

# Dealing with the full spectrum of OpenVMS migration

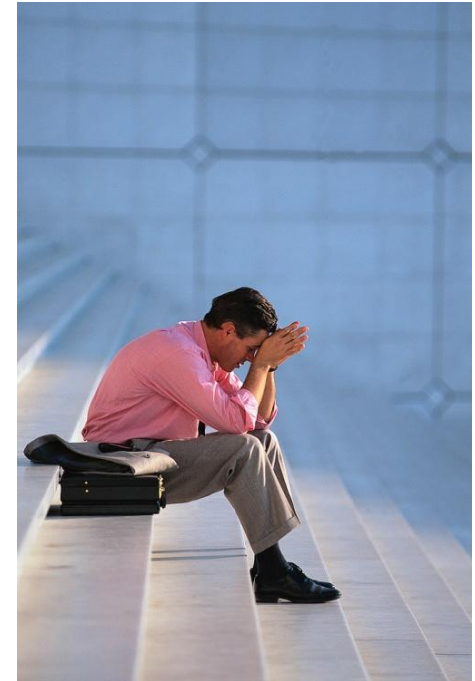
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## Objective

Explore key issues when migrating from OpenVMS

*“If it was easy, most people would have migrated from OpenVMS already”*

*“OpenVMS is a very capable system which people have exploited to the full”*



## The XDelta senior team



Colin Butcher



John Foster



Derek Webb

**PROJECT EXPERIENCES £30k - £3Bn**

## OpenVMSmigration.com

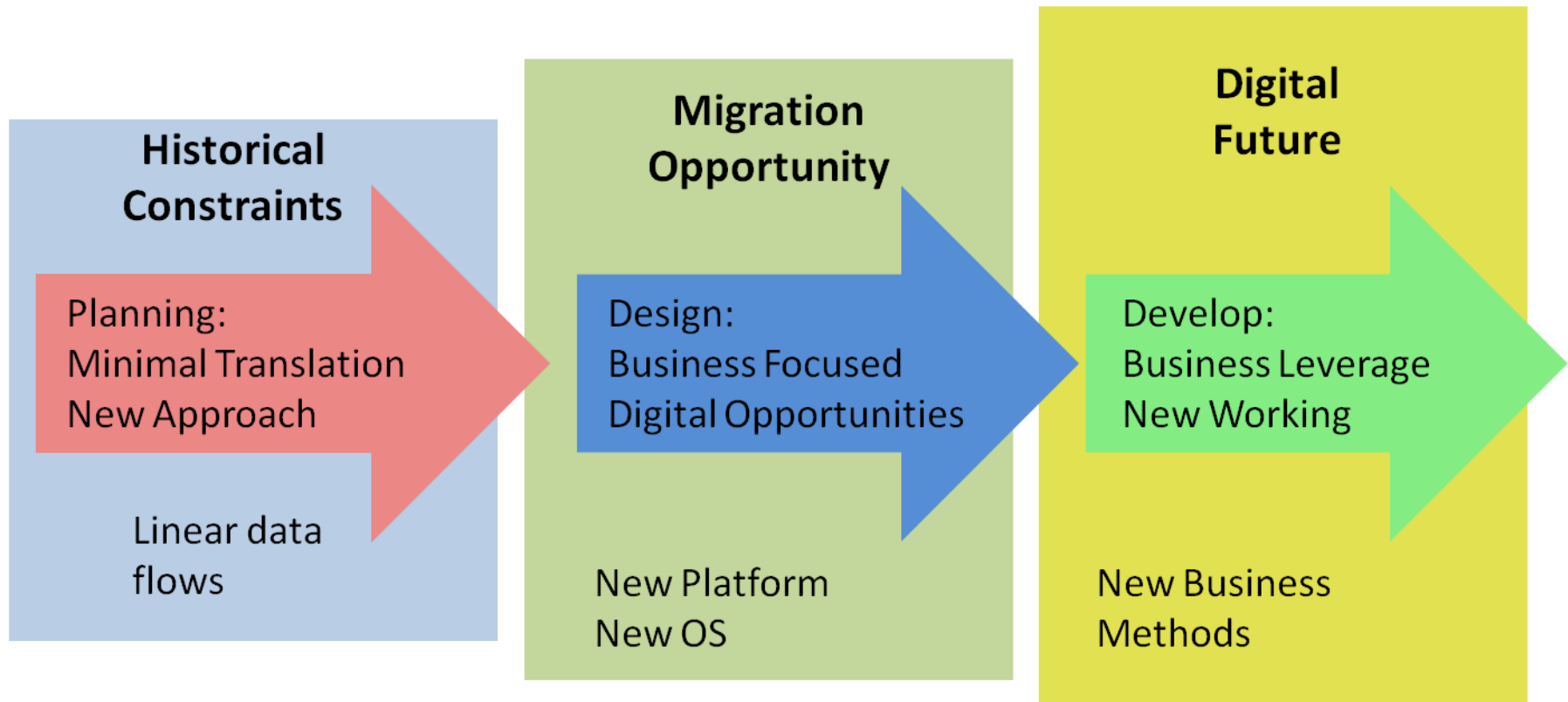
- XDelta in collaboration with specialist organisations
- Complementary skills to solve difficult problems
- Strategic planning, technical leadership and project direction with clarity of vision and an eye for detail
- Ensure long term success through skills transfer
- Gartner (2009):
  - Identified XDelta as one of few companies world-wide capable of OpenVMS migration related projects



