Appendix 8

Business Intelligence and Analytics Overview

BW BI Analytics Functional Requirements

BUSINESS INTELLIGENCE & ANALYTICS: Citizens seeks a fully integrated ERP Data Warehouse and Business Intelligence solution (Reporting, Ad hoc report & query, Dashboard and KPIs, Microsoft Office Integration, Mobile Reporting and Dashboards, Scorecards, Forecasting, Data Warehouse and Online Analytical Processing), including the supporting architecture. The future platform must provide best practice BI and Analytics capabilities that integrates with the current Citizens BI platform.

CURRENT STATE

Citizens currently uses a variety of tools for BI, analytics, and reporting. These tools range from Microsoft Excel spreadsheets, text files, canned system reports, Cognos (version 10 Suite), and database queries to well-established packaged and in-house developed solutions. The current well-established Citizens BI platform includes:

- **Citizens Data Warehouse (CDW)**: An in-house developed, on-premise, Data Warehouse (DW) and BI Reporting solution that brings data from multiple applications, creates views consistent with how Citizens manages its business, and provides drill-down, dashboard, and flexible query capabilities. CDW is not only a BI/DW platform, but also serves as a limited data hub for specific applications. Approximately 250 users access CDW's 4 TB of data. CDW runs on multiple SQL Server 2008 R2 database management platform for Staging and Reporting information, and HP hardware with 196 GB of memory with dual, quadratic processes each. Cognos 10.2 BI and Reporting software runs on separate, similar application servers. Today, CDW integrates with multiple applications including the Claims, Policy and Billing information from the Guidewire insurance suite application; Claims Vendor Management; Claims Evaluation; Claims Estimations from XactAnalysts; Agency Management systems; Manage My Policy (MMP); and Florida Market Assistance Program (FMAP).
- **Cognos Impromptu**: A packaged software application used for AP reporting (e.g., edit list for AP and GL, check register, vendor spend, audit trail) and Service Desk reporting. Cognos provides standard reporting directly out of ProFinancials and FootPrints. This Cognos implementation is independent from the Cognos BI solution implemented with CDW.
- **TM1**: A packaged software application used for financial budgeting, forecasting, and variance analysis. TM1 data is updated monthly with data from ProFinancials and manual entry (budget). TM1 provides standard reporting and limited dashboard reports. Currently, the TM1 implementation does not integrate with the Cognos BI solution in CDW.
- **FRx and F9**: A packaged software application that serves as the primary GL reporting for Financial Statements and Balancing reports. FRx and F9 provide standard reporting directly out of ProFinancials. FRx is no longer supported by the vendor and will be replaced with F9 in the future.
- **Crystal Reports**: A packaged software application that is available for custom reporting against Facilities data in CAFM. However, no custom CAFM reports exist today. Additionally, Crystal Reports are currently used with the Human Resources application Kronos.
- **Human Resources**: Currently, Citizens utilizes Kronos as the Human Resources application platform. Citizens is currently in the process of upgrading to version 7.0 Kronos in the "Cloud" application.

A view of Citizens' current analytics landscape is described in the text and figures below.

1. Data is loaded from each of the applications described on the previous page and depicted in the diagram below into an Operational Data Store (ODS) database on a Staging server.
2. Data from the Guidewire Suite application for Claims, Policy, and Billing information is loaded into the Guidewire Data Mart.
3. Data is then consolidated, dimensionalized, denormalized and aggregated into a Staging database on the Staging server. Data from the Guidewire Data Mart is also integrated into the Staging database for consolidation with other application information.
4. Data is copied over to a separate Reporting server for end user access via the Cognos BI tool for Standard, Ad Hoc and Analytic Cube reporting. Cognos supports both Management and Operational reporting for the defined dataset in the Citizens Data Warehouse.

5. Data is also available to power users for direct query via query tools, such as Advanced Query Tool (AQT) and Microsoft SQL Server Management Studio (MSMS).
6. Numerous Policy and Loss extracts are generated and copied to an Actuarial Data Mart server. The Actuarial Data Mart is utilized by the Corporate Analytics and Actuarial Services groups for rate making and loss analysis.

