

Oakland County Department of Information Technology Project Scope and Approach

Project Name: IAM Full Authentication

Project ID: TT0186FA

Leadership Group: IT Steering Committee				
Department: Information Technology			Division: Technical Services and Networking	
Project Sponsor: EJ Widun		Date Requested:		PM Customer No. 186
Request Type: New Development				
IT Team Name: Enterprise Architecture			IT Team No: T	
Project Manager/Leader: Heidi Flack				
Account Number:	17030	Account Description:	Technical Systems & Network	Customer Name: Information Technology
Grant Funded? No			Mandate? No	

Project Goal

To complete full integration of the Identity Access Management (“IAM”) solution with remaining production applications not originally in scoped in prior projects so that a standardized solution is in place for authenticating users for County specific applications.

Business Objective

Oakland County will have a comprehensive mechanism for providing access to Oakland County’s systems and services that will increase the security of the identities for employees, citizens and partner organizations with authenticating users of County specific applications.

Major Deliverables (per Application)

Plan a phased approach to deliver each application for all code types (SaaS, COTS, Homegrown- .net and Java):

- Okta-Application Discovery
- Okta-Application Development & Testing
- Okta-Application Readiness
- Okta-Application Authentication Implementation & Validation
- Okta-Application Post Burn-In

Approach

- Conduct kick off meetings with the Application Teams
- Conduct an analysis for each application
- Conduct planning and Define requirements
- Configure and test with Okta authentication to Dev environment
- Coordinate end user testing for QA.
- Configure and test with Okta authentication to QA environment
- Create and validate user list
- Develop test cases, coordinate & execute UAT

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- Develop implementation plan
- Complete readiness tasks: user & admin docs, training, communications
 - Create onboarding communications (e.g., Welcome email).
 - Train user support (Registration page)
 - Coordinate end user testing for Production.
- Conduct Go/No Go meeting
- Go Live (Production)
- Conduct a 1 week burn in monitoring and analysis post Implementation
- Update support documentation (e.g., Knowledge Docs).

Research & Analysis

Gartner Research Recommendation:

IAM is foundational to the enterprise's information security and risk management efforts. IAM provides a viable, structured and coherent approach to the management of users' identities and access to applications and data, in line with business needs. In short, IAM ensures the appropriate access for the right reasons, and enables the right interactions at the proper time for desired digital business outcomes. IAM processes and controls must fully support the enterprise's application, data and other security policies, as well as security best practices.

By 2022, identity and access management as a service (IDaaS) will be the chosen delivery model for more than 80% of new access management purchases globally, up from 50% today.

IAM has a significant role to play in information security on both sides of the people equation — outgoing and incoming. The entire suite of IAM capabilities influences how an organization conducts business and manages identity-related risk. The pervasive adoption of IoT and operational technology (OT)-based technology also raises awareness that these tools affect lifestyle, life-supporting and product-related safety, privacy, and other considerations. In this regard, IAM must explicitly support the product visualization, relationship management and data protection elements of product development and deployment.

Enterprises are increasingly looking to cloud services to deliver business applications. These applications rely on cloud-based identity, making the proper management of identity information in the cloud essential. Organizations have a spectrum of choices to deploy IAM functions in the cloud. Service provider integration with enterprise IAM components has become pervasive. This commoditization represents the growth in the maturity of IAM products and services and provides IAM leaders with the opportunity to refactor operational IAM capabilities, leverage or invest in new IAM technology and determine how to best manage identity in the cloud.

Mobile technologies are now pervasive in enterprise IT and consumer environments. They are widely embraced as authentication and communications platforms, as industry has addressed requirements for security and remote management. The market-based integration of enterprise mobility management (EMM) and IAM, the value potential in terms of more efficient provisioning for both, and the ability to leverage managed device information and security posture in access decisions will support continued investment in mobile IAM technologies. These components are essential for exploiting mobile technologies securely and effectively.

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Recent IAM initiatives and upgrades have begun to leverage more-efficient, vendor-provided process and workflow approaches. Instead of producing and maintaining custom code intended to model complex IAM processes, enterprises are adopting simpler and more straightforward methods to accomplish IAM activities. This reduces maintenance costs, facilitates implantation, and simplifies updates and upgrades. Identity analytics helps make processes such as access certification more efficient. In addition, using the configuration approach makes it easier to hand-off IAM operations activities to a service provider.

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users Internal and external Oakland County users.

