



GLWA / DWSD Information Technology Transition Plan - Update

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Situation

CURRENT STATE DESCRIPTION

Situation

- Information Technology is a critical component of both the GLWA and DWSD, is integrated into almost every aspect of operations and, therefore, not easily separated.
- GLWA and DWSD both have immediate, medium-term and long-term IT needs and these still need to still be met while completing this transition.
- Entering into Year Two of Five Year IT Transition Plan:
 - Separation is complete for several key system areas including work and asset management, finance and human resources.
 - Governance programs and longer-term strategies are being created for critical common systems like Oracle WAM and GIS.
 - Retail Customer Service (DWSD) infrastructure is still embedded within GLWA.
- Untangling the physical infrastructures (compute, storage and network) is the next area of focus.
- Many of the IT recommendations depend on business direction finalization.

Overview - High Level IT Transition Timeline

The IT Environment is not completely ready for bifurcation, some areas are mature and ready but many others are not. Because business operations depend heavily upon these systems, we still need 5 years to complete a full transition.

Its still going to take 5 years...

- Beginning in 2013, the IT strategy was to extend technology across as many of DWSD's business units as possible and improve services by utilizing common processes and data.
- The complexities in untangling the physical technology infrastructures were underestimated.
- The orchestration required for adding new systems and services while “sun setting” old ones is complicated and requires joint planning, both financial and technical (an example is the replacement of the common phone system).

Overview – Strategies for IT Transition













For next 5 Years we still want to:

- Leverage common systems, where mutually beneficial.
- Leverage existing infrastructures and facilities for ongoing operations while establishing separate and distinct technical infrastructures for the GLWA and DWSD.
- Where there are transition impediments:
 - Achieve system stability for critical systems
 - Address data quality, process maturity, and resource availability and ability issues
 - Allow in-flight projects to complete
 - Position upgrade cycles as the opportunities for transitions
- Where there are no transition impediments:
 - Establish and transition to new infrastructures
 - Establish, transfer and/or transition to new systems







Readiness Update

OPERATIONAL READINESS AND STATUS OF MOVES
TO DESIRED TARGET ENVIRONMENTS

Overview – Operational Readiness / Status Of Core Applications As of December 2016

Component	Functionality	Previous Solutions	DWSD		GLWA	
Finance	Accounting - AP/ AR/ General Ledger	Oracle E-Business	Oracle Cloud ERP (with DWSD Custom Configurations)		BS&A Finance System	
HRIMS	Org & Performance Management	Manual	PPS		Ceridian	
Time Keeping & Payroll	Time & Attendance	PPS and WorkBrain	PPS and WorkBrain		Ceridian	
Benefits Management	Enrollment, COBRA, Life Events	Manual	Benefits Express		Ceridian	
GIS	Geospatial representation of utility data	ESRI	ESRI (Shared Solution)		ESRI (Shared Solution)	
Asset Management	Asset Mgmt., Preventative Maintenance	Oracle WAM	Oracle WAM (Shared Solution)		Oracle WAM (Shared Solution)	

Overview – Operational Readiness / Status of Core Infrastructure As of December 2016

Component	Functionality	Previous Solutions	DWSD	GLWA
Web and social media platform	Web and social media platform	dwsd.org, website social media	<u>DetroitMI.gov</u> website 	<u>GLWater.org</u> website, social media 
Extranet	Customer portals	<u>wamr.org</u> <u>gdrss.org</u>		<u>wamr.glwater.org</u> <u>gdrss.glwater.org</u> 
Directory services	User authentication, security infrastructure	Active Directory (dwsd.org)	Active Directory (dwsd.org)	Active Directory (glwater.org)
Email (dependent on directory)	Office, ...	Zimbra webmail	GroupWise 	Office365 
Infrastructure	Storage, network, printers, phones, FAX, radios	All dedicated	Dedicated where needed, otherwise shared	Dedicated where needed, otherwise shared

Systems Roadmap

VIEW OF PATH TO DESIRED STATES BY SYSTEM AND ORGANIZATION.

FOR CALENDAR YEARS 2015, CURRENT YEAR AND 2020.