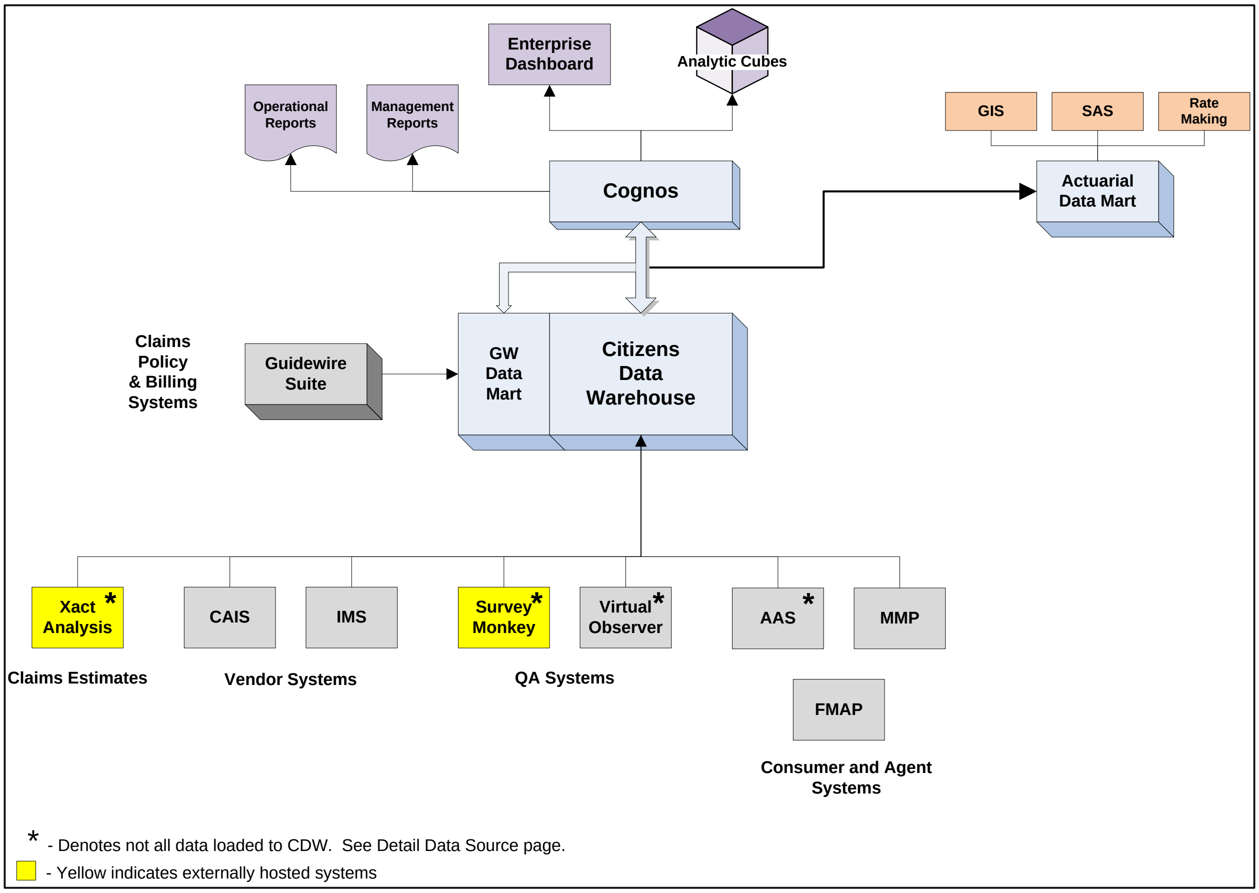

Figure 1 Citizens Data Warehouse Current State - Summary Context Diagram

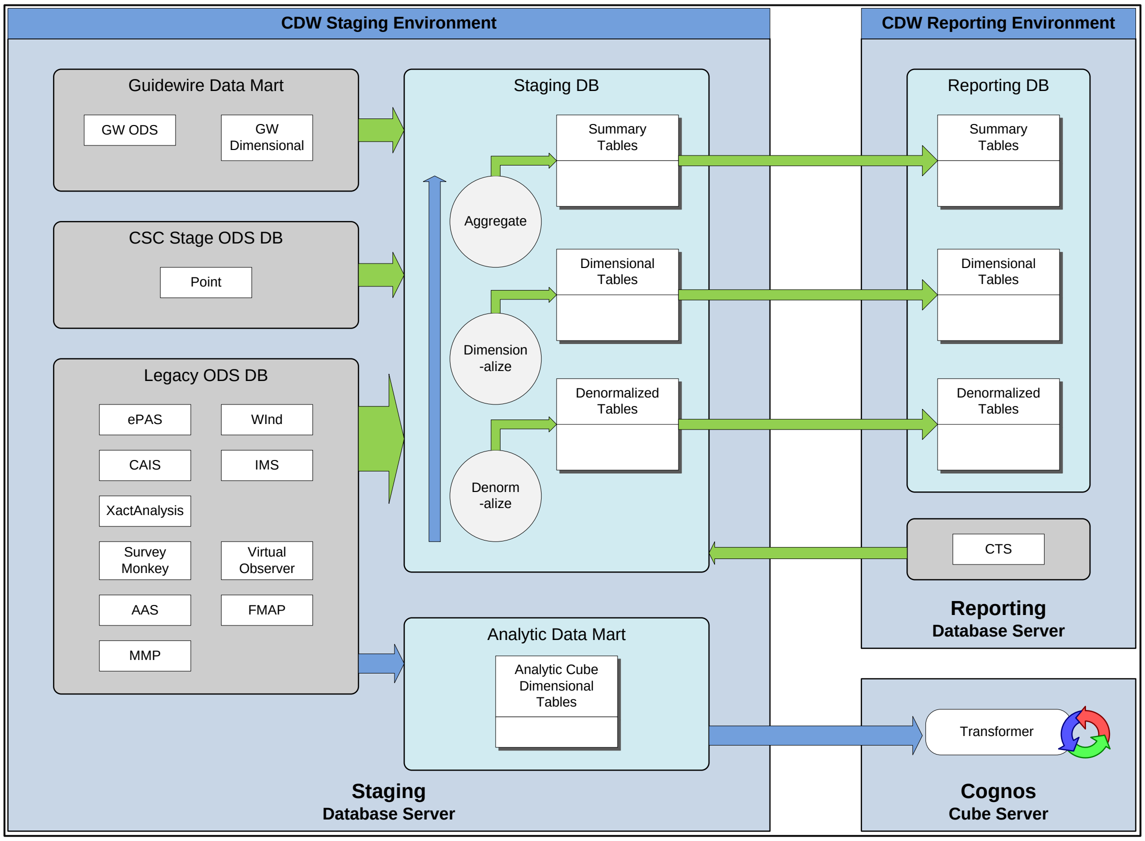

Figure 2 Citizens Data Warehouse Current State - Transformation Context Diagram

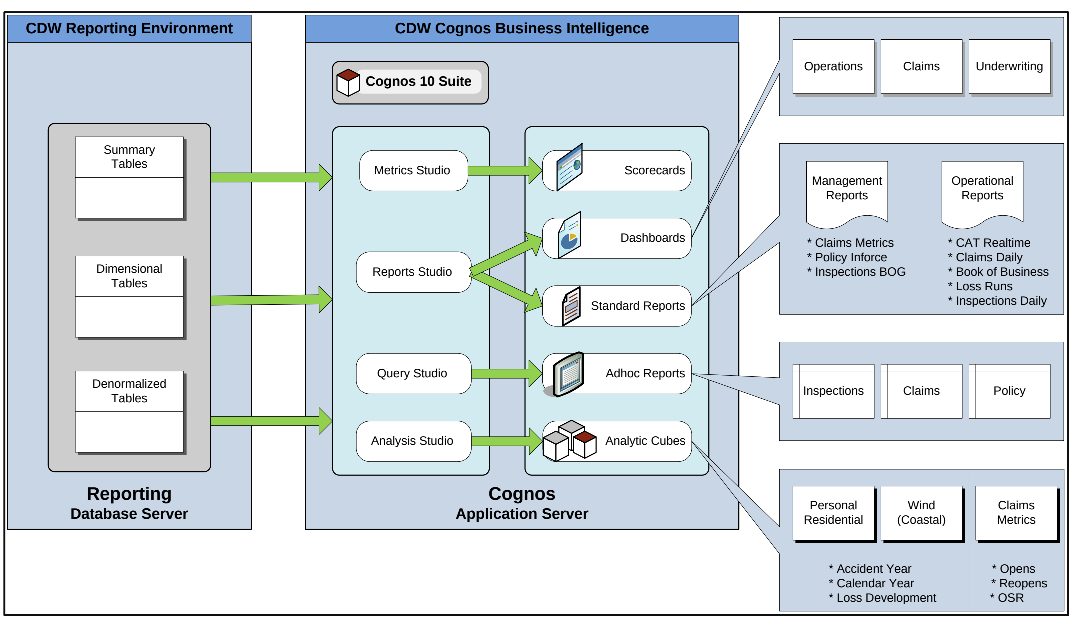

Figure 3 Citizens Data Warehouse Current State - BI & Reporting Context Diagram

The degree of reporting intelligence at Citizens currently varies by business area (see figure below). Facilities has the lowest degree of reporting intelligence and Budgeting has the highest.

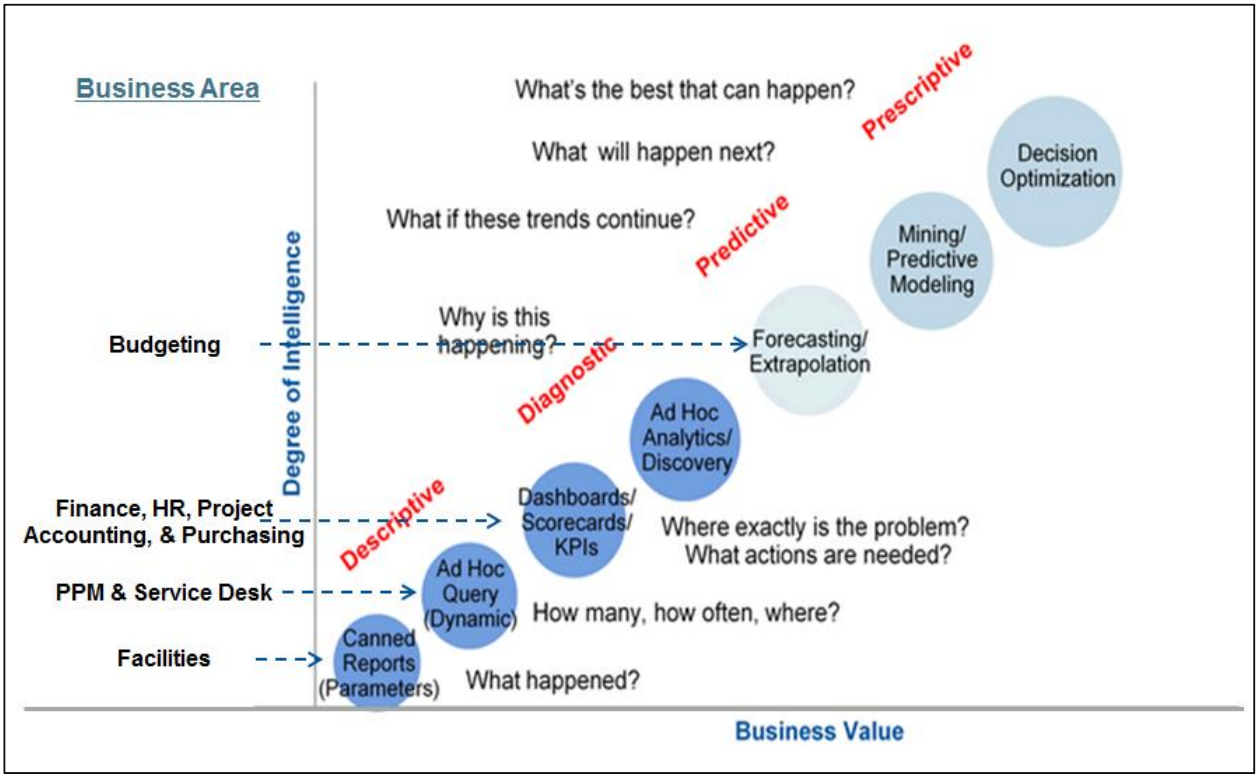

Figure 4 Citizens Current State - Degree of Intelligence

Current reporting capabilities include ad hoc query, Microsoft Office integration, development tools, limited dashboards (some requiring heavy manual intervention), and some forecasting.

