

Mainframe : The Business Context

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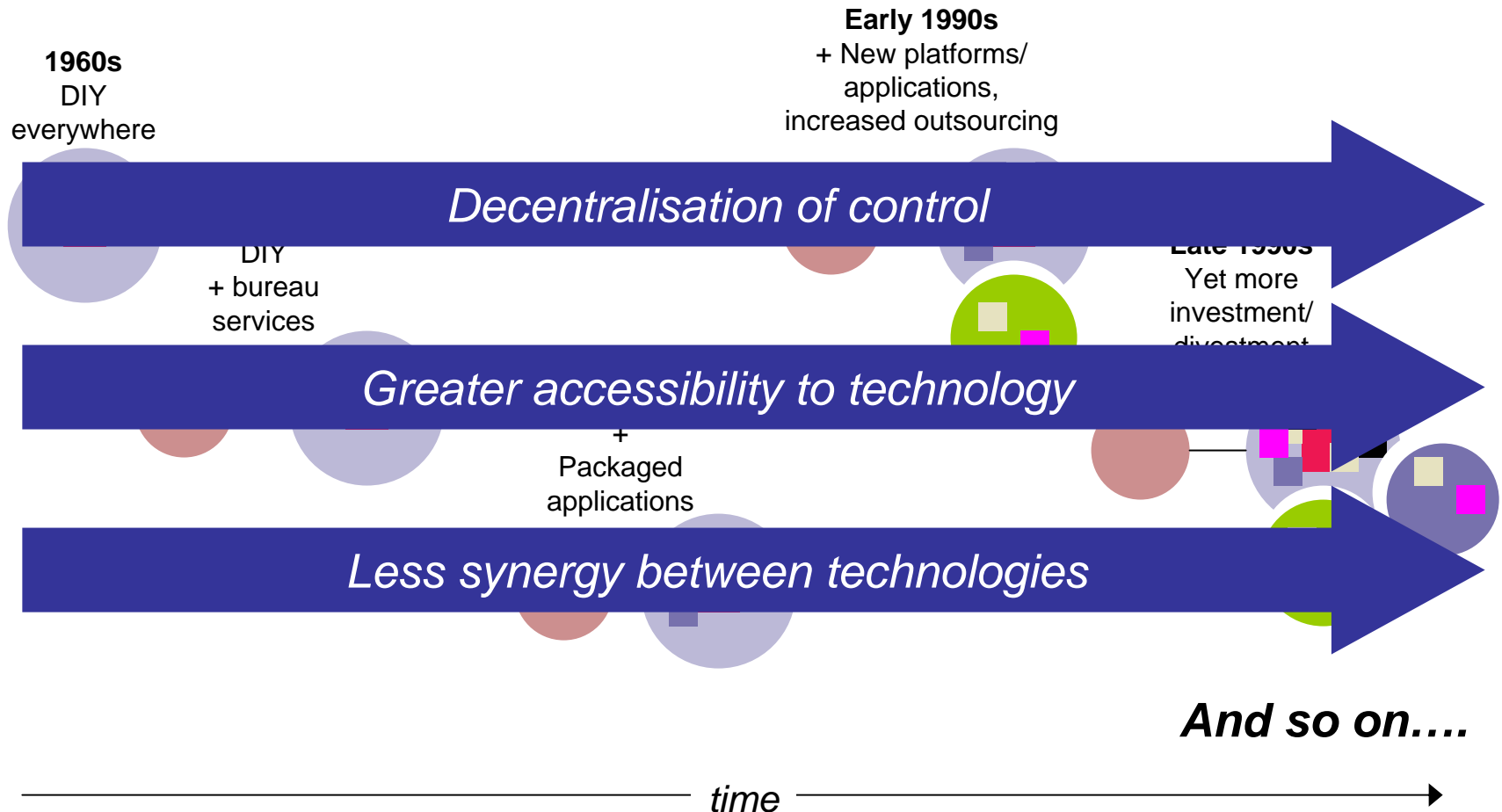
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Agenda