Divisions Information Technology

Leadership Groups IT Steering Committee

Risk

Business Environment Medium – Project requires some changes to existing business processes.

Technical Environment Low – Proven and previously implemented technology.

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Assumptions

Staffing IT Staffing: resources will be available for the hours indicated per the attached project plan.

Other Staffing:

<u>Role:</u>	<u>Name</u>
Project Sponsor	EJ Widun
IT Director	Mike Timm
InfoSec	TJ Fields
Application Services Manager	Tammi Shepherd
Internal Services Manager	Janette McKenna
CLEMIS Manager	Jeff Nesmith

Facilities

Technical

- Technical solution is Okta (Identity as a Service) for application authentication.

Funding

- Information Technology

Other

- Okta authentication integration included for remaining applications for all code types (SaaS, COTS, Homegrown.net and Java).

Application Name	Application Type	Complexity/Effort	Sizing Estimate
Access Oakland Account Services			
- Property Gateway			
- Survey Oakland			
- Fulfillment			
- Online Payments			
- OTC			
- myG2G			
- Other	Homegrown (Java)	High	200
Adobe EchoSign	SaaS	Low	50
Alternative Dispute Resolution (ADR)	Homegrown (.Net)	Low	50
Animal Control Licensing (PAWS)	SaaS	Medium	125
Bottomline	COTS	Medium	125

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BSA			
- Assessing			
- Tax			
- MYSA			
- Other	COTS	High	200
Business Objects	COTS	High	200
Campaign Finance	SaaS	Medium	125
Case Search (Court Explorer)	Homegrown (.Net)	Medium	125
District Court Probation	Homegrown (.Net)	Low	50
Electronic Notices	Homegrown (.Net)	Low	50
Enterprise GIS Web Services		Medium	125
Environmental Health Foods		Low	50
Faster	COTS	Medium	125
Hach WIMS	COTS	Low	50
Health e-Learning site	COTS	Medium	125
Health Insight	COTS	Medium	125
Health Kiosk	COTS	Medium	125
Health Services Registration application	Homegrown (.Net)	Low	50
Kronos Timekeeper	SaaS	Low	50
Land and Address Management System	Homegrown (.Net)	Low	50
Leasetrack	COTS	Medium	125
MAYS12	COTS	Medium	125
MBOR scheduling	Homegrown (.Net)	Medium	125
Media Management System	SaaS	Low	50
Mortgage Office	COTS	Medium	75
NeoGov - Job Posting Site	SaaS	Low	50
NextStep		Medium	125
OmniRIM	COTS	Medium	125
Online accounts owned by Cassy			
- Facebook			
- Twitter			
- Instagram			
- Other	SaaS	Low	50
Prosecutor's Warrants		Low	50
Public Auction	Homegrown (Java)	Low	50
Sharepoint Public sites	COTS	Medium	125
Treasurer's office system	Homegrown (.Net)	Medium	125

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Vendor Accounts from teams:			
- Network Services			
- Application Services			
- Server Admin			
- Database Admin			
- InfoSec			
- Internal Services			
- Workstation Services			
- Telecommunications			
- EA	SaaS	Low	50
Vital Records Management (VRMS)	Homegrown (.Net)	Low	50
WRC EnerGov	COTS	Medium	125
WRC Neptune	COTS	Medium	125
WRC Northstar - Cognos Reports Anywhere	COTS	Medium	125
WRC Riva/AIO/AMP Map	COTS	Medium	125
WRC Telog Enterprise	COTS	Medium	125

Priority

-

Constraints

- M365 will be integrated with project: TT9186P2 IAM Implementation-App Integration.

Exclusions

- Multi-Factor Authentication (MFA) has been implemented.
- CLEMIS applications (managed under the CLEMIS budgetary plan).
- Application development, upgrades or process procedure improvements (beyond Okta integration).
- Application data or user list clean up.

