

Pinellas County Business Technology Services

Board Meeting

Partnering to provide the solutions most important to our Customers' Business



Agenda

1. **Call to Order – Chair, Commissioner Welch**
2. **Designation of Voting Proxies – Chair, Commissioner Welch**
3. **Approval of Meeting Minutes – Chair, Commissioner Welch**
 - **BTS Board Meeting – September 15, 2016**
4. **Selection of Chairperson and Vice Chairperson**
5. **Gartner Symposium – Marty Rose and Jeff Rohrs**
6. **OPUS Project – Marty Rose**
7. **Recognition of Board Service Awards – Marty Rose**
 - **Pam Dubov, Property Appraiser**
 - **Diane Nelson, Tax Collector**
8. **Adjournment – Chair, Commissioner Welch**

Pinellas County Business Technology Services

Gartner Symposium/IT^XPO 2016
Marty Rose, CIO

Partnering to provide the solutions most important to our Customers' Business



What is the Gartner Symposium?



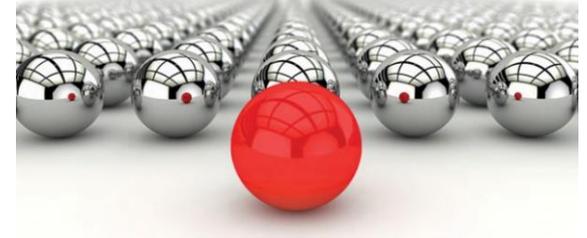
The World's Most Important Gathering of **CIOs and Senior IT Executives**

“Gartner Symposium/IT^{XPO} is the world’s most important gathering of CIOs and Senior IT Executives, providing a strategic view on the trends that shape IT and business. No other conference in the world attracts more than 24,000 attendees, including 7,000 CIOs.” Gartner

CIO Survey Results

Who are the Leaders of Digital Change?

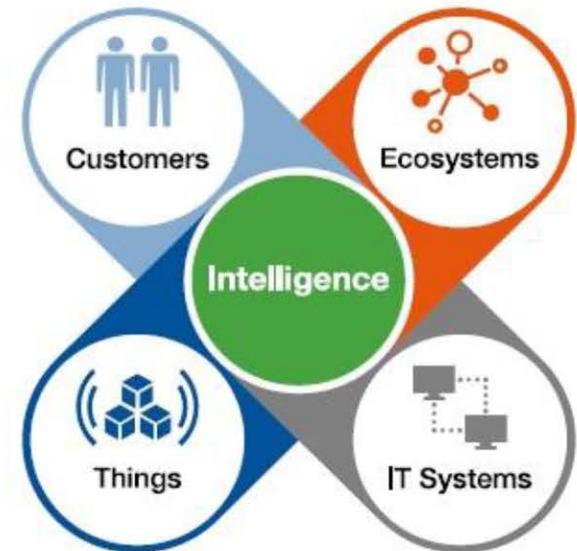
- Chief Executive Officer – 33%
- Chief Information Officer – 30%
- Chief Financial Officer – 10%
- Information Technology Manager – 10%
- Chief Operating Officer – 5%
- Business Unit Directors – 5%
- Chief Technology Officer – 3%
- Other – 4%



The CIO “role” is a “business role” that happens to have “technology” as one of its levers of execution.

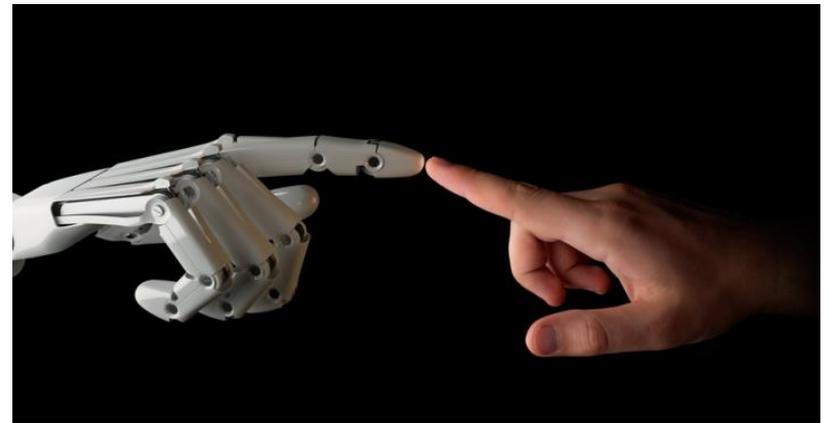
Building the Digital Platform

- Information Systems Platform
 - Core Systems
- Internet of Things Platform
 - Connected Things
- Ecosystems Platform
 - Partner Interfaces
- Customer Experience Platform
 - Customer Portals and Apps
- Data and Analytics Platform