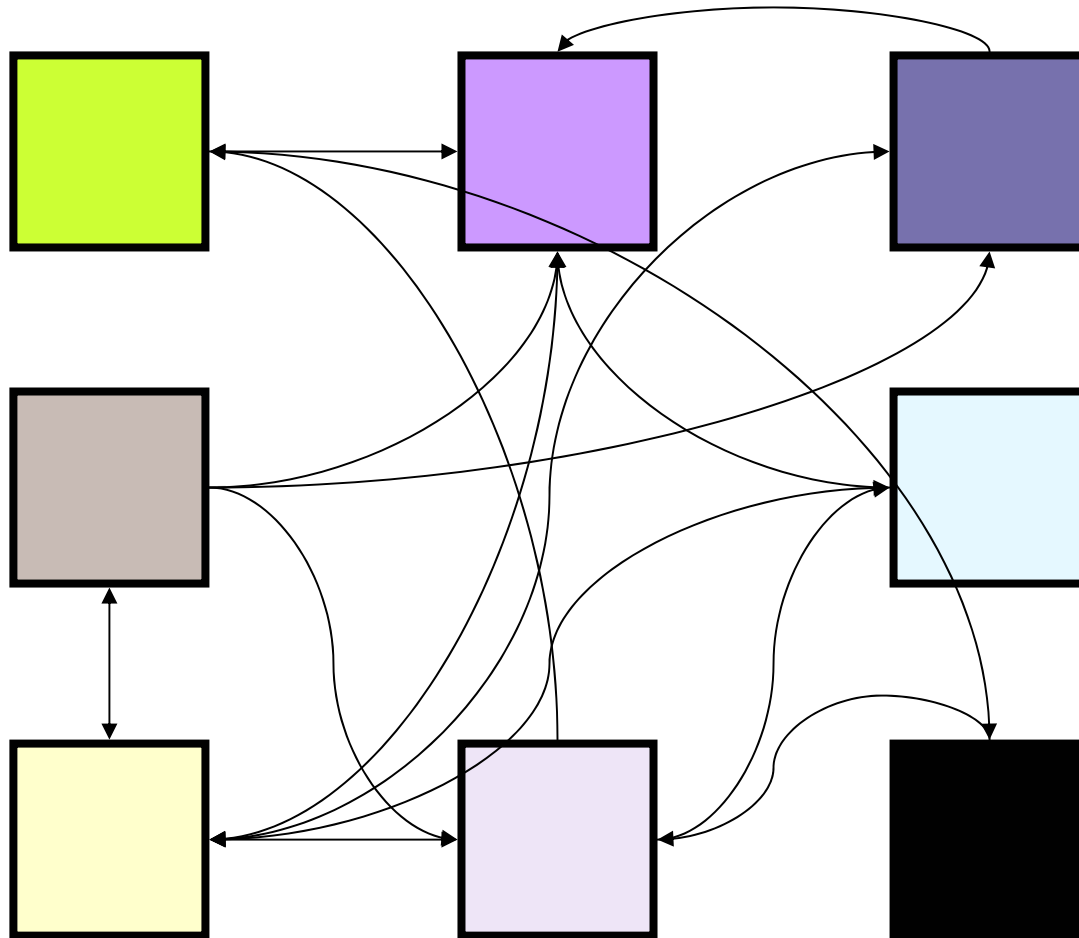
- Where are we starting from?
 - Life on the front-line
 - The CIO Agenda
 - Some mainframe Facts
 - Some mainframe Myths
 - What about all that “Legacy” stuff?
- The mainframe in the context of modern IT
 - IBM’s commitment to the Mainframe
 - The changing role of the mainframe
 - The mainframe as a “full participant” in modern IT
- The evolution of the mainframe
 - A normal part of distributed computing
 - The mainframe charter will continue to deliver improved customer value
 - In 15 years... lots of people will be using mainframe technology without even knowing it
- Wrap up
 - Understand the value of the mainframe
 - Understand its potential role
 - Watch as the mainframe continues to evolve

