Customer Centric Data Provisioning

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IBM Global Business Services

Information Governance Executive Briefing
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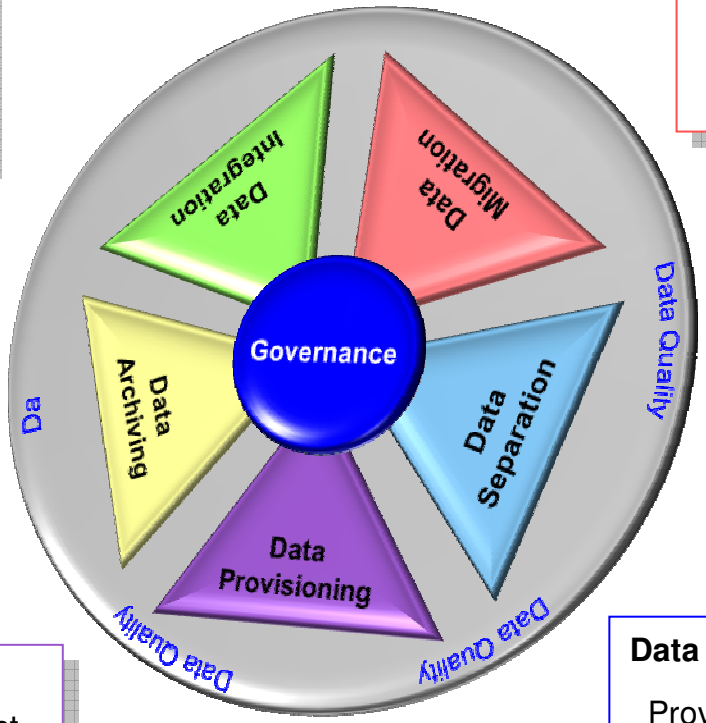
We provide a wide range of Data Transformation Services …

Data Integration:

Providing the capability to transform incoming, disparate data sources to integrate at runtime with the target system

Data Migration:

Providing one-off data migrations to support strategic movement of data to a different platform



Data Archiving:

Providing the process to support decommissioning initiatives through the secure retention and disposal of data in line with regulatory requirements

Data Separation:

Providing the capability to de-couple data, logically and physically, often to support a divestment, migration or integration initiative

Data Provisioning:

Providing compliant, right-sized test and training environments through sub-setting and desensitisation functionality

Data Quality:

Providing insight into the quality and consistency of data through intelligent analytics enabling appropriate interventions to address material issues

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Today we focus on Data Provisioning …

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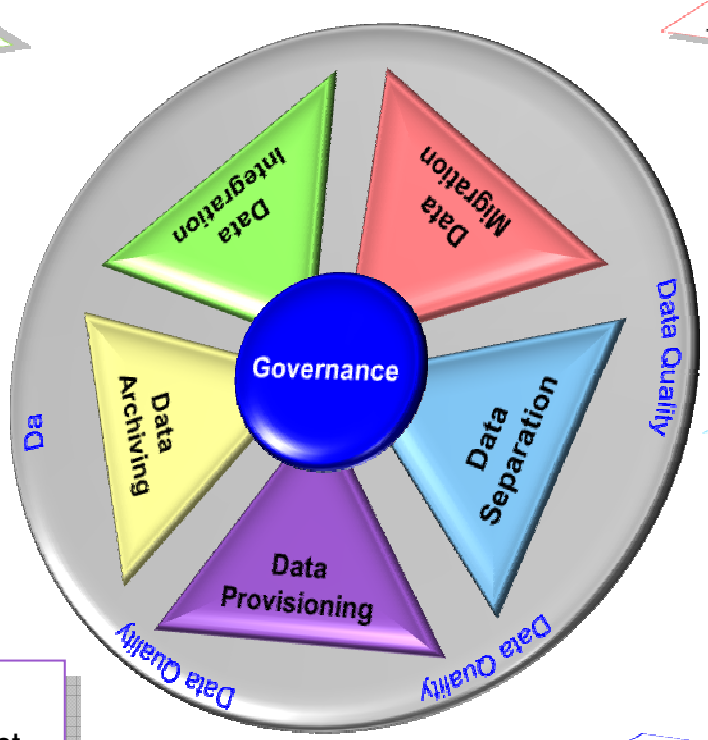

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Contents

The Business Challenges

Our Data Provisioning Solution

Our Commercial Approach

Extending the Service

Why IBM?

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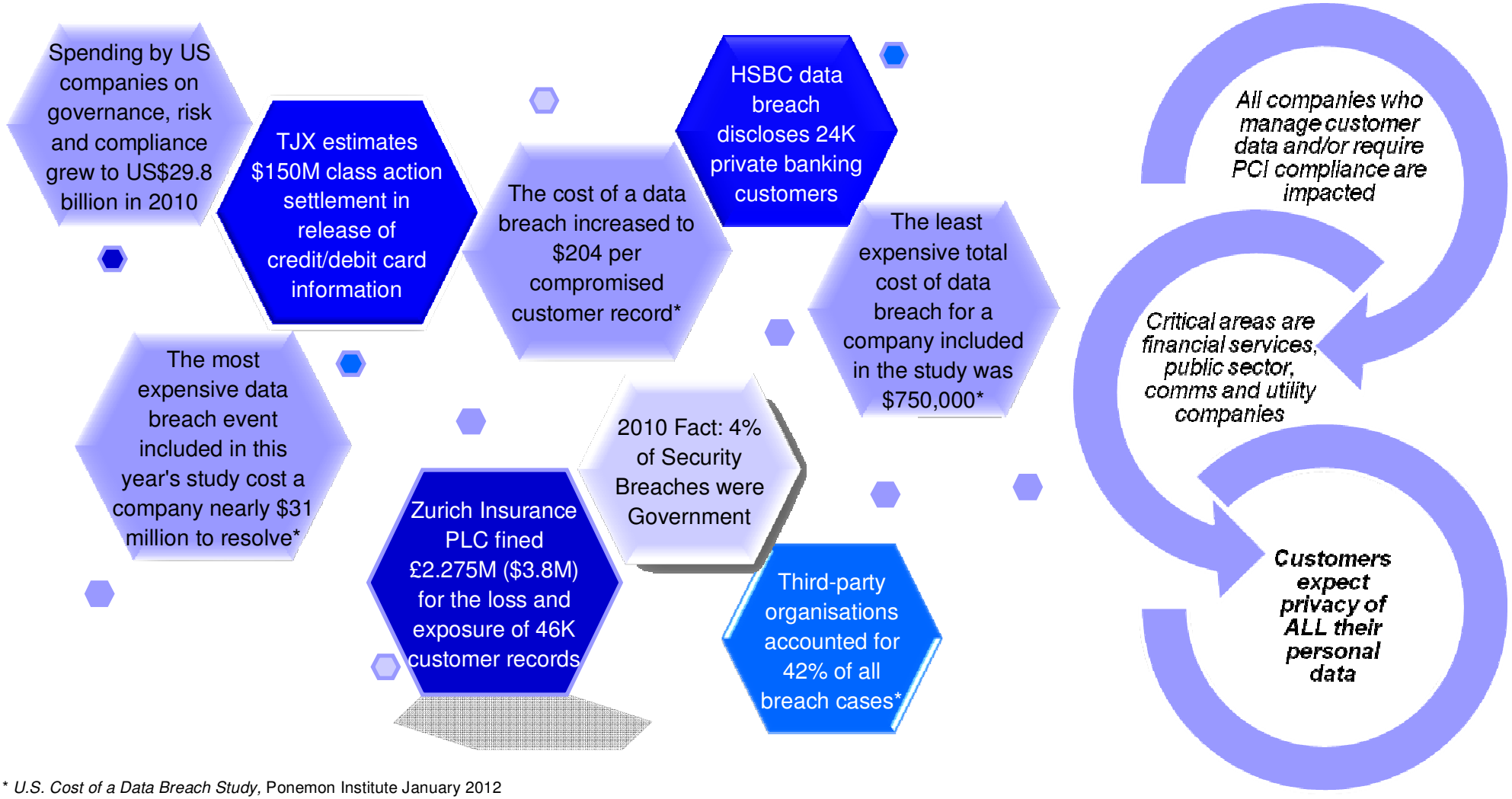
The price of mismanaging data is high …



