



## Helping the City of Bel Aire's Systems Scale Effectively A "Pay-As-You-Grow" Technology Roadmap with a Fractional CIO

Brian Mackey

# Overview

- Bel Aire Current Challenges and Growth Plan are the Basis this Technology Roadmap
- Consultant Background and Qualifications
- Gap Analysis of Missing Capabilities for Strategic Solution
- High Level View of Current Technology Stack
- High Level View of Strategic Technology Stack
- Roadmap To Achieve Strategic Vision
- Recommend ERP System
- Critical Success Factors and Best Practices for ERP Implementations
- Agile Methodologies Advantages for Phased Deployments
- Summary of Recommendations
- Appendix

## Bel Aire Current Challenges and Growth Plan are the Basis this Technology Roadmap

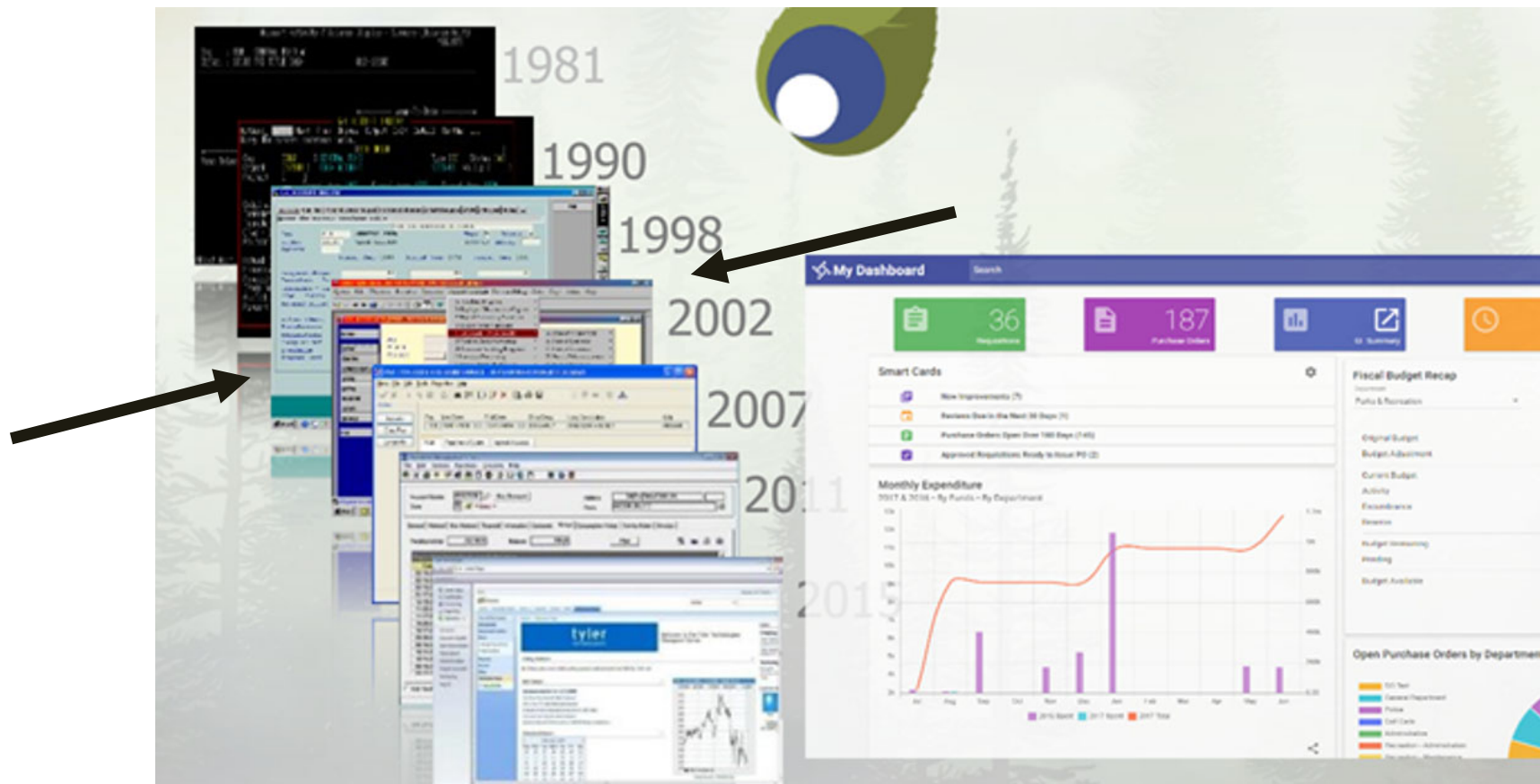
1980 - 2017

- Small Staff
- Paper Forms/ Written Journal Entry
- Small Staff/ Paper Forms/ Manual Entry (computer)/ run two tapes
- Small Staff/ Paper Forms/ primitive web payments (blank), Manual Entry (computer), Digital Document Storage
- No online-customer service

2018 - 2023

- Small Staff
- Add Upload/Input CC payments (saved staff time for UB but not for Court, Recreation, or P&Z)
- Add Online Forms (customer service) / Manual Entry (computer)
- Add bronze age web payments (customer service) / Manual Entry (computer)





- We live in the world of Amazon, Target, Evergy, and AI

**Utility Payment**

Sign In
Profile
Change Password
Transaction History

Acct No:

Current Balance: **Acct Not Found**

As Of: -

Address:

City:

State: **KS**

Zip:

Phone:

Make Payment Now. . .