The state of End-user IT

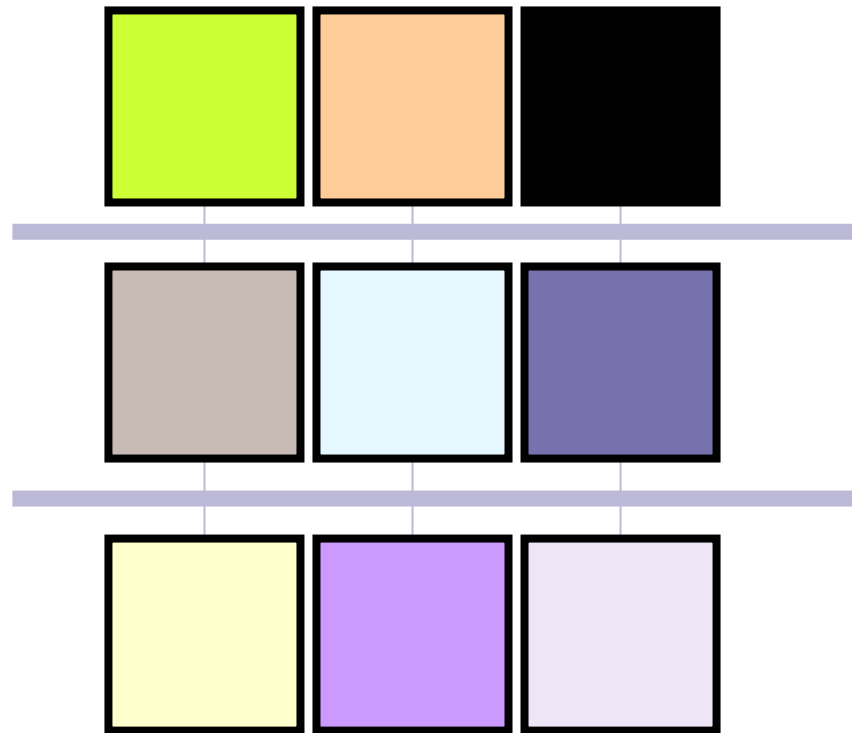
The road to hell...