## Focusing on the business need



# Turn the problem into an opportunity



## Current situation

Most OpenVMS systems purpose written:

- Tight integration with operating system and infrastructure
- Multi-site mission-critical capabilities

Well engineered operating system:

- Well structured and documented
- Scales very well from small to large implementations

Evaluate your options:

- Changing platform is something you do very infrequently
- New platform has to be stable for many years
- You will probably change platform again in 10+ years
- What level of support do you need for h/w and s/w ?

## Where to start ?

Planning in line with the business is essential:

Don't rush..... But do get started now!

- You will have to live with the decisions you make
- Use this as an opportunity to “do the right thing”

Don't start in the wrong place:

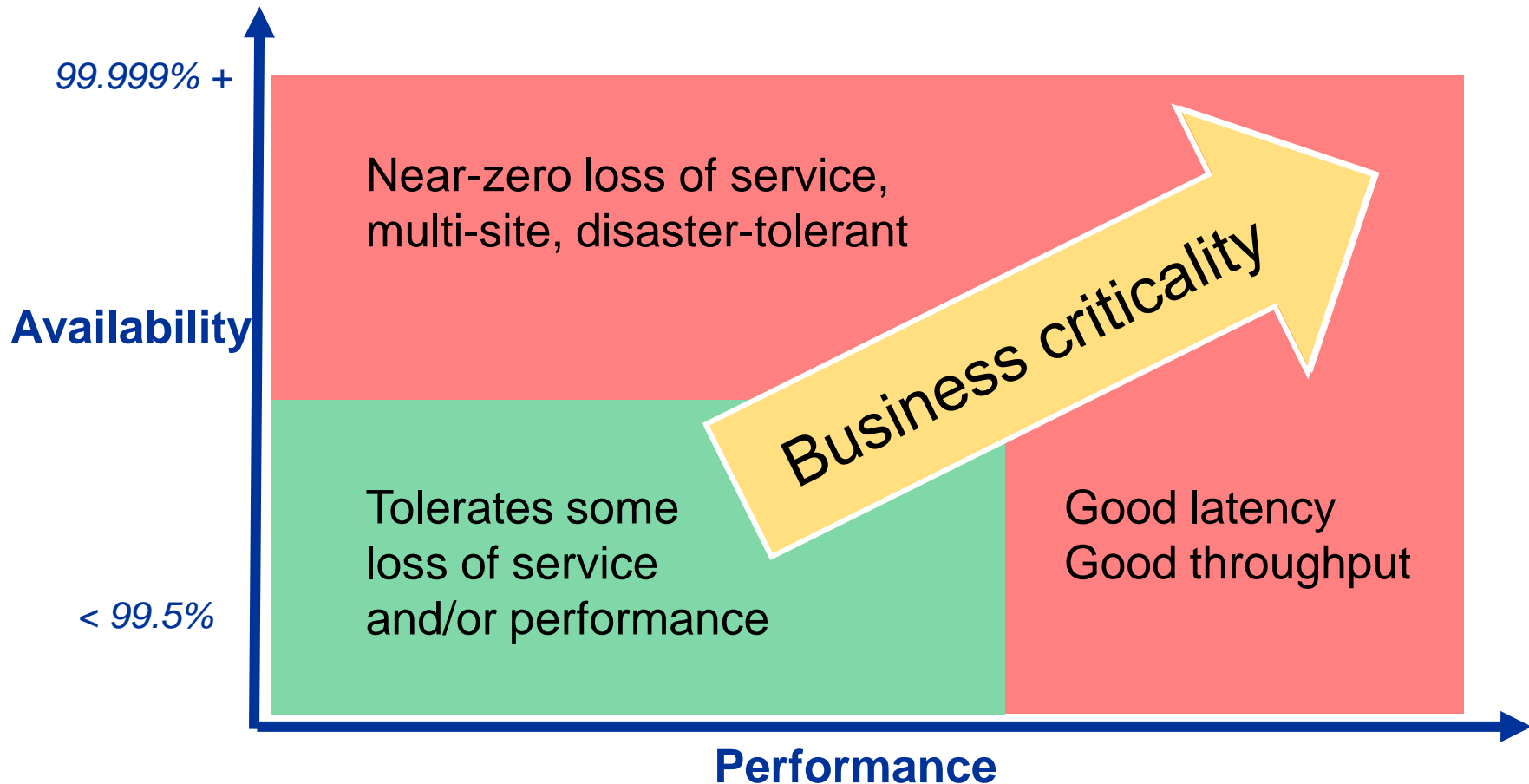
- Understand systems so they can be migrated without disruption
- Lot's of things to consider as well as porting the code

