CBSA Enterprise Architecture Program: Valued Capability in the Making

Digital Transformation in Government Conference

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A little bit of history…

• Practice born from complexity of IT systems
• Since 1970, we have looked at ways to engage the business people and influence IT investment
• In 1980, IBM created a method (Business Systems Planning) to analysis and design organization information architecture:
  – Better understanding of IT systems
  – Future state and migration path supporting the enterprise
  – Provide business executives with a direction and decision making framework for IT investments
  – IS blueprint for development
• In the 90s, Zachman, NIST, TOGAF (most popular as of 2013)
• In the 00s, US FEAF was adopted, TOGAF 8 was created
The roots of EA within GC…

- Initially IT centricity
- When talking with most of GC organizations, EA equals “IT architecture only”
- Most of the GC EA Programs reside under their respective CIO
- Even at TBS, GC EARB is co-chaired by SSC and Chief Technology Officer (CTO) → IT centric
- Any TBS policy or directive touching EA are of IM/IT nature
- In most cases, EA is aspirational to business!

From Gartner/CEB, EA needs to be business driven!
Enterprise Architecture Definition

- A discipline for proactively and holistically leading enterprise responses to disruptive forces by identifying and analysing the execution of change toward desired business vision.
- A conceptual blueprint that defines the structure and operation of an organization to determine how an organization can most effectively achieve its current and future objectives.
- The practice of analyzing, designing, planning and implementing enterprise analysis to successfully execute business strategies.

In layman's terms: EA exists to support the organization transformational agenda.
The CBSA EA Program Journey

2013

☐ Standalone Enterprise Architects
Solution architecture function exists

☐ Two divisions (no program unification)

☐ Embryonic governance

☐ Standalone BA, no IA, SA or Privacy

2014

✓ Initial focus on IT Enterprise Solutions
(B2B, MDM, EDRMS, ERASS)

☐ Adhoc, no framework and IT centric charter

☐ PWC assessment against TOGAF CMM:
EA @level 2 and PA @level3

☐ Disjointed approach between EA/PA
Mar 2014 - EA Engagement Method

WHERE WE NEED TO ACT

Proactive

Reactive

Pre-project EA role

Program/Project Method

Engineering Method (SDLC)

Investment Plan (IP) Decision Process

26 Mar 2014

PA role
Audit & compliance function (TRB/ARB) alignment + variance handling
SLMF (ITIL based) was created, followed shortly with Architecture Management Method. Now we had an IT governance framework!

Unification occurred (one division) and BIATSP was adopted as domains

Added more EBBs (ePortal, CM, SOA, ERE, CIAM, RDM, EDA, e-mail, etc)

Huge efforts on Travelers business architecture using Leading Practice (did not pursue it)

EA RA conceptual model developed (see next slides)

2016

A-base model

GC Qualiware RFP

Involvement at GC level (GC EAWG, CDI, CDXP, TDIC, Interoperability, etc). Excellent opportunity to network and advance your own Dept agenda

EA scope and functions further developed (next slides)

Stewardship of APM

Creation of OGDA Division: trigger for the EIA: BDM, governance by business, etc

Launch development of Security and Privacy architecture domains
The EA Division functions:
- Business architecture
- Strategies (IATSP)
- O&C
- Progr Mgmt
Conceptual CBSA Reference Architecture Model

- Business Layer
  - Legislation and Regulations
  - Departmental Results Framework
  - Business Capabilities
  - Business Functions
  - Business Services
  - Business Processes

- Application Layer
  - Application Services
  - Application Components (IT Assets)

- Technology Layer
  - Technology Services
  - Infrastructure Services

Traceability
- Security
- Privacy
- Information/Data

Alignment
The CBSA EA Program Journey

2017

- Initiated development of a common service catalog (SMS, APM, Business Continuity, SSC critical system)
- GC white paper development (blockchain, AI, etc) and GC cloud RA
- Strengthen relationship with DSO and ATIP
- EA Metamodel framework developed and implemented in Qualiware (how all domains interact)
- CBSA RA created in Qualiware
- Support of major projects on all EA domains (CARM, PPP, TPM, etc)

2018

- Led effort to develop a GC zoning and network reference architecture (CSEC, TBS, SSC, CBSA)
- Defacto involvement for all GC EARB artefacts
- First time that the business deliberately engage EA for business architecture (I&E)
The CBSA EA Program Journey

### 2019
- ![Checkmark] Service out the CBSA RA hosted in Qualiware
- ![Checkmark] Activity code switched from IT to Corporate planning
- ![Checkmark] Stakeholders engagement year: SPB, CTO, FCMB, ISTB, Operational Branches
- ![Checkmark] More strategic planning tasks
- ![Checkmark] EA Internal Audit
- ![Checkmark] CoE for Business Process Management (BPMN 2.0)
- Privacy framework
- Finish development of EA Program key docs

### Future
- ![Checkmark] Strategic Enterprise Planning
- ![Checkmark] Agency-wide architecture collaboration (all practice it)
- ACP becomes the corporate MDM for organizational data
- Integrate financial and HR views in ACP
- Application rationalization (based on business processes/apps service discovery)
- Support any transformational initiative (Migration to cloud, AI integration, etc)
- Support of PIA and security assessment in ACP

• The Architecture Collaboration Platform is the culmination point:
  – make the info owners manage their info!
• Build it, they will come!
• Be relevant: don’t try to boil the ocean, just deliver value to stakeholders
• Business architects should come from the business
• Get involved at GC level and with your partners
• Investment needed: CBSA has always believed and invested in architecture practice
• A-base vs B-base
• Summer students could be of big help!
• More abstract in early stages
• Enterprise level guidance (horizontality in mind) but reaching executive Program endorsement through grassroots successes (value)
• Advocacy for innovation is not easy
• Need the right skillset at the right place (i.e. business architect should come from business)
• Communications and soft skills in demand!
DEMO
Architecture basics

- Initial construction
- Maintenance
- Transformation

CBSA Reference Architecture

Enterprise Architecture Practice

Architecture Collaboration Platform (Qualiware)

- Operation
- Maintenance
- Transformation
Overall benefits

- ONE blueprint representing CBSA
- ONE common understanding of how CBSA is constructed
- Common taxonomy and semantic defining all CBSA business areas
- Re-usability of architecture concepts for transformation and projects activities to reduce overhead
- Closing the gap between business and IT
- Enable traceability and alignment of current and transformational business activities, including those coming from TBS
- Knowledge-based impact analysis for business transformation
- Supports CBSA transformation agenda (baseline and future state)
- Provide for alignment and linkage with GC initiatives and emerging trends
CBSA Reference Architecture Content

• Linked content includes:
  – All of CBSA legislations and regulations (90+)
    • 200+ references (D-Memos, Lookout Policy, etc.)
  – DRF and its 17 Program areas
  – 102 CBSA Services found in integrated service catalog
  – 450+ business processes being validated
  – 178 national level applications with corresponding details
  – Integration of Business Data Model, IM and data analytics
  – GC Security safeguard catalogue