Intelligence Anywhere and Everywhere

- Intelligent Sensors
- Smart Appliances
- Smart Medical Devices
- Operational Applications
- Smart Security and Operations
- Smart Enterprise Apps
- Advanced Chatbots
- Virtual Assistants
- Smart Advisors
- Robots
- Drones



User Experience

- Digital Business – Online, Not Inline
- Mobile Applications - Purposeful
- Conversational Systems – Amazon Echo
- Virtual Personal Assistants
- Adaptive Machine Systems – Car sensors
- Chatbots
- Wearables
- Portal



CIO Survey Results

Top Performing Organizations

- CEO/CIO Lead Involvement and Attitude
- 44% are part of mature digital businesses
- 4.6% are increasing IT Budgets
- 79% are active members of the digital ecosystems
- 40% of critical digital components are built in house
- 68% Have Bi-Modal IT
- 77% Focus on Innovation



CIO Survey Results

Top Performers Invest In

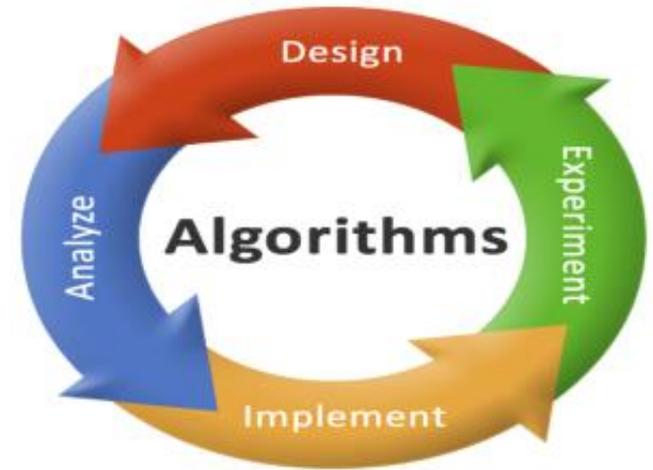
- 47% Business Intelligence/Analytics
- 34% Cloud Services/Solutions
- 20% Digitization/Digital Marketing
- 20% Infrastructure/Data Center
- 16% Mobility and Mobile Applications
- 13% Cyber/Information Security
- 8% Enterprise Resource Planning (ERP)
- 8% Network, Voice and Data Communications



CIO Survey Results

Key Technologies Deliver Change

- 81% Advanced Analytics
- 48% Internet of Things
- 43% Digital Security
- 40% Business Algorithms
- 22% Machine Learning
- 19% Virtual Customer Assistants
- 13% Augmented Reality
- 10% Blockchain
- 7% Autonomous Cars
- 6% Small Robots



Bi-Modal Mindset

Can you change your way of Thinking?

Nature

Innate personality,
predisposition and traits

Nurture

External environment,
context and influence

Bi-Modal
Mode 1

Reliability
Consistency
Expertise
Best Practices
Business as Usual

Agility
Ambiguity
Creativity
Innovation

Bi-Modal
Mode 2

Experimentation

BI-Modal IT Action List

To Do	To Stop
✓ Lead (or Get Out of the Way)	✗ Allowing Short-Term Imperatives to Starve Strategic Thinking
✓ Plan Agile Engagement	✗ Replacing Applications With Applications
✓ Focus on Integration	✗ Customizing COTS Systems
✓ Introduce "Product" Culture	✗ Point-to-Point Integration
✓ Understand and Implement DevOps	✗ Tyranny of the Silos
✓ Engage With SaaS and Cloud	✗ Being a Slave to Your Vendors
✓ Show a Lot of Love to Mode One	
✓ Kill Something Off	

Using Cloud Services

Top Three Reasons for Using or Considering Using Public Cloud Services

1. IT Modernization
2. Cost Savings
3. Agility



Cloud Growth

- IT Spending on Public Cloud Services grew from \$130B in 2013 to \$203B in 2016
- Gartner forecasts the growth in 2019 to be \$313B
- Areas include:
 - Cloud Advertising
 - Application and Infrastructure Services
 - Cloud Management
 - Security Services
 - Cloud Business Process Services