There is a range of solutions:

- What will work best for you ?



# Business criticality



## Some options for migration

### Do nothing:

- Stay with what you have for the foreseeable future
- Maximise HP support timescales then operate self supported

### Buy some time:

- Interim step – refresh hardware while planning ahead

### Port applications to new platform:

- Takes the bad as well as the good with it

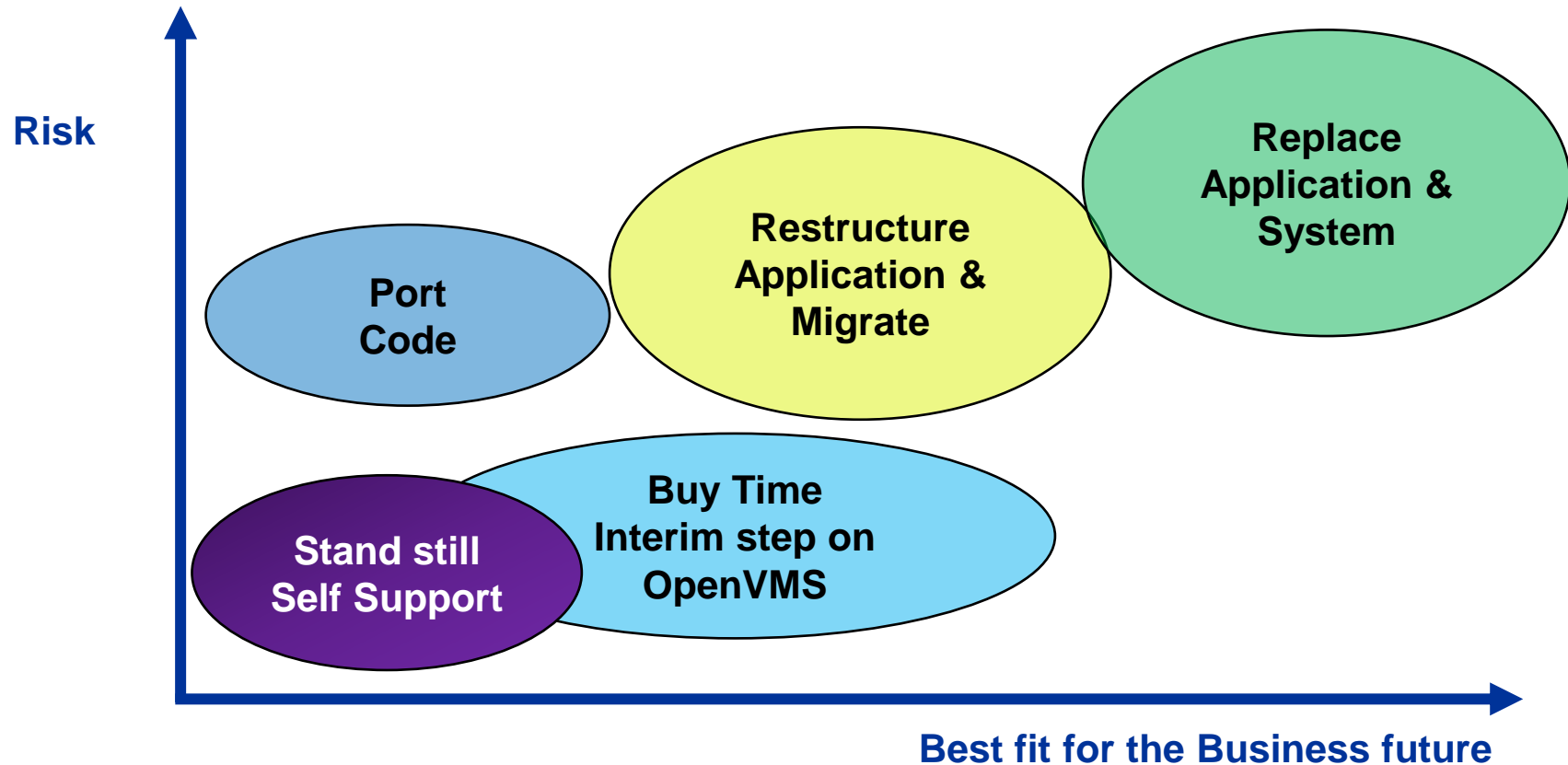
### Restructure applications and port to new platform:

- Take advantage of new technologies with less risk

### Complete application and system replacement:

- Allows total modernisation to support business

## Some options for migration



## When to start ?

Once you have defined your business objectives:

Consider:

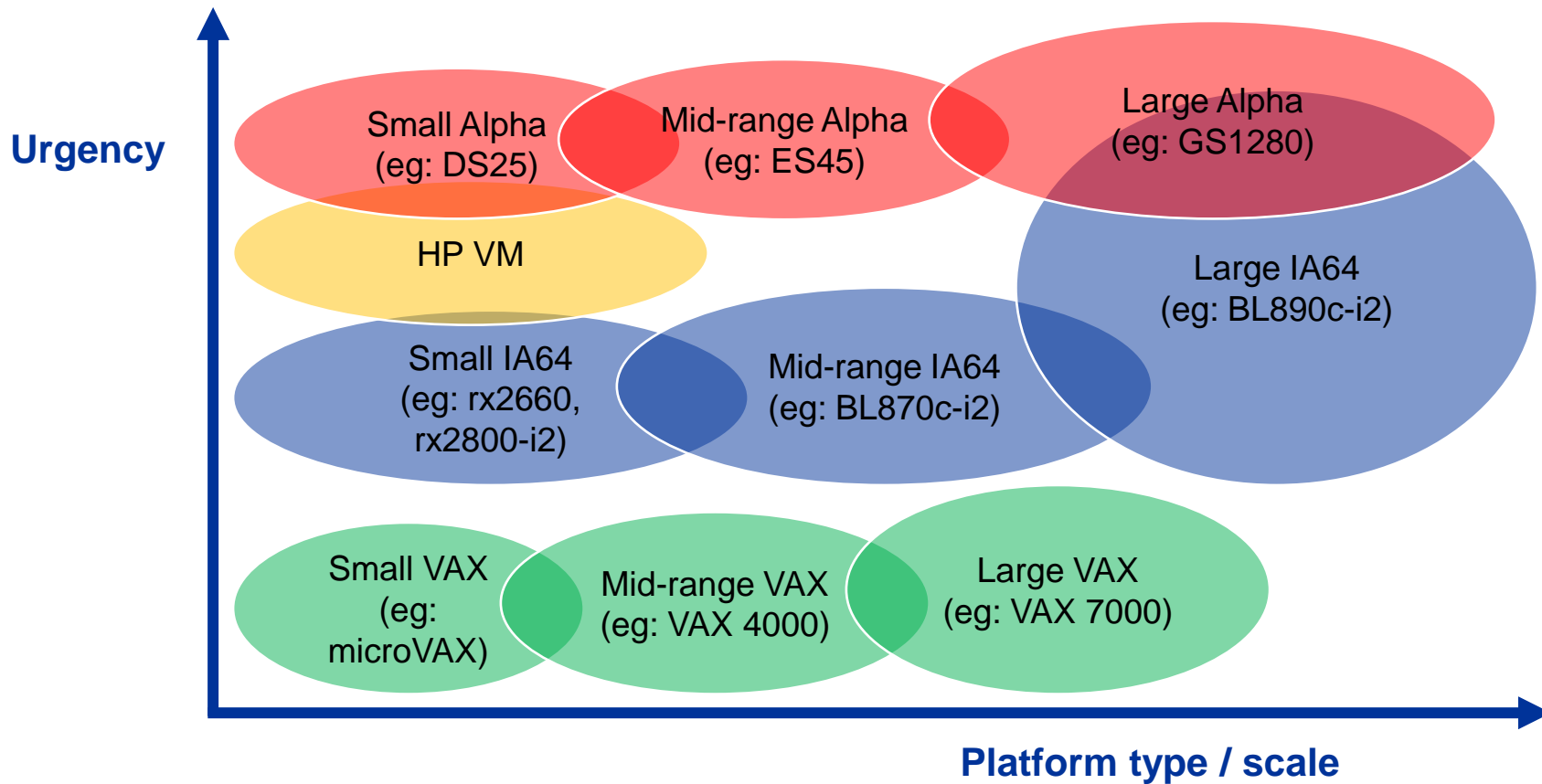
Applications : Systems : Infrastructure : Collaboration