Finance Systems - Roadmap

Component	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Accounting*	General Ledger	Oracle E-Biz	Oracle E-Biz	Oracle Cloud ERP	BS&A Financial System	Oracle Cloud ERP	BS&A Financial System or Replacement
	Accounts Payable						
	Accounts Receivable						
	Asset Management						
Procurement*	Contract Management	DADS-CGIS	DADS-CGIS	DADS-CGIS	DADS-CGIS	Oracle Cloud ERP	BS&A / Replacement
	Purchasing	Oracle E-Biz WAM	Oracle E-Biz WAM	WAM / Oracle Cloud ERP	WAM / BS&A Financial System	WAM or Replacement / Oracle Cloud ERP	WAM / BS&A or Replacement
Budget*	Budget planning	Brass	Brass	Oracle Cloud Hyperion	BS&A Financial System	Oracle Cloud Hyperion	BS&A or Replacement





Human Resources Systems - Roadmap

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Human Resource Information Management System*	Performance Management	Manual Process	Manual Process	UltiPro	Ceridian	UltiPro	Ceridian
	Organization Management						
	Recruiting						
	Learning Management						
Timekeeping*	Time clocks, time management	Work Brain	Work Brain	UltiPro	Ceridian	UltiPro	Ceridian
Payroll*	Employee pay, scheduling, labor dist.	PPS	PPS	UltiPro	Ceridian	UltiPro	Ceridian
Benefits Management*	Enrollment, COBRA, Life Events	MyDetroitBenefits.com	MyDetroitBenefits.com	Benefit Express	Ceridian	UltiPro / Benefit Express	Ceridian

Work and Asset Management / Mobile Work Management - Roadmap

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Work Order Management*	GIS Integration	N/A	N/A	GeoNexus	GeoNexus	GeoNexus or Replacement	GeoNexus
	Scheduling	N/A	N/A	WAM	WAM	WAM or Replacement	WAM
	Dispatch	Spatial Wave Field Server	West Coast ServiceLink	GeoWorx Map 	GeoWorx Map 	GeoWorx Map or Replacement	GeoWorx Map
Asset Management*	CIS Integration	EnQuesta	EnQuesta	EnQuesta	BS&A CIS	EnQuesta or Replacement	BS&A CIS or Replacement
	Asset Management	WAM	WAM	WAM / GIS 	WAM / GIS 	WAM / GIS or Replacement	WAM / GIS

Work and Asset Management / Mobile Work Management - Roadmap Cont.

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Mobile Work Order Management*	Field Work Order	Spatial Wave Field Mapplet	West Coast Service Link	GeoWorx Mobile 	GeoWorx Mobile 	GeoWorx Mobile or Replacement	GeoWorx Mobile
Inventory Control*	Inventory Management	WAM	WAM	WAM	WAM	WAM or Replacement	WAM
Procurement Accounting*	Requisitions	WAM / Oracle E-Biz	WAM / Oracle E-Biz	WAM / Oracle Cloud ERP	WAM / BS&A	WAM / Oracle Cloud ERP	WAM / BS&A or Replacement
Operational Accounting*	Payroll	N/A	N/A	UltiPro 	Ceridian	UltiPro	Ceridian
	Finance	Oracle E-Biz	Oracle E-Biz	Oracle Cloud ERP	BS&A Financial System	Oracle Cloud ERP	BS&A or Replacement
	Human Resources	PPS	PPS	UltiPro 	Ceridian	UltiPro	Ceridian

Geographic Information Systems - Roadmap

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Geographic Information System Core*	Map creation	ESRI	ESRI	ESRI	ESRI	ESRI	ESRI
	Data management						
	Geospatial analysis						
Customer Facing Maps*	Information sharing	N/A	N/A	ESRI / Motor City Mapping / Open data portal	ESRI	ESRI / Motor City Mapping / Open data portal	ESRI
	Communication						
Aerial Acquisition*	Aerial imagery	SEMCOG	SEMCOG	City of Detroit	City of Detroit / SEMCOG	City of Detroit	City of Detroit / State of Michigan
	Impervious surface capture						
	Asset identification						
Data Integration*	Asset creation	GeoWorx Sync	GeoWorx Sync	GeoWorx Sync	GeoWorx Sync	GeoWorx Sync Or Replacement	GeoWorx Sync
	Master data management						

Customer Service Systems - Roadmap



Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Customer Information System*	Account management	enQuesta	enQuesta	enQuesta	BS&A CIS	enQuesta	BS&A CIS
	Billing and billing data management	enQuesta	enQuesta	enQuesta	BS&A CIS	enQuesta	BS&A CIS
	Meter shop, residential, and contractor work order management	enQuesta	enQuesta	enQuesta / WAM	WAM	enQuesta / WAM	WAM
Cashiering System*	Cash register software	Inovah	Inovah	Inovah	BS&A Cashiering	Inovah	BS&A Cashiering
Electronic Bill Presentment and Payment Processor*	Electronic bill presentment	Invoice Cloud	Invoice Cloud	Invoice Cloud	BS&A CIS	Invoice Cloud	BS&A CIS
	Credit card and ACH payment processing						

Customer Service Systems – Roadmap Cont.