* *U.S. Cost of a Data Breach Study,* Ponemon Institute January 2012

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… resulting in three areas of focus

Companies need to address three objectives when considering their use of data:

Protecting Customers

Losing information about customers, employees or products can have immense implications:

- Lost customer loyalty
- Impact on shareholder value
- Reduced revenue
- Negative publicity
- "Brand equity" damage
- Damage to company reputation
- Equity damage

Ensuring Compliance

Increasingly industry regulators are ensuring that companies are delivering to a robust corporate data management policy

PCI (Payments Cards Industry) insists that live card data (PANS) are not used for testing or development

DPA (Data Protection Act) is clear that UK data should stay in the EU, unless strict controls and regulations govern it.

Reducing Delivery Costs

Despite tough trading conditions companies still need to transform to compete:

- Reduce time and cost of delivery
- Improve cost effectiveness of BAU operations
- Need to exploit outsourcing/ partnering/off-shoring
- Utilising Cloud-based technologies

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However data provisioning isn't easy …

These are typical challenges that companies struggle to overcome:

- Costs of delivering test data to test environments are significant
- Provision of test data is not fit-for-purpose
- Difficult to deliver consistent desensitised data to support testing especially to support old legacy mainframe applications
- Too much reliance on business SMEs to provide the information necessary
- No standard approach or team in place to deliver secure test data for project and BAU activities
- Different approaches to mainframe/relational environments

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What options can be considered?

There are a number of options to addressing these challenges

Lock-Down Environment

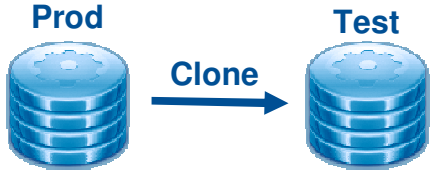
- Extremely Costly
- Difficult to Scale
- Challenging to Govern
- Slow to react to requirement changes

Strategic Solution

A combination of:

robust solution and factory style delivery

- End-to-end service
- Robust, compliant solution
- Changes data repeatably and intelligently based on content
- Produces right sized environments to optimise infrastructure
- Reusable Assets
- Fixed, Unit Pricing
- Cheaper the more you use



Production Clone

- Not PCI compliant
- Significant risk of data loss
- Heavy on storage
- Access conflict for users

Tactical Solution

- Adds risk of technical test failures
- Data or structure changes may invalidate testing
- Labour intensive
- Heavy on SME resource

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Resulting in our strategic factory-based solution

Recognising these challenges, IBM developed a service offering utilising a combination of leading IBM **software products**, **services** and **global delivery resourcing** to provide an **end-to-end** solution from data identification to delivering desensitised data; sub-setted if required

The factory approach achieved **economies of scale**, typically **reducing costs** by **40-50%** and delivery by months compared to previous isolated solution. Our commercial model supports **fixed**, **utility-based pricing**

The **sophisticated** nature of the data desensitisation and sub-setting means the test community can use the data **late into the test lifecycle** and achieve **earlier defect identification**

The fallout **assets** that are created **provide** a platform for further **data quality, separation** and **archiving initiatives**

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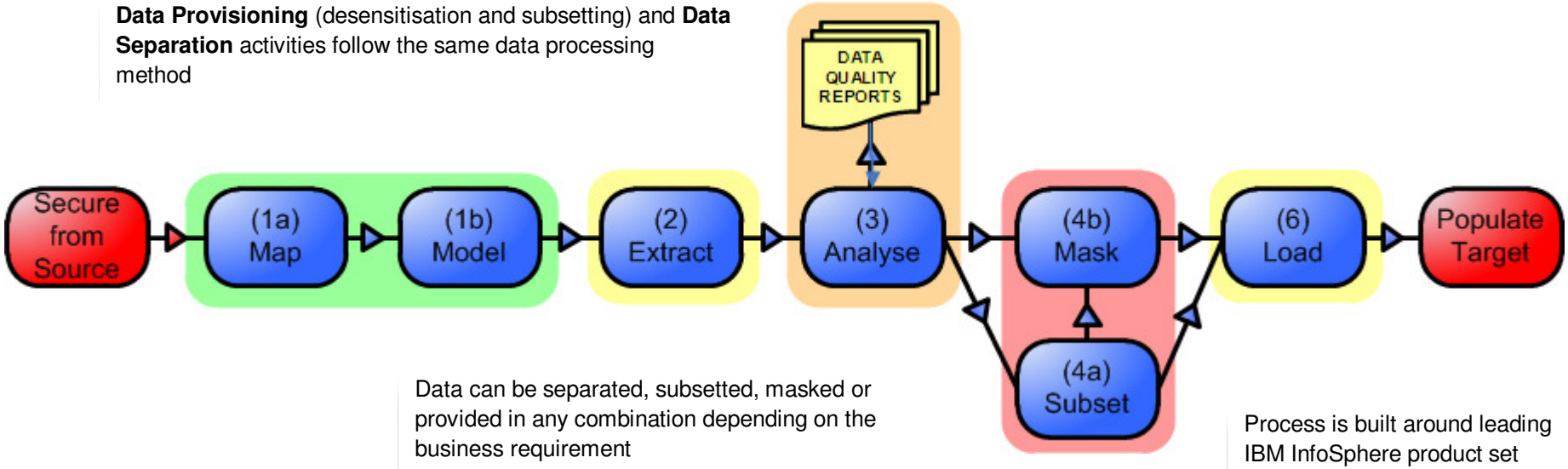
Data Provisioning – Our end-to-end methodology

- Protecting Customer Data
- Enabling Regulatory Compliance
- Reducing Cost of Delivery

Data Quality reports are natural outputs of the process

Data Provisioning (desensitisation and subsetting) and **Data Separation** activities follow the same data processing method



Data can be separated, subsetted, masked or provided in any combination depending on the business requirement

Process is built around leading IBM InfoSphere product set

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Contents

The Business Challenges

Our Data Provisioning Solution

The Commercial Approach

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Why IBM?