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PROJECT PHASE AUTHORIZATION

Phase(s): All	
Total Estimated Application Services	Hours: 2,620
Total Estimated Technical Systems	Hours: 3,075
Total Estimated CLEMIS	Hours:
Total Estimated Internal Services	Hours:
IT Application Services Division Manager Approval:	Date:
IT Technical Systems Division Manager Approval:	Date:
IT CLEMIS Division Manager Approval:	Date:
IT Internal Services Division Manager Approval:	Date:
IT Management Approval:	
Approved: Yes No	Date:
Reason:	
Project Sponsor Approval:	
Title:	Date:

PROJECT SUMMARY

Authorized Development (see above)	Hours:
Preliminary Estimated Development for Future Phases	Hours:
Grand Total Estimated Development	Hours: 5,695 Cost: \$939,675

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PROJECT COMPLETION AUTHORIZATION

Customer Acceptance of Product:	
Title:	Date:
Project Office Review:	Date:

IAM Full Authentication - Size Estimate (+/- 10% to 50%)					
	Type	ID	Task Name	Estimated Hours	Estimate Notes
1	Phase	000000	Begin Project	1,185	
2	Phase	100000	SAAS-OKTA AUTHENTICATION	605	
3	Phase	200000	COTS-OKTA AUTHENTICATION	2,503	
4	Phase	300000	HEMEGROWN (Java, .NET)-OKTA AUTHENTICATION	1,018	
1				5,695	

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Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	0	0	405,984	405,984	405,984	405,984	1,623,936
Cost Avoidance Subtotal:	143,798	1,047,872	1,168,493	1,193,120	1,164,120	1,137,813	5,855,216
Costs:							
Development Services Subtotal:	776,289	412,347	1,227,270	287,595	287,595	287,595	3,278,690
Hardware Subtotal:	0	0	0	0	0	0	0
Software Subtotal:	325,970	325,970	325,970	325,970	325,970	325,970	1,955,820
Infrastructure Subtotal:	0	0	0	0	0	0	0
Training Subtotal:	29,893	0	0	0	0	0	29,893
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	143,798	1,047,872	1,574,477	1,599,104	1,570,104	1,543,797	7,479,151
Annual Total Costs	1,132,152	738,317	1,553,240	613,565	613,565	613,565	5,264,403
Annual Return on Investment	(988,354)	309,556	21,237	985,539	956,539	930,232	2,214,748
Annual Costs/Savings Ratio	787.32%	70.46%	98.65%	38.37%	39.08%	39.74%	
Project Cumulative Statistics:							
Cumulative Total Savings	143,798	1,191,670	2,766,146	4,365,250	5,935,354	7,479,151	7,479,151
Cumulative Total Costs	1,132,152	1,870,468	3,423,708	4,037,273	4,650,838	5,264,403	5,264,403
Cumulative Return on Investment	(988,354)	(678,799)	(657,562)	327,977	1,284,516	2,214,748	2,214,748
Cumulative Cost/Savings Ratio	787.32%	156.96%	123.77%	92.49%	78.36%	70.39%	70.39%
Year Positive Payback Achieved				Year 4			Year 4
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor	_____			Date:	_____		
Costs (including IT Resources) Reviewed By Information Technology Project Manager	_____			Date:	_____		

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Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
Siteminder Maintenece	Tangible Benefit	17030 - Technical Systems & Networking	ANN	1	80,000	80,000	
Equipment Rates	Tangible Benefit	17030 - Technical Systems & Networking	ANN	3,806	86	325,984	
Siteminder Upgrade by Q1 2019	Cost Avoidance	17030 - Technical Systems & Networking	EA	1	13,671	13,671	
Support of Siteminder Application	Cost Avoidance	17030 - Technical Systems & Networking	ANN	155	165	25,575	
Support of Siteminder Infrastructure	Cost Avoidance	17030 - Technical Systems & Networking	ANN	8	1,152	9,216	
ADFS Upgrade	Cost Avoidance	17030 - Technical Systems & Networking	EA	1	140,973	140,973	
ADFS Maintenance	Cost Avoidance	17030 - Technical Systems & Networking	ANN	1	3,804	3,804	
Support of Internal OC IAM Tool	Cost Avoidance	17030 - Technical Systems & Networking	ANN	1	45,570	45,570	
AD Tune-Up	Cost Avoidance	17030 - Technical Systems & Networking	EA	1	92,022	92,022	
AD Tune-Up Annual Process	Cost Avoidance	17030 - Technical Systems & Networking	ANN	1	33,075	33,075	
Envision IT Maintenance (Patching, Capacity, etc.)	Cost Avoidance	17030 - Technical Systems & Networking	ANN	1	4,600	4,600	
Envision IT Upgrade	Cost Avoidance	17030 - Technical Systems & Networking	EA	1	29,000	29,000	
Licenses Needed for Non-County AD Vendors	Cost Avoidance	17030 - Technical Systems & Networking	ANN	1	700	700	
Licenses for Retirees in AD	Cost Avoidance	17030 - Technical Systems & Networking	ANN	1	2,485	2,485	
Cost of Custom Authentication: Year 2 - 3 & 6	Cost Avoidance	17030 - Technical Systems & Networking	HR	3,300	165	544,500	
Cost of Custom Authentication: Year 4 - 5	Cost Avoidance	17030 - Technical Systems & Networking	HR	4,100	165	676,500	
Vendor Cost AD Integration: Year 2 - 6	Cost Avoidance	17030 - Technical Systems & Networking	EA	1	75,000	75,000	
IT Hours - Planned Maintenance: Year 1 (See Offset in Cost Detail)	Cost Avoidance	17030 - Technical Systems & Networking	HR	872	165	143,798	

