

Introduction

Business Problem

- Alignment of IT services with business needs.
- Alignment of varied stakeholder perspectives.
- Missing tools and methodology for effective decision making.

Project

- Strategic Plan for City of Columbus for achieving Business-IT alignment.

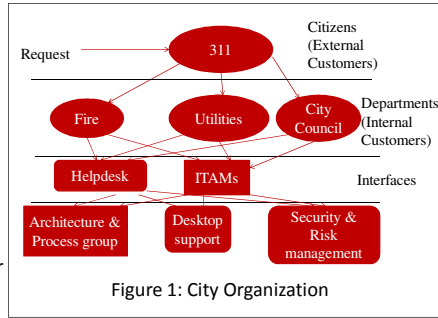


Figure 1: City Organization

Process

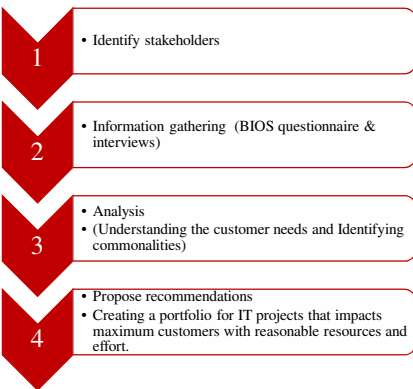


Figure 2: Process for IT Strategic Planning

Results

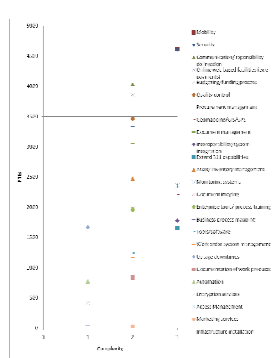


Figure 3: Potential shared services

- Identify shared services
- Identify broken processes and broken services
- Identify future need services
- Prioritize based on impact
- Suggest organizational and process improvements
- Provide a roadmap for future

Hypothesis

Existing tools and methodologies when integrated can be used to provide traceability and continuous improvement decision-making from Business-IT alignment perspective.

Conceptual Architecture

Tool Integration

- Need for vertical integration across the ontology dimensions.
- Integration of tools and methods to improve decision making.

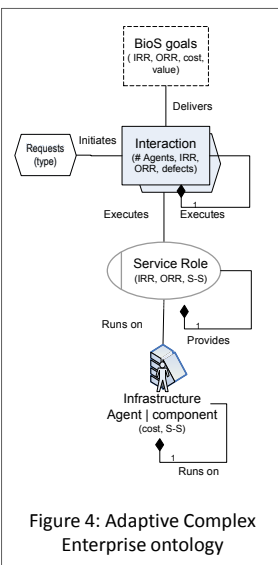


Figure 4: Adaptive Complex Enterprise ontology

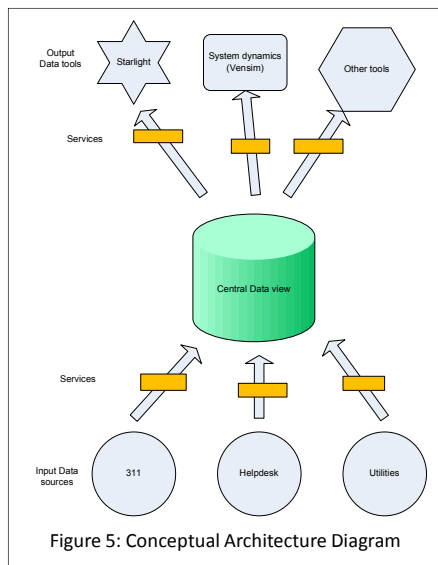


Figure 5: Conceptual Architecture Diagram

Tool integration example

System Dynamics

City Helpdesk Triage Simulation

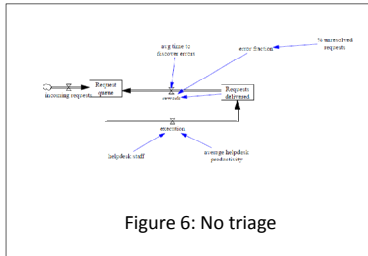


Figure 6: No triage

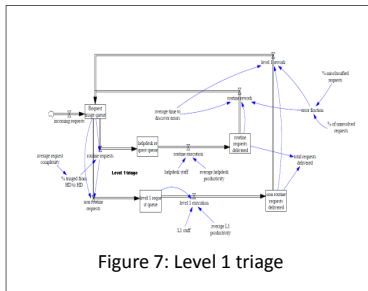


Figure 7: Level 1 triage

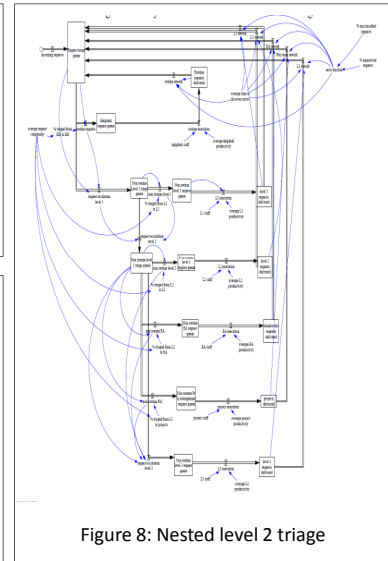


Figure 8: Nested level 2 triage

Questions

- What specific types of Requests take longer?
- Can we identify the non-routine Request characteristics and resources to improve throughput?
- How can we improve throughput of the Interactions, keeping the resource numbers the same?

Starlight visualizations

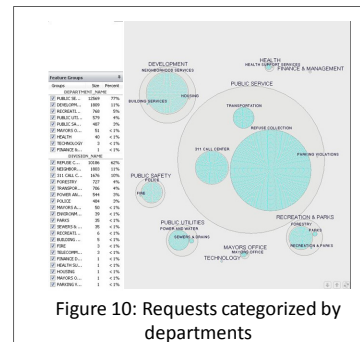


Figure 10: Requests categorized by departments

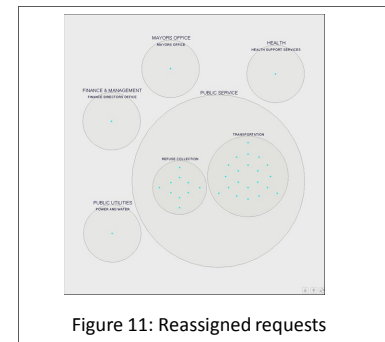


Figure 11: Reassigned requests

| Level of triage | Throughput (number of Requests delivered in 60 months) | Improvement (%) |
|---|--|--|
| Level 0 (no triage) | 8050 | NA |
| Level 1 | 8710 | 8.2% |
| Level 2 | 10865 | 24.7% |
| Nested triage (level 2 triaged into 4 levels) | 12408 | 14.2% better than level 2 42.5% better than level 1 |

Figure 9: Simulation Results

Future Work

- Currently working on tool integration prototype.
- Making the tool integration prototype more generic for handling multiple input sources and output tools.
- Exploring decision making abilities with the aid of prototype.

Acknowledgements

A special thanks to Dr. Jay Ramanathan and Dr. Rajiv Ramnath for their continued support, motivation and guidance.