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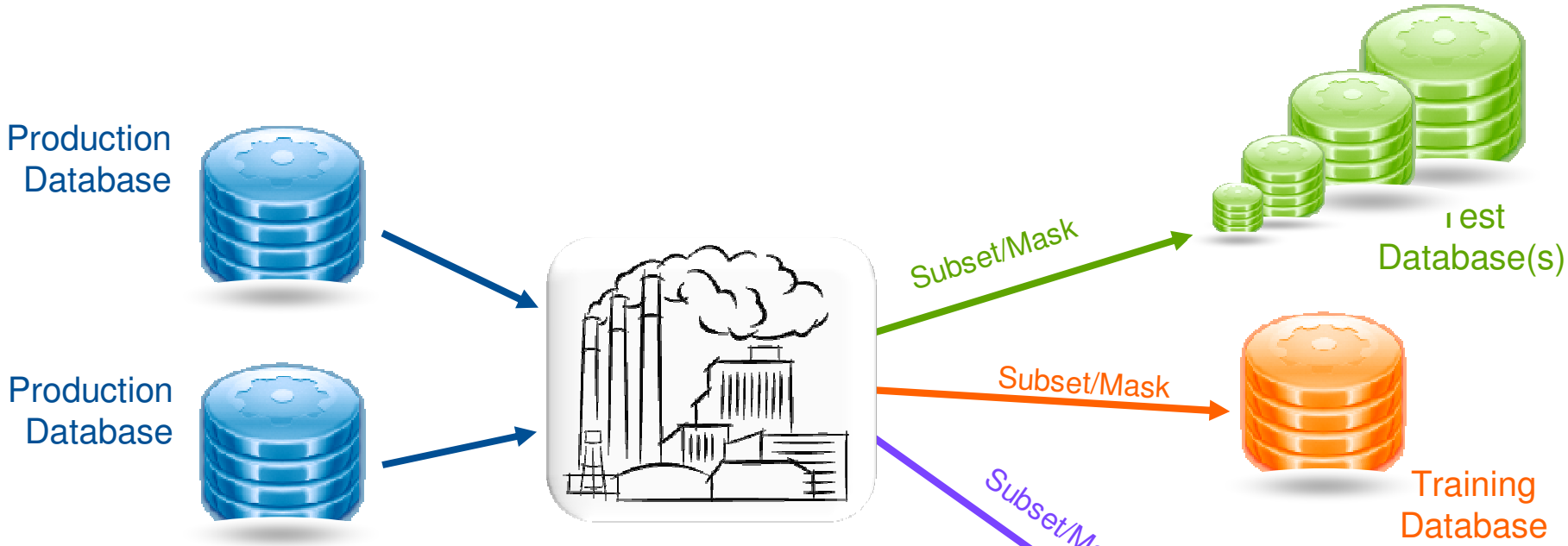
Our strategic factory solution



- Mask data in transit to populate non-production environments
- Subset en-route to create right-size databases
- Refresh and replace in line with enterprise requirements

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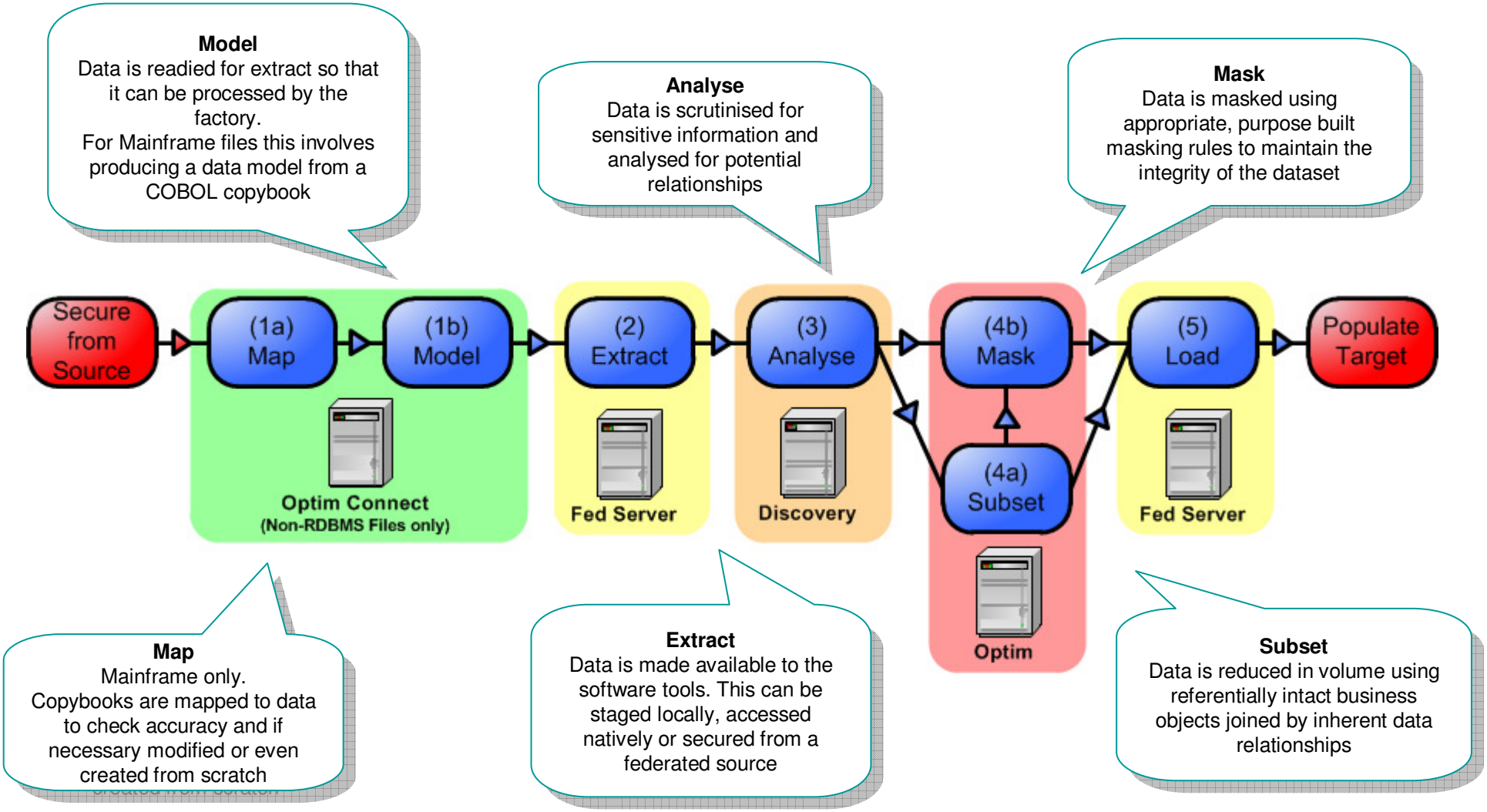
We utilise our purpose built methodology and toolsets