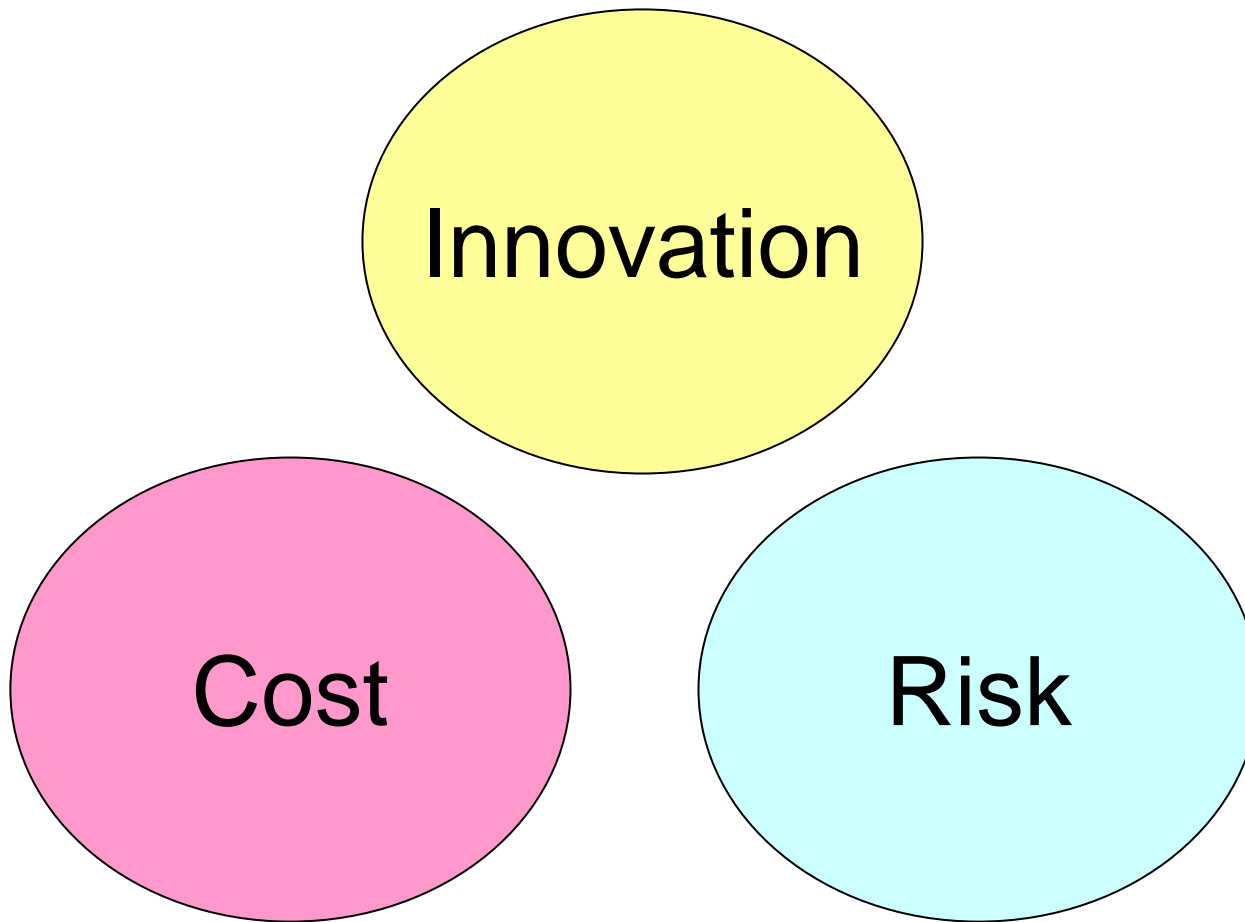
Life on the front line



And they all want to get here....



What's on the CIO's agenda?



Key CIO projects

- Consolidation
 - Reducing server count, combining workloads
- Information management
 - Coping with the information explosion
 - Meeting data retention requirements (staying out of jail)
- Infrastructure simplification
 - Reducing the cost and complexity of infrastructure
 - Notably around management and admin
- A strategic shift to “service orientated IT” (SOIT)
 - ITIL and Enterprise IT Management

Some mainframe facts

A quotation...

***'I predict that the last mainframe will be unplugged
on 15 March 1996'***

Stewart Alsop (1991)

The mainframe is thriving

- The mainframe lies at the heart of several industries
 - 80% of Banking transactions run through COBOL
 - Transport, Manufacturing and Defence all depend on the mainframe
- COBOL remains one of the most widely deployed programming languages
 - Over 150bn lines of COBOL in production
 - Growing at a rate of 2-4% p/a
- The number of deployed mainframe MIPS continues to grow
 - At a rate of 15% a year

Some mainframe myths

Mainframe myths

- The mainframe is a dying platform
 - But deployed mainframe MIPS continue to grow
 - IBM continues to make huge investments in the platform (Over a billion dollar for z9 alone)
- There's a mainframe skills crisis
 - But any decline in programmers is more than offset by improved development tools
 - Systems management is increasingly automated lowering the admin burden
- The mainframe is inflexible
 - But the mainframe can run Java, Websphere and Linux applications, as well as COBOL and PL/1

What about all that “Legacy”

A look at the term “Legacy”

- Legacy means lots of things to different people...
 - To a lawyer it means “Inheritance”
 - Wealth passed down from one generation to another
 - To an auctioneer it means “heirloom”
 - Valuable things, often irreplaceable
 - To a Java developer it means “dull”
 - Even though they’re all busy creating next year’s legacy code

**All of these definitions have a grain
of accuracy to them**

Perceived characteristics of “Legacy”

- **Inflexibility**
 - “Legacy” holds back innovation
 - It is hard to integrate
 - Skills are in short supply
- **Cost**
 - “Legacy” is costly to run
 - It is costly to maintain

It's no surprise that “Rip and replace”
often seems
like an attractive option

“Rip and replace” may be tempting but...

