Surpass Migration Framework

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Executive Summary

This document outlines the **Surpass Migration Framework** \- a comprehensive, structured yet adaptable approach to assessment platform migrations. Built on real-world implementation experience and TOGAF principles, this framework balances the art and science of migration planning to ensure successful outcomes for diverse customer needs.

Key Framework Components

- * **Five-Phase Approach** : A systematic process from pre-sales discovery through go-live and handoff
- * **Dependency Reviews** : Critical checkpoints ensuring alignment across all Surpass modules
- * **Structured Planning** : Detailed configuration of all platform components with validation at each step
- * **Interactive Tools** : Color-coded CLI workflows that reduce cognitive load during implementation
- * **Comprehensive Validation**: Thorough testing methodologies to ensure migration success

This framework provides Solutions Engineers with a clear roadmap while maintaining the flexibility to address unique customer requirements. Each phase builds upon the previous one with clear deliverables and transition criteria, ensuring nothing is overlooked in the migration process.

Migration Lifecycle Overview

The Surpass Migration Framework follows a continuous, iterative approach with dependency reviews at key transition points. This ensures alignment across all Surpass modules and integration points while maintaining flexibility to adapt to customer-specific requirements.

Framework Phases at a Glance

- 1. **Discovery & Architecture Vision** (Pre-Sales): Initial assessment of customer needs
- 2. **Detailed Design & Planning**: Comprehensive configuration planning with dependency reviews
- 3. **Build & Configure**: Implementation of migration plans and scripts
- 4. **QA & Validation**: Thorough testing of all migrated components

5. **Go-Live & Handoff**: Production deployment and transition to operations

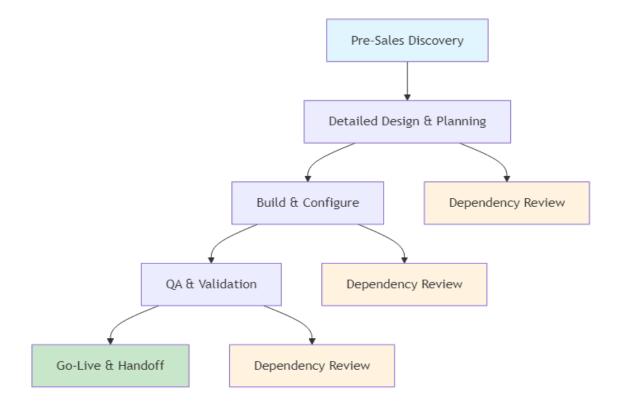


Figure 1: Migration Lifecycle Overview showing the five phases with dependency reviews

Phase 1: Discovery & Architecture Vision (Pre-Sales)

- > _This phase occurs during pre-sales engagement and establishes the
- > foundation for the migration project._

During pre-sales engagement, Solutions Engineers establish a high-level understanding of customer needs and technical landscape:

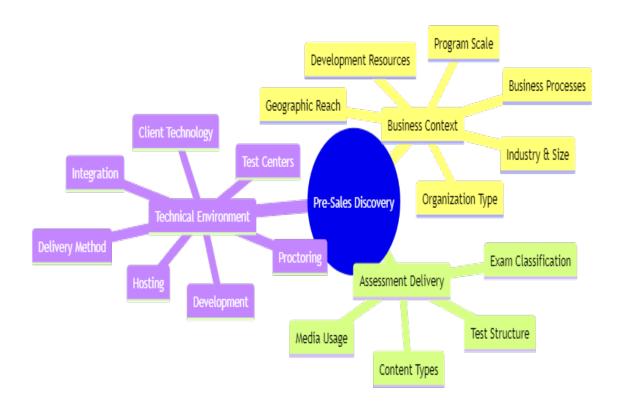


Figure 2: Pre-Sales Discovery mindmap showing key assessment areas

Business Context Assessment

```
**Area** | **Key Considerations**

---|---

**General Background** | Organization type, industry, size, geographic reach

**Business Processes** | Current assessment workflows, pain points, goals

**Program Scale** | Number of items, candidates, exams, centers required

**Development Resources** | Available technical resources, skill sets, capacity
```

Assessment Delivery Requirements

```
**Area** | **Key Considerations**
```

- **Content Types** | Multiple choice, essay, performance-based, multimedia
- **Media Usage** | Images, audio, video, interactive elements
- **Exam Classification** | High/low stakes, OSCE, digital/paper delivery
- **Test Structure** | Fixed form, dynamic, LOFT requirements