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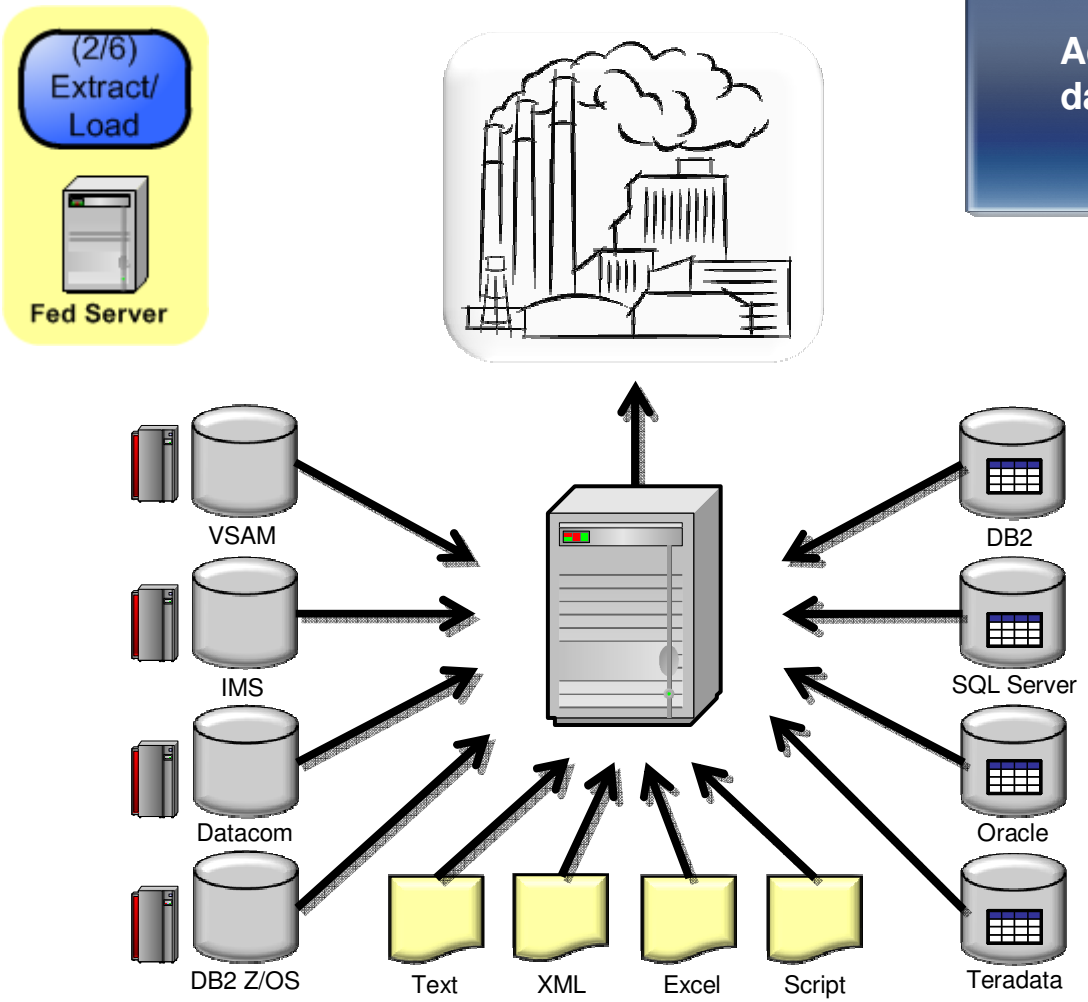
2&6 Data Extract and Load – Single access point for all data



Access a wide variety of data sources regardless of structure or brand

Requirements

- Process all data through one, consistent approach
- Seamlessly integrate data from disparate systems

Benefits

- Removes the risk of platform/version incompatibility
- Reduces the need for skills in every data discipline

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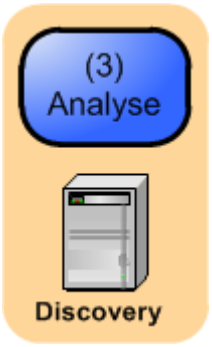
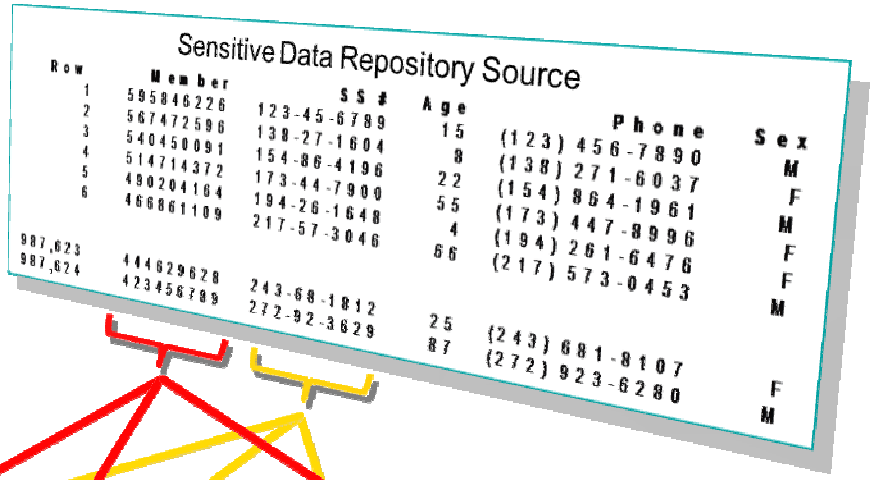
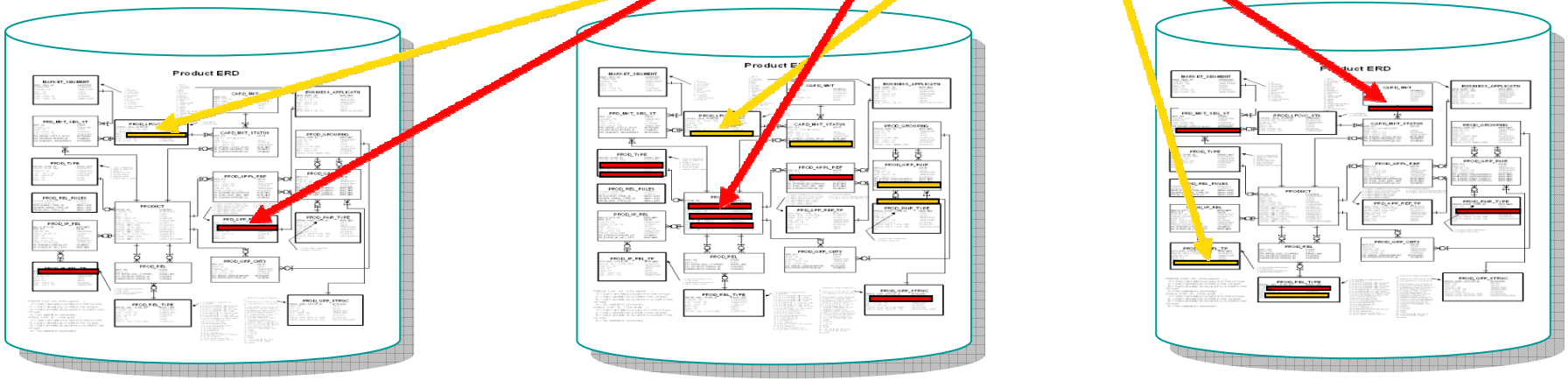
3 Data Analysis – Discovering the sensitive data