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Interactive Voice Response	Automated business processes	Selectron	N/A	Selectron	N/A	Selectron	N/A
Automatic Call Distribution	Call center management and call distribution	Zipwire	Zipwire	Zipwire	InContact	Zipwire or Replacement	InContact
Automatic Meter Reading	Retail automatic meter reading	Itron	N/A	Itron	N/A	Itron	N/A
		N/A	WAMR	N/A	WAMR	N/A	WAMR
		N/A	GDRSS	N/A	GDRSS	N/A	GDRSS
Meter Data Management	Retail meter data	Water MDM	Water MDM	Water MDM	Water MDM	DWSD Water MDM	N/A
	Wholesale water meter data	Water MDM	Water MDM	Water MDM	Water MDM	N/A	GLWA Water MDM
	Sewer meter data	N/A	Sewer MDM	N/A	Sewer MDM	N/A	GLWA Sewer MDM

FOCUS AREA FOR 2017

Customer Service Systems – Roadmap Cont.

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Wholesale Water Customer Portal	Extranet for wholesale water customers. Used to manage SLA's and system performance	N/A	WAMR	N/A	WAMR	N/A	WAMR
Wholesale Sewer Customer Portal	Extranet for wholesale water customers. Used to manage SLA's and system performance	N/A	GDRSS	N/A	GDRSS	N/A	GDRSS
Customer Mobile Applications	Mobile applications for managing customer's water usage	N/A	WAMR Mobile	MiWater 	WAMR Mobile	MiWater or Replacement	WAMR Mobile
Retail Customer Portal*	Extranet for retail water customers. Used to manage bills and usage	Itron or TBD	N/A	Itron or TBD 	N/A	Itron or TBD	N/A

Local Systems - Roadmap

Component System	Function	Current State: 2015		Desired State: 2016		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Analytical Lab and Industrial Waste Control	Laboratory Information Management System	N/A	TBD LIMS	N/A	TBD LIMS	N/A	TBD LIMS
	Pre-Treatment Information Management System	N/A	TBD PIMS	N/A	TBD PIMS	N/A	TBD PIMS
Legislative Management*	Agenda, Resolution and Meeting Management	Legistar (DWSD Install)	Legistar (DWSD Install)	<div>FOCUS AREA FOR 2017</div>		Legistar (DWSD Install)	Legistar (GLWA Install)
Engineering*	Drawings	AutoCAD (DWSD Install)	AutoCAD (DWSD Install)			AutoCAD (DWSD-R Install)	AutoCAD (GLWA Install)
Fuel Management*	Fuel station and pump to vehicle management	Ward Fuel Management	Ward Fuel Management	City of Detroit solution	GLWA Solution	City of Detroit solution	GLWA Solution
Legal Case Management	Management of legal matters	City Law	TBD	City Law	GLWA Solution	City Law	GLWA Solution

Enterprise Systems - Roadmap

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Component System			State: 2015	Desired State: 2016		Future State 5: 2020	
			GLWA	DWSD	GLWA	DWSD	GLWA
Enterprise Document Management*	Document management and workflows	OnBase	OnBase	OnBase	OnBase	OnBase or Replacement	OnBase
Web Content Management	CMS for websites	.NET Nuke	WordPress	.NET Nuke	WordPress	.NET Nuke or Replacement	WordPress or Replacement
Collaboration Platform	Workspaces, intranet and internal websites	N/A	SharePoint	SharePoint	SharePoint	N/A	SharePoint
Enterprise Reporting	Report writing and data dictionary management	Business Objects, PI, Oracle BI & Cognos	Business Objects, PI, Oracle BI & Cognos	City of Detroit solutions	GLWA Solutions	City of Detroit solutions	GLWA Solutions
Enterprise Application Integration*	Standard EAI toolset	Tibco	Tibco	Tibco	Tibco	Tibco or Replacement	Tibco
	GIS Specific EAI toolset	GeoNexus Sync	GeoNexus Sync	GeoNexus Sync	GeoNexus Sync	GeoNexus Sync or GIS	GeoNexus Sync
	FIS Specific EAI toolset	Oracle Fusion Middleware	Oracle Fusion Middleware	Tibco and Web Logic	Tibco	Web Logic or Replacement	Tibco

Infrastructure System

NEW!