Urgency : Complexity : Performance : Availability

Don't confuse urgent with important and do avoid shortcuts:

***They always take too much time in the long run!***

# Urgency



# OpenVMS migration

Most systems have evolved over many years

## Complexity:

- A range of languages and a variety of workloads
- They are set up in different ways
- People have moved on (with their skills)

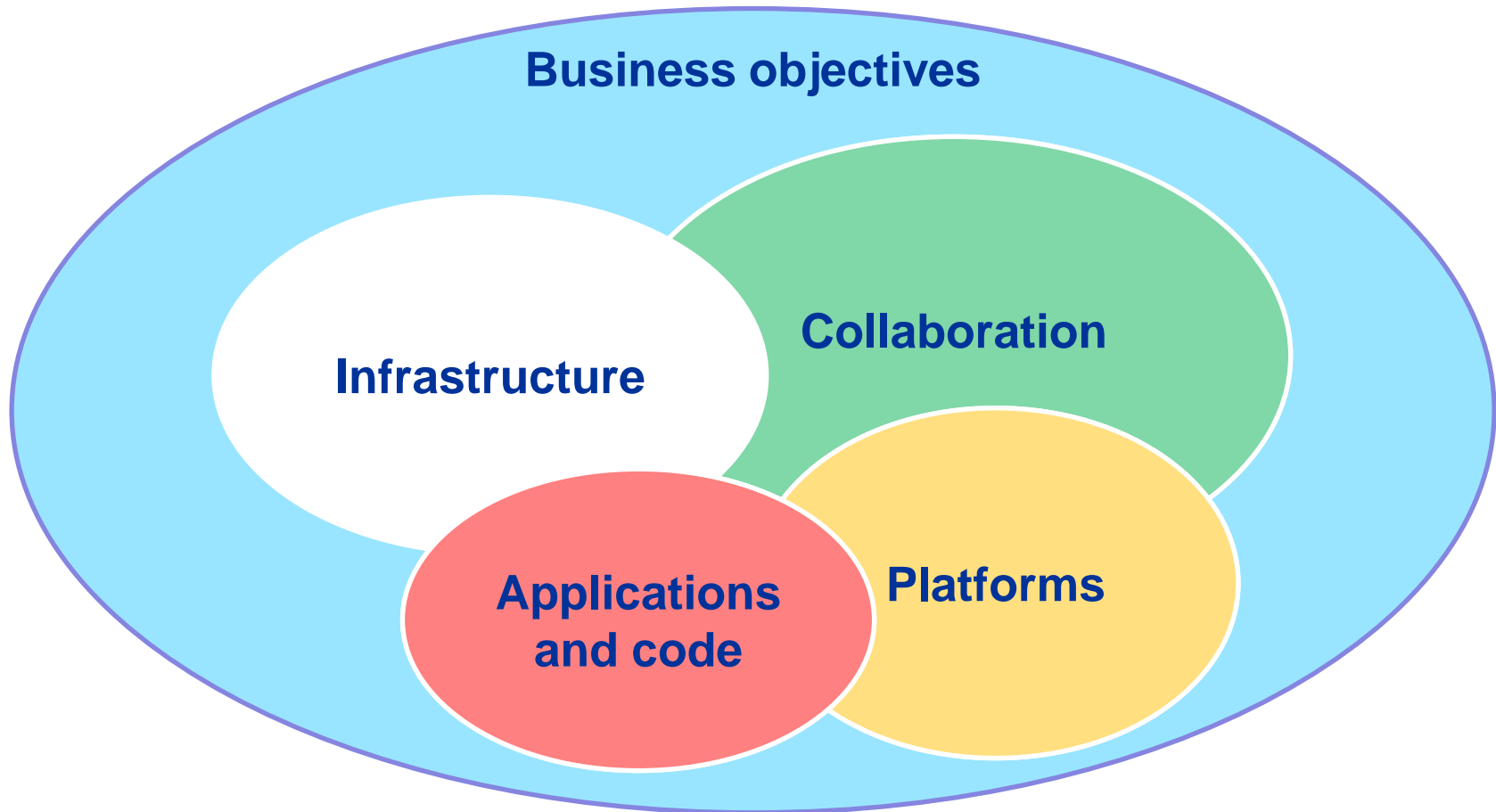
## Performance:

- Limiting factors are often outside the system itself
- Network infrastructure, storage arrays, inter-operability

## Availability: how to migrate with minimal disruption ?

- Carefully integrated with a consistent overall architecture
- No single points of failure & make best use of capabilities
- *The closer you get to zero downtime, the harder it is!*

# Holistic approach



## Migration projects experience – 1

Big data - Finance industry

Methodology: Interim step

*Originally:*

- Was GS1280s / EVAs, now BL890s / EVAs / 3PAR
- Multiple sites, many nodes, OpenVMS core, Linux data distribution layer
- Very tightly integrated, written in several languages

*Became:*

- First move: GS1280 to BL890
- Move much of the functionality out to the Linux data distribution layer
- Re-structure the systems to accommodate intended growth



## Migration projects experience – 2

Life critical - Healthcare

Methodology: Gradual evolution

*Originally:*

- Regional systems databases on OpenVMS Integrity (rx2800's)
- Client systems and desktops across country, many of them mobile
- Multiple sites, 4-way HBVS, application fails over to alternate node

*Became:*

- National system – started on Alpha – then Integrity – recent refresh
- Moving some application functionality off OpenVMS to middleware
- Rewriting OpenVMS specific code in Java or C++
- Planning ahead for uncomplicated change

## **Migration projects experience – 3**

CRM - Financial services

Methodology: Application and system replacement:

*Originally:*

- Database on OpenVMS Alpha (ES47s), MSA storage, tape backup
- Client desktops within same building, Single site, 2 nodes

*Became:*

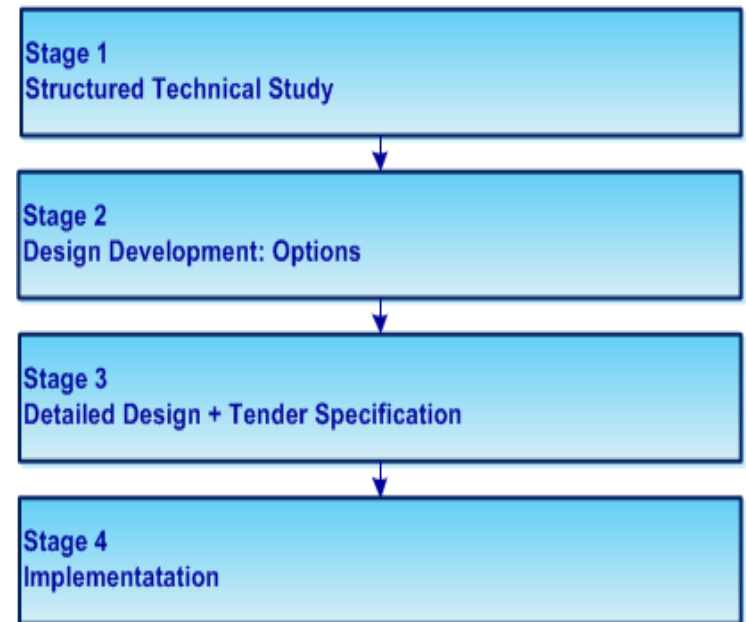
- New Windows Server virtual servers on HP blade chassis with Hyper-V
- Added second site with data copying and failover
- 3 year project completed ahead of schedule

