



Updated Tech Strategy

November 20, 2017

Bahar Gidwani

2014 Tech Situation

- ◆ ACBL spent >\$2MM trying to rewrite ACBLscore. The project failed and we had to rethink our strategy.
- ◆ Many risks and issues—all pressing:
 - ♣ Old version of ACBLscore was increasingly hard to use and maintain.
 - ♣ Hard to extract marketing and financial data from outdated AS400 platform.
 - ♣ Web site was not robust or secure.
 - ♣ Tournament efficiency hurt by old tech.

2015-17: A Base for Change

- ◆ Built a cloud platform and started transferring functions to it:
 - ♣ Tournament financial tracking.
 - ♣ Results display (ACBL Live).
 - ♣ Results gateway (in final beta).
 - ♣ Improved web site capacity, security, reliability, and flexibility.
- ◆ Began development of components needed to replace ACBLscore (e.g., Masterpoint engine).

Progress, But Could Take Years

- ◆ No clear way to replace ACBLscore's capabilities—other scoring programs could do some things but not all.
- ◆ Many specialized tasks handled by the AS400: Blue Ribbon qualifiers, rank change, POD race, etc. Migrating it all at once would be a multi-year process.
- ◆ Rest of the world is moving forward—we could remain far behind.

Time to Take More Radical Steps

- ◆ Existing system was “highly coupled”:
 - ♣ Most software written in house or heavily modified.
 - ♣ We control everything.
- ◆ New system will be “loosely coupled”:
 - ♣ Data divided into multiple “repositories.”
 - ♣ Access to data via well-described application program interfaces (APIs).
 - ♣ Rely on outside programs as much as possible. Certify instead of develop.