FOCUS AREA FOR 2017

Component System	Function	Current State: 2017				Future State 5: 2020	
		DWSD	GLWA	Unlimited Licensing Agreement (ULA) + Cloud	Cost sharing of ULA and dedicated core licenses for GLWA systems	DWSD	GLWA
Oracle Database	Underlying database for most core shared and DWSD dedicated systems	Owner of licensing agreements	Participant in cost sharing of license agreements	Unlimited Licensing Agreement (ULA) + Cloud	Cost sharing of ULA and dedicated core licenses for GLWA systems	ULA transitioned to Oracle Cloud	Limited, dedicated core licenses
Microsoft SQL Server*	Underlying database for shared and dedicated systems	Participant in cost sharing of license agreements	Owner of enterprise licensing agreements	Cost sharing on common systems + COD licenses for DWSD dedicated systems	Owner of enterprise licensing agreements	Migrated to City of Detroit licensing	Owner of enterprise licensing agreements
Microsoft Server and Office Suite*	Underlying application server, file & print server, and productivity suite software	Participant in cost sharing of license agreements	Owner of enterprise licensing agreements	Cost sharing on common systems + COD licenses for DWSD dedicated systems	Owner of enterprise licensing agreements	Migrated to City of Detroit licensing	Owner of enterprise licensing agreements

Services Update

VIEW OF PATH TO DESIRED STATES BY SERVICE AND ORGANIZATION.

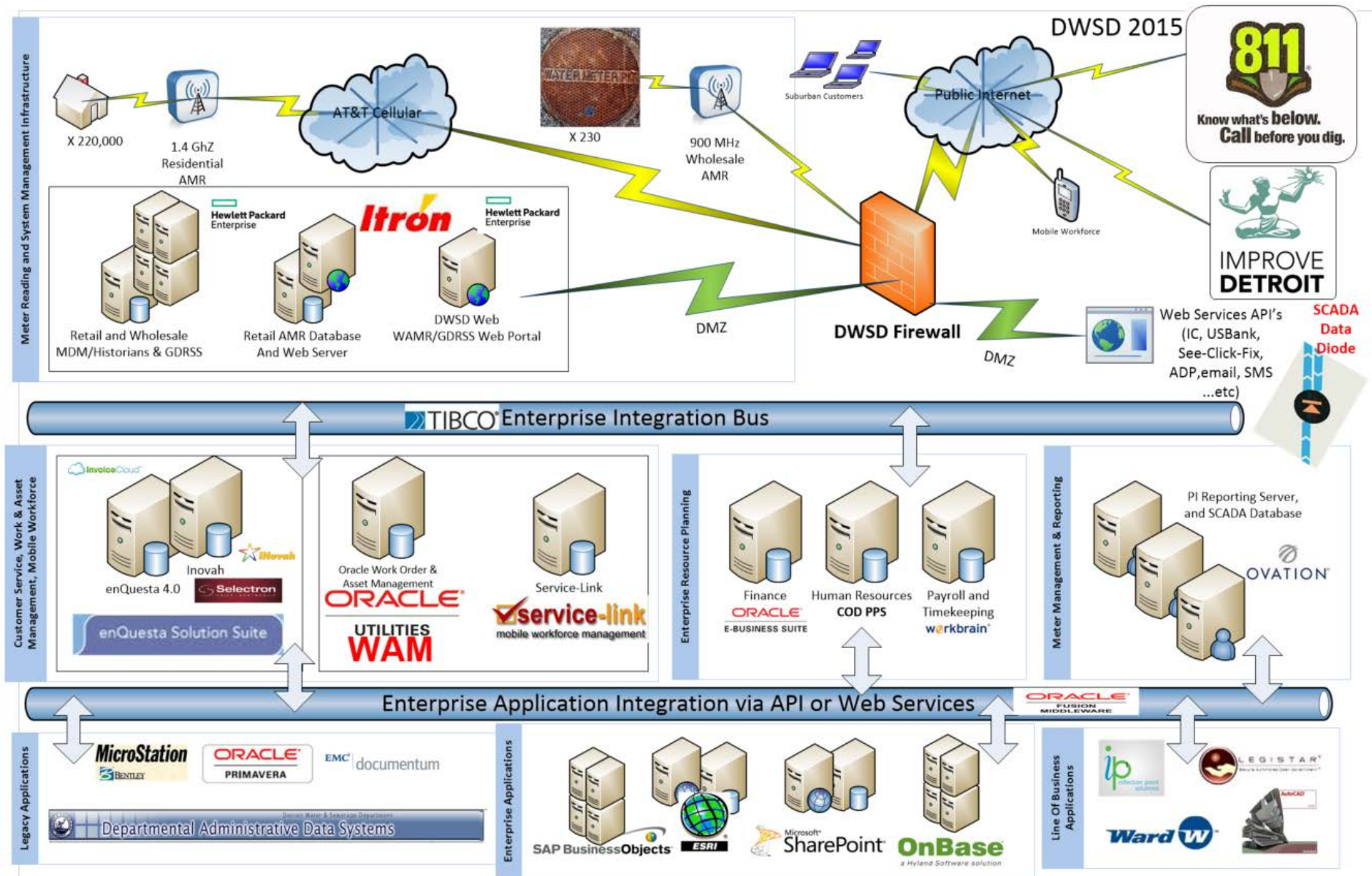
FOR CALENDAR YEARS 2015, CURRENT AND 2020.