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Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
IT Hours - Planned Maintenance: Year 2 - 6 (See Offset in Cost Detail)	Cost Avoidance	17030 - Technical Systems & Networking	HR	1,743	165	287,595	
Increased user satisfaction with easier and consolidated password reset (one place to perform password reset vs. multiple applications).	Intangible Benefit					0	
Increased efficiency when onboarding new users into the Oakland County solution.	Intangible Benefit					0	
Elimination of issues that involve security entitlements based upon incorrect assignment of users.	Intangible Benefit					0	
Elimination of risk associated with users leaving and being able to access application with local user stores	Intangible Benefit					0	
Increased user security to avoid a breach through hacked credentials.	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

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Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI?						Potential Savings Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6	Y1-2019	Y2-2020	Y3-2021	Y4-2022	Y5-2023	Y6-2024
Siteminder Maintenance	Tangible Benefit		X	X	X	X				80,000.00	80,000.00	80,000.00	80,000
Equipment Rates	Tangible Benefit		X	X	X	X				325,983.90	325,983.90	325,983.90	325,984
Siteminder Upgrade by Q1 2019	Cost Avoidance						X						13,671
Support of Siteminder Application	Cost Avoidance		X	X	X	X				25,575.00	25,575.00	25,575.00	25,575
Support of Siteminder Infrastructure	Cost Avoidance		X	X	X	X				9,216.00	9,216.00	9,216.00	9,216
ADFS Upgrade	Cost Avoidance		X							140,973.00			
ADFS Maintenance	Cost Avoidance		X	X	X	X				3,804.00	3,804.00	3,804.00	3,804
Support of Internal OC IAM Tool	Cost Avoidance	X	X	X	X	X		45,570.00	45,570.00	45,570.00	45,570.00	45,570.00	45,570
AD Tune-Up	Cost Avoidance	X					X		92,022.00				92,022
AD Tune-Up Annual Process	Cost Avoidance			X	X	X				33,075.00	33,075.00	33,075.00	33,075
Envision IT Maintenance (Patching, Capacity, etc.)	Cost Avoidance			X	X	X					4,600.00	4,600.00	4,600
Envision IT Upgrade	Cost Avoidance			X							29,000.00		
Licenses Needed for Non-County AD Vendors	Cost Avoidance	X	X	X	X	X		700.00	700.00	700.00	700.00	700.00	700
Licenses for Retirees in AD	Cost Avoidance	X	X	X	X	X		2,485.00	2,485.00	2,485.00	2,485.00	2,485.00	2,485
Cost of Custom Authentication: Year 2 - 3 & 6	Cost Avoidance	X	X				X	544,500.00	544,500.00				544,500
Cost of Custom Authentication: Year 4 - 5	Cost Avoidance			X	X						676,500.00	676,500.00	
Vendor Cost AD Integration: Year 2 - 6	Cost Avoidance	X	X	X	X	X		75,000.00	75,000.00	75,000.00	75,000.00	75,000.00	75,000.00
IT Hours - Planned Maintenance: Year 1 (See Offset in Cost Detail)	Cost Avoidance	X						143,797.50					

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Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI?						Potential Savings Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6	Y1-2019	Y2-2020	Y3-2021	Y4-2022	Y5-2023	Y6-2024
IT Hours - Planned Maintenance: Year 2 - 6 (See Offset in Cost Detail)	Cost Avoidance	X	X	X	X	X			287,595.00	287,595.00	287,595.00	287,595.00	287,595.00
Increased user satisfaction with easier and consolidated password reset (one place to perform password reset vs. multiple applications).	Intangible Benefit												
Increased efficiency when onboarding new users into the Oakland County solution.	Intangible Benefit												
Elimination of issues that involve security entitlements based upon incorrect assignment of users.	Intangible Benefit												
Elimination of risk associated with users leaving and being able to access application with local user stores	Intangible Benefit												
Increased user security to avoid a breach through hacked credentials.	Intangible Benefit												

