Data Flows and Business Models: Distributing Information Flows and Business Functions

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1980's – 1995+

- Most data processing takes place in the jurisdiction of the collector of the information
- Where data is sent out of the country, it was often by express or courier, on tape, for bulk processing, and returned overnight.
- Fairly discrete exchanges of information, fairly easy to identify where information is, contractual relationships are fairly straightforward

Example

- Customer in UK, company in UK
- Data processor in Germany
- Company in UK sends UK customer data to company in Germany for processing
  - Customer information is on tape
  - Tape is sent to Germany and returned promptly to UK
  - Processing was conducted and information was updated after process.
  - Processed information is uploaded to UK system

Changes…

- Fat pipes – increase in backbone and capacity, compression, fiber optics, caching…
- Shorter attention span and patience: online customers with expectations of 24x7x365 service and faster response
- Business is gaining economies of scope and scale by specialization and consolidation – consolidating data centers, specialized functions, information flows across functions
- Functions and specializations being distributed in cost-effective manner across global locations reflecting global markets and customer needs
- Follow-the-sun service and support model

1996-2000's

- More agents used in collection of data, some in the name of the company, some in the name of another party
- Functions can be distributed globally: payment processing, credit verification, customer service, support (expertise may be across multiple locations)
- Data centers may also be distributed
- Information flows needed to support various functions from various locations accessing various data centers
- Customers may enter the system across multiple media from many jurisdictions

