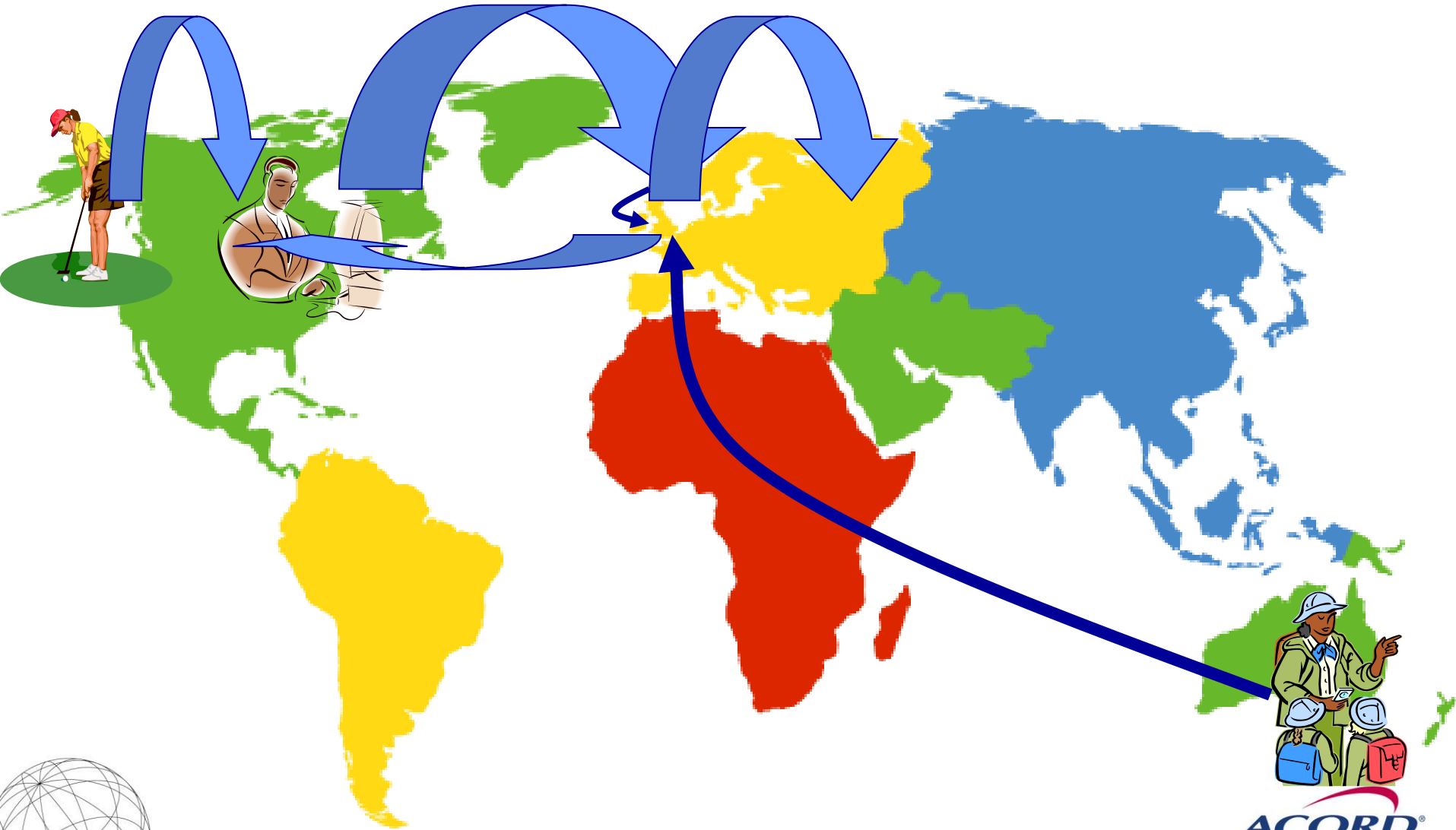
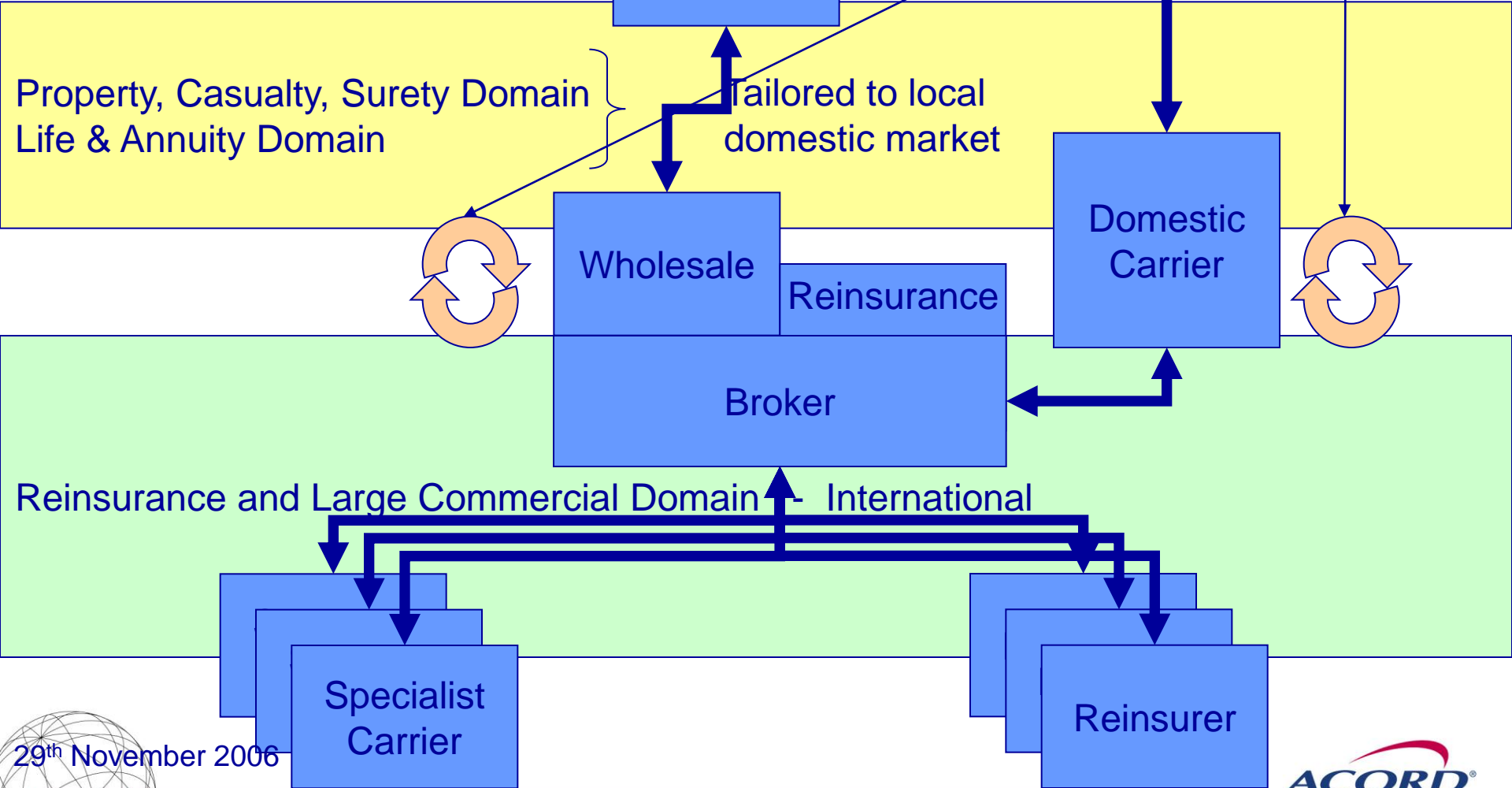


Illustration of domains against business flows



Client

Enterprise transformation
Using
Standards Framework
core components



A Non-technical perspective of Infrastructure and Architecture

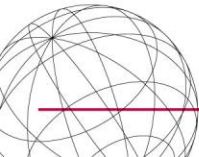
Gateways, Hubs & Trading Platforms

What, Why, How & Who?

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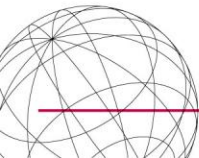
What does ACORD Offer?

What is the future direction?



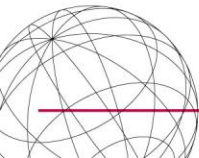
Conclusion

- **Gateways Hubs Trading Platforms**
 - Essential components for a healthy market
 - Enabling mechanisms
 - ▶ Conforming to standards
 - ▶ Taken for granted
- **Plumbing that works**
 - Certification with bite
- **Enable Freedom of choice**
 - Within defined business process context
- **Attack the real business issues**



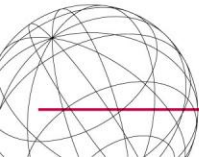
Market Reform Update

Rob Campbell, MRO



ACORD Update

Roy Laker ACORD





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