- It is very costly
 - Rewriting code is hugely time consuming
 - The analysis effort that is required is huge
- It is risky
 - You’ve spent 10 years taking the bugs out of your code and you want to write it all again in another language?

So it must make sense to
evaluate alternative options?

Another approach to Legacy

Address the issues directly:

- Inflexibility
 - Renew
 - Extend
- Cost
 - Simplify
 - Consolidate

If you can address these issues
then “rip and replace” seems a lot less
attractive

The mainframe in the context of modern IT

IBM's commitment to the mainframe

- IBM is investing heavily in its mainframe business
 - z9..
 - 1.2 billion dollars in R&D
 - A team of 5000 people
- IBM Software group is committed to supporting the mainframe platform
 - Websphere 6.0
 - Released in March 2005
 - Common code-base between mainframe and non-mainframe versions

The Mainframe Charter

- A commitment to the mainframe platform, and to mainframe users
 - Announced in August 2003
 - Focussing on Innovation, Value, and Community
- Innovation
 - Openness
 - Performance
 - Simplification
- Value
 - Lowering the cost of mainframe computing
 - More flexible pricing/charging options
- Community
 - Provide greater support in terms of education, skills and advice

The changing role of the mainframe

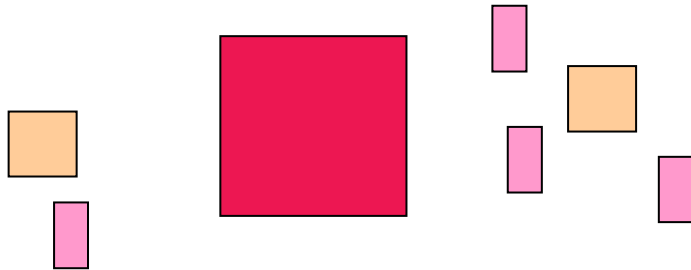
A quotation...

'If you were plowing a field, which would you rather use?

Two strong oxen or 1024 chickens? '

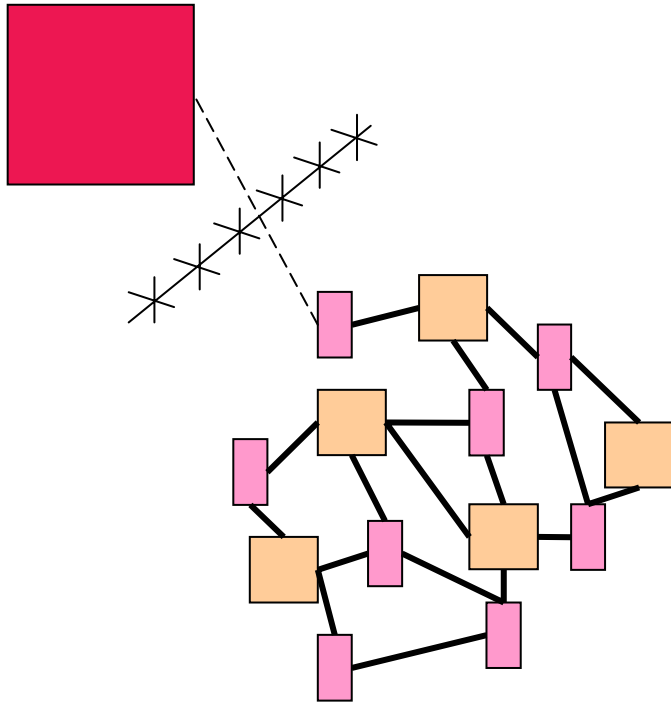
Seymour Cray

1980's – The mainframe is king!