Use master stores to locate all instances of sensitive data





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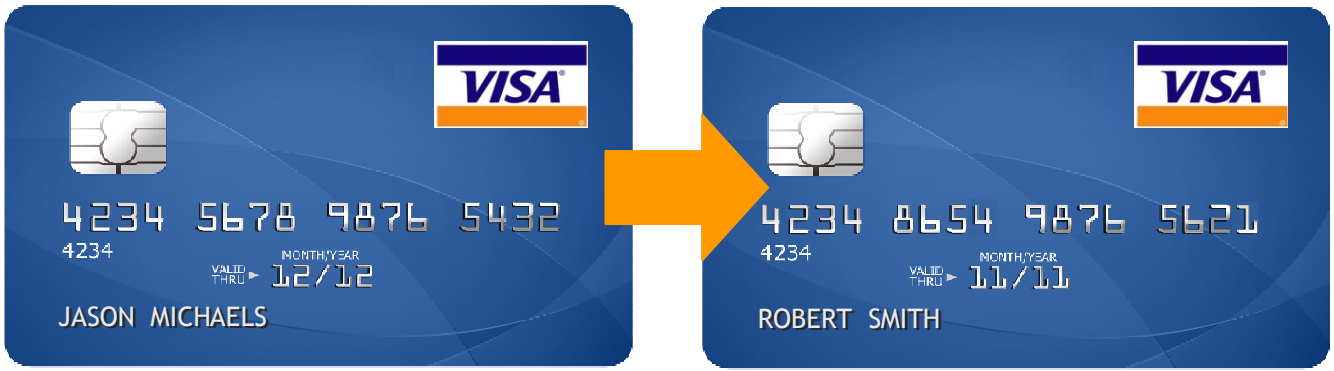
4 Data Masking – Changing the sensitive data

Mask sensitive information with realistic but *fictional* data for testing & development purposes



Requirements

- Protect confidential data used in test, training & development systems
- Implement proven data masking techniques
- Support compliance with privacy regulations

Benefits

- Protect sensitive information from misuse and fraud
- Prevent data breaches and associated fines
- Achieve better data governance

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4 Data Masking – Changing the data to meet business needs

Test Script

Open Customer record using
A/C# '33123'
Verify Customer details
display correctly
...
...

ID	ACC_NUM	CST_NME	CC_NO
1	33123	XXXX	99999
2	33124	XXXX	99999
3	33125	XXXX	99999
4	33126	XXXX	99999
5	33127	XXXX	99999

ID	ACC_NUM	CST_NME	CC_NO
1	33123	Pete	11567
2	33124	Fred	11468
3	33125	John	22765
4	33126	Bill	22946
5	33127	Bill	11234

Test data must remain *meaningful* after Masking

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Contents

The Business Challenges

Our Data Provisioning Solution

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Why IBM?

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Our commercial approach was adaptable to meet specific needs ….

The major principles on which our approach is based …

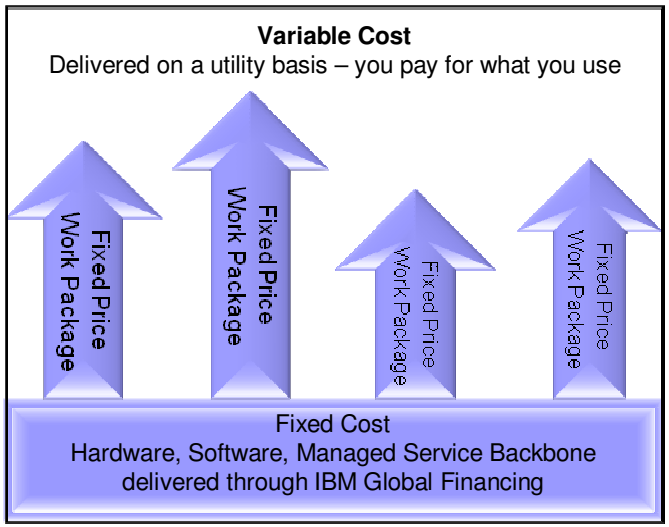
Dependable methods deliver predictable pricing, and converting fixed costs to variable delivers scale economies

Consistent, dependable practice leads over time to the most successful, cost effective delivery and enables us to offer predictable pricing, certainty of outcome and flexibility to handle every possible event

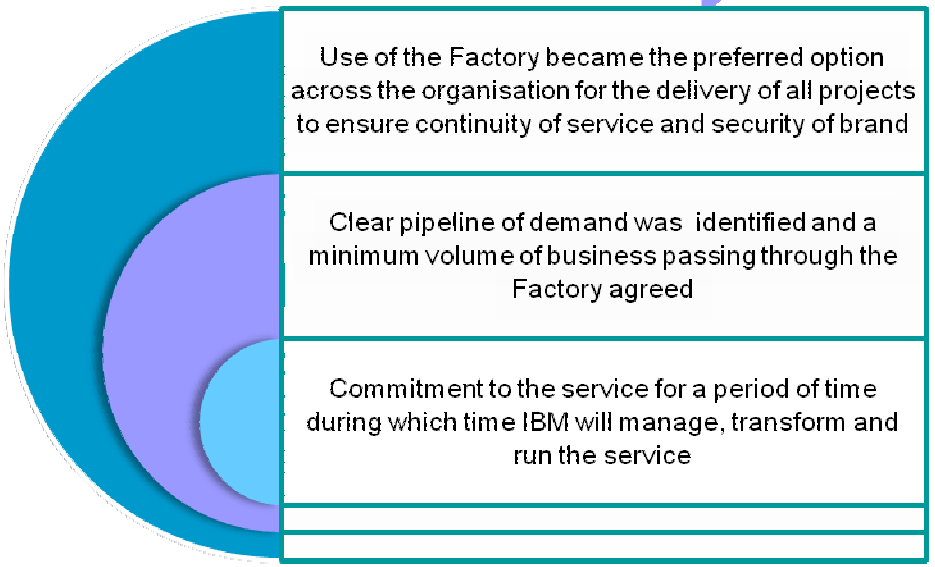
Our confidence in our capability enables us to offer standard predictable prices based on a simple set of sizing parameters for each project

Our intention would be to charge all costs to "buying" programmes as opposed to passing on "overheads"

We can reduce and convert fixed cost to variable cost by delivering the dedicated services using shared service pool economics and spreading infrastructure, license costs using a jointly agreed finance plan