# OpenVMS migration - project delivery

The holistic approach is essential:

- Business impact and risk
- Understand inter-relationships and complexities
- Systems engineering:
  - Structure; Design; Planning; Testing
  - Data migration; Transition
  - Support; Knowledge transfer
- Collaboration with your suppliers

## XDelta Mission Critical Systems Design Programme

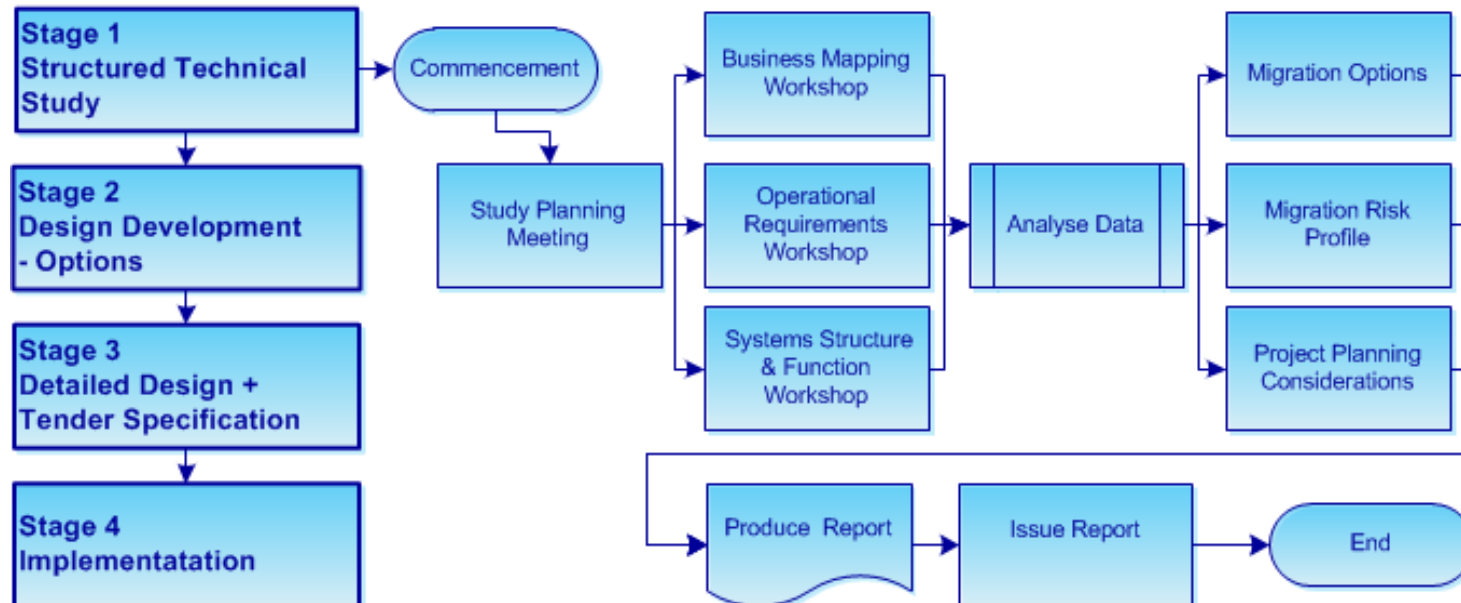


# OpenVMS migration - project delivery

Extra workload and different skills:

- Start early with a careful assessment, migration will consume resources
- Make assumptions if needed & take the time to do it well

## XDelta Mission Critical Systems Design Programme – Study process



## OpenVMS migration - contact us

Thank you for your participation

If you have questions, or need help, please ask!

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