There are a number of challenges in this area that need to be addressed, and opportunities which need to be realized, in a new solution (either through improved functionality within the new ERP system or through BI/Reporting capabilities). Challenges and opportunities include, but are not limited to:

- General:
  - Citizens has limited support for KPI or dashboard reporting with drill down capabilities.
  - Citizens has limited ability to perform "what-if" scenario analysis.
  - Citizens' current processes require significant manual effort to consolidate supporting data and generate presentations.
  - Operational reporting is largely reactionary.
  - A significant data cleansing effort will be required along with the implementation of processes to prevent the reintroduction of data issues.
- CDW:
  - Support for near real-time reporting from the Guidewire application data source has posed some challenges given the volume of transactional data from that system.
  - Supporting nearly 200 custom built Operational and Management reports for the organization has posed maintenance and resource issues.
  - The business unit demands for reporting capabilities across the enterprise is greater than the resources available to create, implement, and maintain in a timely manner.
  - Projects for encryption of restricted (PII) data and automated balancing controls within the Citizens Data Warehouse are planned for 2015. Currently, all balancing controls are manually performed.

The embedded "Functional Requirements - BW BI Analytics" workbook contains additional information on Citizens BI requirements, including:

- Citizens current BI user counts by Class and Functional Area
- Top Reports required by Functional Area

Note: In addition to reporting by the referenced BI user counts, Citizens requires the ability for the General Public and external vendors to run a limited set of reports (e.g., public records inquiries on solicitations and vendor spend, etc.)

FUTURE STATE

Citizens seeks a fully integrated ERP Data Warehouse and Business Intelligence solution in the future. The ERP vendor shall provide a list of the standard reports that are provided out of the box. A potential representation of the integration between CDW and the future ERP Data Mart/Data Warehouse is represented in Figure 5, below. The future ERP Data Warehouse and Business Intelligence solution may be hosted by Citizens (i.e., on-premise) or by the Offeror (i.e., either Offeror-hosted or SaaS). The ERP Data Mart/Data Warehouse must include a well-documented and clearly defined data architecture.

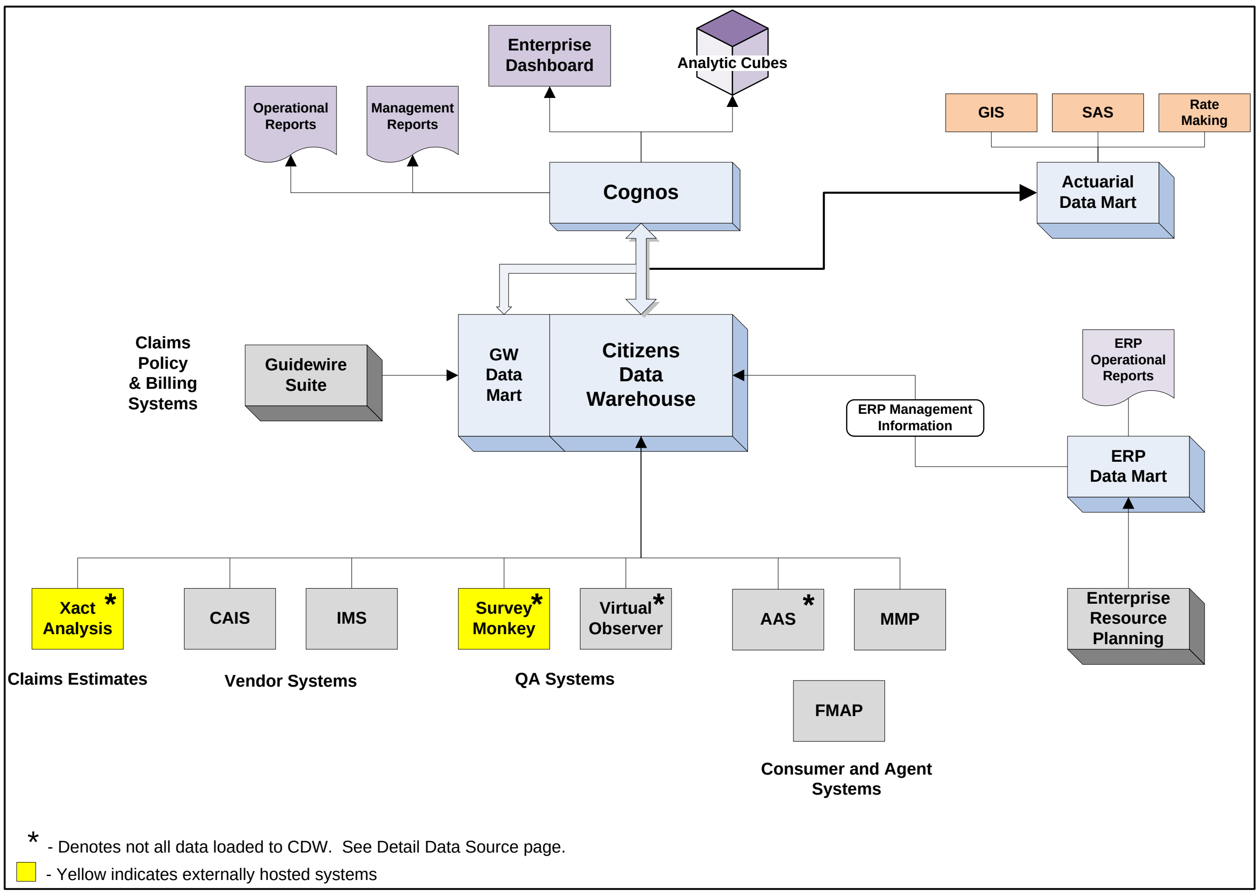

Figure 5 Citizens Data Warehouse Future State - Summary Context Diagram

In addition to the reporting capabilities listed in the Current State, Citizens requires Microsoft Office integration, online analytical processing (OLAP) and improved self-service reporting capabilities in the future state. Further, Citizens seeks to have the ability to manage hierarchies and collaborate around master data including annotation. To the extent possible, Citizens seeks to have a common infrastructure in the future (i.e., a reporting infrastructure with the same security, metadata, administration, portal integration, object model and query engine, and the same look and feel).

Any new solution requires the ability to easily integrate data with Citizens' CDW platform to enable access to enriched data that accurately reflects all aspects of the operations and ties the data together in such a way that a "big picture" can be utilized for operational and strategic monitoring and decision making. The new solution also requires the ability to allow users to easily create ad hoc queries and reports that provide quick access to needed information, ideally as real time as possible.

The new solution must provide flexible security within the BI/reporting tools that allows for the provision of relevant information to users while limiting exposure to other areas of the organization's data (e.g., there needs to be the ability to secure certain information from users depending upon their role, etc.).