… there are a number of prerequisites to making this work



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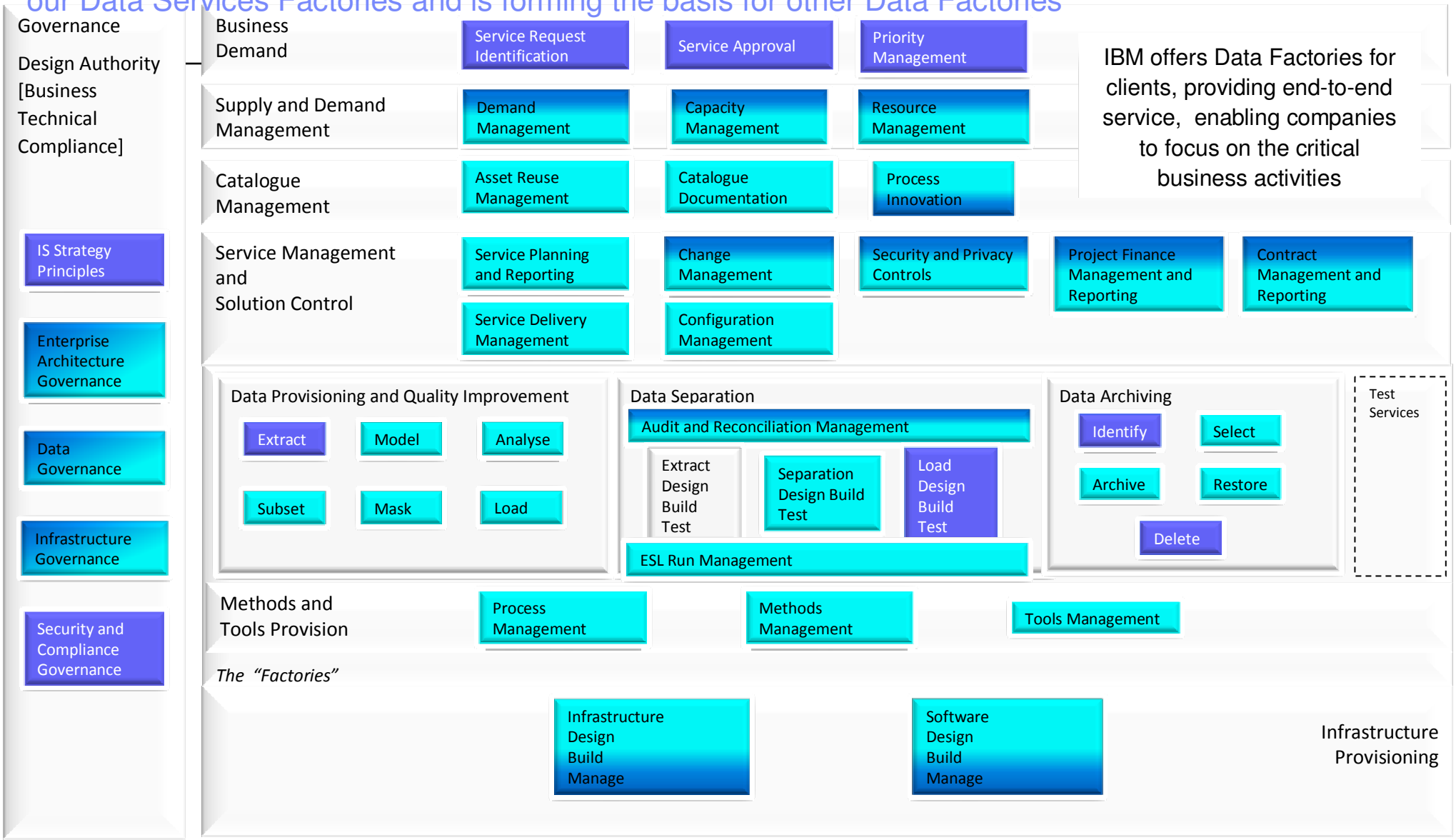
Our Data Provisioning Factory is delivered following the consistent, proven design principles of all our Data Services Factories and is forming the basis for other Data Factories



IBM offers Data Factories for clients, providing end-to-end service, enabling companies to focus on the critical business activities

Typical Responsibilities: Client, IBM

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Data Provisioning – We have a simple approach to pricing …

	Data Desensitisation		Data Subsetting	
	New to Service	Refresh of Data-cut	New to Service	Refresh of Data-cut
Database	£A per table	£B per table	£C per table	£D per table
Mainframe (Flat File)	£E per file	£F per file	£G per file	£H per file

- This provides a simple, repeatable and predictable pricing mechanism for all project requirements
- All Factory costs (fixed and variable) can be allocated following these principles
- Software and hardware costs can be allocated to this process (through the support of IBM Global Financing)
- As part of our service management process introduction we implement this approach and charge-back mechanism to projects
- For mainframe files this could include the production of the copybooks if not currently available
- Over time, the model is able to simplify further into a “catalogue” approach

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So how did we go about establishing the service?

- We proposed a 4-6 week definition phase where we jointly determined the model for the service – this would be preceded by 1-2 weeks of pre-mobilisation activities to confirm scope and client involvement
- The resulting deliverable was a detailed definition of the service proposed and a clear implementation plan
- Communication required active and visible senior sponsorship – this is a significant change and must be managed and supported as such
- We naturally look to reuse any deliverables which are pre-existing in this area to avoid duplicated effort and potential discontinuity

Realisation

Pre-Mobilisation	Definition	Implementation and Transition	Delivery
▪ Confirm scope of potential managed service ▪ Agree client and third party involvement ▪ Confirm project approach ▪ Plan meetings and data gathering process ▪ Communication to appropriate parties ▪ **Confirmation point: Agree definition phase activities and SOW**	▪ Produce operating model and technical design ▪ Determine responsibilities ▪ Identify project pipeline ▪ Create implementation plan ▪ Establish financial model ▪ Agree appropriate contractual arrangements ▪ **Review point 1: Confirm vision, value proposition, business model, imperatives and detailed scope of the future service**	▪ Establish governance model ▪ Acquire resources ▪ Define and implement factory processes ▪ Review technology and implement/ migrate as appropriate ▪ Educate external community in services and offerings ▪ **Review point 2: Confirm transition completed and approve move to BAU**	▪ Institutionalise within client ▪ Project delivery in line with model ▪ BAU run activities in line with defined model ▪ **Annual Reviews: Review performance and confirm future people, processes, technology plans and budgets**
1~2 weeks	**4~6 weeks**	**3~6 months**	**1-2+ years**