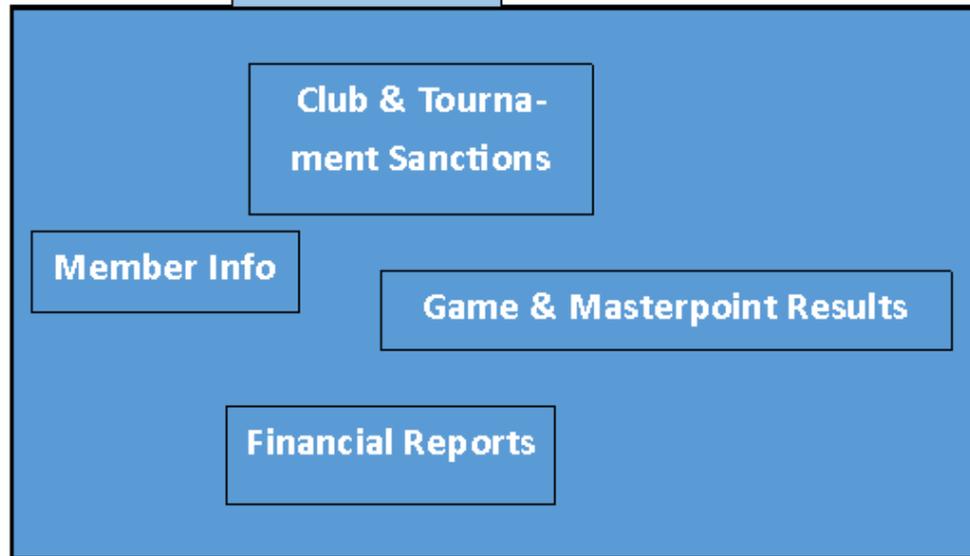
The Current Tightly-Coupled System

Club & Tournament Games



ACBL score

Members



Hand
Generation

Bot 1 ♠ 10 8 6 2
Dir: North ♥ J 6
Vul: None ♦ A K Q
 ♣ Q 7

♠ 5 ♠ A K 9 7 4 3
♥ Q 10 9 8 7 ♥ A K 2
♦ J 8 3 ♦ 10
♠ 8 6 5 4 2 ♠ 10 3

 ♠ Q J
 ♥ 5 4 3
 ♦ 9 7 6 5 4 2
 ♠ A K J 9

\$

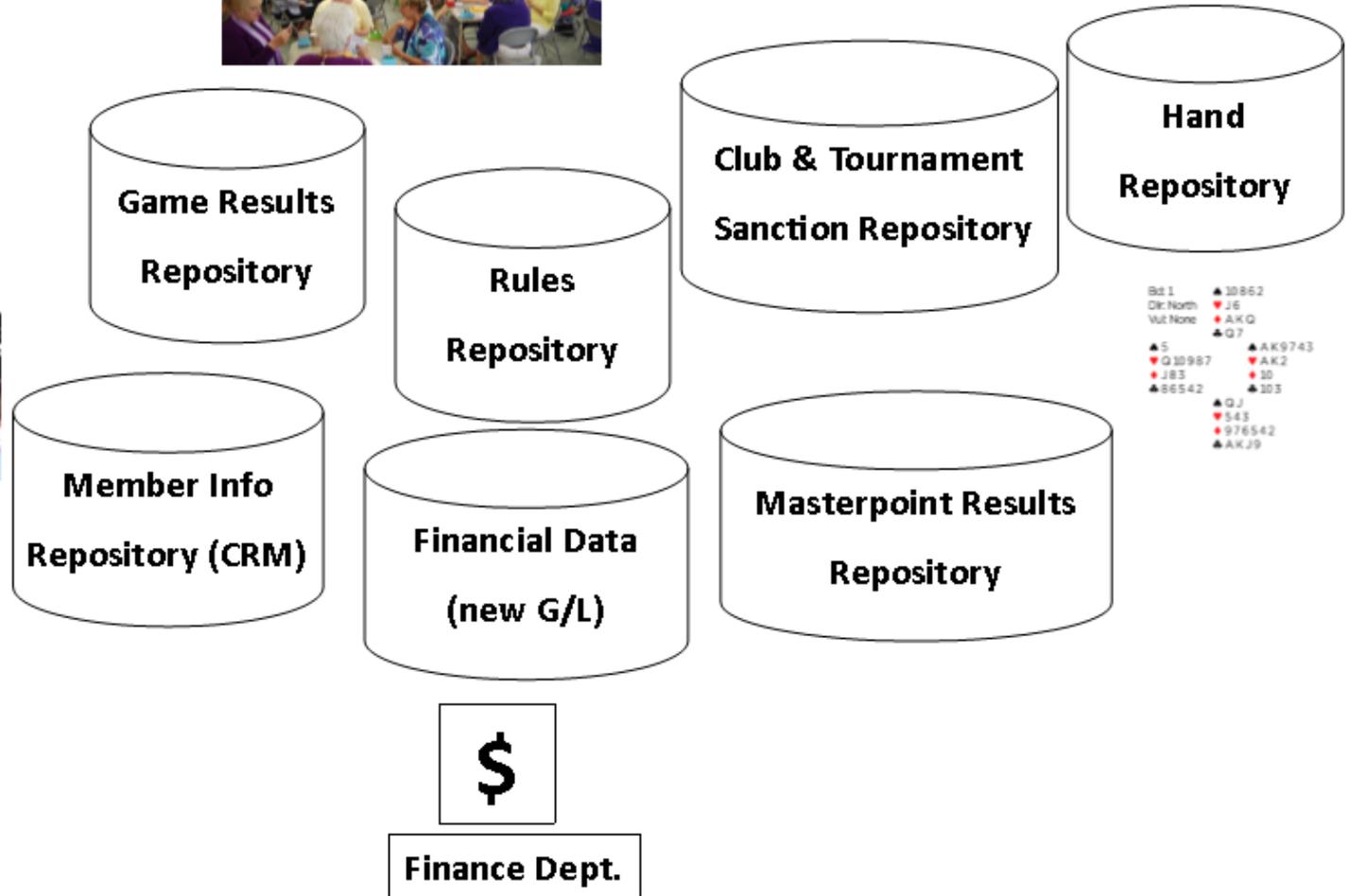
Finance Dept.

A Loosely-Coupled System

Club & Tournament Games



Members



Loosely-Coupled Allows ACBL to Integrate Outside Tools

- ♥ Game management software (to supplement/replace ACBL score):
 - ♣ EBU/JSS Score (English program).
 - ♣ Magic Contest (Swedish program).
 - ♣ Bridgescore+ (Nicholas Hammond program).
 - ♣ Bridgest (Italian scoring program).
 - ♣ BridgeTD (ties to wall score display system).
- ♥ Bridge club management tools:
 - ♣ Bridge Club Manager.
 - ♣ bridgescore.com.
 - ♣ BridgeWebs.