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Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
Siteminder Maintenece			80,000	80,000	80,000	80,000	320,000
Equipment Rates			325,984	325,984	325,984	325,984	1,303,936
<i>Tangible Benefits Subtotal:</i>			405,984	405,984	405,984	405,984	1,623,936
Cost Avoidance:							
Siteminder Upgrade by Q1 2019						13,671	13,671
Support of Siteminder Application			25,575	25,575	25,575	25,575	102,300
Support of Siteminder Infrastructure			9,216	9,216	9,216	9,216	36,864
ADFS Upgrade			140,973				140,973
ADFS Maintenance			3,804	3,804	3,804	3,804	15,216
Support of Internal OC IAM Tool		45,570	45,570	45,570	45,570	45,570	227,850
AD Tune-Up		92,022				92,022	184,044
AD Tune-Up Annual Process			33,075	33,075	33,075	33,075	132,300
Envision IT Maintenance (Patching, Capacity, etc.)				4,600	4,600	4,600	13,800
Envision IT Upgrade				29,000			29,000
Licenses Needed for Non-County AD Vendors		700	700	700	700	700	3,500
Licenses for Retirees in AD		2,485	2,485	2,485	2,485	2,485	12,425
Cost of Custom Authentication: Year 2 - 3 & 6		544,500	544,500			544,500	1,633,500
Cost of Custom Authentication: Year 4 - 5				676,500	676,500		1,353,000
Vendor Cost AD Integration: Year 2 - 6		75,000	75,000	75,000	75,000	75,000	375,000
IT Hours - Planned Maintenance: Year 1 (See Offset in Cost Detail)	143,798						143,798

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Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
IT Hours - Planned Maintenance: Year 2 - 6 (See Offset in Cost Detail)		287,595	287,595	287,595	287,595	287,595	1,437,975
Cost Avoidance Subtotal:	143,798	1,047,872	1,168,493	1,193,120	1,164,120	1,137,813	5,855,216
Intangible Benefit:							
Per Chris Burrows, the cost of an Identity Record breach is \$21 per identity, our identity exposure is 27,643 identities and a potential 2,000,000 record exposure = \$42,580,503.							
Increased user satisfaction with easier and consolidated password reset (one place to perform password reset vs. multiple applications).							
Increased efficiency when onboarding new users into the Oakland County solution.							
Elimination of issues that involve security entitlements based upon incorrect assignment of users.							
Elimination of risk associated with users leaving and being able to access application with local user stores							
Increased user security to avoid a breach through hacked credentials.							
Savings Total:	143,798	1,047,872	1,574,477	1,599,104	1,570,104	1,543,797	7,479,151

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Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?							
								Y1	Y2	Y3	Y4	Y5	Y6		
IT Hours - New Development: MP 2019-2020 TT9186IA Remaining ETC	Development Svcs	Technical Services & Networking	HR	108	141	15,231		X							
IT Hours - New Development: MP 2019-2020: TT9186I1 Design Phase	Development Svcs	Technical Services & Networking	HR	478	124	59,081		X							
IT Hours - New Development: MP 2019-2020: TT9186P1 Implementation Phase I	Development Svcs	Technical Services & Networking	HR	1,323	125	165,573		X							
IT Hours - New Development: MP 2019-2020: TT9186P2 Implementation App Integration	Development Svcs	Technical Services & Networking	HR	2,366	113	267,855		X							
IT Hours - New Development: MP 2021-2022 TT0186FA IAM Full Authentication	Development Svcs	Technical Services & Networking	HR	5,695	165	939,675				X					
IT Hours - Planned Maintenance: Year 1 (See Offset in Savings Detail)	Development Svcs	Technical Services & Networking	HR	872	165	143,798		X							
IT Hours - Planned Maintenance: Year 2 - 6 (See Offset in Savings Detail)	Development Svcs	Technical Services & Networking	HR	1,743	165	287,595			X	X	X	X	X	X	
Okta Implementation Services: Year 1	Development Svcs	Technical Services & Networking	EA	1	124,752	124,752		X							
Okta Implementation Services: Year 2	Development Svcs	Technical Services & Networking	EA	1	124,752	124,752			X						
Okta IAM Subscription Services: Year 1	Software	Technical Services & Networking	ANN	1	325,970	325,970		X							
Okta IAM Subscription Services: Year 2-6	Software	Technical Services & Networking	ANN	1	325,970	325,970			X	X	X	X	X	X	
Training - Okta Essentials (x3)	Training	Technical Services & Networking	EA	1	10,000	10,000		X							
Training - Deploy O365 w/ Okta (x3)	Training	Technical Services & Networking	EA	1	3,441	3,441		X							
Training - Platform for Developers (x3)	Training	Technical Services & Networking	EA	1	10,000	10,000		X							
Training - Technical (Private Class)	Training	Technical Services & Networking	EA	1	6,452	6,452		X							