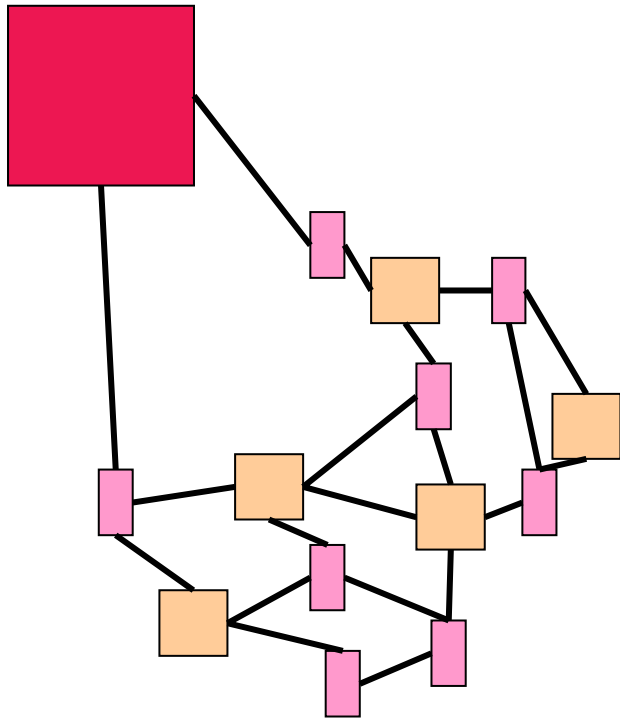
- A continent apart
 - High security
 - No integration
- Mainframe unaware growth of distributed computing
 - Separate applications
 - Separate organisations
- Completely separate technology base
 - Chips, memory, storage

1980's – The mainframe fortress



- Very hard to “get to”
 - High security
 - Very low integration
- Mainframe resisting growth of distributed computing
 - Separate applications
 - Separate organisations
- Completely separate technology base
 - Chips, memory, storage

1990's – The mainframe opens up

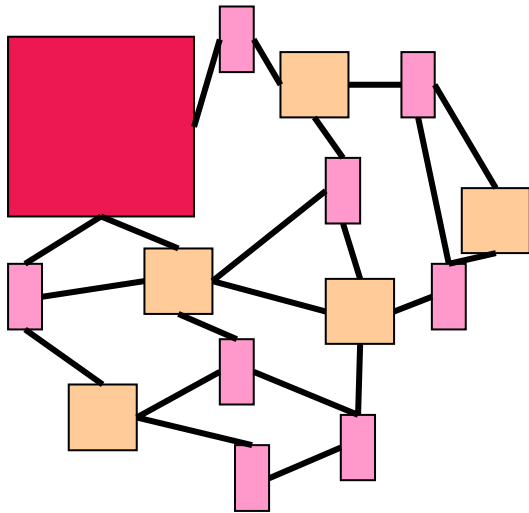


- Still separate but more accessible
 - Connectivity middleware
 - APPC

- Mainframe in grudgingly acknowledges the presence of “other” technologies
 - Still largely separate applications and organisations
 - Some integration
 - Mostly “Data”
 - A little transactional integration

