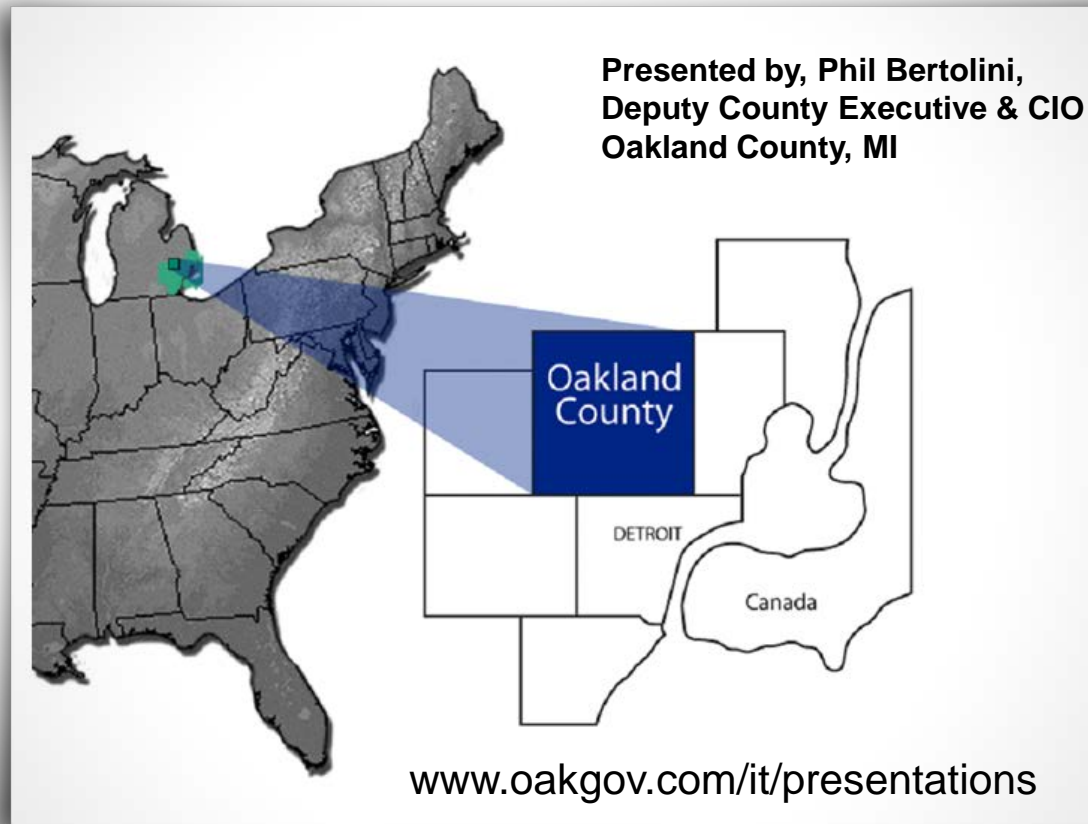


**Version
2.0!**

Introduction To Information Technology for Finance Officers



February 2015

Introductions

- Phil Bertolini, Deputy County Executive/CIO
 - 27 years of government experience
 - Started in property tax assessment and then to information technology
 - Responsible for IT and Facilities
- Oakland County, MI has;
 - 910 Square miles
 - 62 Cities, Villages and Townships
 - 1.2 million residents
 - 82 departments and divisions of county government
 - County Executive form of government with 21 Commissioners

Why are we here?

Technology is Integral to Government Operations

- Costs are becoming more manageable
- Standards have emerged to make integration easier
- Markets have matured
- People are more cognizant of the importance of technology
- Technical expertise is easier to find
- Citizens expect and depend on technology

Doing **More**
With Le\$\$

Doing **Less**
With Le\$\$

**You can still be innovative
and provide technology...**



in tough economic times.

Why do finance officers need to understand IT?

Define IT Governance

“A system of management processes and structures that help to steer and define how an organization operates through rules of engagement, rather than to administer or manage particular functions directly.”

Reasons for IT Governance

- Identifying technology needs
- Prioritizing technology investments
- Assigning accountability
- Aligning IT Department activities

Importance of IT to Finance Officers

- Creating value through technology
- Managing risk
- Understanding short-term and long-term costs
- Producing information of value to government
- Improving data and transactional transparency
- Control IT costs

CFOs and CIOs Speaking the Same Language

- CFO and CIO must work closely together
- CFO understands the financial impact of technology investments
- CIO understands the technology and the needs of the end users
- Business cases are important
- Avoid acronyms in communications...no need to confuse one another

The Basics of IT Governance

Organizational Structure

Oakland County IT Overview

IT Budget \$50 Million
Staff = 157 FTE
40-50 Contract Professionals

Provides services to:

- 82 County Departments
- Over 200 Local Government Agencies
(law enforcement, municipalities)
- Over 1,500 Online Customers via *Access Oakland*
- Over 50 Government Entities through G2G Cloud Solutions

Responsible for:

- System Enhancements
- New Development
- Support and Maintenance

Infrastructure

- Networks
- Servers
- Operating Systems
- Data Storage
- Workstations
- Printers/Copiers

Infrastructure

How do we evaluate our Infrastructure needs?

- Architecture Plans
- Technology Standards
- Replacement Schedule
- Capacity Increases/Decreases
- Disaster Recovery and Business Continuity Recovery
- Future Needs??

Infrastructure

How do we fund new/replacement Infrastructure?

- Consume or own?
- Capital budget planning
- Charge backs?

Application Delivery

- Improve operational efficiencies of departments by providing line-of-business applications that:
 - Streamline and automate business processes
 - Provide anytime/anywhere access to data and status
 - Reduce duplicate data entry and paper usage
- Development methodologies
 - Waterfall vs Agile

Application Delivery

- Need IT skillsets to manage, develop and maintain applications
 - Difficult to recruit and retain
 - Skillsets get out of date quickly
 - Salary and benefits structure
 - Different expectations for organizational culture
- Build versus Buy decisions