Amount:

On Autopay

\$161.09

Will be paid on 12/29/23

Service 11/5/23 - 12/7/23

Account 7303164308

Last payment of \$147.52 received on 11/27/23

Next bill available on 1/11/24

[Manage Autopay](#)

[View Bill Details](#)

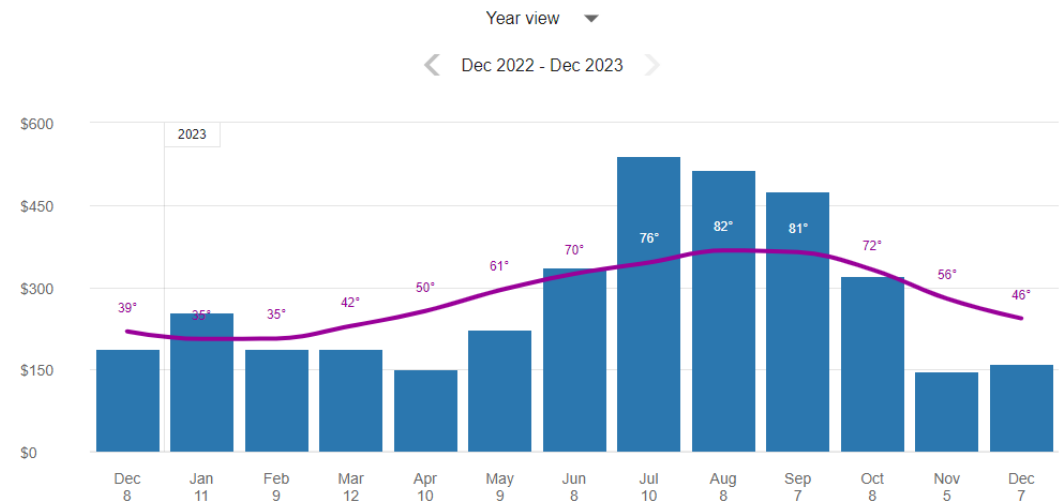
Your bill is

↑ \$13.57

higher than the previous month

[Analyze Monthly Usage](#)

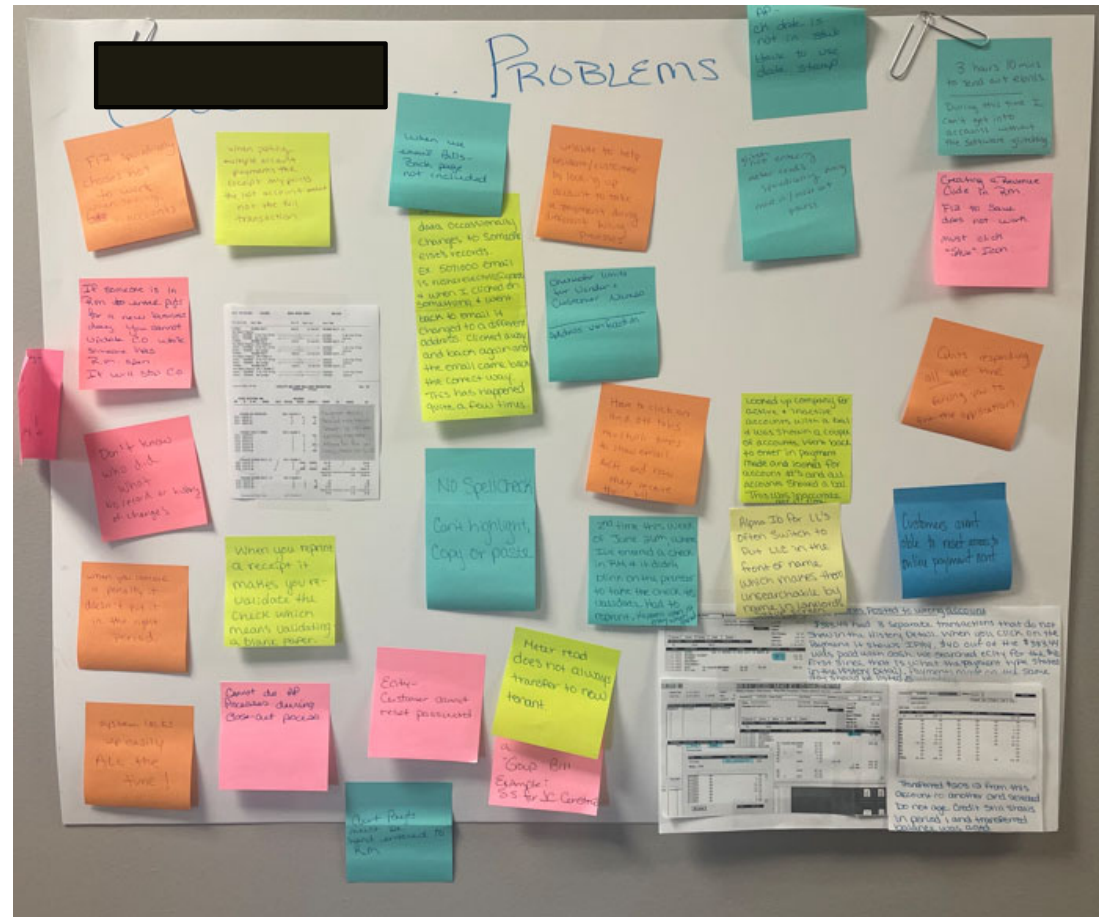
[BILL](#) | [USAGE](#) | [NEIGHBORS](#)