There is not only the necessity to provide a user friendly interface for analysts for ad hoc query, but also a need to provide a clean intuitive interface for a wider base of users. Those users need the ability to obtain a quick read of their operations. The interface for these users should include things like easy to read dashboard reports that allow for quick drilldown to the underlying detail (as required), alerts that will notify them of concerns within their areas, and the ability to customize a set of reports or dashboards that is most relevant to their specific needs. A summary of Citizens BI /Reporting needs includes:

- Ad hoc query
- Dashboards
- Microsoft Office integration
- Search-based BI
- Mobile BI
- Interactive visualization
- Predictive modeling and data mining
- Scorecards
- Prescriptive modeling, simulation and optimization
- Metadata management
- Development tools
- Collaboration

In the future, the degree of reporting intelligence at Citizens will continue to vary by business area (see Figure 6 below), but will be generally higher, including Predictive and even some prescriptive intelligence.

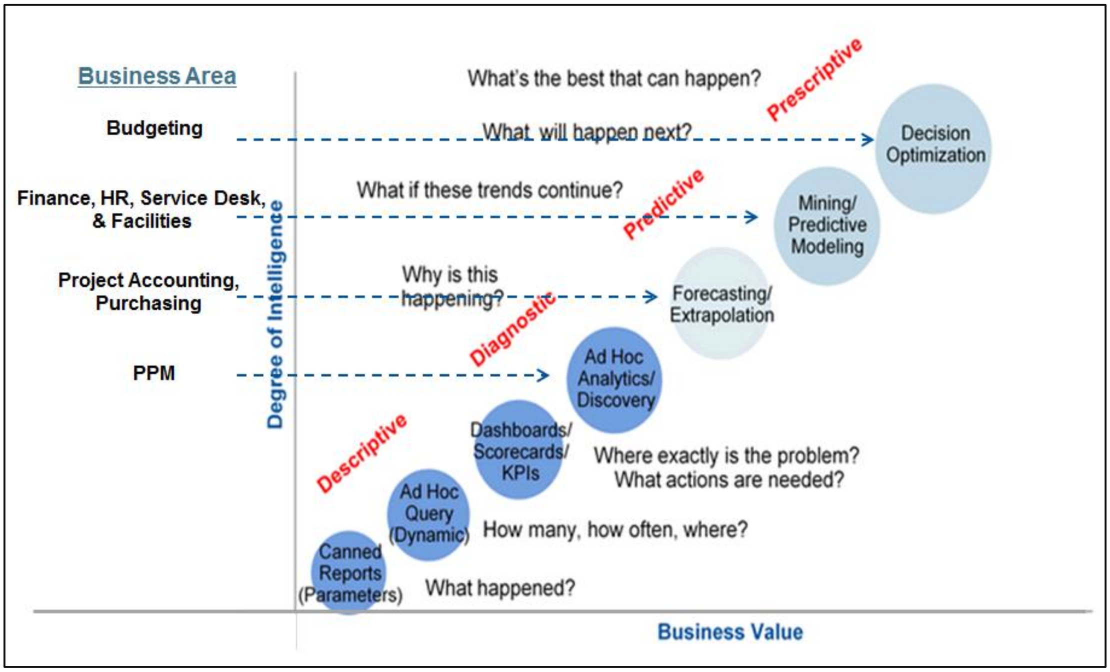

Figure 6 Citizens Future State - Degree of Intelligence

Some specific planned for/anticipated changes from the current to the future Citizens BI platform include:

- **CDW**: At this time, Citizens does not have plans to move to a different database, ETL or Business Intelligence platform. The current direction is to maintain and build upon the current environment. Citizens does have plans to integrate current Human Resource, Clearinghouse and Fraud Analytics data into CDW. As a result, in the next four years usage and data are anticipated to increase from 250 to 350 users and 4 TB to 8 TB of data, respectively.
- **TM1**: Citizens anticipates that this packaged software application will be replaced by the ERP reporting capabilities.
- **FRx and F9**: Citizens anticipates that this packaged software application will be replaced by the ERP reporting capabilities.
- **Crystal Reports**: As previously noted, no Crystal Reports are used with CAFM. Further, given the low maintenance and support cost for CAFM, Citizens does not anticipate replacing CAFM. However, Citizens is open to the possibility of replacing CAFM with an integrated ERP module and its supporting reporting platform. There is currently a project planned for 2015 to integrate HR data into CDW and the Cognos BI platform.
- **MetaRisk**: Citizens anticipates producing formal reports using MetaRisk by the end of 2015. MetaRisk is third-party software that is being licensed by Corporate Analytics. The software provides loss distribution curves for various storm and economic scenarios, given a range of financial and policy data imported into the software. MetaRisk is a dynamic financial analysis (DFA) tool. Citizens anticipates that MetaRisk will remain in use after the ERP solution is implemented and that data extracts will be provided by the ERP solution to feed MetaRisk.

ITN No. 15-0012 - ERP Software and Services

Top Reports by Process Area

Business Process Area	Report Type	Report Name	Description	Report Run in Real Time or Batch?	BI or Application specific Report? (If App specific, please indicate the App name)	Frequency of Report Usage (Daily, Monthly, etc.)	Citizens Comments
Finance		STAT Balance Sheet		real time		weekly/monthly	
Finance		STAT Income Statement		real time		weekly/monthly	
Finance		BOG Financials - AFS format	to include STAT and GAAP balances	real time		weekly/monthly	
Finance		Admin Expense		real time		weekly/monthly	
Finance		Underwriting Expense		real time		weekly/monthly	
Finance		GAAP Balance Sheet		real time		weekly/monthly	
Finance		GAAP Income Statement		real time		weekly/monthly	
Finance		Trial Balance - Stat		real time		daily	
Finance		Trial Balance - GAAP		real time		daily	
Finance		Allocations worksheet		real time		weekly/monthly	
Finance		FMAP Financials		real time		weekly/monthly	
Finance		Outstanding Checks		real time		monthly	
Finance		Edit List - GL Journal Entries		real time		daily	
Finance		Edit List - A/P Batches		real time		daily	
Finance		Check Register - A/P		real time		daily	
Finance		Detail Transaction Reports for G/L		real time		daily	
Finance		Void Reports		real time		daily	
Finance		Fixed Assets Reports		real time		monthly	
Finance		Vendor Spend Report by G/L Account/Category/Cost Center		real time			
Finance		Comparative financials		real time		monthly	
Finance/Treasury	Previous day(s) position and asset reports	Account and Composite Balances	Collected Balance(commercial)	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Account and Composite Balances	One Day Float (commercial)	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Account and Composite Balances	Two+ Day Float (commercial)	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Debits/Credits	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Electronic transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Wire transfer	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Book	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Domestic	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	International	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	ACH transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	ICL files	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Misc. ACH transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	ACH Concentration files	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Sweep transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	ZBA transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Reversals	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Returned Items	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Account Analysis Fees	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Adjustments	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Controlled Disbursements	Real Time	Downloadable to Excel	Daily	

Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Checks	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Paid	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Deposits	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Returned Items	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous day(s) position and asset reports	Transactions with BAI codes	Cash	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Previous Day Return Item Detail Report	Previous Day Return Item Detail Report	Previous Day Return Item Detail Report	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Intraday Position and Asset Reports	Intraday Position and Asset Reports	Intraday Position and Asset Reports	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	Wire transfer	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	Book	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	Domestic	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	International	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	ACH transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	ICL files	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	Misc. ACH transfers	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	ACH Concentration files	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	Account Analysis Fees	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Electronic Transfer Detail Report	Electronic transfers	ACH Returns/NOC	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Bank Account Statements	Bank Account Statements	Bank Account Statements	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Positive Pay Exception reports	Same day	Same day	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Positive Pay Exception reports	Historical	Historical	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Cash Reports	Previous Day	Previous Day	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Cash Reports	Forecasted based on current balance, interest payments, and maturities	Forecasted based on current balance, interest payments, and maturities	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Historical Account Analysis Fee Reports by account and composite	Service Description	Service Description	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Historical Account Analysis Fee Reports by account and composite	Service Code	Service Code	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Historical Account Analysis Fee Reports by account and composite	Unit Price	Unit Price	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Historical Account Analysis Fee Reports by account and composite	Volume	Volume	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Historical Account Analysis Fee Reports by account and composite	Service Charge	Service Charge	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Cash Flow Analysis Reporting at Account and Composite Level	Historical cash flow trend analysis	Historical cash flow trend analysis	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Forecast Reporting at Account and Composite Level	Cash/Portfolio Forecasting based on:	current balance, interest payments, and maturities	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Forecast Reporting at Account and Composite Level	Cash/Portfolio Forecasting based on:	Trend Analysis	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Forecast Reporting at Account and Composite Level	Cash/Portfolio Forecasting based on:	Reoccurring Credit/Debit Inputs	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Forecast Reporting at Account and Composite Level	Cash/Portfolio Forecasting based on:	Citizens Internal Reporting	Real Time	Downloadable to Excel	Daily	

Finance/Treasury	Forecast Reporting at Account and Composite Level	Daily, Monthly, Quarterly, Annual	Daily, Monthly, Quarterly, Annual	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Citizens Internal Reporting	Claims Reserves	Claims Reserves	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Citizens Internal Reporting	Forecasted Premium Receipts	Forecasted Premium Receipts	Real Time	Downloadable to Excel	Daily	
Finance/Treasury	Citizens Internal Reporting	Pay Plan Stats	Pay Plan Stats	Real Time	Downloadable to Excel	Daily	
Project Accounting	Chargeback	Monthly and Annual Business Unit Chargeback Statements	26 X Customized reports, one for each IT Customer. The statement shows monthly IT activities, hours, total amount charged, and the associated enhancement work tickets.	Batch		Monthly/Annual	
Project Accounting	Chargeback	Annual Business Unit Chargeback Spreadsheet	Proposed annual chargeback budgets for each business unit including all chargeback totals (projects, enhancements, technology charges and business application software charges)	Real Time		Annually	
Project Accounting	Chargeback	Monthly Chargeback Summary Report (Variances)	Display a listing of year-to-date charges (budgeted and allocated) for each Customer and burn rate charts for each activity type – enhancements, projects, and technology	Batch		Monthly	
Project Accounting	Chargeback	Annual Chargeback Summary Report	Shows back the total charges for system enhancements for the entire year.	Real Time		Annually	
Project Accounting	Chargeback	Annual Chargeback Rollup Report	Division level chargeback totals.	Real Time		Annually	
Budget	Cube View, data export or PDF report	Budget to Actual	Comparison of budget to actual on a monthly, quarterly, annual or YTD basis. Also, could be on one expense category (Salaries) or the standard summary of expense categories (Salaries, Benefits, Payroll Taxes, Contingent Staffing, Office Supplies, etc.)	Real time and/or batch		Daily, Monthly, YTD	By division, cost Center, or any other organizational category, including Total CPIC
Budget	Cube View, data export or PDF report	Prior Year Actual to Current Year Actuals	Comparison of prior year and current actuals on a monthly, quarterly, annual or YTD basis.	Real time and/or batch		Daily, Monthly, YTD	By division, cost Center, or any other organizational category, including Total CPIC
Budget/GL	Cube View, data export or PDF report	Vendor Spend by Account Category or Sub Category	Report would delineate the total expenditures for a specified period of time by vendor paid within an expense category or categories.	Real time and/or batch		Daily, Monthly, YTD	For example, the company wide software license expenses by vendor from 1/1/XX to 3/31/XX
Budget/GL	Cube View, data export or PDF report	Prior Budget to Current Budget	Comparison of prior year and current actuals on a monthly, quarterly, annual or YTD basis.	Real time and/or batch		Daily, Monthly, YTD	By division, cost Center, or any other organizational category, including Total CPIC
Budget/GL	Cube View, data export or PDF report	Budgeted Statement of Operations	Budgeted statement of operations	Real time and/or batch		Monthly, YTD	Consolidated, PLA, CLA and/or Coastal
Budget/GL	Cube View, data export or PDF report	Budgeted Balance Sheet	Budgeted Balance Sheet	Real time and/or batch		Monthly, YTD	Consolidated, PLA, CLA and/or Coastal
Purchasing, VMO	Purchase Order	Spend Reports	Spend by Vendor, Cost Center, Division, Item Type using applicable range dates. (Refer to P2P Requirements for Spend Analysis Requirements for reporting)	Real time	Purchase Orders/Requisitions	Daily	We may want spend by just a purchase order or contract or both. All fields should be reportable with the ability to filter by date. Fields commonly seen are Vendor Name and ID, Item Type, PO #, Contract # dollar per each or summary report without detail.
Purchasing	Purchase Order	Requisition Status / Cycle Time Reports	Report reflects where in approval process the requisition is with date and time moved between business unit approvers as well as Purchasing staff.	Real time	Purchase Orders/Requisitions	Daily	This is a detailed report by requisition/PO - showing name of each approver and date they received and approved the req including reporting the amount of time they had the requisition. This should also include when Purchase staff approves the req and tracking time on the PO from approval. It would be nice to track though the receiving and invoicing as well
Purchasing	Purchase Order	Exception Reports		Real time	Purchase Orders/Requisitions	Weekly and as needed	Reports that provide information on cancel purchase orders, rejected requisition/PO's, and workflow events outside the automated workflow
Purchasing	Purchase Order	Receiving Reports / Open PO Reports		Real time	Purchase Orders/Requisitions	as needed but at least on a monthly basis	Full tracking on receiving from time delivered to vendor to receipt of item or service, invoice received and paid
Purchasing	Purchase Order	Catalog / Punch-out Activity Reports	We would currently use this for Office Depot purchases but do not have the functionality	Real time	Purchase Orders/Requisitions	daily, weekly, monthly, quarterly and annually	Full tracking and reporting on any catalog and punch out activity
Purchasing	Competitive Solicitations	Activity Status / Cycle Time Reports	in process/ active solicitations	Real time	Competitive Solicitations	daily	We don't currently have - use excel to track pipeline - copy attached
Purchasing	Competitive Solicitations	Tracking Report	Report by solicitation of statutory requirements	Real time	Competitive Solicitations	as needed but at least on a monthly basis	We don't currently have
Purchasing	Competitive Solicitations	Solicitation History Reports	Awarded solicitations for a given period, number days to award, solicitations by BU	Real time	Competitive Solicitations	as needed but at least on a monthly basis	We don't currently have
Purchasing	Competitive Solicitations	Vendor Response Profile Reports		Real time	Competitive Solicitations	as needed but at least on a monthly basis	We don't currently have
Purchasing	Contracts	Status of Contract Documents in Development	Contract Documents development cycle status.	snap shot of current data	Excel	Daily	This report is currently in Excel and tracks the development status of contractual documents. We currently cannot capture cycle time.
Purchasing	Contracts	Active Contract List	Active Contract List	snap shot of current data	Access to Excel	Monthly and as needed upon request	Identifies the current active contracts and is posted on the internal portal for internal customers review and action.
Purchasing	Contracts	Expiration/Forecasting	Contracts expiring in the next year (rolling year)	snap shot of current data	Access to Excel	Monthly and as needed upon request	
Purchasing	Contracts	Exception Reports	This is what we want - do not have today				
Purchasing	Contracts	Contract Spend Reports	This is what we want - do not have today				
Purchasing, VMO	ALL	Ad HOC	Full AD Hoc reporting tool against all fields	Real time		as needed	
VMO	Vendor Master	Vendor Master Reports	Pertinent fields selected from Vendor Master; includes purged Vendors	Real-time	Downloadable to Excel, CSV	as needed	
VMO	Contracts	Vendor Payment Reports	Vendor Payments by contract, Invoice, Action Item, PO, REQ, Purchase type, method, Change orders, etc. Also Vendor History file.	Real-time	Downloadable to Excel, CSV	as needed	