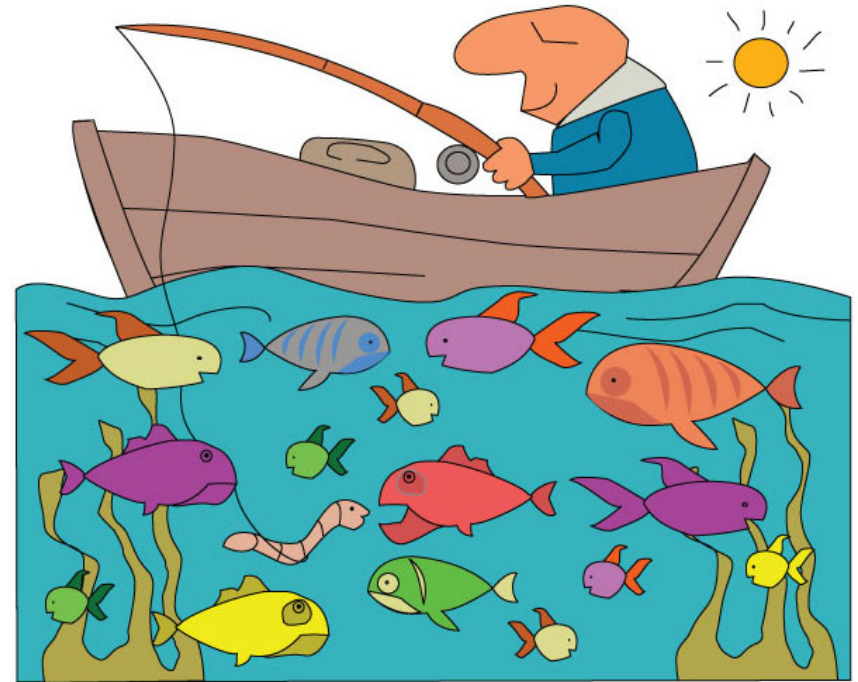
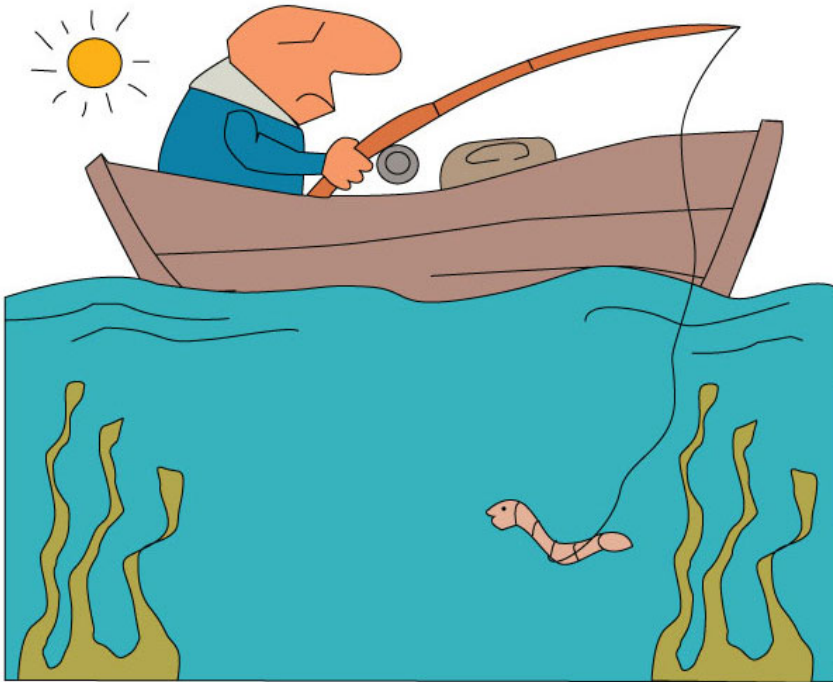
Citizen Engagement

- Do you need a fully functional web site?
 - Think mobile first
 - Distributed content management
- Outreach to citizens
 - Social Media
 - Video and Audio
 - Push communications
 - eCommerce

Citizen Centric/Citizen Engagement



Social Networking is about fishing where the fish are



Where are your Constituents?

Oakland County Social Media Strategy

The overall Oakland County social media strategy

1. Encourages timely, useful information about Oakland County Government will be shared in the social space
2. Delivers customer service through alternative avenues (social media platforms)
3. Begins conversations
4. Improves brand identity

Sharing timely, useful information



Oakland County, Michigan Government

Liked · Friday

Yesterday, Oakland County, Michigan Executive L. Brooks Patterson hosted the 28th annual Oakland County, Michigan Government Economic Outlook luncheon at the Troy Marriott.

The luncheon highlighted Oakland County's economic forecast from University of Michigan economists Fulton and Grimes-- and the resurgence continues: <http://ow.ly/ksjgH>.

Like · Comment · Share



Katie Zack Keeler and 5 others like this.



5 shares



Write a comment...

Citizen Engagement

- You must get in the game
- A clear message is a must
- Narrow your channels of communication
- Embrace new technologies w/ rules
- Consuming technologies may be cost effective
- Get it done!!!

Internal Services

- Central group for the entire IT operation
- Reports directly to the CIO
- Handles central functions
 - Project Management Office
 - Procurement
 - Human Resources
 - Service Desk
 - Training

Cyber Security



Security breach affects personal information of city employees, Detroit says

8:31 AM, March 3, 2014 | 1 Comments

Recommend 12 people recommend this. Sign up to see what your friends recommend.

Recommend 12

Tweet 0

Google+ 2

Pinterest

Print Email Share

Associated Press

FILED UNDER

Local News
City Of Detroit

Detroit says a recent computer security breach affected files that contained personal identifying information of a large number of city employees.

The city says in a statement that Beth Niblock, Detroit's chief information officer, plans to discuss the breach during a Monday



AP The Associated Press @AP

Breaking: Two Explosions in the White House and Barack Obama is injured

Reply Retweet Favorite More

2,894 RETWEETS

134 FAVORITES



10:07 AM - 23 Apr 13



Cyber Security

KEEP IT SIMPLE

Cyber Security

**KEEP IT
CLEAR**

Cyber Security



Cyber Security

- Hire a CISO
- # 1 priority for entire IT department
- What standard are you measuring against?
 - ISO 27000
 - NIST
 - SANS 20 Critical Controls
- Prepare to react, respond and recover
- Training is key to success
- The world of cyber security has changed



www.g2gmarket.com

CySAFE Team

- Phil Bertolini, Chris Burrows – Oakland County
- Ed Winfield, Jeff Small – Wayne County
- Andy Brush – Washtenaw County
- Rich Malewicz – Livingston County
- Colleen Hinzmann – Monroe County
- Jessica Moy – State of Michigan



- A practitioner's experience with these standards
- Need an organized approach that addresses IT Security **Management** issues and **Technical** controls
- 95/5 Rule (36 Controls out of 379)
- All controls factor (Cost / Time / Risk)
- Reports built-in with trending and graphs
- Private (only you have the data)
- Takes 60 minutes to complete the assessment
- **FREE**

Planning for IT

Critical Design Features of the Planning Process

- Joint Decision Making
 - Work together with functional partners
- Involvement of Top Decision Makers
 - Involve the entire “c” suite
- Standard Evaluation Method
 - Shared understanding of how the project will be judged
- Screen for Technical Considerations

Critical Design Features of the Planning Process (cont.)

- Formal Business Case Made
 - Must understand the tangible and intangible benefits
- Partnership with Finance Office
 - Working together to understand the financial impact
- IT Strategic Plan
 - Multi-year plan for technology

Strategic Plans

- Do you have an IT Strategic Plan?
- Define the mission of the entire organization
- Plan to develop enabling technologies that solve the problems
- 2 to 3 years in length
- Overarching document to guide IT forward
- It is a living document that takes care and feeding
- Ensure every project undertaken ties back to plan

Project and Portfolio Management (PPM)

- Creation of a Project Management Office (PMO) may be necessary to lead the effort
- Must meet with key stakeholders to understand their business and their needs
- Must understand the overall needs of the organization
- Approve the project charter and manage resources
- Assess and mitigate risks

PPM Critical Success Factors

- Secure top management commitment
- Understand that implementation is a business change effort
- Devote the necessary resources
- The Project Manager rules
- Set clear goals, scope and expectations
- Track project progress, results and scope
- Communicate effectively and often
- Understand and address risks
- Control project scope and minimize disruptions by managing change
- Test every way you can

Why?