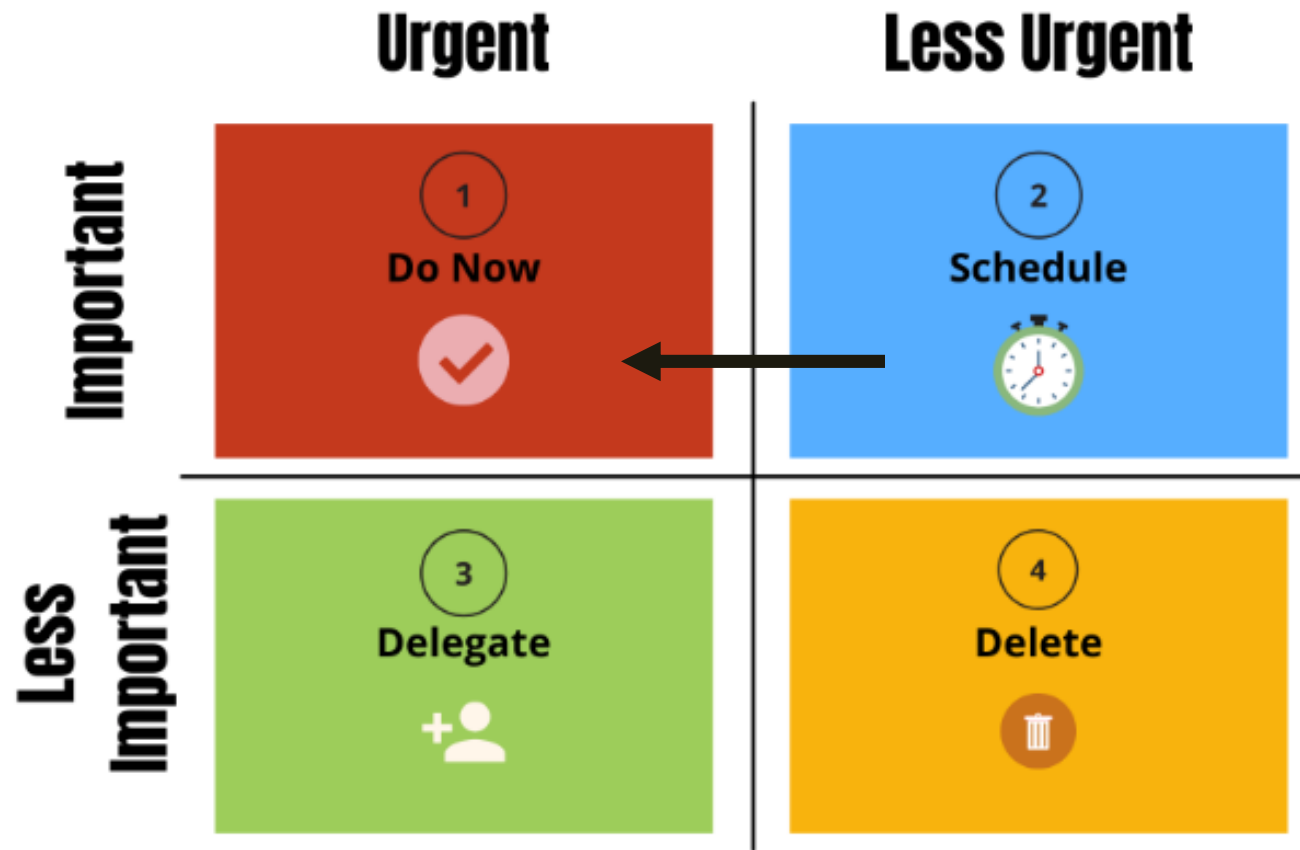


## Current Challenges

- Manual Entry
- Staff Dependent (years of service)
- Antiquated System (direct deposit issue)
- Glitches
- Limited Integration
- Customer Portal (Communications)
- Customer Expectations



- Why Now?



# Brian Mackey – Enterprise & Digital Data Transformation Leader



Highly accomplished executive with extensive experience deploying Enterprise IT solutions, Enterprise/Information Architecture strategies and leading Digital Marketing and Sales transformations. Proven leader in various positions across the High-Tech, Telecommunications, and Healthcare industries.

Collaborates and communicates with C-Suite to frontline colleagues to bring forth innovative ideas, effectively increasing bottom-line revenue while utilizing consumer insight to propel business strategy.

## Professional History







## Client Success / Innovation

2022  
2021  
2001

1996

1991

1987

Professional History		Client Success / Innovation
	President & Senior Managing Director	<ul style="list-style-type: none"> <li>Accomplished multimillion-dollar improvements to IBM's campaign execution and lead management process by delivering largest WW deployment of Unica's EMM tool suite by any customer to date. Deployed sophisticated integration architecture, supporting E2E lead generation, scoring and passing to multiple CRM platforms (SugarCRM and SFDC).</li> <li>Drove 71% increase in revenue, 3.5x increase in conversation rates and 10% reduction in non-sales chat by deploying a worldwide, multi-channel messaging solution that includes Live Chat (Live Person) and Cognitive Chat Bots (Watson)</li> <li>Transformed ability to track, predict and interact with individuals through design, development, and deployment of solution based on IBM's Master Data Management product and data warehouse based on Netezza – both are now foundational components across all IBM systems. Featured in IBM Press book, "Beyond Big Data: Using Social MDM to Drive Deep Customer Insight," forward written by Brian Mackey.</li> <li>Delivered first opportunity for event customers to connect with Watson by leading cross-functional team to develop a cognitive session builder expert tool for World of Watson. The solution exceeded expectations with nearly 10K users and thousands of new IBM accounts.</li> <li>Deployed SAP financials globally, completing on time and budget with a team of ~50 people.</li> <li>Deployed PeopleSoft globally for HR services, providing Informix with a first-ever complete view of 5K employees.</li> </ul>
	VP – Product Management	
	Director - Digital Marketing and Sales Platforms Senior Manager – Enterprise & Information Architecture	
	Director WW Applications Applications Manager	
	Manager Application Services Technical Project Leader	
	Project Leader Programmer / Analyst	

### Contact Info

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[www.linkedin.com/in/brianwmackey/](https://www.linkedin.com/in/brianwmackey/)

### Education

	Master of Business Administration (MBA), Rockhurst University - 1997
	Bachelor of Science (BS), Computer Science, Kansas State University - 1987