VMO	Accounting	1099 Reports	1099 Reconciliation Reporting by Vendor	Real-time	Downloadable to Excel, CSV	as needed	
VMO	Audit	Audit Reports	Several types of Audit Reports for Contracts, PO Processing, Changes to Vendor Master, etc.	Real-time	Downloadable to Excel, CSV	as needed	
VMO	Supplier Performance Manag	Performance Management	Ability to report on Supplier performance based on input from receiving units and develop scorecards and dashboards based on a flexible rating system.	Real-time	Downloadable to Excel, CSV	as needed	
VMO	Spend	LAE Reporting	Summary and detailed Loss Adjusted Expense (LAE) and non-LAE reporting with drill down capability is required.	Real-time	Downloadable to Excel, CSV	as needed	
Accounting	A/P	A/P Reports	A/P edit list	Real-time	Downloadable to Excel, CSV	as needed	
Accounting	A/P	A/P Reports	A/P check register	Real-time	Downloadable to Excel, CSV	as needed	
Accounting	A/P	A/P Reports	A/P void report	Real-time	Downloadable to Excel, CSV	as needed	
Accounting	A/P	A/P Reports	A/P spend report	Real-time	Downloadable to Excel, CSV	as needed	
Accounting	A/P	A/P Reports	1099 reporting	Real-time	Downloadable to Excel, CSV	as needed	
Accounting	A/P	A/P Reports	A/P outstanding checks	Real-time	Downloadable to Excel, CSV	as needed	
Service Desk/Technical Support Center (TSC)	SLA tracking status	Monthly TSC SLA report	Run in Cognos for Incident Management and UAM workspaces	Batch report, but needs to be examined and typically need to edit the results.	Incident Management	Monthly	
Service Desk/Technical Support Center (TSC)	Weekly ticket status	Last Week - Open	Scheduled report run every Monday	Batch	Incident Management	Weekly/monthly	
Service Desk/Technical Support Center (TSC)	Weekly ticket status	last Week - Closed	Scheduled report run every Monday	Batch	Incident Management	Weekly/monthly	
Service Desk/Technical Support Center (TSC)	Daily ticket status	UAM Submitted-Day Prior	Scheduled report run every day	Batch	User Access Management	Daily	
Service Desk/Technical Support Center (TSC)	Daily ticket status	Generating Subtasks . 4hrs	Scheduled report run every day	Batch	User Access Management	Daily	
Service Desk/Technical Support Center (TSC)	Weekly ticket status	Service Desk Active Ticket Details by Workspace - Updated (cross-workspace)	Scheduled report run every Sunday	Batch	All workspaces are included in this report.	Weekly/monthly	
Service Desk/IT	all tickets status	BYOD Devices	List all people in the BYOD program	real-time	BYOD workspace	run on demand	
Service Desk/IT	ticket status	Forward Schedule of Changes (Customer)	Weekly and monthly reports for Change Control meeting. The date range must be changed before running this report.	real-time	Change Management workspace	Weekly/monthly	
Service Desk/IT	all tickets status	BURA	all active tickets	real-time	Data Recovery/ Backup Request	run on demand	
Service Desk/IT	active tickets	ITAM Daily MAC Report	active pending status tickets	real-time	ITAM MAC	run on demand	
Service Desk	active tickets	Open Reservations Reports RO (Customer)	all active travel requests	real-time	Travel	run on demand	
Service Desk/IT	all tickets status	Survey Data Extract	all surveys for Incident Management	real-time	Survey - Incident	run on demand	
Service Desk	Request for Change	Weekly and Monthly statistics	all change management requests	real-time	Change Management workspace		
Service Desk	TOC Advisory	Monthly TOC Advisory	all TOC Advisory outages	real-time	TOC Advisory workspaces		
Service Desk	Aging Report	Monthly Aging Report	7, 14, 30, 60, 90 days aging report	batch	All workspaces are included in this report.		
Recruiting		Sourcing					
Recruiting		TTF OR Position Vacancy					
Recruiting		Open/Filled positions/requisitions (by various sections - i.e. timeframe, business unit, vendor)					
Recruiting		Recruiter Performance					
Recruiting		Candidate Pipeline					
Recruiting		Offer Acceptance Ratio					
Recruiting		Quality of hire					
Recruiting		Retention rate					
Recruiting		New Hire/HM satisfaction					
Recruiting		Cost per hire/spend per vendor					
Payroll	Gross to Net	Gross to Net		Real Time		On Demand	
Payroll	Payroll Totals	Payroll Totals by Paygroup	All compensation, deductions, employee/employer, taxes for any range of dates/ by person or location or paygroup	Real Time		On Demand	
Payroll	Payroll Tax Liability	Payroll Tax Liability reports	State, Federal Income, UI taxes				

Payroll/Benefits	Retirement Report	Lincoln Report	Biweekly Employee retirement contributions and employer match, plus retirement loans and YTD hours excel format for upload to Lincoln	Real Time		ON demand	
Time/Payroll	Time Detail/Accruals	Time detail and accrual detail	Time detail and accrual detail by ee	Real Time		ON demand	
Payroll	Recap Report	Deduction and Compensation Recap	Totals by employee, pay group, or company - range of dates	Real Time		ON demand	
Payroll	Batch Edit Report	Batch Transaction Edit Report	Report reviewing data entry detail for manual adjustments	Batch		ON demand	
Payroll	Data Check	Pre payroll /data check	Identify terminated employees, non-integrated benefits	Real Time		ON demand	
Payroll	GL	General Ledger out of balance report	Identify out of balance GL prior to finalizing payroll	Real Time		ON demand	
Payroll	compliance reporting	Bureau of Labor Stats Report	UI taxable wages and headcount by location	Real Time		Monthly/quarterly	
Payroll	Employer Contributions	Employer Contributions	Employer retirement, medical and dental	Real Time		on demand	
Compensation	Compensation Detail Report	Comp Analysis Report	Currently a custom report with various fields needed to do analysis.			Daily, weekly by Comp Team	
Compensation	Budget	N/A	Report showing pools allocated by line of business, with total pool and dollars expensed, and variance to pool.			Monthly basis.	
Compensation	Position Code Mgt	Position Code Activity Report	Provides all activity around creation of PC's, deactivation, re-activation and changes regarding existing PCs.			We would at the very least want this bi-weekly.	
Compensation	Position Code Mgt	Position Code FTE Budgeted vs Actual	Report showing budget per Finance, and current state as the FTE's relate to budget.			Daily?	
Compensation	Market Data	Market Data by (LOB) & or Individual Detail	Provides overall data as it relates to employee current state, market data as relates to compa ratio and current base				
Compensation	Job Description Activity	Job Description Activity	New PD's created, changes to existing PDs				
Compensation	Merit	Merit Proposal Report	Current exists but we would like to add fields.			During Merit Cycle	
Compensation	Employee History Detail	Employee History Report	Provides history of all actions by entering Employee ID (can we do multiple employees?)			Daily	
Benefits	Enrollment	Benefit Enrollment by Plan	Report can be run by benefit plan to show all employees enrollment status in a particular benefit plan, coverage type, dependents enrollment, etc. as of a certain date.			Monthly	
Benefits	Enrollment	Benefit Coverage by Employee	Report can be run by employee to show benefit elections, coverage type, dependents, beneficiaries, etc. as of a certain date			Monthly	
Benefits	Enrollment	Census Report	Report displays the following data for all employees: gender, date of birth, date of hire, home zip code, employment status, full-time/part-time status, enrollment status, coverage tier/amount for each benefit plan			Annual	
Benefits	Enrollment	Enrollment by Event	Tracks history and status of benefit changes due to new hire enrollment, open enrollment, and qualifying life events. Can run report by date range of event or event type, i.e. marriage, divorce, etc.			Monthly	
Benefits	Enrollment	Total Compensation Statement	Report can be run by employee to show benefit enrollment by plan, total annual employee cost for employee's benefits, total annual employer cost for employee's benefits, annual base salary, total employee annual compensation (total employer paid benefits plus annual base salary)			Monthly	
Benefits	Eligibility	Benefit Plan Eligibility	Report should identify changes in an employee or dependent's eligibility in a benefit plan			Daily	
Benefits	Billing	Benefit Premium Totals by Plan	Report can be run by benefit plan to show enrollment and premium totals for billing purposes.			Monthly	
Benefits	Audit	Audit Report	Report should identify accuracy of employee enrollment setup, i.e. enrolled in appropriate plan, coverage tier, coverage amount, dependent enrollment, etc.			Daily	
Benefits	Compliance	Full-Time/Part-Time Analysis Report	Tracks employees' actual hours worked for a specific time period ; Helps determine which employees have worked more than 30 hours in a given period (thus making them benefit eligible)			Monthly	
Benefits	Compliance	1094-C & 1095-C Reports	Report includes employee's name, address, SSN, FT/PT status, enrollment in medical plan, employee's monthly premium cost; covered dependent's name and SSN, employer's name, address, employer ID number; employee dependent SS#, enrollment status			Monthly	