**Invest in PPM
in the
current
economic
climate**



Where We Were?

IT Department

Resources were
Drastically
Over-committed

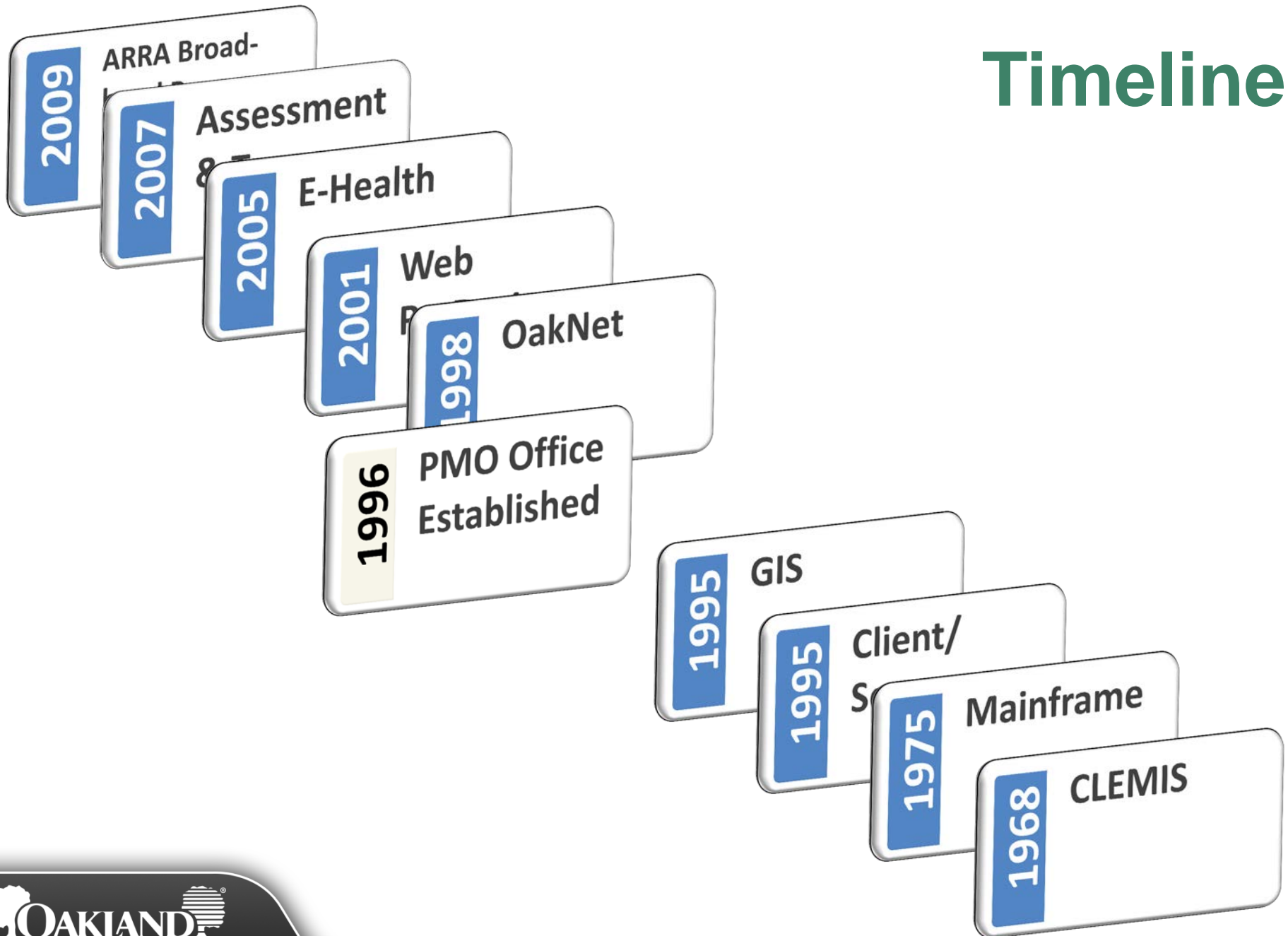
No department or
County-wide portfolio
planning

Customer

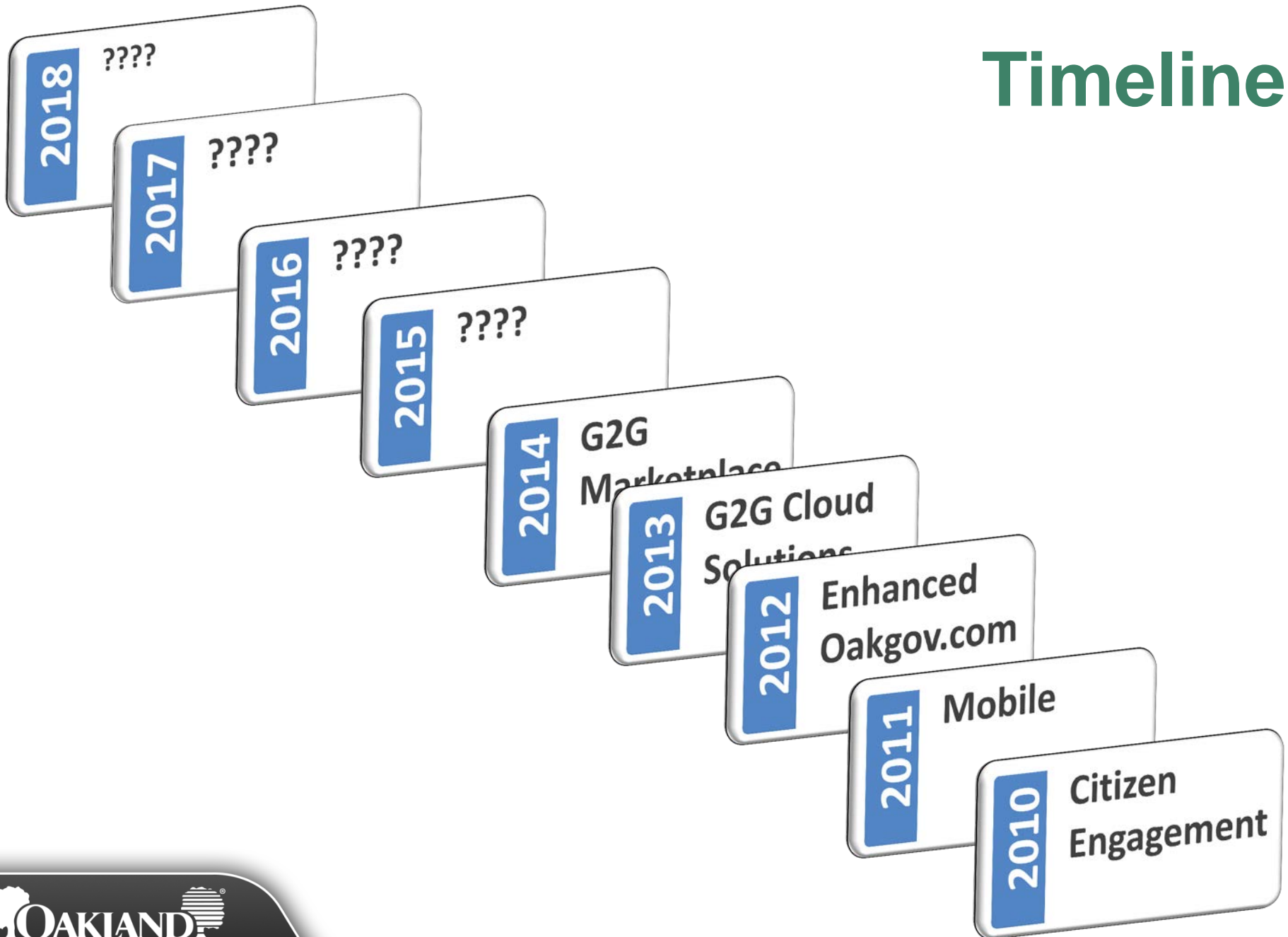
Customer requests
for new technology
were on the rise