### Volunteer

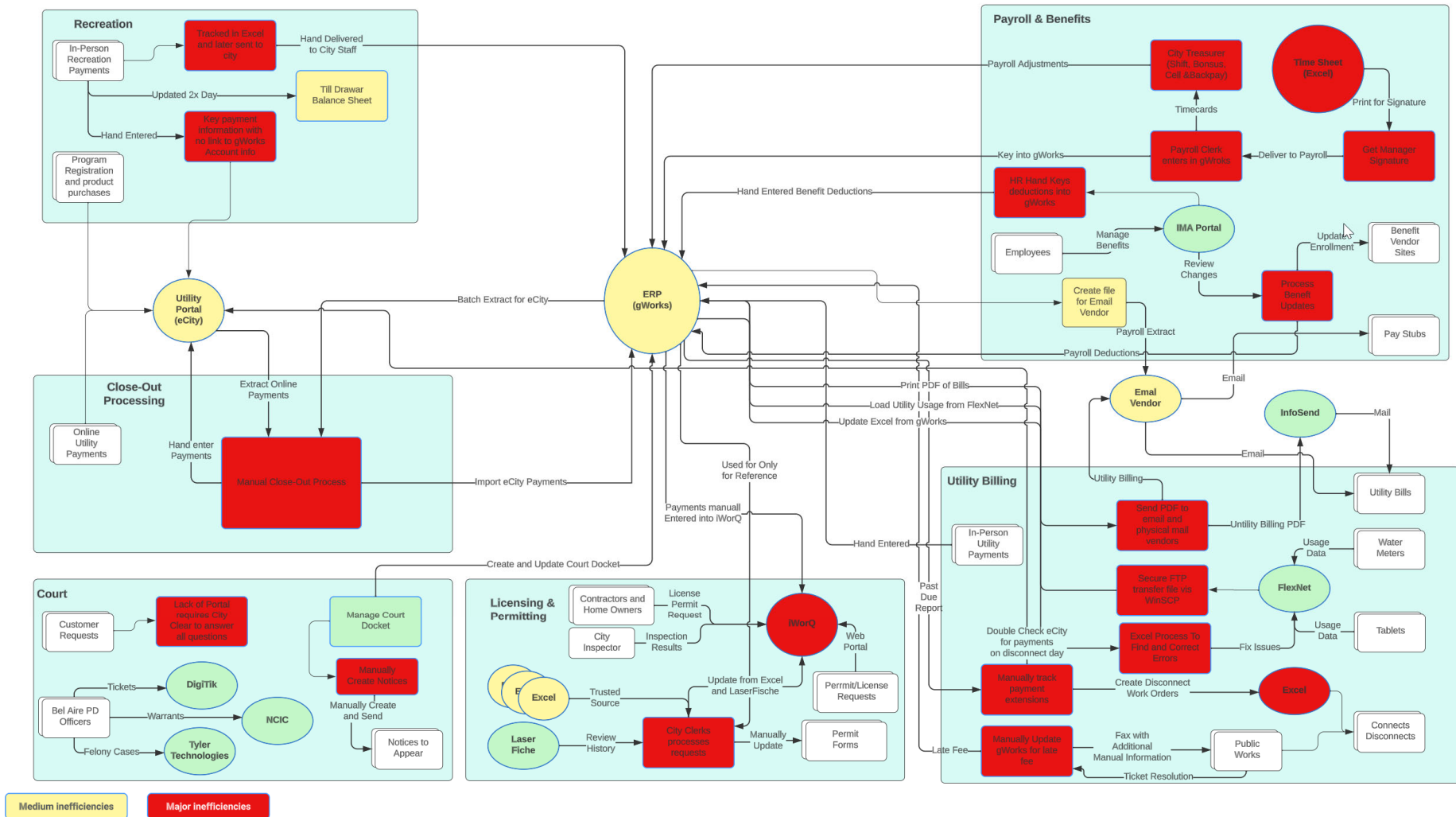
	Multiple Myeloma Research Foundation Technology Advisor (2017 – Present)
	Upward Basketball Basketball Coach (2004 – 2014)



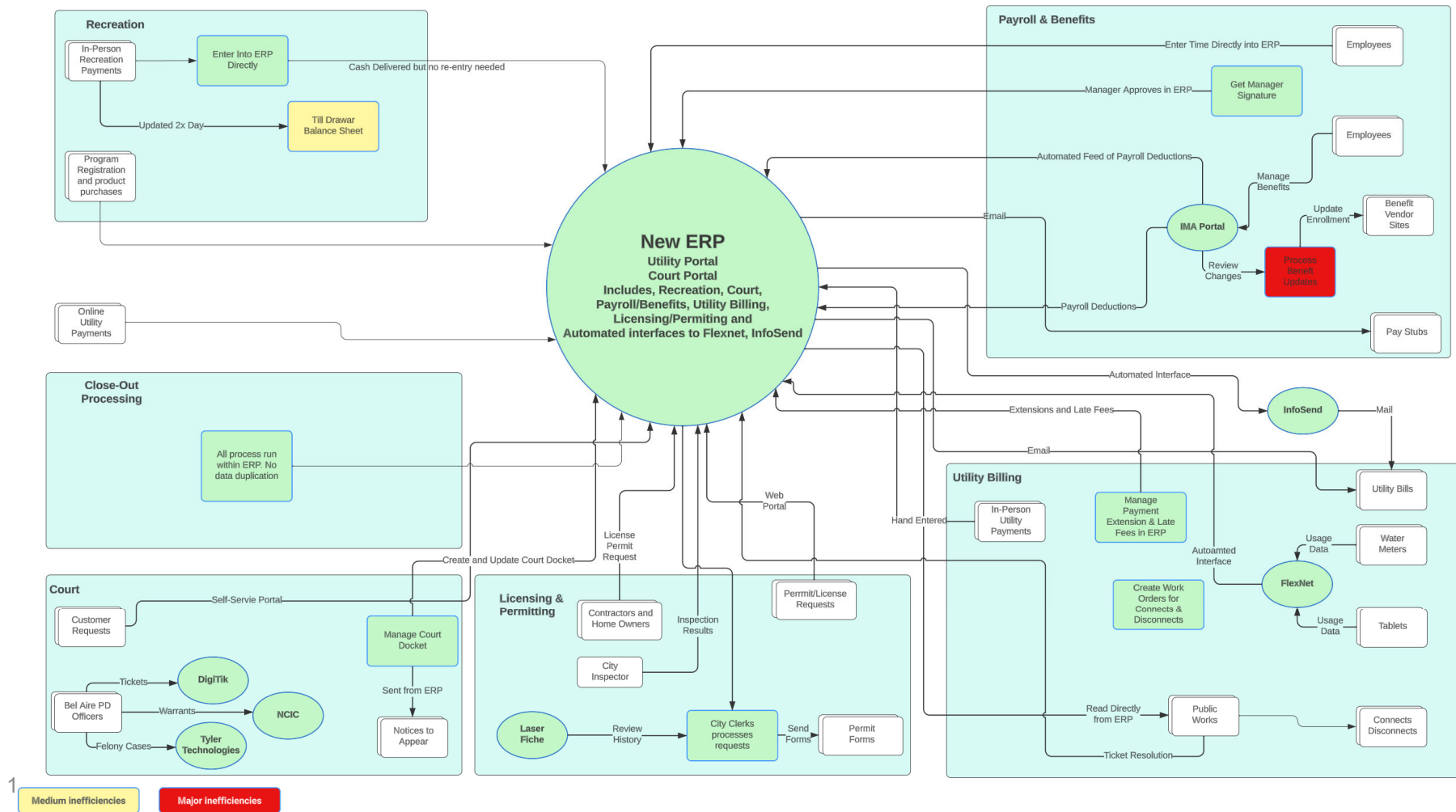
# Gap Analysis of Missing Capabilities for Strategic Solution