Loosely-Coupled Allows ACBL to Integrate Outside Tools

♥ Team game management tools from:

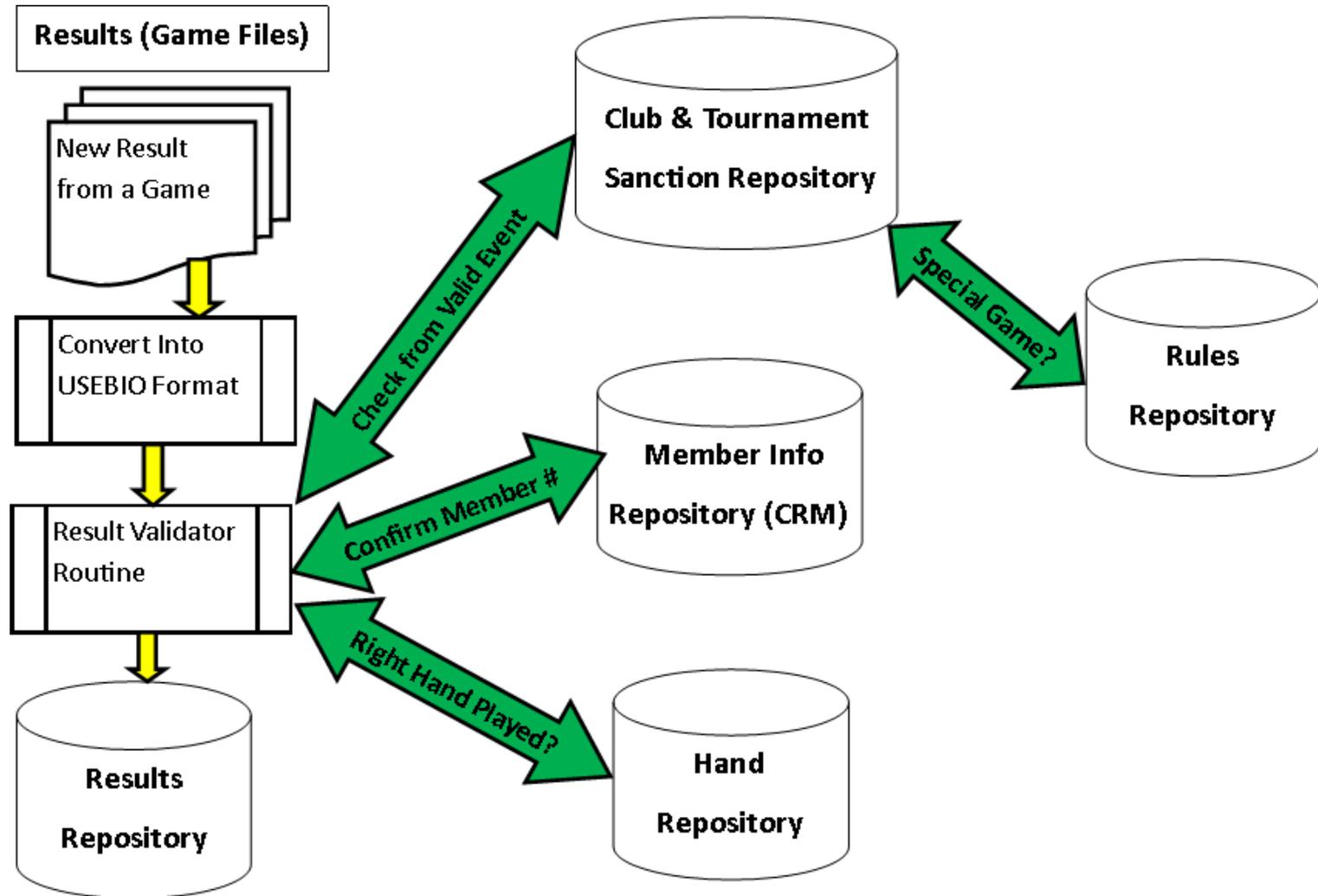
- ♣ Greg Coles.
- ♣ Ping Hu.
- ♣ Nicolas Hammond.

♥ Hardware products:

- ♣ Bridgemates.
- ♣ Bridgepads.
- ♣ Bridge + More.

Any tool or technology that works with our APIs can be tested, certified, and integrated.

Example of Game Processing



Benefits of New Game Processing Approach

- ♥ Any type of game management program can contribute results files.
 - ♣ EBU/JSS creates USEBIO 1.2 (can be converted to USEBIO 1.3).
 - ♣ Magic Contest creates PBN (can be converted to USEBIO 1.3).
 - ♣ Bridgescore+ creates ACBL score game file (can be converted to USEBIO 1.3).
- ♥ Could accept files from anywhere: e.g. WBF or ABA games.