Expectations were
not being met

Timeline



Timeline



Philosophy

What are we trying to accomplish?

- Meet customer commitments
- IT Governance (providing technology services)
 - Budgeting, process, procedures, standards
- Prioritization
 - Centralized Project Repository
 - Resources not over committed

The Plan 1996

Launched search for a software solution

Acquired CA Clarity PPM
(formerly ABT the Niku) for
Project and Portfolio Management

Established a centralized
Project Management Office (PMO)
and associated processes

IT Master Planning Process

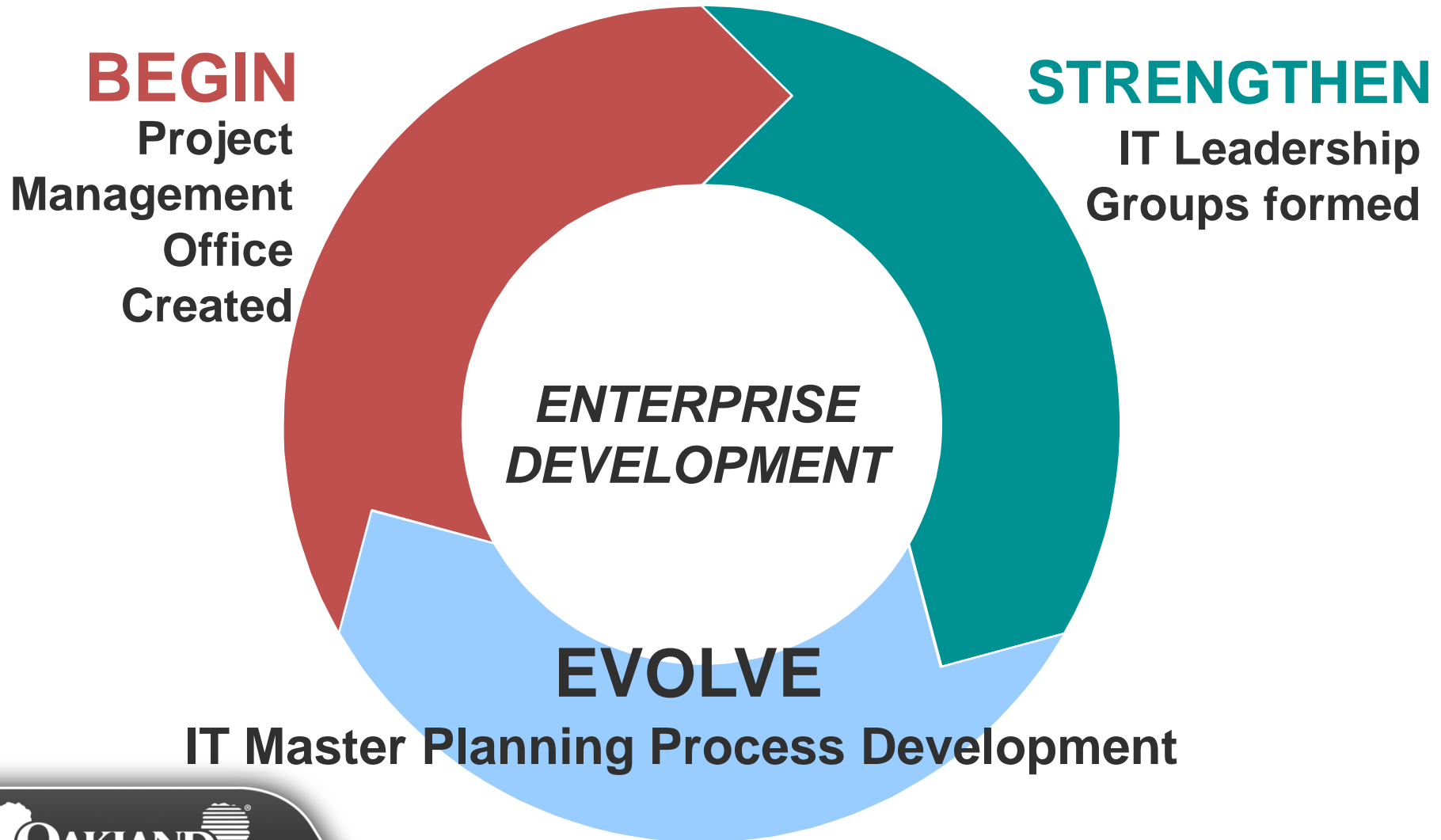
Planning for technology projects is a “long distance” race and not a “sprint”

Careful planning and strong project management will help IT be successful

IT Master Planning Process

- Must involve partners to ensure buy-in
- 2 year planning timeframe
- Develop committees/leadership groups consisting of partner community
- Develop strong processes and standards
- Led by Project Management Office (PMO)
- Develop mentorship and guidance

Culture SHIFT



Project Management Office

ESTABLISHED



BEGIN

GOALS

Centralize IT portfolio
Protect & promote financial Investment

SERVICES OFFERED

PM mentoring and support
Project review and analysis
Assurance and compliance
to standards
IT Master Planning & Leadership
Group Processes
Education of customers
and marketing