Cloud Best Practices

- | | |
|--|---|
| <ul style="list-style-type: none">• There is No Single Cloud Strategy | <ul style="list-style-type: none">• Build a layered strategy for each level of cloud capabilities |
| <ul style="list-style-type: none">• Redesign, Not Redeploy | <ul style="list-style-type: none">• Avoid “lift and shift” where possible |
| <ul style="list-style-type: none">• One Workload at a Time | <ul style="list-style-type: none">• Enterprise wide cloud migrations usually fail |
| <ul style="list-style-type: none">• Coordinate the Uncontrollable | <ul style="list-style-type: none">• Become or use brokers as intermediaries |
| <ul style="list-style-type: none">• Focus on Outcomes | <ul style="list-style-type: none">• The only “right” service is the one with business value |
| <ul style="list-style-type: none">• Hybrid Cloud Works | <ul style="list-style-type: none">• Expect hybrid to be the norm for years |

A Hybrid World

1. Cloud and traditional data center models will be part of a continuum of complementary digital solutions
2. Need to build and manage multiple delivery models in a complex hybrid target state for the foreseeable future
3. Success in the hybrid world requires new capabilities in I/O Services, Processes, Organization, Governance, Roles and Technology



Big Business Intelligence Versus Self-Service BI

Big BI (SAP, IBM, Oracle)	Self-Service BI (Tableau, Qlik, Microsoft)
<ul style="list-style-type: none">• 50% of Market Share	<ul style="list-style-type: none">• 6.2% of Market Share
<ul style="list-style-type: none">• Declining BI Revenues	<ul style="list-style-type: none">• Growing Revenues 78%, 17% and 9%
<ul style="list-style-type: none">• Months to Implement	<ul style="list-style-type: none">• Days and weeks to Implement
<ul style="list-style-type: none">• IT-Centric Deployment	<ul style="list-style-type: none">• Business-Centric Deployment

Keynote Speakers

Dr. Robert Gates, former CIA Director, Secretary of Defense and President of Texas A&M University

- “Disruptive Leadership”
- “Technology advantage is a shorter timespan now, 20 years is now 5 years”
- “Use digital technology to enhance the customer experience”
- “A good leader develops good followers”
- “Responsibility of follower is to speak up with new ideas – but then help implement decision”
- “Leadership begins with character not training”
- “Pace of change doesn’t allow for complacency (Always asking, what can I do better?)”
- “Transparency is important when leading change – the more people are involved in the planning stage, the more acceptance during implementation”

Keynote Speakers

Satya Nadella, Microsoft CEO

- “We will use Artificial Intelligence to augment human capabilities”
- “Be bold and be right, If you’re not bold you’re not going to have a future, and if you’re not right you’re going to be dead”
- “One of the hardest challenges of this digital transformation is that there are a lot of technologies that just feel like a dud until they’re not”

Jeff Smith – IBM CIO

- “Collective wisdom will always outweigh individual insight”

Pat Riley, Miami Heat President and Hall of Fame Coach

- “Change is sanity”
- “Play at the rim”
- “Leadership is about trust, sincerity, competency and dependability”

Pinellas County Business Technology Services

**Gartner Predictions
Jeff Rohrs, CTO**

Partnering to provide the solutions most important to our Customers' Business

2017 Ten Strategic Technology Trends

- Intelligent
 - Advance Machine Learning and Artificial Intelligence
 - Intelligent Apps
 - Intelligent Things
- Digital
 - Augmented and Virtual Reality
 - Digital Twin
 - Blockchain and Distributed Ledger
- Mesh
 - Conversational Systems
 - Digital Technology Platforms
 - Mesh App and Service Architecture
 - Adaptive Security Architecture



Gartner Predictions - By 2020

- 100 million consumers will shop in Augmented Reality
- 30% of web browsing sessions will be done without a screen
- 20% of brands will abandon their mobile apps by 2019
- Algorithms will positively alter the behavior of billions of global workers
- A blockchain-based business will be worth \$10 billion
- 40% of employees can cut their healthcare costs by wearing a fitness tracker