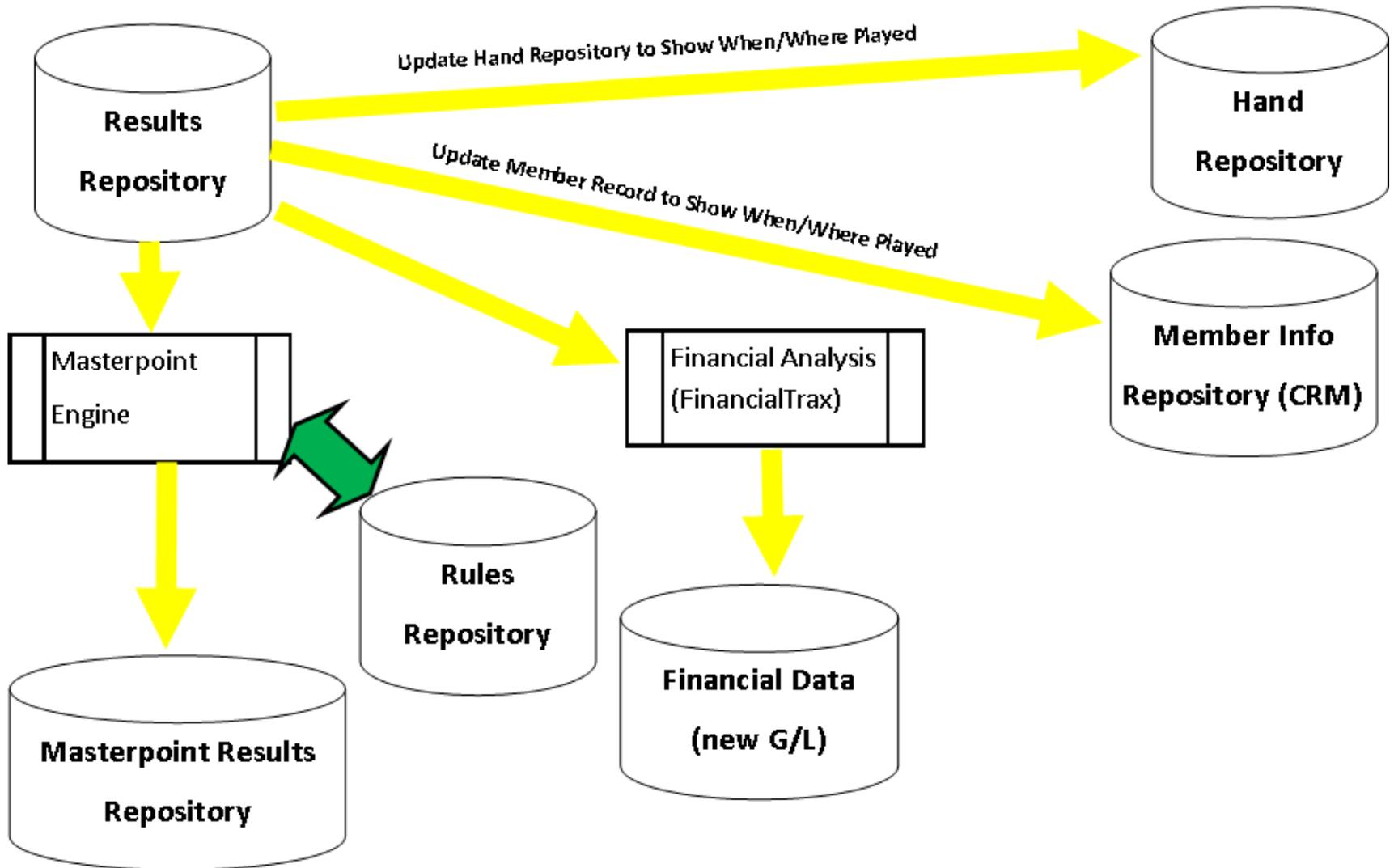
Benefits of New Game Processing Approach

- ♥ Validator makes sure the results we store have been correctly recorded:
 - ♣ Checks member numbers and strats.
 - ♣ Makes sure game was properly sanctioned.
 - ♣ Makes sure that the hands played were those assigned to the event.
- ♥ Rejected game results go back immediately to the director.
- ♥ Any accepted result can be viewed via ACBL Live, etc.