IT Leadership Groups FORMED

**Formed IT Leadership Groups to
STRENGTHEN RELATIONSHIP
with customers**

Change perception of IT

**Meet quarterly for project status
and priority**

**Representatives champion
Technology efforts amongst peers**

Strengthen

IT Master Planning Process DEVELOPED

Create Project Portfolio & Priorities

Support IT Allocating Resources to Support Customer Needs

**Empower IT to Make Informed Decisions
(in regard to current and future technologies)**

**Provide the Framework for IT Leadership Groups
(to measure and re-evaluate technology efforts)**



Evolve



Leverage development across multiple entities to drive-down costs

More efficient, standardized cost of development

**“Build it ONCE,
pay for it ONCE
&
EVERYBODY
benefits.”**

IT Business Cases

The Essentials

- A Return on Investment Analysis (ROI)
- A Standard Set of Evaluation Criteria
- Alignment and Integration with Budgeting Process
- Intra-organizational Cooperation
- Accountability for Results

Developing IT Business Cases

1. Clearly Understand Vision and Goals
2. Evaluate Existing Systems
3. Identify Alternatives
4. Run the Numbers
5. Establish Performance Measures

Oakland County Process

1. Develop a Scope and Approach Document/ROI
2. Clearly identify the Tangible and Intangible Benefits
3. Gain Leadership Group (LG) approval to do a project sizing
4. Gain LG approval to include the project in the IT Master Plan
5. Funding must be determined prior to LG approval

ROI Analysis of Virtualization Project

Description	Year 1
Benefits/Savings	
Tangible Benefits Subtotal	\$1,287.390
Cost Avoidance Subtotal	0
Costs	
Development Service Subtotal:	\$267,340
Hardware Subtotal:	\$679,642
Software Subtotal:	\$269,680
Infrastructure Subtotal:	\$33,638
Annual Statistics	
Annual Total Savings	\$1,287,390
Annual Total Costs:	\$1,250,300
Annual Return on Investment:	\$37,090
Annual Costs/Savings Ratio:	97.12%
Year Positive Payback Achieved	Year 1

GIS Governance County-Wide

Geographic Information System

- Circa 1995 – four prior attempts had failed. Local units were beginning to start-up GIS programs.
- County recognized importance of centralized repository for data for numerous business applications.
- Secured funding commitment from County Board – equipment, software and data conversion efforts.
- Governance model – benevolent dictator. Converted data for local units' use; County benefited.

GIS Governance County-Wide (cont.)

- Results – ONE common database (or base map) used by 62 communities and all County departments, maintained by the County.
- The common base map made it possible to centrally develop applications that support assessing, public safety and 9-1-1 dispatch, economic development / planning, public health, water / sewer operations, road maintenance, and many other services.

CLEMIS Governance County-Wide

Courts, Law Enforcement Management Information System

- 40-year old computer operations and organization providing two dozen law enforcement applications to 225 agencies in a 5-county region on a 24x7 basis.
- Covers roughly one-third of the arrests in Michigan.
- Sheriff, police, prosecutors, courts, community corrections, federal agencies, state police, etc.
- Confederation 22-member governance body – body is advisory but County Executive, Board of Commissioners and CLEMIS Advisory Board share a common vision.

CLEMIS Governance County-Wide (cont.)

- Several sub-committees targeting strategic planning / finance; programs and membership; etc.
- Entry into CLEMIS is started with a letter from the **police chief**. No direct contact with local elected officials.
- No formal contract between Oakland County and local units of government – essentially, a “hand-shake.”
- Funded by membership dues, fees and operating subsidies from Oakland County.

CLEMIS ROI

Record management system (RMS) – 1997:

- County wanted to replace RMS mainframe. Hired consultant to scope requirements / est. cost - \$5.7M.
- RMS mainframe – supported roughly 40 PDs / Sheriff. Study to assess what **individual** RMS' would cost if deployed to the 40 PDs / Sheriff.
- Study confirmed – capital and operating costs would be at least three times higher than a centrally-hosted system – and data sharing would be exceedingly difficult.

CLEMIS ROI (cont.)

1998 – federal grant - \$17.1M; local match - \$7.5M:

- Compliance requirement – redeploy officers to community-oriented policing. County commits to 700 officers out of 2,100 in 40 agencies.
- County received requests from law enforcement agencies from outside the County's borders. Now over 125 member agencies.
- Study confirmed – with the two dozen applications, CLEMIS is saving 2,400 FTEs annually – on a base of 5,400 sworn officers.

Lessons Learned

- Secure executive sponsorship.
- Align operating departments / IT / finance. Business drives technology.
- Horizontal / vertical integration improves ROI.
- Secure local support for hosted systems.
- Secure customer involvement in setting priorities.
- Do not over commit – project management system vital.
- Meet customer commitments – involve them throughout the process.
- Educate, educate, educate – internal / external entities.

Budgeting for IT

IT Budget Challenges

- Requires Operational and Capital components
- Return on Investment can show short term, long term, and intangible benefits
- Good long term planning enables the annual budget
- Must provide organizational value
- Centralized versus decentralized budgeting

IT Budget Benefits

- Planning and budgeting are linked together
- Assures IT spending accountability
- Monetizes technology for a total cost of ownership
- Ongoing value can be recognized for sustainability

Types of IT Expenditures

- Hardware/equipment
- Personnel/staff
- Systems design and implementation
- Internal services/service desk
- Cyber security
- Planning/policy/standards
- Training

Operational Budgets

- Multi-year line item budgets
- Salary and fringe benefit allocations
- Professional services/supplemental staffing
- Consumable IT resources
- Software purchases and licensing
- eCommerce costs

Capital Budgets

- 5 to 10 year projections
- Hardware replacements and labor
- Large system replacements and labor
- May be funded through bonding
- Sustainability is key to strong capital planning

Oakland County IT Budget

- Proprietary Fund
- Chargeback Model
- Bill in quarterly transfers from General Fund
- Located in non-controllable section of department budgets
- Operating like a business creates transparency to the organization

Customer Service for IT

Customer versus Partner

- Create buy-in through partner engagement
- Partners are involved in decision making process
- Customers simply desire services to be provided
- IT is a service bureau that provides services for everyone else in government

Perception of IT

- Desire to be perceived as a strategic partner
- Simple service providers can be replaced
- Constantly measure the successes or failures of IT
- IT is not a “spend” it is an “investment”

The IT Roadmap

Roadmap to Success

Where are you?

- Assessment

Where do you want to go?

- Planning
- Governance/Management

How do you get there?

- Budgeting
- Strategy
- Communications

Roadmap to Success

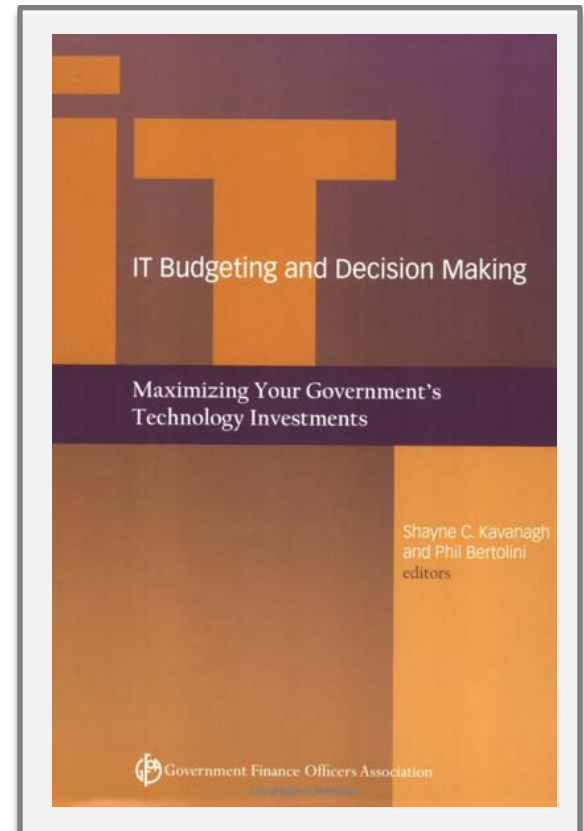
The Assessment

Where is your organization along the IT maturity continuum?