Technical Environment Analysis

- **Area** | **Key Considerations**
- ---|---
- **Delivery Method** | Surpass native or external vendor integration
- **Client Technology** | Web delivery, SecureClient, SecureBrowser requirements
- **Proctoring** | Live, record & review, or no proctoring needs
- **Test Centers** | Internal facilities or external network requirements
- **Integration** | Required system integrations and data exchange needs
- **Hosting** | Shared instance feasibility, dedicated requirements
- **Development** | Gap coverage needs, custom development requirements

Outcome: Architecture Vision Document

- **Component** | **Deliverables**
- ---|---
- **Migration Strategy** | High-level approach to migration, phasing considerations
- **Timeline** | Preliminary timeline with major milestones
- **Resources** | Initial resource requirements and allocations
- **Risk Assessment** | Identification of key risks and mitigation strategies

Phase 2: Detailed Design & Planning

- > _This phase begins after contract signing and focuses on detailed
- > implementation planning._

After contract signing, the Solutions Engineer transitions to implementation planning with detailed discovery:

Business Requirements Gathering

```
**Area** | **Key Deliverables**
```

---|---

- **Business Requirements** | Complete documentation of all business requirements
- **Data Inventory** | Full inventory of data requiring migration
- **Current State** | Mapping of current processes and data structures
- **Future State** | Mapping of desired processes and data structures

Surpass Structure Planning

The structure planning process is iterative, with dependency reviews after each major component:

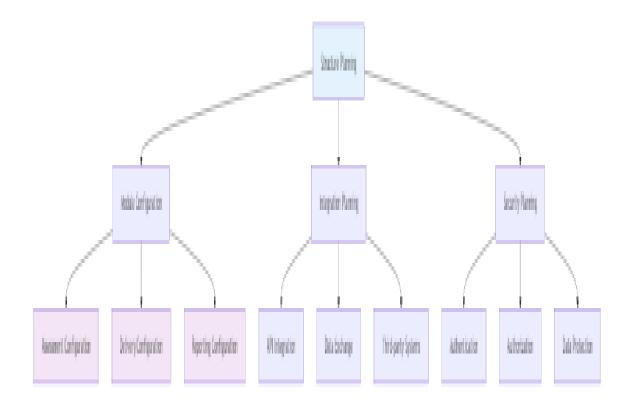


Figure 3: Structure Planning Process showing dependency review checkpoints

Center/Subject Structure Design

Component | **Configuration Details**

---|---

Hierarchical Organization | Mapping of organizational hierarchy to Surpass structure

Site/Center/Subject | Relationship mapping between sites, centers, and subjects

Organizational Boundaries | Definition of access boundaries and permissions

Item Authoring Structure

Component | **Configuration Details**

---|---

Bank Structure | Design of item bank organization and hierarchy

Item Metadata | Mapping of metadata fields and taxonomies

Workflow Configuration | Definition of authoring and review workflows

```
Media Handling | Approach for handling media assets and resources
#### Test Creation Structure
**Component** | **Configuration Details**
---|---
Test Settings | Configuration of test settings and parameters
Development Workflow | Establishment of test development processes
Blueprint Mapping | Mapping of test blueprints to item selection criteria
#### Test Administration Flow
**Component** | **Configuration Details**
---|---
Scheduling Approach | Configuration of scheduling options and constraints
Delivery Settings | Settings for test delivery and security
Security Requirements | Implementation of security controls and monitoring
#### Reporting Structure
**Component** | **Configuration Details**
---|---
Results Processing | Configuration of results calculation and processing
Analytics Requirements | Setup of analytics and reporting capabilities
Data Export | Configuration of data export formats and schedules
```

Dependency Reviews

Dependency reviews are critical checkpoints throughout the migration process:

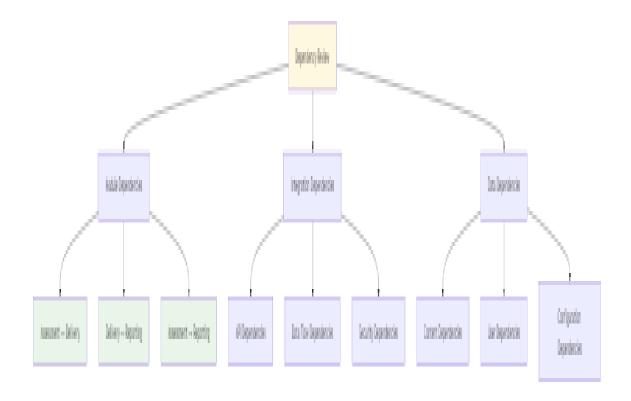


Figure 4: Dependency Review Components and relationships

Dependency Review Components

- **Review Area** | **Key Questions**
- ---|---
- **Data Compatibility** | Is data structured appropriately for all modules?
- Are all required fields populated?
- Are relationships preserved?
- **Process Alignment** | Do configured workflows support business requirements?
- Are there process gaps or conflicts?
- Is the user experience optimized?
- **Integration Viability** | Are all integration points properly defined?
- Is data transformation adequate?
- Are security requirements satisfied?

- **Performance Considerations** | Will the design support expected load?
- Are there potential bottlenecks?
- Is scalability addressed?

Migration Path Determination

```
**Approach** | **Evaluation Criteria**
---|---
```

API Utilization | API availability, throughput, rate limits, authentication

UI Import Features | Feature availability, data volume limitations, validation

Manual Input | Resource requirements, time constraints, error potential

Data Transformation | Complexity, validation requirements, mapping challenges

Outcome: Migration Runbook

```
**Component** | **Deliverables**
```

Migration Plan | Detailed step-by-step migration procedures

Configuration Specs | Complete configuration specifications

Data Mapping | Comprehensive data mapping documentation

Validation Criteria | Defined criteria for successful migration

Phase 3: Build & Configure

- > _This is the execution phase where planning becomes reality through
- > implementation of migration components._

The execution phase where planning becomes reality:

Surpass Module Relationships

Understanding the relationships between Surpass modules is critical for successful migration:

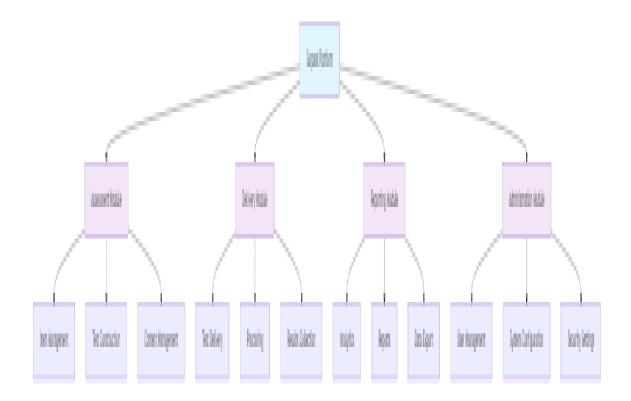


Figure 5: Surpass Module Relationships showing dependencies between components

Environment Setup

Component | **Implementation Details**

---|---

Instance Configuration | Setup of Surpass instance with appropriate settings

User Setup | Creation of administrative and test users

Migration Script Development

Component | **Implementation Details**

---|---

Data Extraction | Scripts for extracting data from source systems

Transformation Logic | Logic for transforming data to Surpass format

Load Procedures | Procedures for loading data into Surpass

Interactive CLI Workflow

An interactive CLI with color-coded menus reduces cognitive load during migration execution:

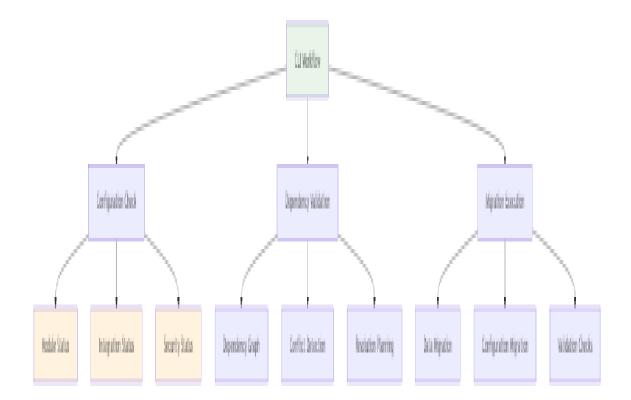


Figure 6: Interactive CLI Workflow sequence diagram

Test Item Creation

```
**Component** | **Implementation Details**
---|---
```

Sample Content | Migration of representative sample content

Item Behavior | Validation of item behavior and functionality

Media Handling | Verification of media asset handling and display

Outcome: Migration-Ready Environment

```
**Component** | **Deliverables**
```

Configured Instance | Fully configured Surpass instance

Validated Scripts | Tested and validated migration scripts

Test Data | Verified test data and validation results

Phase 4: QA & Validation

- > _This phase involves comprehensive testing to ensure migration success and
- > data integrity._