Benefits of New Game Processing Approach—cont.

- ♥ Each game program gets certified for various types of games:
 - ♣ Most programs will handle club-level Mitchell and Howell movements.
 - ♣ Some programs will handle more complex games and offer new features.
 - ♣ ACBL will allow use of any program for any use that has been tested and certified.
- ♥ New programs and solutions can be included easily.

Examples of Results Repository Use



New Masterpoint Processing Approach

- ♠ Masterpoint calculations are done by combining game results with a repository of Masterpoint rules.
 - ◆ Easy to add or change a rule at any time.
 - ◆ Other organizations (e.g., ABA or WBF) could add rules and use our engine for their games.
 - ◆ Engine will be “exposed” to the web—players and TDs can predict the MPs for any game.
- ♠ Validating and Masterpoint calculating APIs will be made available to partners.

New Member and Financial Approach

- ♠ Financial reports can be run at any time instead of monthly.
- ♠ Member information is updated immediately. Both tournament and club activity is stored and available.
- ♠ Hand play is stored and available.
- ♠ Special issues (e.g., Blue Ribbon qualification) are processed when needed using the original Results.

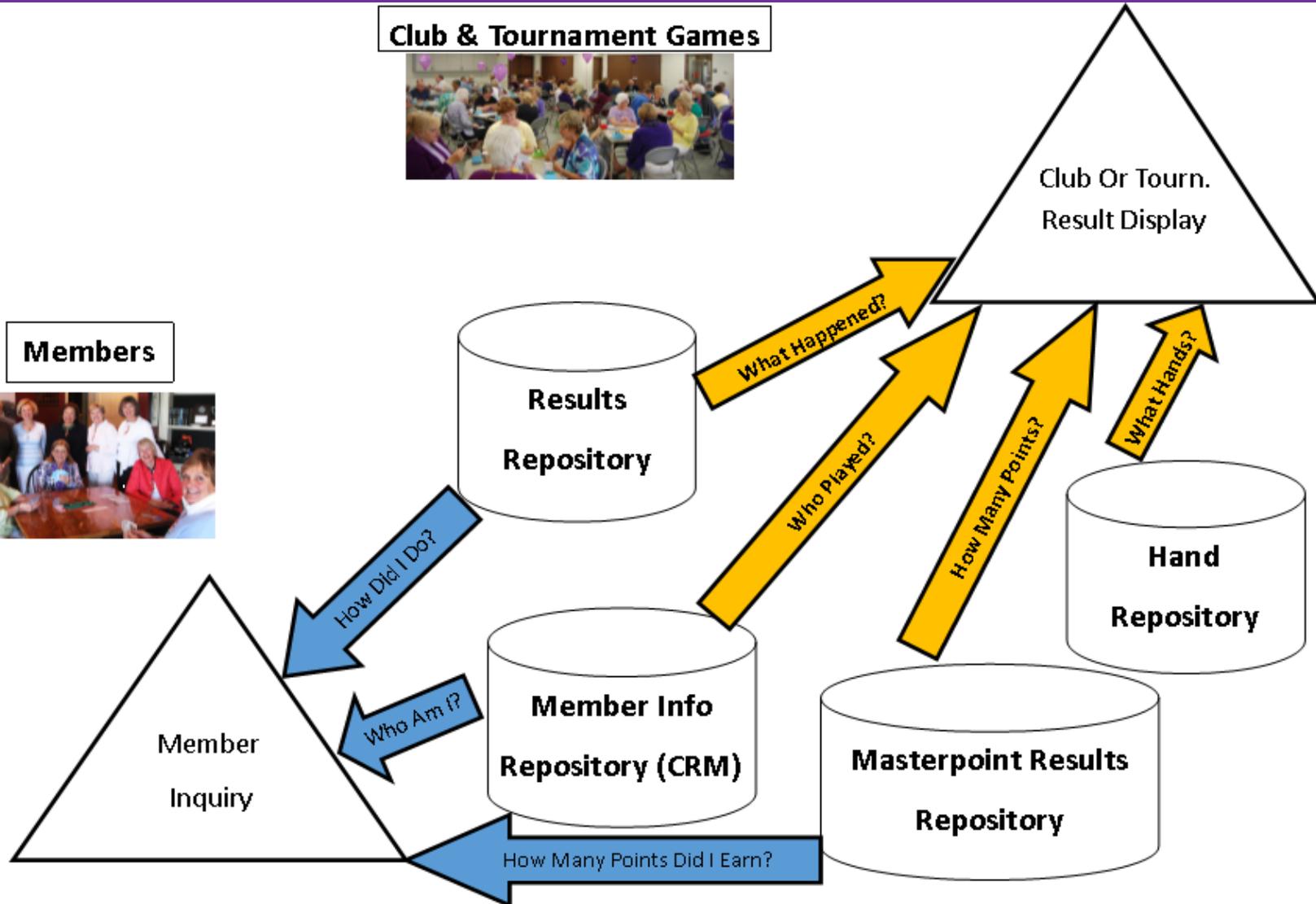
Examples of Query Building

Club & Tournament Games



Club Or Tourn.
Result Display

Members



Queries Pull from Multiple Repositories

- ◆ Member inquiry would use data from the CRM, Masterpoint and game results repositories.
- ◆ Results display would use Masterpoint, results, CRM, and hand repositories.
- ◆ Other queries could be written by any authorized partner. No ACBL coding is required—the partner would use APIs or query read-only shared files.

Strategy for Deployment--2018

- ◆ Put as many results files into repository as possible.
- ◆ Start certifying game software tools.
- ◆ Start converting tournament games to other game programs.
- ◆ Move all member data to CRM.
- ◆ Complete Masterpoint engine rules set and use it for Masterpoint calculations.
- ◆ Publish APIs. Tighten rules for their use.
- ◆ Stop using AS400.

Strategy for Deployment—2018—Cont.

- ◆ Enable and encourage clubs to convert from ACBL score to new game programs:
 - ♠ New programs are easier to learn and use. Will run on modern hardware.
 - ♠ Clubs that use new programs can feed results to display and marketing tools.
 - ♠ Integrate financial reporting: if a club reports all games with new software, no need for a month-end report.