An assessment can be taken on-line at:

<http://www.gfoa.org/downloads/TheITServiceRoadmapAssessmentMkII.pdf>

After knowing where you are you must understand how to get where you want to go.



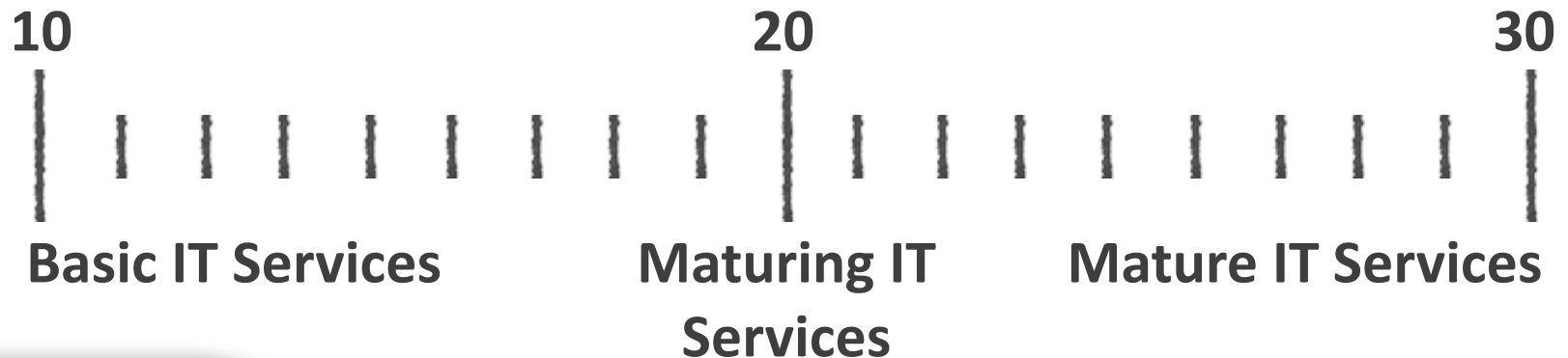
IT Budgeting and Decision Making, Chapter 13

Roadmap to Success

How mature is your organization in it's use of IT?

IT Maturity Continuum

- Basic Services
- Maturing Services
- Mature Services



IT Maturity Continuum

Basic Services

IT Maturity Continuum

Basic Services



```
graph TD; A[Basic Services] --> B[Maturing Services]
```

The diagram illustrates the IT Maturity Continuum. It consists of two rectangular boxes. The first box, labeled 'Basic Services', is positioned in the upper left. A horizontal line extends from its right side, and a vertical line descends from its end to the top of the second box. The second box, labeled 'Maturing Services', is positioned below and to the right of the first box, indicating a progression or maturation of services.

Maturing Services

IT Maturity Continuum

Basic Services

Maturing Services

Mature Services

Roadmap to Success

1. Government's Perception of IT
2. Governance/Leadership Structure
3. Customer Service
4. Sourcing Strategy
5. Project/Portfolio Management
6. Business Cases
7. IT Finance

Roadmap to Success

1. Government's Perception of IT

How the organization views IT

- Just another cost of doing business?
- A means to achieve public service excellence?

The level of perception will dictate the role IT plays in the organization

- IT can range from being a simple provider of services to a strategic benefit to the overall organization
- IT decisions can be made from deep in the organization or at the highest level of government

Roadmap to Success

2. Governance/Leadership Structure

The level of involvement of IT customers in shaping and guiding the direction of technology in the organization.

- Improved quality and quantity of IT services
- Active role in leadership of IT initiatives

IT governance can range from being dispersed throughout the organization to being a centralized unit led by a CIO.

- As IT matures the structure will be more centralized and of an enterprise nature

Roadmap to Success

3. Customer Service

How the IT function relates to the departments it serves

- Active feedback mechanisms
- Are the expectations met in a timely fashion

As IT matures the need to involve the customer becomes more important

- IT begins with little customer need for their services to eventually making the customers partners

Roadmap to Success

4. Sourcing Strategy

Outsourcing is a potentially valuable tool for IT service delivery

- Right sourcing will benefit the IT organization
- Must rationally evaluate the outsourcing opportunities
 - Drive down costs
 - Effectively leverage human resources

Sourcing can range from little or no effective policies to being an integral part of an organizations success

Roadmap to Success

5. Project/Portfolio Management

IT investments are often implemented as discrete projects or initiatives

- Investments span all functional areas
- Must be managed in a portfolio to ensure effective cost management

PPM can range from having decentralized ad hoc efforts to having a strong methodology

- PPM may be disjointed and ineffective
- A centralized PMO may bring stability

Roadmap to Success

6. Business Cases

Business cases are an integral part of successful technology initiatives

- Strong business cases become strong communication tools

Business cases can ranges from little or no customer involvement to total integration with the customer.

- Clearly understanding the benefits is paramount to building a strong ROI

Roadmap to Success

7. IT Finance

The methods by which IT costs are tracked and IT services are funded

- The importance of IT funding models will impact the organizations success

IT finance can range from budgets being buried within

other budgets to being funded as an independent agency

- CIO and CFO must work together as partners
- Charge backs for services may be effective in understanding the total cost of ownership for IT

Take-Aways

- Knowing how to get there is half the battle.....getting the organization to willingly embrace your direction is the other.
- Building towards a mature IT model will give you the best chance for success.

Innovating IT

Mobility: What are we today??



Mobile workers with basic mobile technologies

Policies and Perceptions



Will taxpayers tolerate people working from home?

Will people be as productive?

How will we measure productivity?

What is the difference?

How do you manage people in the office?

Oakland County BYOD Survey

23% of county employees responded

68% have county devices

88% carry personal and county mobile phones

46% using personal devices at work of which 69% are using them for county business

41% are interested in using personal devices for county business

Majority of use is for email and web browsing

“I think it is a great idea!”

“The in the cloud initiative is an excellent technological trend.”

“I think this will be greatly beneficial for me in my work.”

“Why would you take it to 100% insecure with this really stupid idea?”

“This is the most ridiculous idea I have ever heard the county propose.”



How will we get there??

Virtualization: (Virtual Desktop Infrastructure VDI and Virtual Applications)

Mobile Device Management

Mobile Cloud Applications



Will our organization be ready?