Shared Services - Roadmap

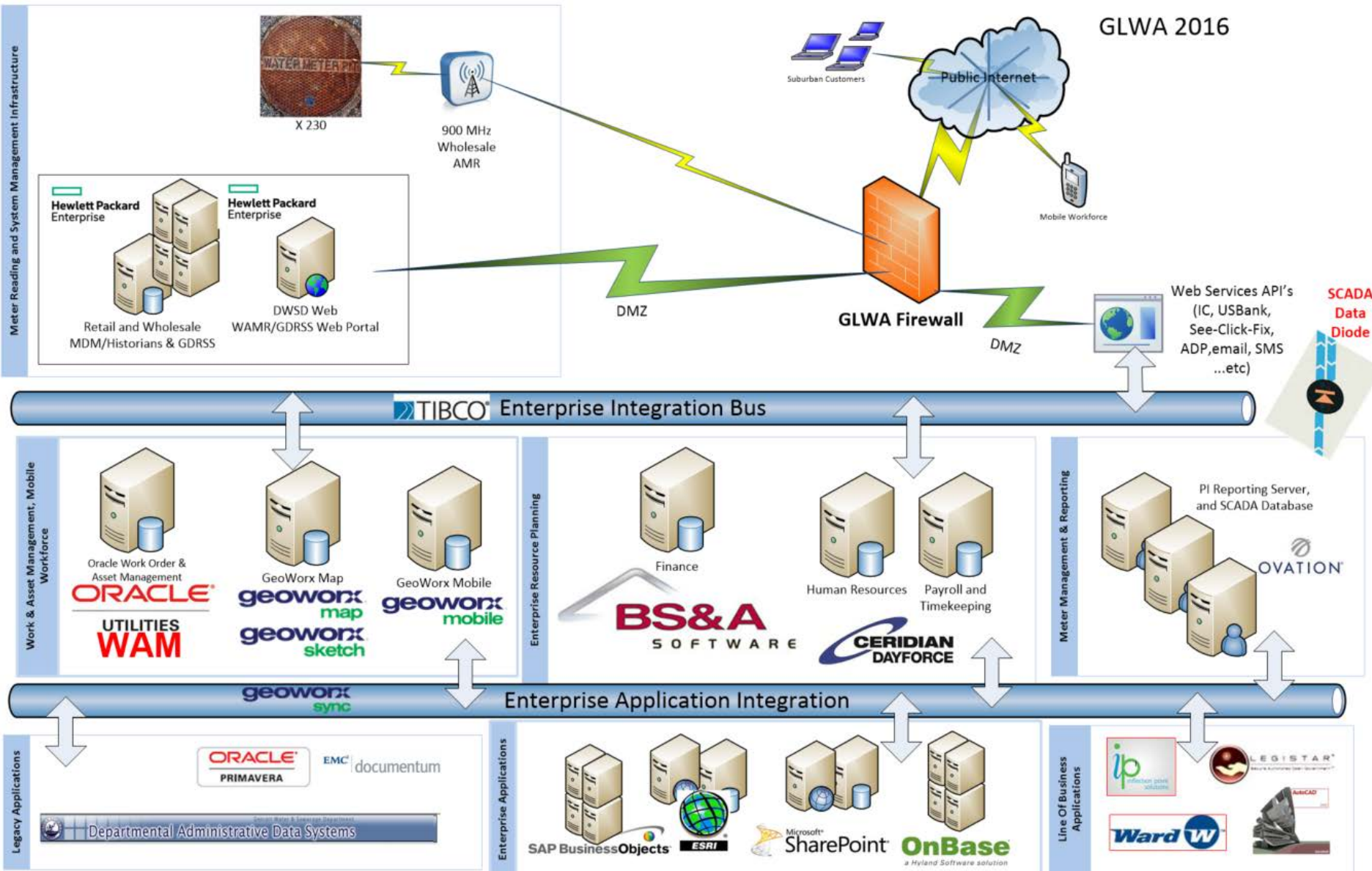
Component System	Plan	Current State: 2015		Desired State: 2017		Future State 5: 2020	
		DWSD	GLWA	DWSD	GLWA	DWSD	GLWA
Datacenter	As systems transfer	GLWA Provided	GLWA Provided	DWSD, City and GLWA	GLWA Provided	DWSD & City Provided	GLWA Provided
Server	As systems transfer	GLWA Provided	GLWA Provided	DWSD, City and GLWA	GLWA Provided	DWSD & City Provided	GLWA Provided
Network	As facilities move to city	GLWA Provided	GLWA Provided	Both City and GLWA	GLWA Provided	DWSD & City Provided	GLWA Provided
Storage	As systems transfer	GLWA Provided	GLWA Provided	Both City and GLWA	GLWA Provided	DWSD & City Provided	GLWA Provided
Disaster Recovery	As systems transfer	GLWA Provided	GLWA Provided	Both City and GLWA	GLWA Provided	DWSD & City Provided	GLWA Provided
Telephone	As facilities move to city	GLWA Provided	GLWA Provided	Both City and GLWA	GLWA Provided	City Provided	GLWA Provided
Radio	As soon as possible	City Provided	City Provided	City Provided	City Provided	City Provided	GLWA Provided
Oracle Database	As soon as possible	City Provided	City Provided	DWSD Provided	City Provided	City Provided	GLWA Provided
SQL Database	As systems transfer	GLWA Provided	GLWA Provided	DWSD, City and GLWA	GLWA Provided	DWSD & City Provided	GLWA Provided