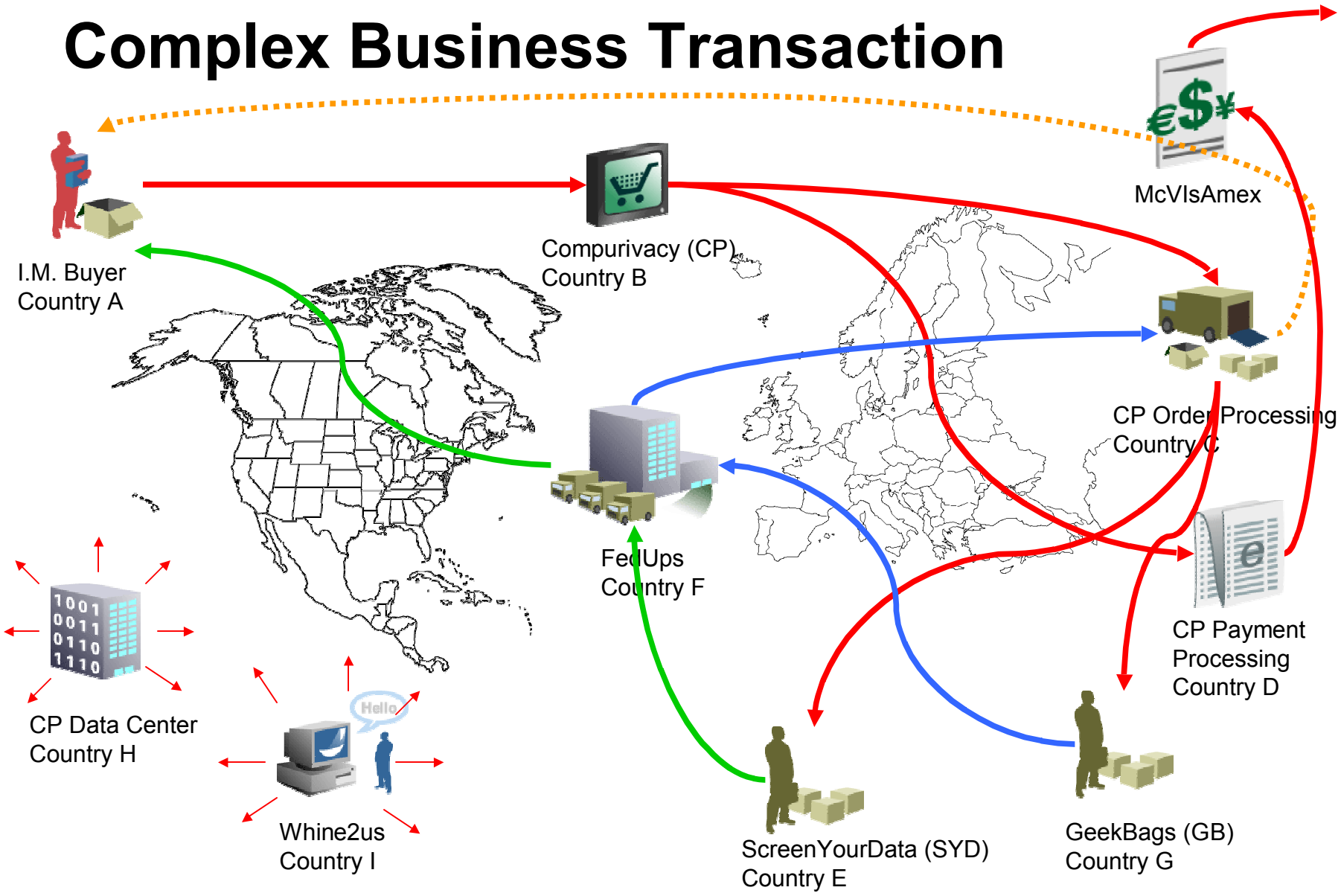
1996-2000's

- Much less clear or predictable who will need to access what information when
- Some transfers are company directed (payments processing) some are generated based on when and where a customer enters the system
    - Companies will service customers from daylight locations to accommodate customer calls in any time
    - Distributed work, handed off across jurisdictions can reduce time to resolve problems/develop solutions

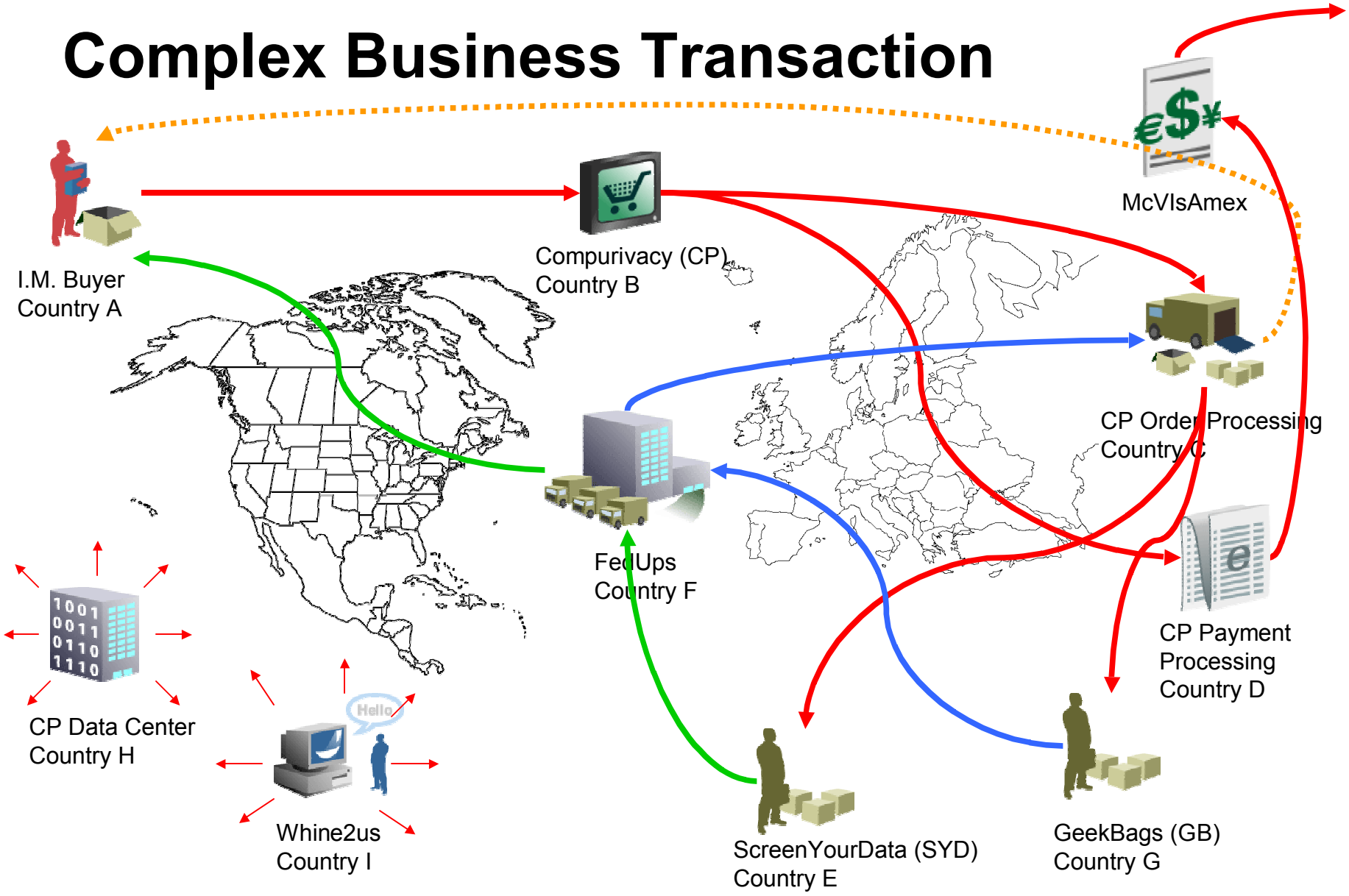
1996-2000's - Challenges

- Global flows of information result in spider webs of interrelations
    - May include layers of subsidiaries vendors, contractors and agents bound by some level of contract
- Finding chokepoints of compliance
- Assuring consistent policies and contractual responsibility across network of entities that may be involved in information flows

