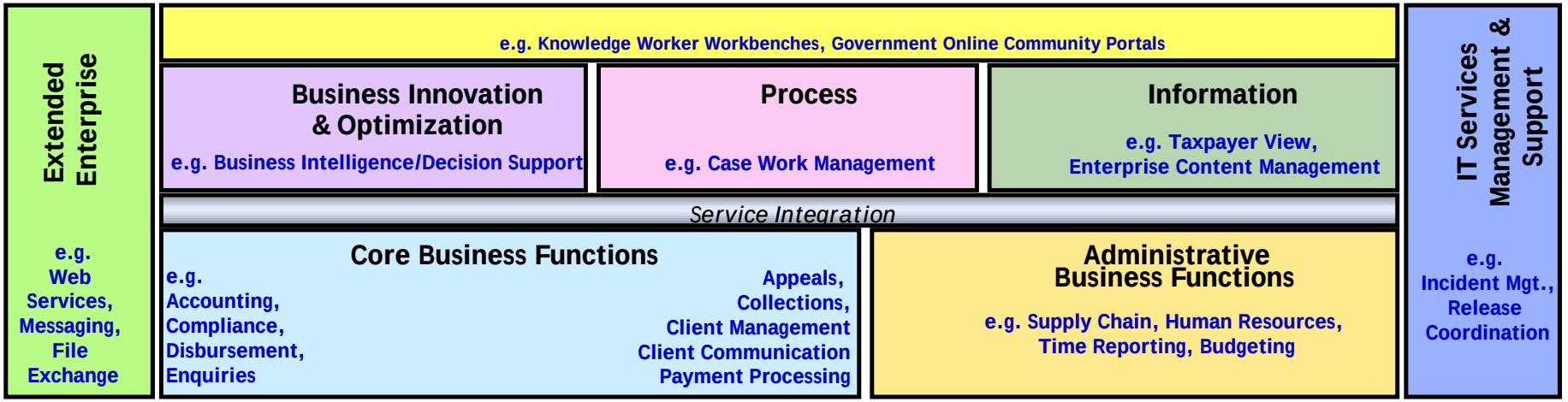
Business & Architecture Alignment



Infrastructure

Technology

Foundation
(e.g. Processors, operating systems ,virtualization and other technologies to ensure a High Availability env.)

Storage
(Disk and Tape)

Infrastructure Management
(e.g. System Management, ITIL disciplines: e.g. Incident, Change, Availability, Capacity, etc.)

Productivity
(e.g. Interface: printers, office suites, email, Cobol, java)

Network Services
(e.g. physical and logical communications)

Security
(e.g. Perimeter, Identity, every aspect to ensure a secure infrastructure)

Data

Data Assets

Data Delivery

Data Asset Management

Data Technology

Introduction

Explanation of how CRA/ITB used innovative techniques and sound business practices to completely replace all of its mainframe processors in a short time window without major disruptions to service.

Background

- On April 1, 2008 IBM announced that the z990 family of mainframes would be withdrawn from marketing as of June 30 2008. IBM also announced:
  - as of December 31, 2008 it would no longer support hardware upgrades to existing z990s
  - as of June 30, 2009 any inactivated hardware on a z990 such as memory or processors could not be able to be activated.
- CRA operated 6 z990 processors in support of CRA and CBSA lines of business.
- CRA originally acquired its z990 processors in September 2004.

Replacement of the z990s was originally planned for fiscal year 2009/2010

- Historically CRA mainframes upgrades take place in late fall or early winter to provide adequate capacity for yearly T1 filing peak.

Background (cont.)

- CRA embarked upon market research and deliberations with the vendor to determine how to best respond to IBM's announcement. After careful analysis CRA decided to replace all of CRA's z990 processors with z10 processors.
- The project was originally scheduled to end by October 31, 2008. However, some difficulties encountered while applying compatibility maintenance to CRA's Storage Area Network (SAN) required adjustment of the schedule. The project was completed November 30, 2008.
- The project introduced a significant risk: normally this type of activity would be planned for a period twice as long as was planned for in this instance.
- Although the project's timeline was aggressive, the need to implement without service disruptions to both CRA and CBSA remained.

CRA Mainframe Configuration (before and after)

Data Center Heron

Data Center St. Laurent

Data Center Heron

Data Center St. Laurent

How Did We Make This Project Work

Commitment

- ✓ The entire organization from the commissioner down was committed to making the project a success.

Governance

- ✓ Project manager was accountable to IT Branch senior executives with regular project status updates to a Major Project Review Committee.
- ✓ The IT Branch Assistant Commissioner (AC) reported on the project to the CRA Commissioner and other AC's within CRA.
- ✓ IT Branch Senior Management also reported regularly to CBSA Senior Management.

Collaboration

- ✓ Before embarking on the project agreement from CBSA was solicited.
- ✓ CRA worked closely with the vendor to ensure that all key resources and elements were in place at the appropriate times.
- ✓ Within the branch the appropriate support and operational teams and resources were put in place to ensure project success.

How Did We Make This Project Work (cont.)

Communication

- ✓ The IT Branch's operational team developed a special communication framework that saw extensive communication occur to all key stakeholders both with CRA and CBSA.
- ✓ Regular and frequent dialogue with the vendor ensured a minimum of surprises.

Resource Management

- ✓ Key resources were identified and made available to the project.
- ✓ Vendor experts were brought in to provide advice and review of designs.
- ✓ Other work was deferred where necessary.

How Did We Make This Project Work (cont.)

Risk Mitigation

- ✓ The requirement for service continuity meant that a detailed risk mitigation strategy was developed. The strategy saw the definition of many gating points where progress could be examined and the schedule adjusted.

Innovation

- ✓ The compressed time-frame of the de-install and install work meant that we had to adopt some untried practices when taking out the old machines and installing the new ones.

Lessons Learned

- Clear priorities, dedicated staff, and management oversight were key to achieving success in a short timeframe.

- The extensive nature of the project required strong project management and communication within the IT Branch, across other CRA Branches and with the CBSA .

- A communication strategy for projects of this scale is a must.

- The difficulties associated with tolerance maintenance for the SAN revealed the need to examine our SAN configuration with a view to reconfiguring.

Conclusion

By relying heavily on existing agency and processes and best practices and by exploiting the innovative and creative talents of its senior technical experts, CRA/ITB effectively replaced its entire suite of z series mainframe processors in a shortened time frame while maintaining service availability, clearly demonstrating organizational agility.