Shared Services

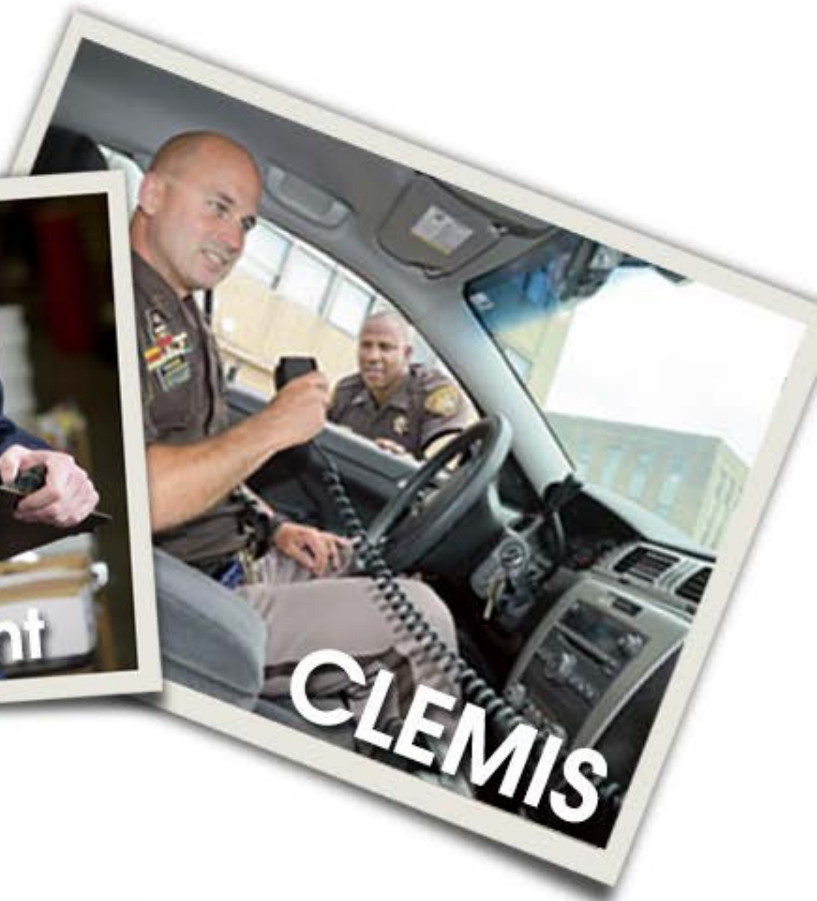
- The future of government technology
- Governments are developing redundant technologies
- Government sharing is difficult
- Benefits are numerous and attainable



GIS



Tax & Assessment



CLEMIS



Opportunity

Small Governments

Using **BIG** Government Technology



Take Aways for Shared Services

- Perform a self-assessment
- Share information and analysis
- Identify process changes
- Assess the feasibility
- Design a roadmap
- Establish a governance model
- Do the work!

Cloud Computing

- The ability to utilize technologies in an external environment
- Consume versus own & operate
- Public/private partnerships show great promise
- Organizations must embrace ability to consume technologies



www.g2gcloud.com

What is G2G Cloud Solutions?

G2G Cloud Solutions was developed by Oakland County, Michigan to **improve government services** by **sharing technology** with other government agencies **at little or no cost**, therefore **reducing the cost** of government



Online Payments

Over the Counter Payments

More to come...

Small Town America...



Struggling City...




Pontiac, Michigan



**MARKET
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Featured Product:

CySAFE
Cyber Security Assessment for Everyone

A FREE tool for assessing, planning and implementing cyber security controls

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Benefits
Negotiated Contracts
Shortened Procurement Process
Vetted Solutions