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Contents

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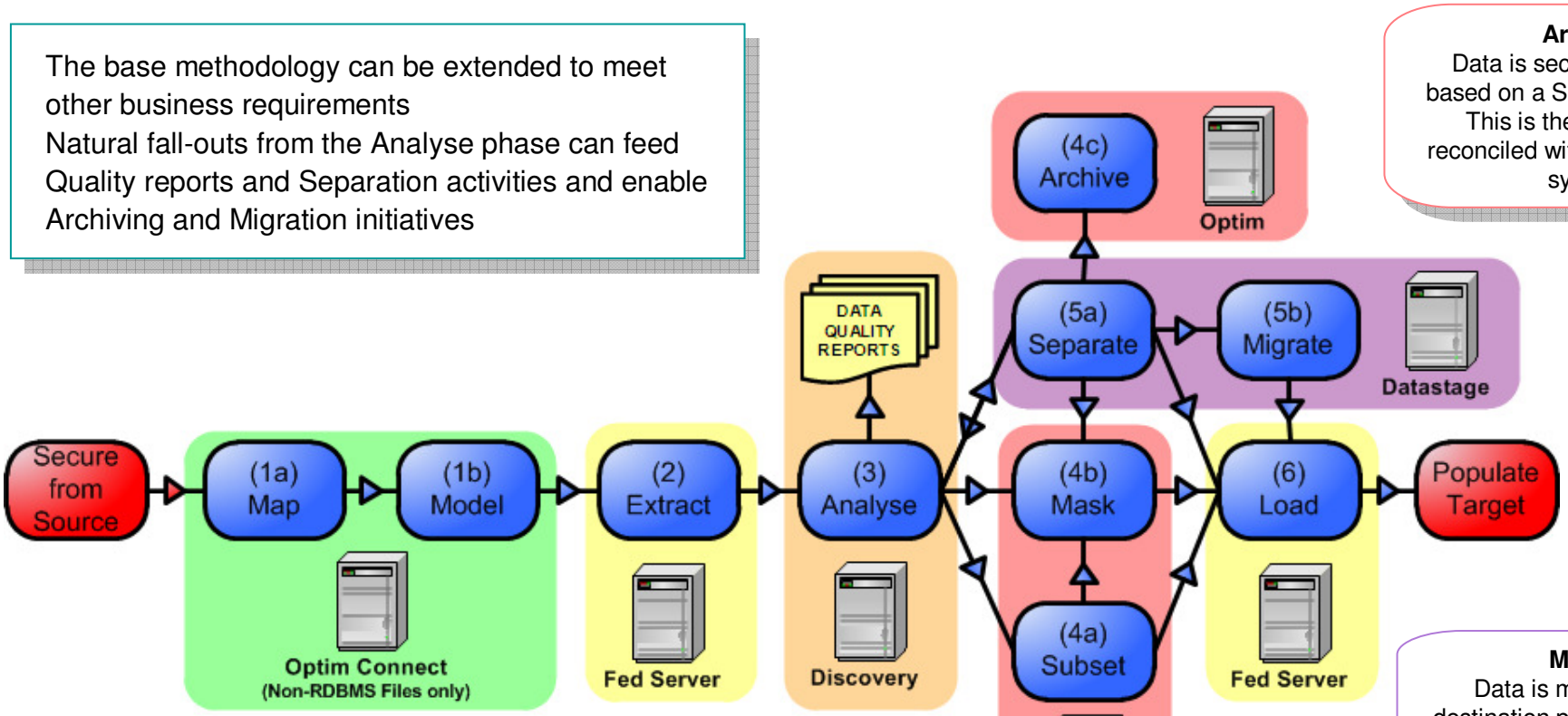
We are currently working to extend to support other business initiatives

The base methodology can be extended to meet other business requirements
Natural fall-outs from the Analyse phase can feed Quality reports and Separation activities and enable Archiving and Migration initiatives



Archive
Data is securely archived based on a Separation phase. This is then tested and reconciled with the production system

Separate
Data is separated based on an attribute identifier as defined by the business; typically a customer or product number

Migrate
Data is migrated to it's destination platform, ready for load into the target system

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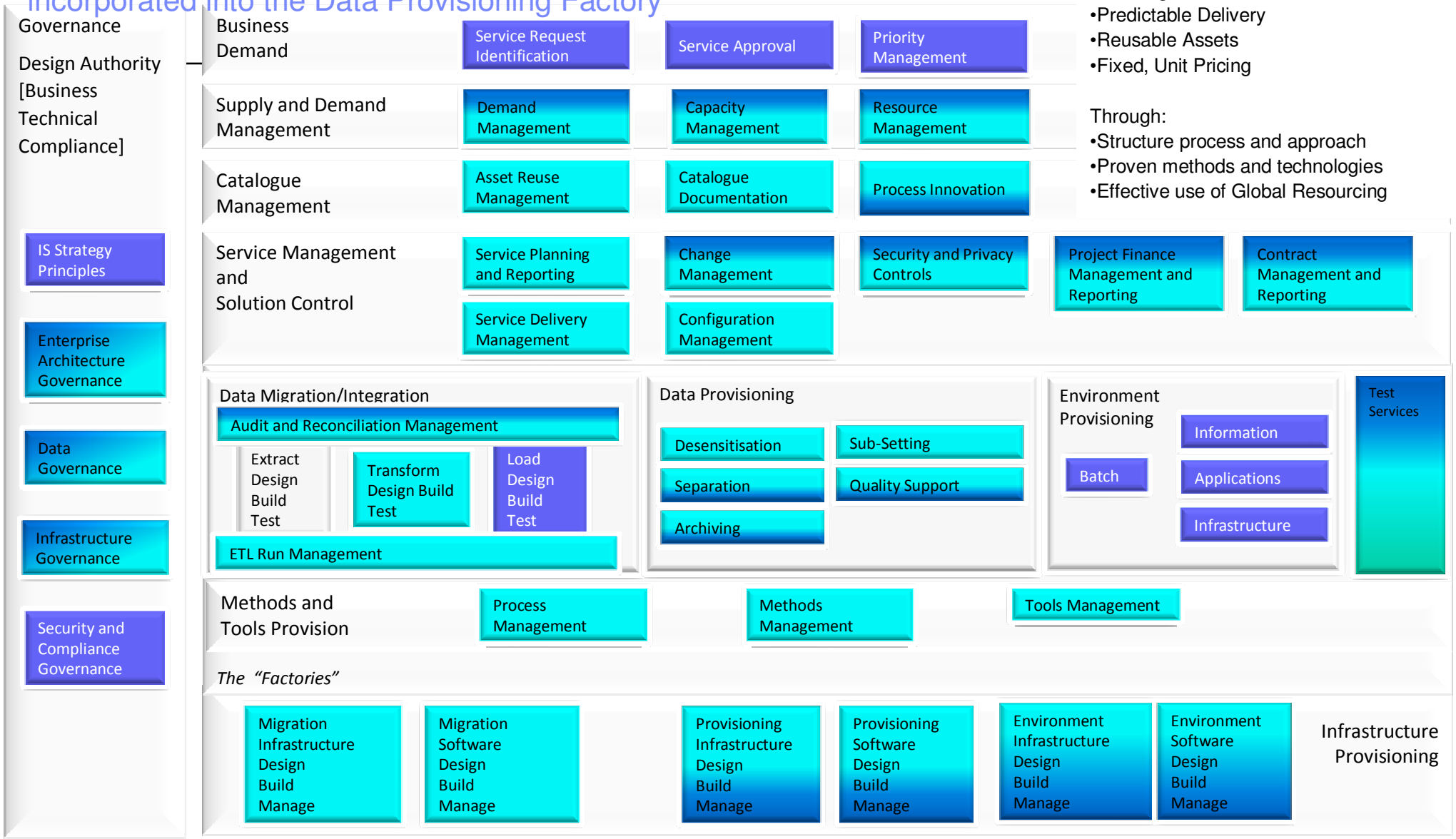
The extended services are delivered following the same factory model and can be seamlessly incorporated into the Data Provisioning Factory



Realising :
- Predictable Delivery
- Reusable Assets
- Fixed, Unit Pricing

Through:
- Structure process and approach
- Proven methods and technologies
- Effective use of Global Resourcing