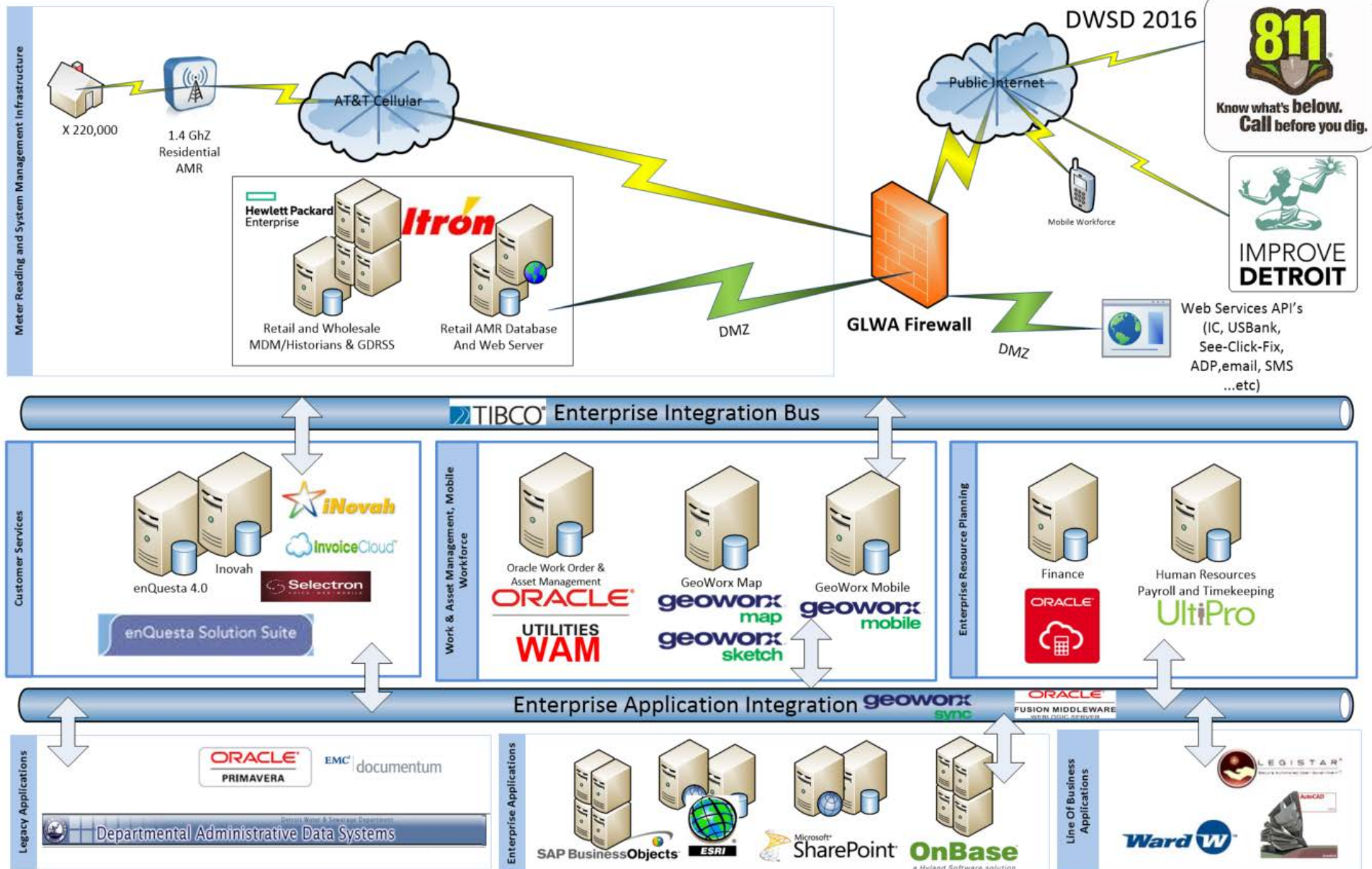
0, 1 and 5 Year Architecture