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Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1-2019	Y2-2020	Y3-2021	Y4-2022	Y5-2023	Y6-2024
IT Hours - New Development: MP 2019-2020 TT9186IA Remaining ETC	Development Svcs	15,231.50					
IT Hours - New Development: MP 2019-2020: TT9186I1 Design Phase	Development Svcs	59,080.80					
IT Hours - New Development: MP 2019-2020: TT9186P1 Implementation Phase I	Development Svcs	165,572.59					
IT Hours - New Development: MP 2019-2020: TT9186P2 Implementation App Integration	Development Svcs	267,854.86					
IT Hours - New Development: MP 2021-2022 TT0186FA IAM Full Authentication	Development Svcs			939,675.00			
IT Hours - Planned Maintenance: Year 1 (See Offset in Savings Detail)	Development Svcs	143,797.50					
IT Hours - Planned Maintenance: Year 2 - 6 (See Offset in Savings Detail)	Development Svcs		287,595.00	287,595.00	287,595.00	287,595.00	287,595.00
Okta Implementation Services: Year 1	Development Svcs	124,751.50					
Okta Implementation Services: Year 2	Development Svcs		124,751.50				
Okta IAM Subscription Services: Year 1	Software	325,970.00					
Okta IAM Subscription Services: Year 2 - 6	Software		325,970.00	325,970.00	325,970.00	325,970.00	325,970.00
Training - Okta Essentials (x3)	Training	10,000.00					
Training - Deploy O365 w/ Okta (x3)	Training	3,441.00					
Training - Platform for Developers (x3)	Training	10,000.00					
Training - Technical (Private Class)	Training	6,452.00					

Oakland County -- Identity Access Management Program
Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development: MP 2019-2020 TT9186IA Remaining ETC	15,231						15,231
IT Hours - New Development: MP 2019-2020: TT9186I1 Design Phase	59,081						59,081
IT Hours - New Development: MP 2019-2020: TT9186P1 Implementation Phase I	165,573						165,573
IT Hours - New Development: MP 2019-2020: TT9186P2 Implementation App Integration	267,855						267,855
IT Hours - New Development: MP 2021-2022 TT0186FA IAM Full Authentication			939,675				939,675
IT Hours - Planned Maintenance: Year 1 (See Offset in Savings Detail)	143,798						143,798
IT Hours - Planned Maintenance: Year 2 - 6 (See Offset in Savings Detail)		287,595	287,595	287,595	287,595	287,595	1,437,975
Okta Implementation Services: Year 1	124,752						124,752
Okta Implementation Services: Year 2		124,752					124,752
<i>Development Services Subtotal:</i>	776,289	412,347	1,227,270	287,595	287,595	287,595	3,278,690
Hardware:							
<i>Hardware Subtotal:</i>							
Software:							
Okta IAM Subscription Services: Year 1	325,970						325,970
Okta IAM Subscription Services: Year 2 - 6		325,970	325,970	325,970	325,970	325,970	1,629,850
<i>Software Subtotal:</i>	325,970	325,970	325,970	325,970	325,970	325,970	1,955,820
Infrastructure:							

Oakland County -- Identity Access Management Program
Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
<i>Infrastructure Subtotal</i>							
Training:							
Training - Okta Essentials (x3)	10,000						10,000
Training - Deploy O365 w/ Okta (x3)	3,441						3,441
Training - Platform for Developers (x3)	10,000						10,000
Training - Technical (Private Class)	6,452						6,452
<i>Training Subtotal:</i>	29,893						29,893
Other:							
<i>Other Subtotal:</i>							
Costs Total:	1,132,152	738,317	1,553,240	613,565	613,565	613,565	5,264,403