Marketing

Putting the right **product**

In the right **place**

With the right **price**

At the right **time**

SWOT

Metrics

Logos

Tactical Development

Exhibits

Target Market

Market Segmentation

Distribution

Analytics

PEST

Messaging

Sales Training

Strategy

Inventory

eMarketing

Pricing

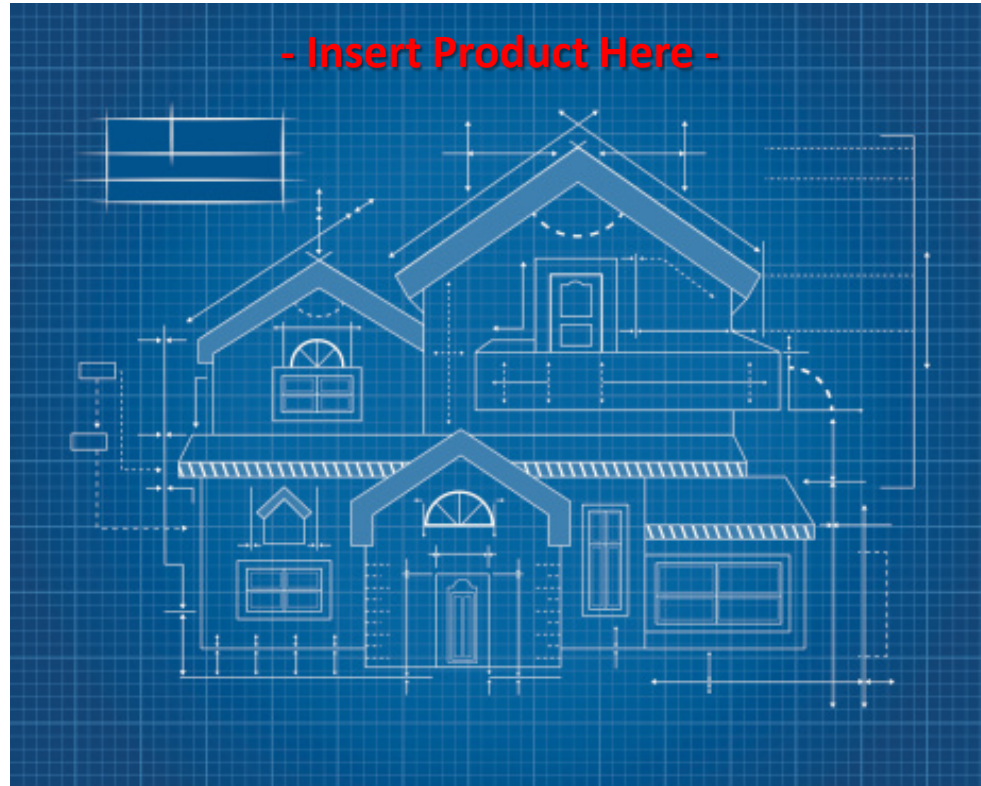
Forecasting

Advertising

Social Media

Packaging

Public Relations



Marketing



With
Marketing

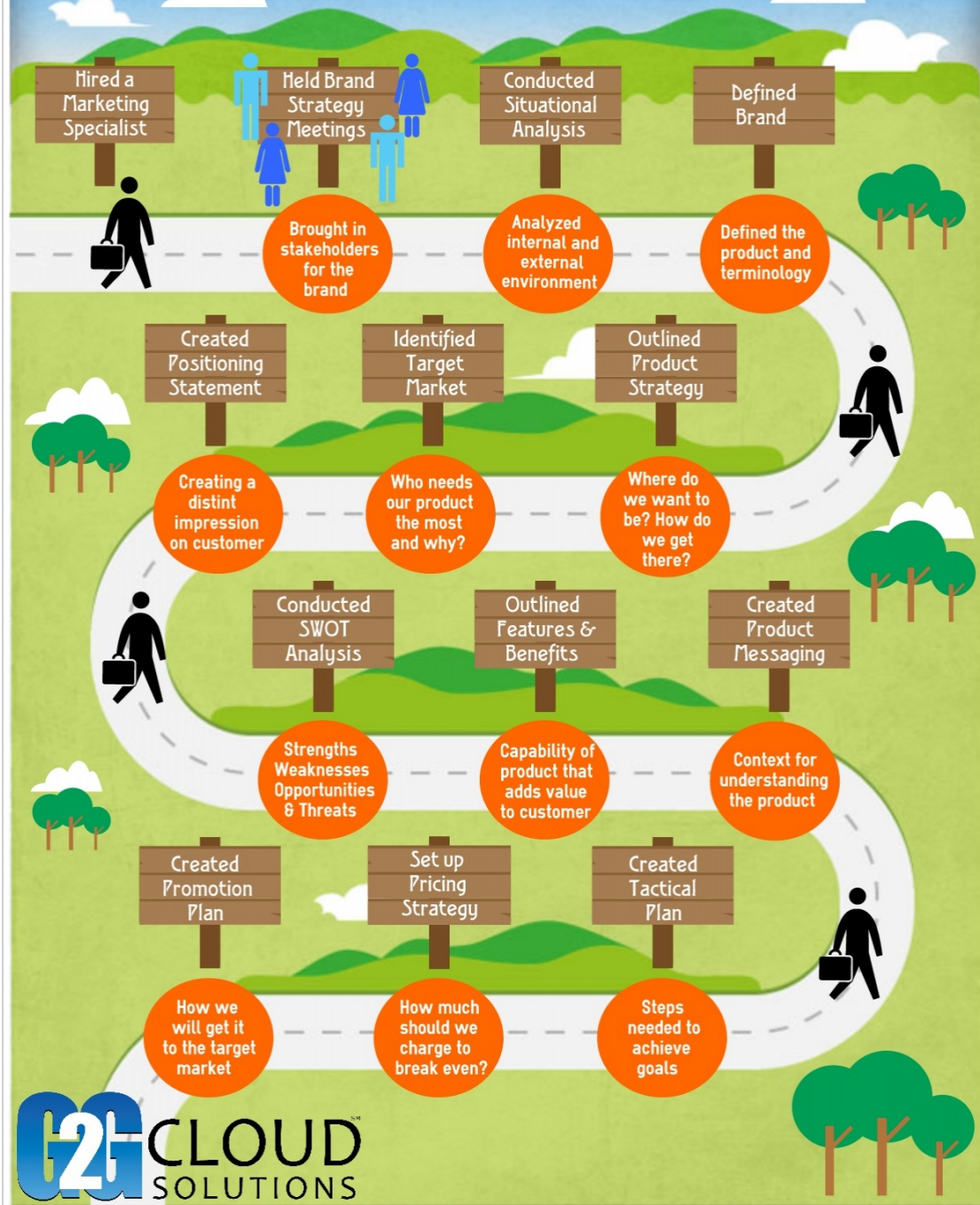


Without
Marketing



Get
Marketing
involved
from the
beginning...

G2G Cloud Solutions



Roles of the CFO & CIO

What Are We Trying to Accomplish?

- Creating Value Through Technology
- Managing Risk
- Controlling IT Costs
- Communications, Communications, Communications

Recruitment and Retention of Qualified IT Employees

Today's IT professionals are finding
themselves in
business facing roles they are not
equipped to handle

What's Changed?

Technical skills + Certifications
+ Soft Skills



VETERAN



Millennial

Recruiting and Retaining the New IT Professional

- Compensation
- Longevity (5 years)
- Training
- Work/Life Balance
- Opportunities to learn and grow the organization

R/R Take-Aways

- Accept that people will move on
- Don't take it personally
- Everyone is replaceable
- Make the tough decisions
- It's all about the people

Working Together to Maximize Value

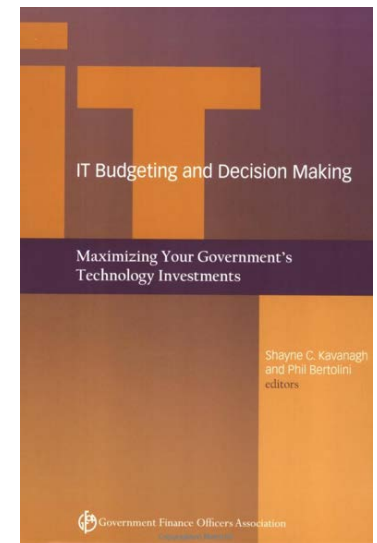


Power
of
TWO

By Shane Kavanagh
www.Public-CIO.com

Trust and Communications

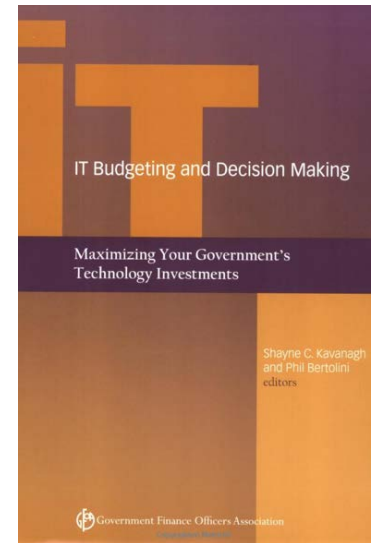
“Finally, the CIO and CFO must maintain totally open communications. This is a product of trust and working together on projects and ongoing governance processes.”



IT Budgeting and Decision Making, Chapter 2

Working Together

*“**Technology** is becoming more pervasive and a greater factor in both parts of the **public value** equation: producing outcomes of value to constituents and providing **cost-effective** government services. The **CIO and CFO** . . . must **work together** closely if technology’s **full potential** for improving the lives of the public is to be realized.”*



IT Budgeting and Decision Making, Chapter 2

Executive Sponsorship

What Are We Trying to Accomplish?

- Achieve Buy-In From the Top
- Educate and Nurture Key Stakeholders
- Adhere to the Vision of the Entire Organization
- Measure IT Value for the Organization
- Build and Maintain Trust

Executive Sponsorship

“Efficient and progressive County Operations, both now and in the future, will rely heavily on the successful delivery of IT projects. For this reason, this will be one of the most strategic initiatives for this department.”

L. Brooks Patterson
Oakland County Executive
Project Kick Off Meeting
September, 1996



embrace the chaos

Wrap Up & Take-Aways

Phil Bertolini, Deputy County Executive & CIO
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bertolinip@oakgov.com