Improving Process Efficiency, Resource Planning, and Decision-Making

Digital Twin of an Organization (DTO) powered by Collaborative Business Planning (CBP)

Business Context

Veterans Affairs Canada (VAC) – Disability Benefits (DB) is a federal government program responsible for processing disability benefit applications for Canadian veterans. Operating a complex, multi-role process involving Disability Service Agents (DSAs), Benefits Program Officers (BPOs), and Disability Adjudicators (DAs), VAC sought an independent, data-driven review of its DB process to improve operational efficiency and resource allocation.

As a complex government service delivery operation, the VAC DB program faced challenges with:

- Limited visibility into workload volumes, unit processing times, and true resource utilization by role
- No integrated model to evaluate the impact of process improvements or future resource allocation scenarios

These constraints created a need for an objective, data-driven review and a practical modeling capability to support future-state planning and decision-making.

Key Problem Statement

VAC Disability Benefits lacked a unified model to:

- accurately represent end-to-end process flows, workload volumes, and resource requirements across all DB roles
- quantify labour capacities, utilization, and cost of current and future state DB operations
- evaluate process improvement opportunities and resource allocation scenarios with confidence before implementation

CBP-DTO Solution Approach

VAC DB implemented a **Digital Twin of the Organization (DTO)** using **Collaborative Business Planning (CBP)**, supported by the **QualiWare** platform - the **GC-approved standard for Enterprise Architecture**. The engagement included the following phased approach:

- **Value Stream Mapping (VSM) workshop** - collaborative development of process flow diagrams with wait and processing time metrics
- **Initial workload analysis** - structured data collection from DSA, BPO, and DA roles covering daily/weekly/monthly volumes, unit times, and rework estimates
- **Activity-Based Planning (ABP) Modeling** - interactive CBP model integrating VSM data, workload analysis, HR data, and financial data to support resource planning and scenarios
- **Process improvement identification** - 20 process-oriented improvement opportunities documented and proposed

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Key Capabilities Enabled by CBP

- **End-to-End Process Visibility**
  Single integrated model of DB application process flows by role, including wait times, processing times, and workload volumes
- **Labour and Resource Planning**
  Determination of labour capacities, utilizations, and distributions across DSA, BPO, DA, and MA roles, including temporary "Spike Teams", validated against practical FTE capacity
- **Constraint-Based Scenario Simulation**
  "What-if" analysis to simulate the impact of process improvements, staffing changes, and demand forecasts on lead times and resource requirements
- **Decision-Making Dashboards**
  Augmentation of existing DB volumetric reports with detailed labour analysis, process/cost flow visualizations, and management dashboards

Quantified Business Benefits

Operational Efficiency

- Identification of 35 process pain points and 20 structured improvement opportunities across the DB application lifecycle
- Quantified workload volumes and unit processing times for DSA, BPO, and DA roles, validated against practical FTE capacity

Decision Quality

- Interactive process model enabling management to evaluate future-state resource allocation and process improvement scenarios
- Data-driven foundation to support current Work-to-Reduce Inventory (WTRI) initiatives and future capacity planning

Continuous Improvement Enablement

- Structured platform to evaluate and prioritize improvement initiatives across missing information, rework, duplication, and lack of standard work
- Actionable roadmap of short, medium, and longer-term next steps to expand and sustain the DTO capability within VAC

Implementation Timeline: ~ 3 months to operational DTO

The VAC DB pilot demonstrated that a meaningful DTO capability - including VSM, workload analysis, business process modeling, and scenario simulation - can be stood up quickly and cost-effectively in a complex government service delivery environment. **QualiWare**, the CBP modeling platform, is also the **GC-approved standard for Enterprise Architecture** and is widely deployed by many federal departments including the Department of National Defence.

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Why CBP for DTO?

- Purpose-built for operational and financial digital twin modeling in complex, multi-role environments
- Combines:
    - Value Stream and Activity-Based Planning process modeling
    - Resource planning based on Theory of Constraints (TOC)
    - Simulation of both operational and financial flows, costs, and resource requirements
- GC-approved platform (QualiWare) — enables practical, executable DTOs within existing government technology standards
- Proven in complex government service delivery and multi-role processing environments

Key Benefits of CBP-DTO Modeling

- Clear visibility into true process constraints, workload volumes, and available role capacity
- Stronger foundation for ongoing continuous improvement, workload balancing, and resource optimization
- Improved alignment between operations and finance through an integrated operational and cost model
- Enhanced budgeting and forecasting accuracy for DB staffing, cost accounts, and program funding
- Scalable platform to expand modeling from Disability Benefits to other VAC program areas and business units

For more information

Assess your organization's opportunity to improve capacity, process efficiency, and resource planning accuracy using a DTO powered by CBP.

Visit: *https://cbp-software.com*

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