 - ♠ Offer support for certified programs.

Strategy for Deployment—2018

Continued

- ◆ Introduce KO and Swiss team results projection for NABC and most Regionals.
- ◆ Introduce electronic ticket purchase (both on-site and in advance) for NABCs and most Regionals.
- ◆ Upgrade outbound email systems for HQ, Districts, Units, and clubs.
- ◆ Strengthen security. Upgrade credit card handling certification status (PCI).

Strategy for Deployment--2019

- ◆ Continue encouraging clubs to convert off ACBL score to other game programs. Get 50% of clubs off ACBL score.
- ◆ Make sure at least one new game program will support each possible tournament movement.
- ◆ Integrate ABA and WBF Masterpoint rules into rules database.
- ◆ Publish all APIs and support open-source development of new apps.

Strategy for Deployment--2020

- ◆ Encourage clubs to convert off ACBI score. Start charging for use of ACBL score? >80% converted by end of year.
- ◆ All tournaments run on game programs other than ACBL score.
- ◆ Use open-source-generated code to enhance tournament management.
- ◆ Encourage on-line sites to use ACBL repository technology as part of their systems.



Appendix—Components Required to Complete Project (and status)

November 20, 2017

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Component List

Component	Available Solutions	Status
Table interface	Bridgemates, tablets	OK
Capture table data	BM Server, BridgePad server	OK. API = BWS file.
Game set up	ACBL score, JSS, etc.	OK (but need to add features)
Game transmission	Game gateway	Complete
Game ingestion	Gateway verifier	Beta
Conversion routines	GFPrint, ScoreParser	OK
Member info for TD	ACBL score	Need CRM-driven tool
Sanction repository	ACBL database	Beta
Hand repository	ACBL database	Beta
Hand replay tool	BBO, others	OK
Results display	Bridgewebs, Bridgefinesse, ACBL Live	OK

Component List—cont.

Component	Available Solutions	Status
Financial tracking	TourneyTrax	New tools needed
Hand analysis	Various	New tools needed
Marketing outreach	Pianola, Bridgefinesse	OK
Masterpoint calculation	ACBL score, Masterpoint engine	Beta
Club financial reporting	ACBL score monthly financial report, FinReport	Beta
Online purchase	Bridgewinners, Purplepass	Beta
Strength-based ratings	Various	New tools needed
Customer Relationship Management System (CRM)	Microsoft Dynamics	Being installed
General Ledger System	Microsoft Great Plains	Being installed