Learning Management System		SuccessPath LMS Reports (most common) – always use CSV format • Learning Needs (CSV) o Returns learning items or curricula that the user needs to complete. o Check completion of mandatory training and email employee and cc' Supervisor – two weeks before due date. • Learning History o Returns the users' learning history (learning items and curricula they have completed) with detail item events. • Item Status o Returns, for each user and item, the user's completion status for the items they participated in during the specified date range. • Online Item Status o Returns, for the users and items you specify, each user's current progress based on online items taken by the user.	Demonstrate various reporting functions such as scheduling, generating, creating various ad hoc reports, assignments, adding internal and external users, building curriculums and catalogs, search capabilities, end user self-service functionality, evaluation capabilities				
HIRE to RETIRE	Management Reports produced by HRIM						
Benefits Vendors Reports	Metlife		Vendor maintenance file for dental enrollments				
Benefits Vendors Reports	BCBS - Medical		Vendor maintenance file for medical enrollments				
Benefits Vendors Reports	Medcom		Vendor Maintenance file for FSA elections				
Benefits Vendors Reports	Davis Vision		Vendor Maintenance file for vision elections				
Benefits Vendors Reports	CHP - Medical		Vendor maintenance file for medical enrollments				
Benefits Vendors Reports	Liberty Mutual		Vendor Maintenance for FMLA eligibility				
Benefits Vendors Reports	Benefit Audit Trail Reports		Benefit Audit Report posted to shared drive for quality assurance				
Benefits Vendors Reports	eLogic		Provides basic employee and position information for Learning Management System(LMS)				
Benefits Vendors Reports	GL Report		Biweekly payroll dollars by expense amount				
Benefits Vendors Reports	Lincoln		Retirement Saving 457b deferrals and 401a company match by employee				
Benefits Vendors Reports	Accrual - Payroll		Creates payroll accrual for months that carry over days into the first payroll following month end				
Benefits Vendors Reports	SuccessFactors (PerformancePlus)		Provides basic employee information for the performance management system.				
Workforce Reports	All Management / Training Report		Supervisors and above				
Workforce Reports	Employee Record Export		Provide a list to Training for employee changes: New Hire, Terminations and Promotions.				
Workforce Reports	Workforce Report		All CPIC and Contingent Workforce employee listing by Business Unit, City, Building, Supervisor and Position Description.				
Workforce Reports	Reporting Structure		Provide listing of active position numbers and their direct report to supervisor position number.				
Workforce Reports	Personnel Changes /LDAP		Provide employee changes new hire,terms,promotions,reassignments, etc by dept. & position to update portal employee look up tool				
Workforce Reports	LMS Hierarchy		Reporting structure of positions to supervisors. Includes all Active and Terminated CPIC Employees.				
Workforce Reports	Vacancies- Days Vacant		Manually tracked report that shows duration of positions sitting vacant along with the duration of positions that have been reclassed.				
Workforce Reports	Employee Contacts		Run employee listing with home address, home and cell phone numbers and save on HR shared drive for BCP				
Workforce Reports	Leave Balances for CCC CIS UW CLMS		Crystal Report				

Workforce Reports	IT Overtime Hours		Listing of IT employees who received overtime compensation for the prior pay period.					
Workforce Reports	Employee OFAC		List of all current employees with mailing address					
Workforce Reports	Employee OACF Report		List of employee's resident information					
Workforce Reports	Page Security by Role		List of role access by security page					
Budget Office Salary Report	Cube View, data export or PDF report	Budget Office Salary & Benefits Report	Includes all current positions, their actual or planned salary, min, max, and mid salary for position, position id, position name, employee name, hire date, pay grade, current annual salary, hourly rate, health insurance plan selected (single, parent-chiled, family, employee-spouce, etc.), dental insurance selected (y/n), vision insurance selected (y/n), long term disability selected (y/n), 457(b) election %, manager/supervisor name, cost center, division	Real time and/or batch		Daily, Monthly, YTD	By division, cost Center, or any other organizational category, including Total CPIC	
Workforce Reports	Personnel Changes		Provide employee changes: New Hires,Terminations, Promotions, Reclass					
Workforce Reports	Leave Accruals - Vac/Sick balances		Provides quarterly accrued vacation and sick balances					
Workforce Reports	All Position Report/Total Workforce		Employees and Contingent workforce by City/Bldg					
Workforce Reports	PL UW Positions List		Employee attributes for cost centers 442, 810, 830, 840, and 850.					
Workforce Reports	CCC Pay Summary		Summary of pay codes and benefits by location and job type.					
Workforce Reports	DB-Headcount by Location		Provide a count of FTE by city and building					
Workforce Reports	New Hires in 2012		Provide employee new hires					
Workforce Reports	Terminated Employees YTD		Listing of all employees terminated for period specified					
Workforce Reports	Personnel Changes (Reclassification)		Provide employee's changes: Promotions and Transfers					
Workforce Reports	Lincoln Employee List		Provide CPIC employee names, SSN, and email address					
Workforce Reports	McLean Exit Demographic		Listing of all terminated employees for Exit survey					
Workforce Reports	McLean New Hire Demographic		Listing of all new hires for New Hire survey					
Workforce Reports	HR Vacation Calendar		List HR employees scheduled time off					
Workforce Reports	Birthday Report		Provides birthday information					
Workforce Reports	Anniversary Date		Provides anniversary information					
Portal Reports	Filled & Vacant Positions		Position listing to be posted to the HR portal					
Portal Reports	Dashboards		Post Monthly of HR & Corporate Training dashboard to portal					
Portal Reports	Employee Central Updates		Post content maintenance					
Portal Reports	Manager Central Updates		Post content maintenance					
Portal Reports	HCM Community Updates		Post content maintenance					
Leadership Reports	HR		HR Dashboard					
Leadership Reports	OD & Training		OD & Training Dashboard					
Leadership Reports	Critical Success		Critical Success Factors - Talent Measures					
Leadership Reports	Annual HCM Measures		Human Capital Trends Report					
General HR Reports	EEO1		List of all Employees by EEO category					
General HR Reports	Benefit Census		Annual Benefits Census Data					
General HR Reports	Benefit Statement		Employee Statement of all current benefits					
General HR Reports	Merit Increase		Annual Merit Increase Process					
General HR Reports	Open Enrollment		Annual Benefits Open Enrollment					
General HR Reports	SSN Verification File		List of all Employees with SSN and Name					
General HR Reports	W2 Processing, Printing, Posting		Annual W-2 reporting and creation					
General HR Reports	Yearly Budget Modifications		Annual cost center, position numbering changes resulting from new year budget					
Facilities			Report that would show location, type, and description of assets that are fully depreciated as well as those that will be in the next 12 months					
Facilities			Report that would show % headcount growth/reduction in all BUs in rolling six month forecast					
Facilities			Report that would show utilization of conference rooms on an ongoing basis month to month, if conference room reservations will still be managed via OUTLOOK rather than CAFM Explorer					
Facilities			Report that would show anticipated hires by city/BU in rolling next six months					
Facilities			Report on contracts expiring in the next rolling 12 month period					
Technical	List of all Application Users	CAM Report	List all Users with access to the system. This will be helpful for the Annual CAM process to validate accounts / access to the system	Batch	Downloadable to Excel	Monthly		