- Bel Aire has done a good job of working with a disparate set of applications on a very limited budget. However, these applications have security and compliance issues, require wasteful and error-prone manual duplicate entry and are not able to scale to the level needed for forecasted usage and capabilities.
- Functional Gaps:
  - Current ERP doesn't cover all functional areas which requires other systems at [additional cost and integration challenges](#) (e.g. Utility Portal, Recreation, Work Orders, etc).
  - Lack of trust in current system requires some functions (e.g. Permitting) to [maintain excel-based backups](#)
  - Lack of online payroll approval process requires the city to manage [paper-based timecards](#)
  - Lack of interface between benefits portal (IMA) and ERP requires HR staff to [hand enter payroll deductions](#) for benefits and [hand enter benefit enrollment](#) with benefit providers
  - ERP doesn't automatically handle key payroll functions (e.g. Shift Diff, Stipends and Bonus) which requires city staff to [process those manually](#)
  - ERP doesn't offer opt-out process for marketing emails which [violates CAN-SPAM rules](#)
  - Lack of utility billing portal within the ERP creates a [large manual workload to keep eCity and gWorks in sync](#). For example, the "Close-Out" process.
  - Lack of an automated interface with water meter system (FlexNet) requires [cumbersome and error-prone file transfer process](#) that is far to technical for most end users
  - Lack of real-time interface between gWorks and eCity requires [manual checking of late payments](#)
  - Lack of interface between gWorks and iWorQ requires city staff to [hand enter information in iWorQ](#) which creates waste and potential for error
- Technical Gaps:
  - Lack of Auto-Scaling cloud infrastructure for ERP
  - Lack of audited [security and data privacy compliance](#) for key systems creates and exposure for the City
  - Lack of automated interfaces require [duplicate data entry which is wasteful and open to error](#)
  - No Automated monitoring and alerting of production applications and infrastructure
  - Current ERP is built on antiquated technology and [doesn't support concurrent users well](#) (e.g. Billing Cycle)
  - gWorks and eCity are not able support some modern [Security and Data Privacy rules](#) (e.g. SOC 2, CCPA, WCAG)
  - gWorks is not a SaaS solution which means the City of Bel Aire is fully responsible for ensuring data security because it runs on a city owned server within the City building.

# High Level View of Current Technology Stack

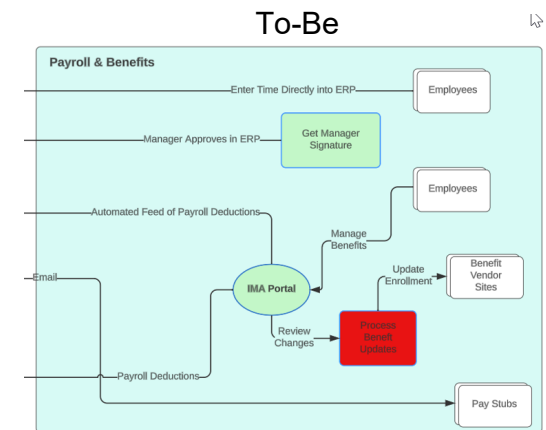
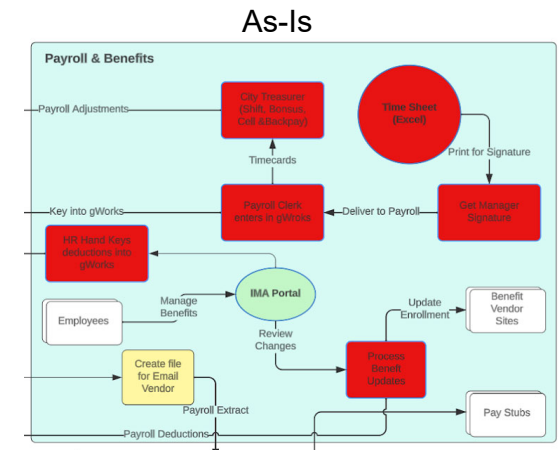