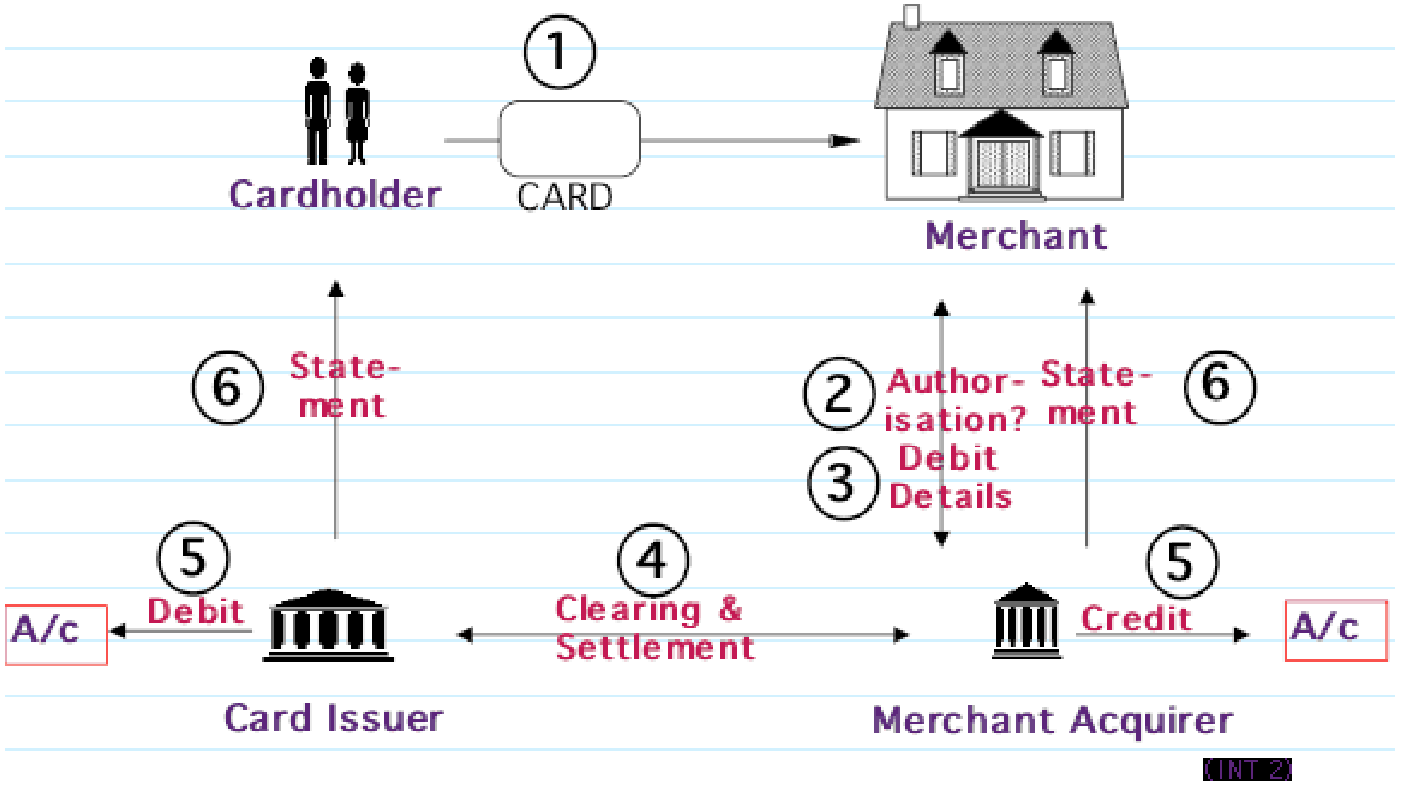
Complex Business Transaction



Complex Business Transaction

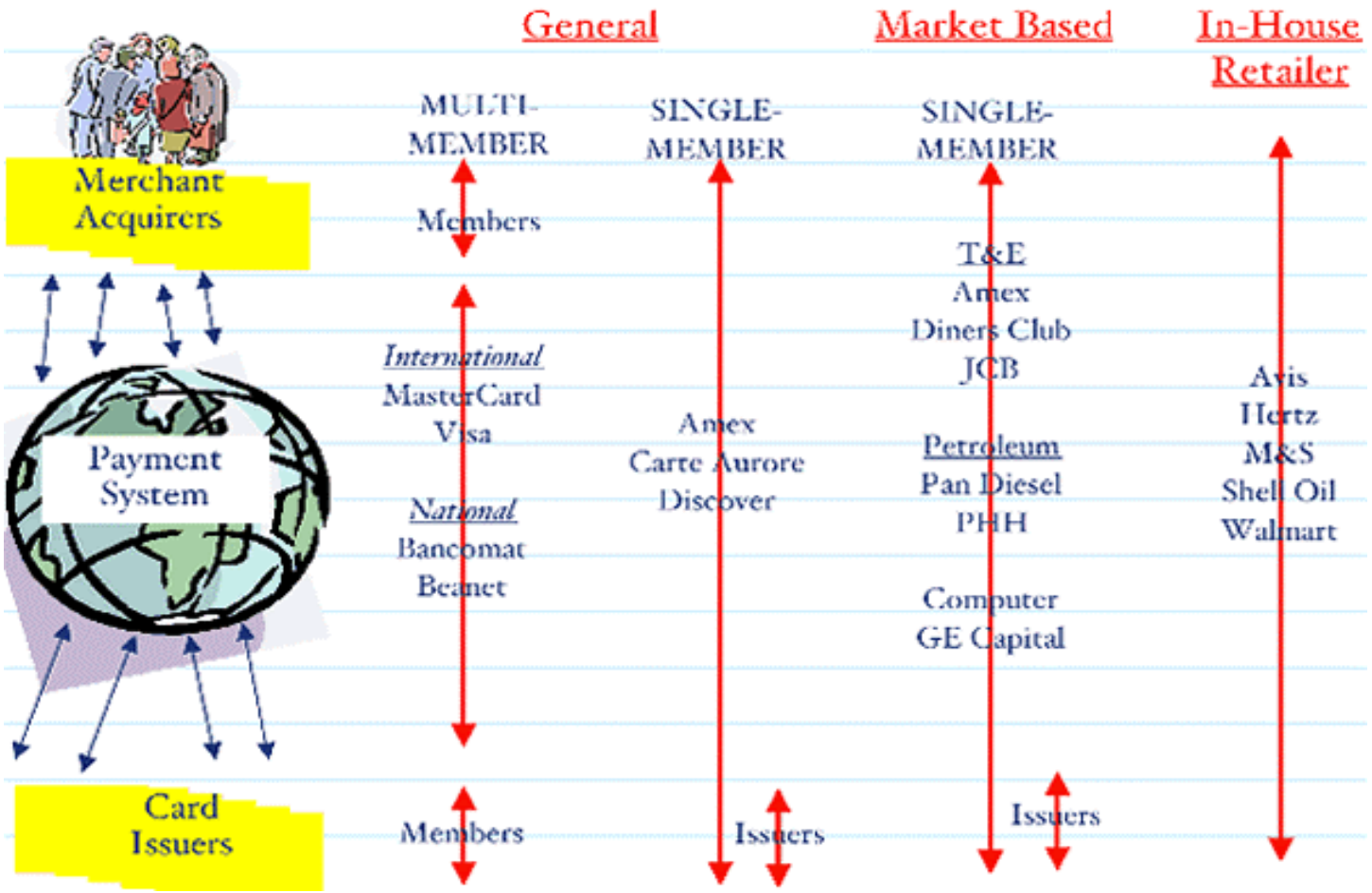


Payment Card Transaction Process and Flows



Source: http://www.gtnews.com/paymentcards/paymentcardsguide1.cfm

Types of Payment Card Schemes



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Payment Card Scheme Scale and Coverage (End 2003)

	Visa	Master Card	American Express	JCB	Diner's Club
Members	21,000	21,000	1	44+	60
Countries	180+	180+	150+	145	175+
Acceptance Locations	21.6m	22m	8.3m	11.4m	8.4m
ATMs	800k+	750k+	200k+	220k+	162k+
Cards Issued	1,208m	632m	60.5m	49.6m	8.6m
Purchase Transactions	30bn	13.1bn	3bn	0.4bn	0.14bn
Purchase (US$) Volume	$1,892bn	$891bn	$351bn	$40.5bn	$29.5bn

Source: http://www.gtnews.com/paymentcards/paymentcardsguide1.cfm

Take Away Points

- Information flows are no longer point-to-point, but rather global and needs based
- Interconnectivity has enabled more actors to be involved in providing business services across the same data flows
- Complexity of relationships makes point-to-point contracts harder to manage
- Substantial efficiencies and benefits to consumers can result.
- Challenges to compliance and enforcement must also be addressed – the APEC process is a positive step in this direction