Technical	Log user audit	User Audit Report	Search Users in the system along with Audit for the user (all major actions performed by the user should be audited)	Real Time	Downloadable to Excel	Live	
Technical	Search Users	Users with Role(s)	Ability to search the system based on user's name, role(s), permission(s).	Real Time	Downloadable to Excel	Live	

ITN No. 15-0012 - ERP Software and Services

BI User by Type

Class	Characteristics	Requirements	Citizens User Count (Finance)	Citizens User Count (Travel & Expense)	Citizens User Count (Fixed Assets)	Citizens User Count (Project Accounting)	Citizens User Count (Budgeting)	Citizens User Count (Purchasing)	Citizens User Count (VMO)	Citizens User Count (Accounts Payable)	Citizens User Count (Service Desk)	Citizens User Count (Hire to Retire & Facilities)
Executive BI	§Little desire to learn to build analytical results with a BI client application §Represent about 10% of total population of BI information artifact consumers §This class of BI users includes non-executives who have similar requirements.	§View reports prepared by others. §Activate links in the reports (e.g., a report appears in a web browser on an executive's laptop or personal digital assistant [PDA]). The executive can activate links by double-clicking them thereby "drilling down" into the material. §Use BI report data to populate spreadsheets that they manipulate but probably do not publish. §Assign the creation of novel BI artifacts to others.	All members of ELT , Controller, Asst. Controller, certain other Directors - appx. 20	All members of ELT , Controller, Asst. Controller, certain other Directors - appx. 24	All members of ELT , Controller, Asst. Controller, certain other Directors - appx. 8	10	12	15	2	4	2500	275 (includes ELT, Directors, Managers, who will receive standard reports on Dashboard)
Casual BI	§Typically need information from BI reports §Prepare reports with complicated content that they take from several sources §The largest BI user population—about 75% of the total BI user population.	§Views reports prepared by others. §Develops new reports from existing BI reports. §Activates links in BI artifacts to understand an issue. §Accesses reports from a workstation computer or PDA. §Exports data from BI information artifacts into spreadsheets or other documents. §Modifies existing reports if options are shown in drop menus. §Seeks help, occasionally, from more skilled BI users who help them to create novel BI information artifacts. §Approaches IT, rarely, for assistance with an analysis.	40	135	12	26	50	4	5	15	100	62 (includes some distribution groups who receive HR reports from HRIM, actual number of people within groups who use the data may be higher)
Power BI	§Determine the success of a BI platform initiative §Understand their business units' data and they actively and competently apply analytical tools to business data. §Represent about 10% of the total BI user community §They actively pursue data-analysis challenges and they welcome complex analytical tools.	§Create reports for others using BI tools and systems. §Visualize and manipulate data using BI OLAP tools. §Operate top-of-the-line BI tools running on workstations that they control. §Pursue detailed case investigations. §Rerun analyses, start and stop analyses, and record steps taken during analyses. §Collaborate with other analysts when developing analytical findings. §Access BI analyses using a mobile device during a presentation or while discussing results with others. §Use multiple BI tools if this adds value to an analysis (e.g., create heat maps, hyperbolic trees, and scorecards). §Use Microsoft Excel extensively in conjunction with the BI platform's tools. §Export data from BI tools into spreadsheets, documents, and presentations. §Support casual BI users by creating or modifying reports for those users. §Seek a statistician's assistance with applying complex analytical methods to resolve a difficult issue. §Seek BI platform developer's assistance with running complex queries if they do not have permission to run Structured Query Language (SQL) programs directly.	24	24	5	7	5	2	9	10	50	6 Enterprise Power Users 6 HR Functional Power Users - limited to their function
Statisticians	§Infrequent users of traditional BI tools. §Have advanced degrees in mathematics, statistics, biometrics, or econometrics. §Represent about 5% of the total population of BI tool users. §Typically, statisticians eschew BI platform tools as irrelevant to their work. However, this user group is best able to verify the validity of complicated data-analysis procedures (e.g., fraud analysis, predictive modeling, or a risk assessment).	§View reports prepared by others. §Activate links in the reports (e.g., a report appears in a web browser on an executive's laptop or personal digital assistant [PDA]). The executive can activate links by double-clicking them thereby "drilling down" into the material. §Use BI report data to populate spreadsheets that they manipulate but probably do not publish. §Assign the creation of novel BI artifacts to others.	12	12	2	0	5	4	5	4	10	2
BI Development	§Connect to data sources §Build custom reports §Write and run complex queries §Preserve metadata.	§Design and build programs. §Use application programming interfaces (APIs). §Modify customizable clients. §Build web pages that access BI platform results. §Integrate search engines.	All users from Finance/Accounting - does not contemplate users from other business units (e.g.. IT, Purchasing, etc.) - consists principally of Business Analysts (BAs) - appx. 5			2	5	2	5	4	5	4

ITN No. 15-0012 - ERP Software and Services

Finance Reporting Overview

<table>
<tr><th>Reporting Platform</th><th>TM1</th><th>Cognos Impromptu</th><th>FRx</th><th>F9</th></tr>
<tr><td rowspan="5">Usage</td><td>Budgeting and forecasting</td><td>AP Reporting</td><td rowspan="5">Primary GL reporting for Fin Statements, Balancing reports</td><td rowspan="5">Primary GL reporting for Fin Statements, Balancing reports</td></tr>
<tr><td rowspan="4">Variance Analysis</td><td>Edit list for AP and GL</td></tr>
<tr><td>Check register</td></tr>
<tr><td>Vendor Spend</td></tr>
<tr><td>Audit Trail</td></tr>
<tr><td>Type</td><td>Std and limited dashboardiing</td><td>Standard reporting</td><td>Standard reporting</td><td>Drilldown capabilities</td></tr>
<tr><td rowspan="2">Source and Currency</td><td>ProFinancials and manual entry (budget)</td><td>ProFinancials</td><td>ProFinancials</td><td>ProFinancials</td></tr>
<tr><td>Once per month</td><td>Real-time data</td><td>Real-time data</td><td>Real-time data</td></tr>
<tr><td>Tools</td><td>Excel</td><td>N./A</td><td>Extract to Excel</td><td>N/A</td></tr>
<tr><td>Future Direction</td><td>Continue with TM1 or find comparable solution</td><td>Replace with current version or alternate tool</td><td>Elimination and move to F9</td><td>Becoming primary GL reporting platform</td></tr>
<tr><td rowspan="2">Value Delivered</td><td rowspan="2">Basic Reporting</td><td rowspan="2">Provides some ad hoc /non-std reporting, but difficult to use</td><td rowspan="2">Basic reporting</td><td>Easy to use Excel format</td></tr>
<tr><td>Drilldown capabilities – can drill into all transactions for an account, etc.</td></tr>
</table>