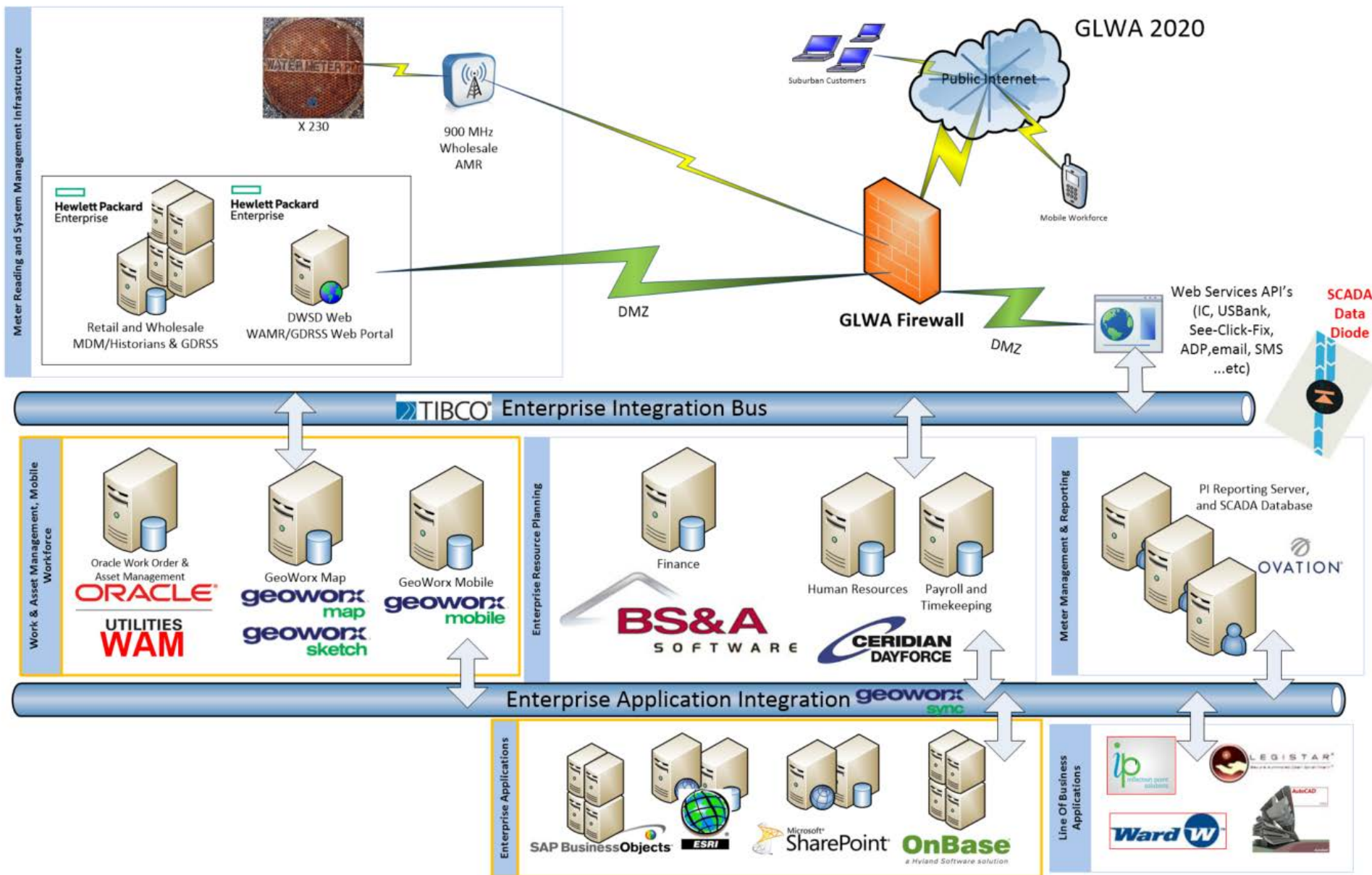
VISUAL REPRESENTATION OF APPLICATIONS
ARCHITECTURE OVER NEXT 5 YEARS