# High Level View of Strategic Technology Stack



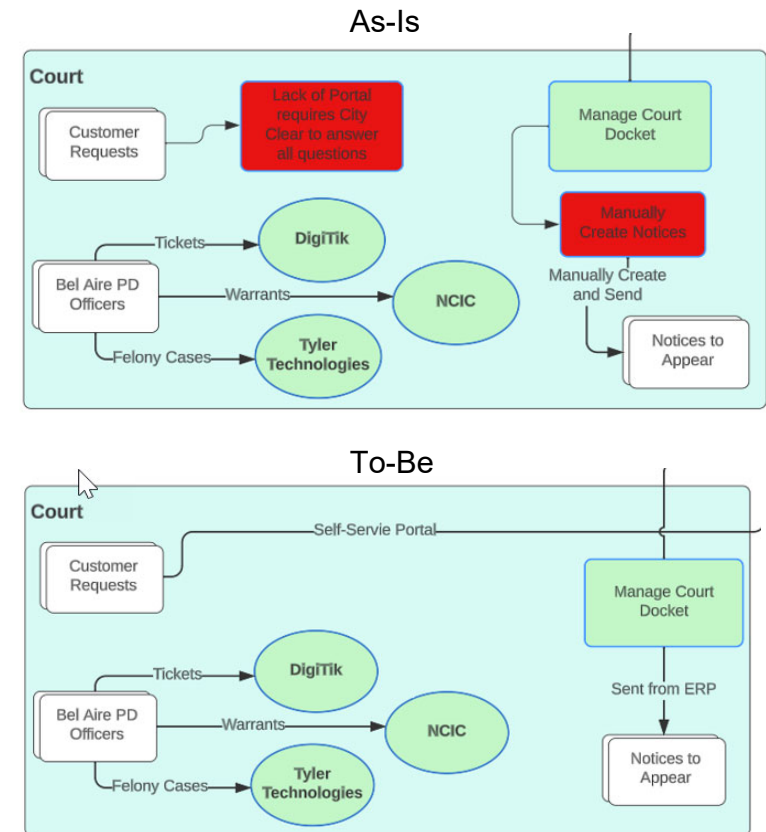
# Roadmap To Achieve Strategic Vision – Phase 1

- Start with HR and Payroll
  - Quick Win
  - Limited scope
  - Elimination of duplicate data entry
  - All employees will feel the improvement
- Legacy Systems Eliminated
  - Excel based time sheets
  - gWorks Payroll module
  - Potentially, IMA Portal but requires validation first



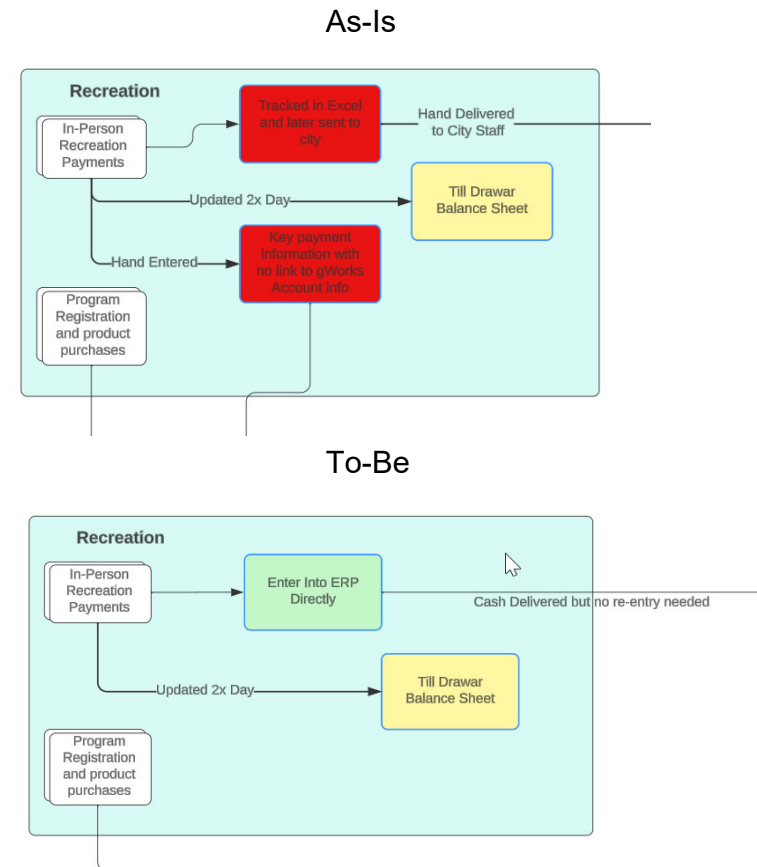
## Roadmap To Achieve Strategic Vision – Phase 2

- Quickly follow with Court
  - Limited scope
  - Elimination manual creation of notices
  - Improves efficiency of court clerk by elimination many citizen questions
  - First improvement for citizens with self-service portal
  - Easy integration with county system
- Legacy Systems Eliminated
  - gWorks Court module



## Roadmap To Achieve Strategic Vision – Phase 3

- Recreation
  - Improved customer portal
  - Eliminates duplicate data entry from eCyt to gWorks
  - Eliminates CAN-SPAM issues currently in eCity emails
- Legacy Systems Eliminated
  - eCity Recreation Module