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Typical Responsibilities: Client, IBM
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Contents

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Our Data Provisioning Solution

Our Commercial Approach

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Data Provisioning – The benefits of such a service

Predictable

By working with you to define an appropriate demand we can model it against a capacity; allowing you to have confidence and clarity on data delivery – whilst keeping control of your costs

Outcome Pricing

By assigning a pricing mechanism that directly relates to the work that we do you will only pay for what you use and want

Our flexible methodology allows you to quickly and easily estimate pricing costs depending on your requirements

Reusable

Each piece of data that goes through our process creates harvestable assets that can be leveraged time and again for re-use

This helps drives down costs over time; refreshing and repeating previously processed data is both quicker and cheaper

Cost Efficient Resourcing

Our team will blend experienced data architects, DBAs and analysts with our proven Global Delivery framework, keeping costs down without sacrificing delivery excellence

Global resources will be landed to satisfy regulatory requirements around data access

Flexible

We provide a catalogue of data services backed up by a robust and flexible methodology, allowing you to utilise different aspects of the service to suit your requirements, from a single platform

This increases your ability to react to ad-hoc requests, or high priority requirements

Benefits

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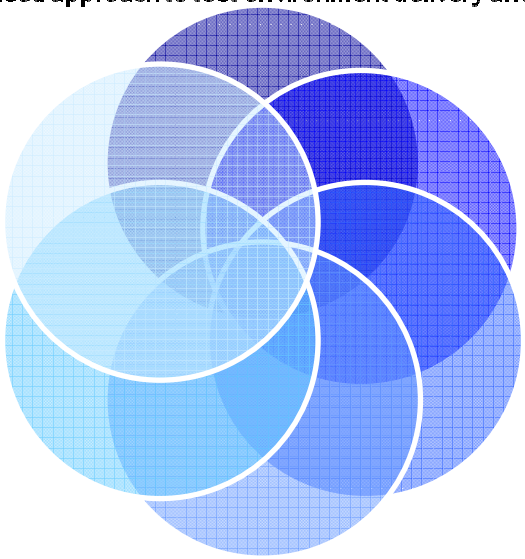
Our case study – some of the details …

Business Challenge

- Retain position as leading FS organisation in terms of customer care
- Ensure compliance with all regulations
- Reduce delivery cost through increased use of offshore development and test facilities
- Standardised approach to test environment delivery and management

Why IBM?

- Proven approach demonstrated through previous project-based delivery
- One supplier providing software and services – no "passing the buck"
- Partnership approach
- Innovative and outcome based pricing



Technical Landscape

- Mainframe (VSAM, QSAM, DataCom)
- Mid-range RDBMS applications (Oracle)

Factory Development Areas

- Data subsetting
- Data quality improvement support
- Data separation

Our Solution

- Utilises standard methodology and approach
- IBM performs all the tasks to desensitise the files or tables
- Fixed and variable payment, reflecting metered usage of the service
- Pricing is a unit cost per file or table desensitised based on simple parameters

Benefits Achieved

- Delivered to date: 4,000 mainframe files and 26,000 database tables
- 40-50% saving in cost compared to previous approaches
- Reduction in impact on project timescales
- Removed dependency on business application SMEs

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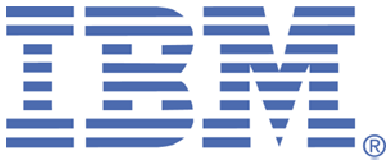
In summary … IBM is uniquely positioned

Skilled and experienced people

- **Unequalled breadth and capability of resources, with technical and industry knowledge:**
  - Highly skilled data consultants with experience of rationalising data estates
  - Experience of processing data from complex mainframes, relational databases and unstructured text files
- **Our people are committed to a set of core values:**
  - Dedication to every client's success
  - Innovation that matters – for our company and for the world
  - Trust and personal responsibility in all relationships

Delivery confidence with a proven solution that works

- **A data agnostic end-to-end solution that can be deployed and used on any major platform as an auditable BAU, factory-style service**
- **Standard, repeatable approach with accelerators to fast track implementation**
- **Strong global delivery heritage and creditability**
- **Pay for what you use approach, with IBM accepting commercial risk with fixed, utility based pricing which supports variable demand management**



Leading edge technology

- **Market leading InfoSphere software**
  - Optim Connect
  - Federation Server
  - Discovery
  - Optim TDM and Data Privacy
  - Datastage
- **Direct access to the development labs for product support and client specific enhancements**
- **Tools that are capable of providing reusable assets for future growth and initiatives around data management**

Assets, methods and tools built from assignments around the world

- **Standard set of IBM processes, methods and tools that are understood and applied globally**
- **Robust, proven, Data Provisioning methodology**
- **Access to a global database of knowledge, assets and collateral**
- **Opportunity to leverage lower cost global delivery model**

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Data Provisioning – Key Contact

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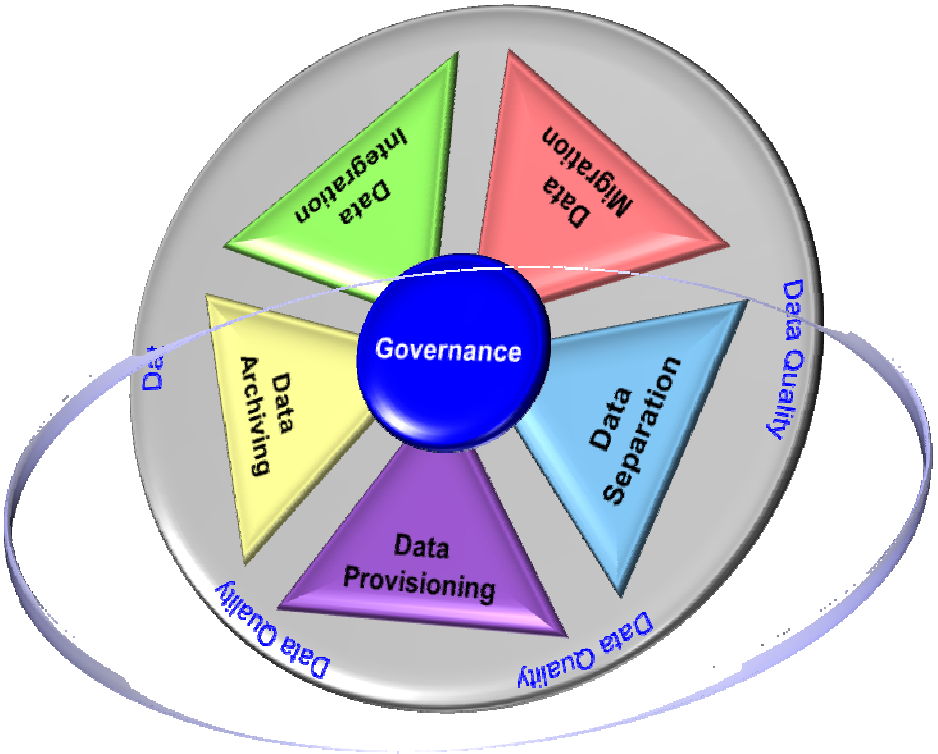

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