Comprehensive testing to ensure migration success:

Data Flow Validation

The migration data flow must be thoroughly validated:

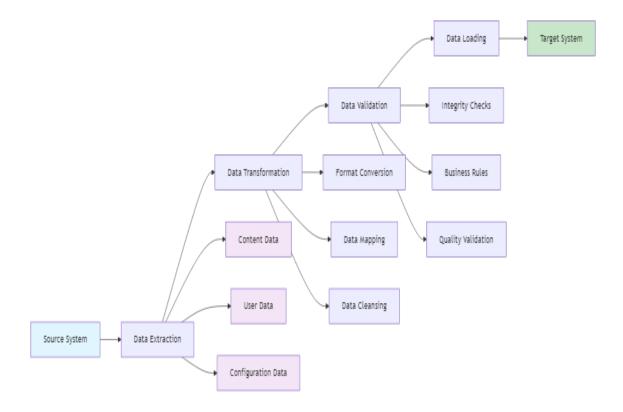


Figure 7: Data Flow Validation diagram showing transformation and validation processes

Testing Approaches

- **Approach** | **Testing Activities**
- ---|---
- **Manual Testing** | User acceptance testing
- Process validation
- Configuration verification
- **Automated Testing** | Data integrity validation
- Performance assessment
- Integration testing
- **Dependency Validation** | Cross-module functionality testing

• End-to-end process validation

Outcome: Validation Report

Component | **Deliverables**

Test Results | Documentation of all test results

Issue Resolution | Tracking of issues and resolution status

Customer Sign-off | Documentation of customer approval

Phase 5: Go-Live & Handoff

- > _This final phase encompasses production deployment and transition to
- > ongoing operations._

Final deployment and transition to operations:

Production Migration

Component | **Implementation Details**

---|---

Data Migration | Execution of full data migration

Verification | Final verification of migrated data

Performance | Monitoring of system performance

Knowledge Transfer

```
**Component** | **Implementation Details**
```

Documentation | Delivery of all system documentation

Training | Completion of user and admin training

Support | Transition to ongoing support channels

Project Closure

```
**Component** | **Implementation Details**
---|---
```

Lessons Learned | Documentation of lessons learned

Success Metrics | Reporting on project success metrics

Follow-up | Planning for follow-up activities

Outcome: Operational System

```
**Component** | **Deliverables**
```

Migrated Implementation | Fully migrated Surpass implementation

Trained Team | Customer team trained on system use

Support Channels | Established support channels

Project Timeline

A typical migration project follows this timeline:

Surpass Migration Project Timeline

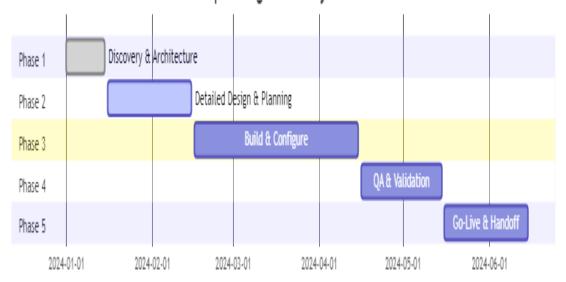


Figure 8: Project Timeline Gantt chart showing key milestones and dependencies

Continuous Improvement

- > _The migration framework incorporates ongoing refinement based on lessons
- > learned and evolving best practices._
- **Area** | **Activities**

---|---

Process Improvement | Identification of process improvement opportunities

Framework Enhancement | Recommendations for framework enhancements

Best Practices | Documentation of best practices for future migrations

Conclusion

The Surpass Migration Framework provides a comprehensive, structured approach to assessment platform migrations while maintaining the flexibility needed to address unique customer requirements. By following this framework, Solutions Engineers can:

- * Ensure all critical components are properly addressed
- * Maintain alignment across interdependent modules
- * Validate configurations at each step of the process
- * Deliver successful migrations with minimal disruption

This framework continues to evolve based on lessons learned from each implementation, ensuring that best practices are incorporated into future migrations.