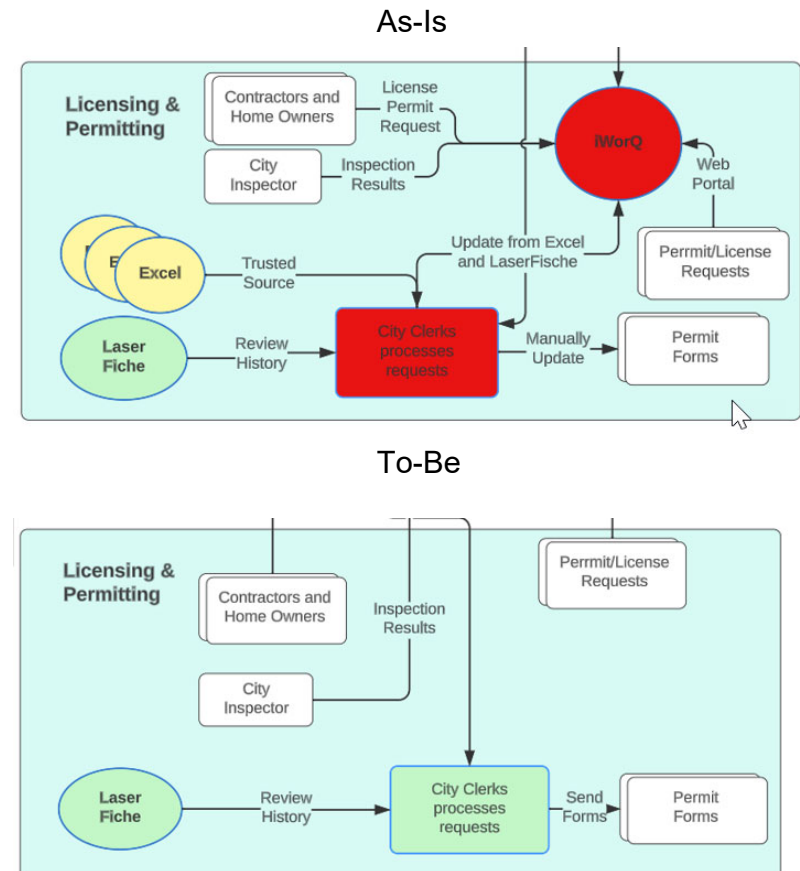






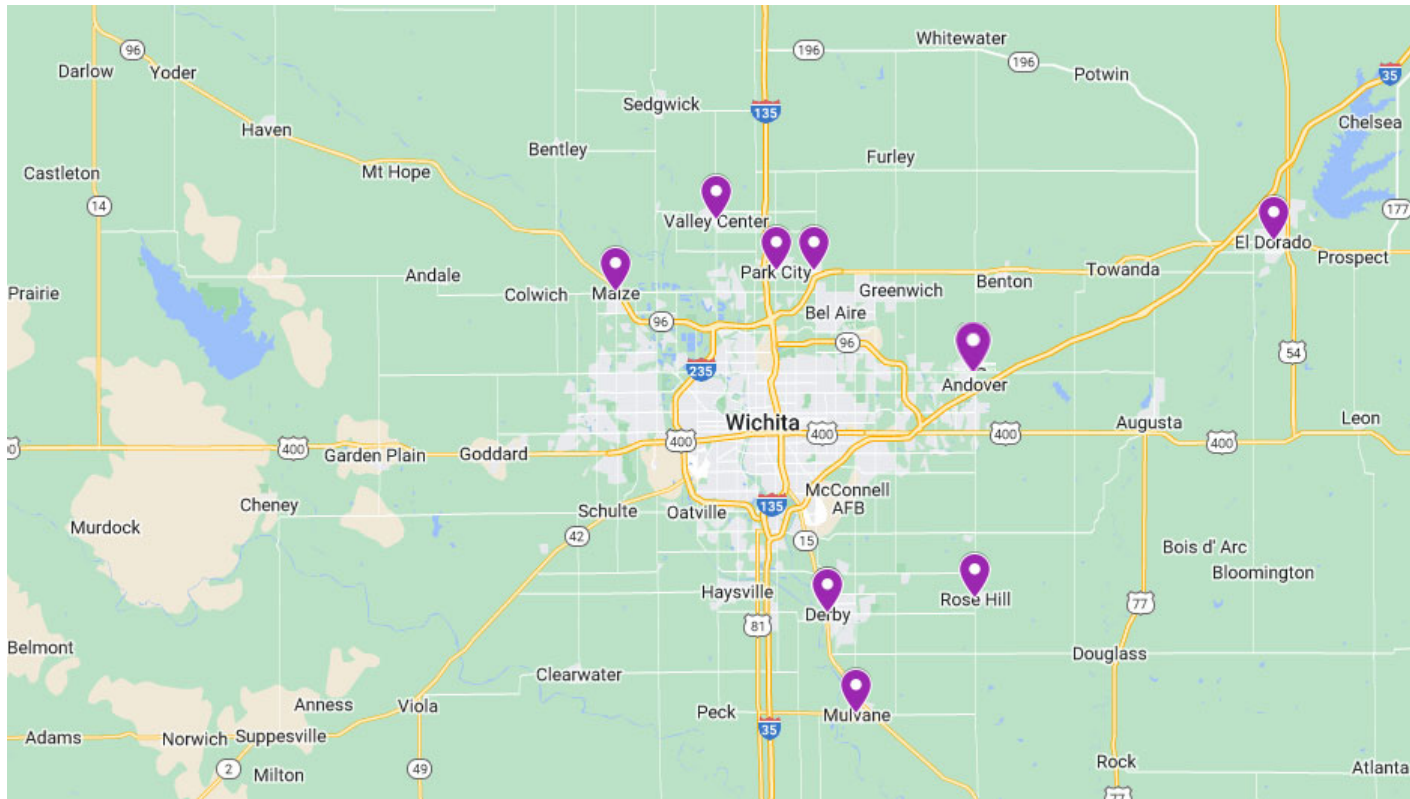
## Roadmap To Achieve Strategic Vision – Phase 5

- **Licensing and Permitting**
  - Most complex area
  - Significant efficiency improvements
    - No more duplicate entry into historic Excel files
    - Smoother online submissions of request
    - Easier interaction with inspector(s)
  - Will likely require the most change in City processes to gain the value
- **Legacy Systems Eliminated**
  - iWorQ
  - Excel files



## Recommend ERP System

- 4 responded to City's Request for Proposal (RFP) (1 declined to bid after 2-hour meeting with Deb)
- 2 RFP's reviewed and vendor demonstrations conducted
- 4 Cassell customer references contacted, 9 Tyler customers references contacted. (1 visit)
- Vendors then scored using a weighted system based on the City's priorities:
  - Tyler Technology = 403
  - Caselle = 240
- Recommendation = Tyler Technology
  - Covers all functional areas
  - Best technical roadmap and security/compliance posture
  - Significantly larger development and support team
  - A strong track record of sustainable growth and profitability
  - Best customer references including total clients in Kansas and in Wichita Metro



Andover, Arkansas City, Derby, El Dorado, Hesston, Hutchinson, Kechi, Maize, Mulvane, Newton, Park City, Rose Hill, Valley Center, Wellington.