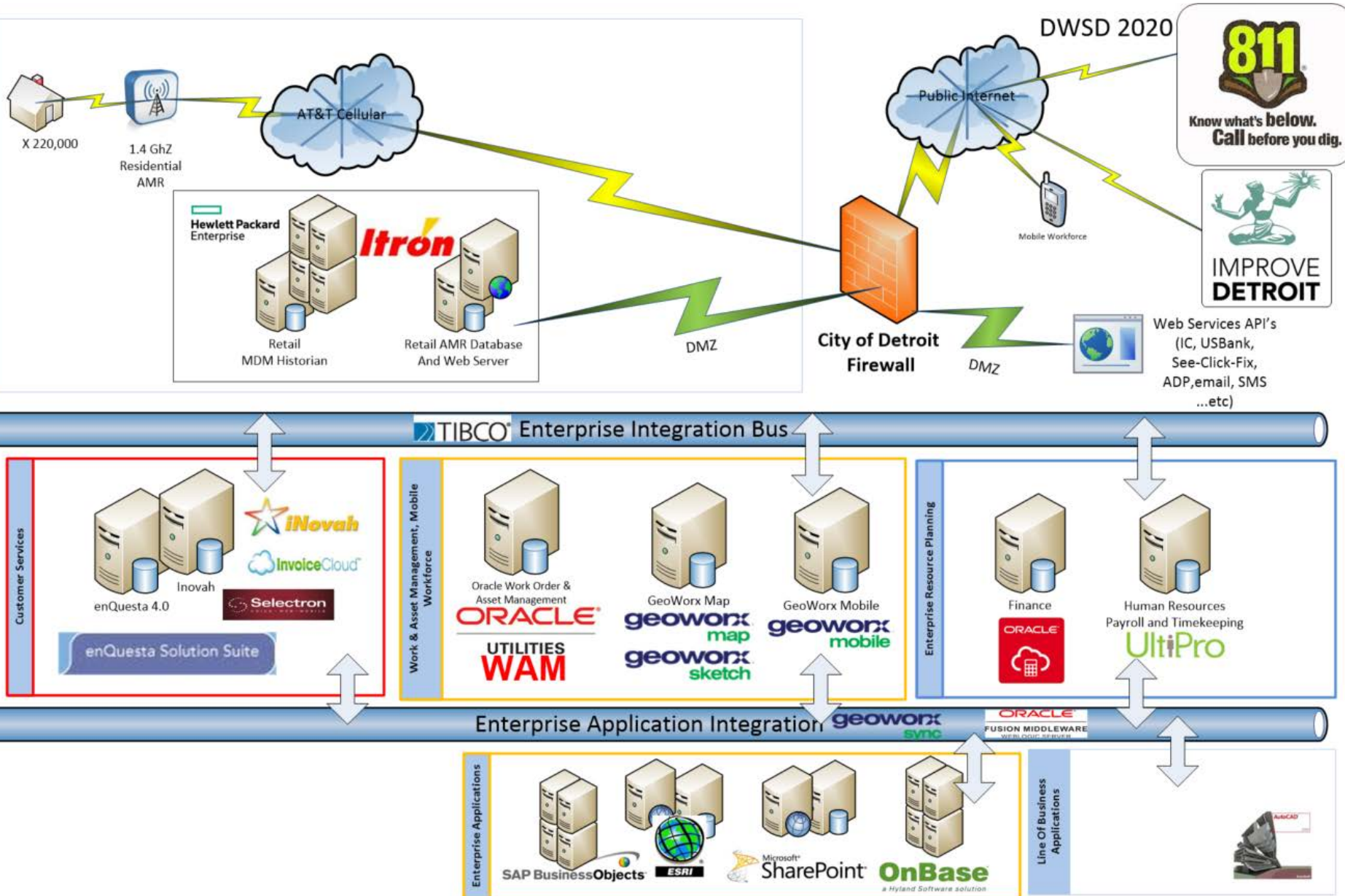


GLWA 2016









Discussion