- Technology still very distinct
 - Chips, memory, storage

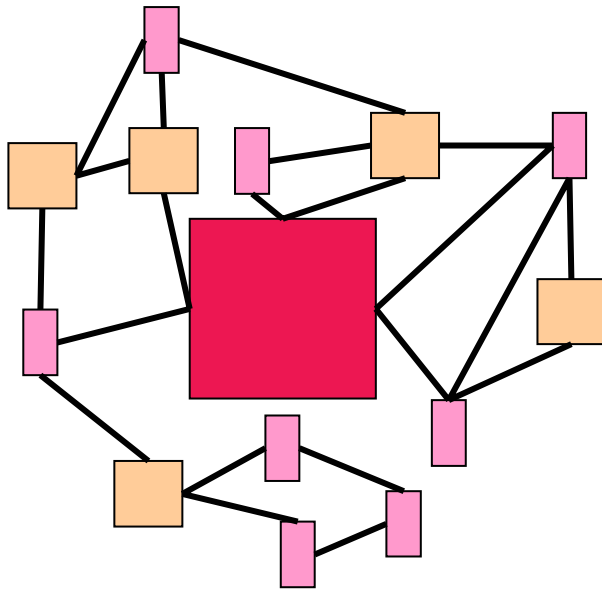
2000's – The mainframe begins to participate



- The mainframe is now accessible
 - Standards based connectivity
 - Support for Web Services, Java, Linux
- Mainframe aims to become a “first class citizen” in the world of distributed computing
 - Applications and organisations sharing resources and expertise
 - Integration easier, better
 - Data integration now straight forward
 - Transactional integration much easier to implement
- Some technology convergence
 - Storage
 - Chips....

The evolution of the mainframe

The mainframe moving to the heart of IT



- The mainframe is back at the centre
 - Seamless integration
 - Flexible platform supporting a wide range of workloads
- Mainframe becomes a “first class citizen” in the world of distributed computing
 - Viewed as a “core platform”
 - Fully integrated within it
 - Data, transaction, security
- Significant technology convergence
 - Storage
 - Chips....

The mainframe value proposition will continue to evolve

- Value
 - Mainframe “value for money” will continue to improve
 - We estimate by 20-25% a year
 - IBM will push flexible pricing out to a wider range of third parties
 - Some will “hold out” – and suffer the consequences
- Innovation and integration
 - Mainframe as “hub”
 - File server, SOA Hub (zee-SB), Security controller, Database, Application server
 - Transparent interoperability
 - Wider range of workloads
 - .NET for z-Series ?

The future of the mainframe

The mainframe evolves....

- The mainframe is not going to go away
 - But its role is going to evolve
- Over the next 5 years the overall number of “live” mainframes could decline by up to 5% p/a
 - Attrition would be highest at the low end
 - Most of the attrition will come in the form of upward consolidation onto larger mainframes
 - Application modernisation and the mainframe charter will decelerate any attrition that might take place
- Over the same period the number of mainframe MIPS in production will rise by about the same amount
 - Workload will consolidate upwards

What am I telling my mainframe clients?

- IBM is hugely committed to the platform
 - And the mainframe Eco-system remains important to a wide range of vendors
- Look at your choices
 - Consolidate work-load onto the mainframe
 - Exploit the mainframe's strengths
 - Take a staged, strategic approach to legacy modernisation
- Examine all of the alternatives
 - And look before you leap!

In fifteen years

- Developers will be writing applications for the mainframe without even knowing it
 - The platform their application is deployed to will be determined by the system according to pre-set policies
 - Let's face it – millions of end-users already use mainframe applications without realising today
- The mainframe will still be the obvious platform for carrier-class workloads
 - A combination of price, performance and QOS will keep the mainframe at the top of the heap
- Someone somewhere will be saying...
 - “I predict that the last mainframe will be switched off...”
 - But the world is full of crazy people



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Wrap up

The mainframe is alive and kicking

- The mainframe can play a key role within your IT ecosystem
 - Data hub
 - Consolidation platform
- You have more choices than ever before
 - In terms of work-loads
 - Legacy modernisation
- And the ecosystem will continue to evolve
 - In terms of value
 - In terms of richness of services

A strong platform for decades to come

- A consolidation platform
 - Combining workloads
 - Simplifying management
- An information store
 - Not just “data” or “databases”
 - Rich, manageable, searchable, secure content
- A service hub
 - For SOA
 - For Identity and security

The mainframe... alive and kicking

Thank-you

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