# Tyler scored the best and would deliver the most benefits to Bel Aire

## Scoring

Weights are relative (aka a curve) to each other

Tyler				
Functional Assessment	Weight	Raw Score	Weighted Score	Comments
Finance	4	5	20	
HR	4	4	16	
Payroll	4	5	20	
Utility Billing	5	5	25	
Licensing and Permitting	3	3	9	
Court	4	5	20	
Recreation	3	4	12	
Platform-Document Mgmt	3	4	12	Have their own plus Laserfiche integration
Platform-Reporting	4	5	20	Also offers integration with top reporting tools
Functional Total:			154	
Tyler				
Technical Assessment	Weight	Raw Score	Weighted Score	Comments
Cloud Hosting	5	5	25	AWS
Web-Based Client	3	4	12	Moving fully to web-based client
Security	4	4	16	Will raise to 5 if audited results are provided
				Strong data protection statements and business continuity plans
Data Protection	5	5	25	
Credit Card Security	5	5	25	Offers Audited results
Audited/Certified Processes	5	2	10	SOC Type 1 and 2
Availability SLA	3	5	15	100% with penalties starting below 99.70%
Accessibility	2	4	8	New web-client WCAG 2.0 compliant
Technical Total:			136	
Tyler				
Company Assessment	Weight	Raw Score	Weighted Score	Comments
Years in business	4	5	20	42
Number of customers	4	5	20	37,000
Annual Revenue	3	5	15	\$1.85 bil (2022)
Size of development team	5	5	25	900 People
Community	4	3	12	
Support	3	2	6	5x12
Customer References	3	5	15	
Company Total:			113	
Grand Total:			403	

## Key Benefits

- Consolidation onto a single ERP eliminates complex set of legacy systems and their cost
- Fully functional utility portal – This will allow City to pass along transaction fees like most other municipalities
- Self-Service court portal – Frees up Court clerk to focus on higher level activities
- Fully automated timesheet/payroll – No more paper timesheets
- Fully integrated Utility Billing eliminates wasteful Close Out reconciliation (eCity ↔ gWorks) process
- Real-time utility payment processing eliminates wasteful aspects of cutoff process
- Fully PCI compliant payment processing HW and SW eliminates existing PCI exposures
- Improved posture for data security/privacy and accessibility.

# Caselle Scoring

## Scoring

Weights are relative (aka a curve) to each other

Caselle				
Functional Assessment	Weight	Raw Score	Weighted Score	Comments
Finance	4	2	8	
HR	4	3	12	
Payroll	4	3	12	
Utility Billing	5	2	10	
Licensing and Permitting	3	1	3	
Court	4	2	8	
Recreation	3	0	0	Doesn't have recreation
Platform-Document Mgmt	3	2	6	Won't integrate with Laserfiche
Platform-Reporting	4	3	12	Excel required for any graphing
Functional Total:			71	
Caselle				
Technical Assessment	Weight	Raw Score	Weighted Score	Comments
Cloud Hosting	5	5	25	
Web-Based Client	3	2	6	limited use "Employee Portal"
Security	4	4	16	Will raise to 5 if audited results are provided
Data Protection	5	3	15	No mention of GDPR, CCPA and encryption limited to "Sensitive" data. They do have a DR plan
Credit Card Security	5	4	20	Claims PCI but no offer of audited results
Audited/Certified Processes	5	0	0	No mention of SOC compliance
Availability SLA	3	3	9	
Accessibility	2	0	0	No mention of accessibility
Technical Total:			91	
Caselle				
Company Assessment	Weight	Raw Score	Weighted Score	Comments
Years in business	4	5	20	
Number of customers	4	3	12	
Annual Revenue	3	3	9	
Size of development team	5	2	10	Only 30 people
Community	4	3	12	
Support	3	2	6	Only 25 people
Customer References	3	3	9	4 in Kansas
Company Total:			78	
Grand Total:			240	

## Key Issues

- Doesn't provide full suite of needed functions and would require Bel Aire to keep eCity for Recreation
- Reporting doesn't provide graphs and requires users to export to Excel if graphs are required
- Significantly smaller company with a development team less than 4% of Tyler (900 vs 30)
- Still using legacy client with limited work on a web-based solution



## Business Case

- Reduced annual run-rate
- Elimination of existing legacy systems
- Improved customer service
- Ability to scale with city growth

### Tyler Quote - SaaS

Tyler Services and other One-Time Fees	\$196,333				
Annual Subscription Fee	\$107,845				
<u>Item</u>	<u>2023 Est.</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>Comments</u>
One-Time	\$0	\$196,333	\$0	\$0	Detailed list of hours by module
New ERP Subscription	\$0	\$107,845	\$107,845	\$107,845	Depends on 3-Year agreement but discount is not impressive
TSYS CC Transaction Fees	\$54,896	\$54,896	\$0	\$0	Will start passing on fees once a full service portal is available
Legacy Systems	\$69,383	\$69,383	\$0	\$0	Should be able to eliminate all Legacy systems
Total:	\$124,279	\$428,457	\$107,845	\$107,845	

**D. Consideration of accepting a bid to purchase a new Enterprise Resource Planning (ERP) system. Four bids were received, Two bids meet RFP requirements:**

<u>Company (One-Time Fee and Year 1)</u>	<u>Total</u>
Tyler Technologies	\$304,178
Caselle	\$141,477
<u>Annual Subscription</u>	<u>Total</u>
Tyler Technologies	\$107,845
Caselle (with 3 <sup>rd</sup> party Recreation)	\$77,212
Current Spend	\$69,383
Current Spend (with CC Fees Included)	\$124,279

**Action:** Motion to (accept / deny / table) the bid from \_\_\_\_\_ in the amount not to exceed \$\_\_\_\_\_ for the purchase of a new Enterprise Resource Planning (ERP) system and authorize the Mayor to sign all related documents.

Motion \_\_\_\_\_ Second \_\_\_\_\_ Vote \_\_\_\_\_

# Summary of Recommendations

- Near-Term
  - Move excel files used by Licensing and Permitting to OneDrive folder so multiple users can access at the same time
  - Eliminate CAN-SPAM issues with Recreation emails from eCity
    - Add “Notice” language to registration from that explains how the city will use the information
    - Only send “Transactional” emails from eCity
    - Send all “Marketing” emails from a compliant platform with proper opt-out capabilities.
- Long-Term
  - Move forward with Tyler Technologies and sign contract by 31-Dec-2023 in order to have the strongest negotiating position
  - Consolidate all city functions on Tyler’s ERP to create the efficiencies needed to support the City’s growth