More Gartner Predictions

- By 2021, 20% of all activities in which an individual engages will involve at least one of the top seven digital giants
- Through 2019, every \$1 that enterprises invest in innovation will require an additional \$7 in core execution
- By 2018, through 2020, IoT will increase data center storage demand by less than 3%
- By 2022, the IoT will save consumers and businesses \$1 trillion a year in maintenance, services and consumables

Digital Disruption Scale

Scale	Disrupter	Secondary Effects
DD5	Autonomous Artificial Intelligence (AI)	Urban Design, Insurance, Laws, Car Ownership
DD4	3D Printing	Organs, Manufacturing, Compete with China?
DD3	Conversational User-experience and Bots	Teaching, Literacy, Social Engagement
DD2	Remote Drones	Delivery, Surveillance, Inspection, mapping, imaging
DD1	Augmented Gaming	More Games



Self-Driving Vehicles

- Most major manufactures are developing the autonomous technology
- Michigan is moving towards allowing self-driving cars

<http://www.usnews.com/news/business/articles/2016-09-07/michigan-may-not-require-a-human-in-self-driving-test-cars>

- Uber testing self-driving cars in Pittsburg, PA

<https://newsroom.uber.com/pittsburgh-self-driving-uber/>

- Columbus, OH was awarded the U.S. DOT “Smart City Challenge” \$50 million dollar prize for multi-modal public transportation

<https://www.transportation.gov/smartcity>



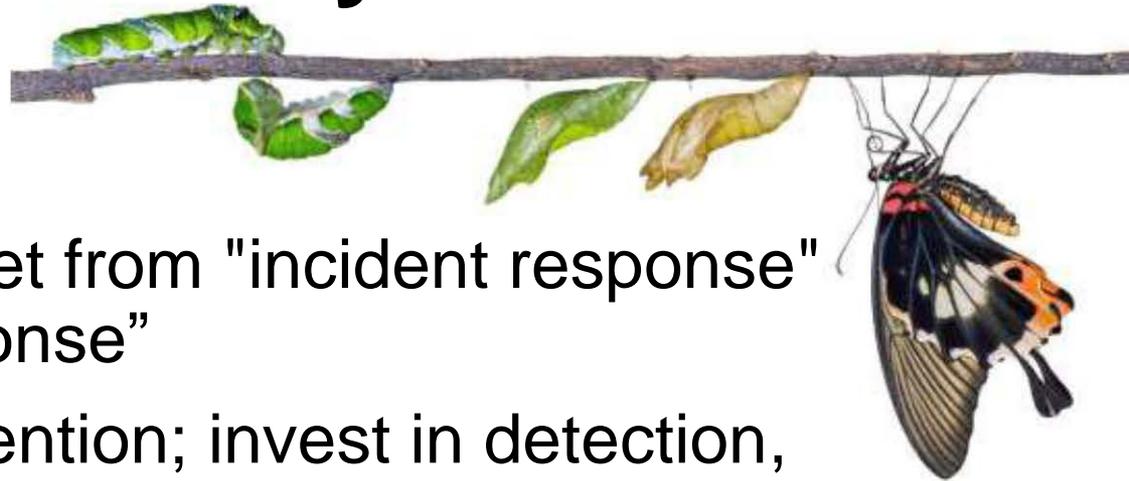
Hillsborough Area Regional Transit

HART is partnering with FDOT on Marion Street shuttle service in 2017.



<http://www.tbo.com/news/transportation/driverless-marion-street-shuttle-will-serve-tampa-bus-riders-starting-next-year-20161028/>

Adaptive Security Architecture



- Shift security mindset from "incident response" to "continuous response"
- Spend less on prevention; invest in detection, response and predictive capabilities
- Favor context-aware network, end-point and application security protection platforms
- Embrace a security operations center model
- Architect for comprehensive, continuous monitoring at all layers of the IT stack

What is Appropriate Risk?

- You can spend every dollar and not be completely protected
- Move from check box compliance to risk based decision making
- Risk is a legitimate business decision but not one everyone can make
- Risk Engagement vs. Risk Awareness
- Security requirements will just become and requirement
- By 2020 60% of the enterprise IT Security budgets will be allocated for rapid detection and response

Pinellas County Business Technology Services

**OPUS 5 Year Anniversary
Marty Rose, CIO**

Partnering to provide the solutions most important to our Customers' Business



What is OPUS?

- Oracle Project Unified Solution (OPUS) is an Enterprise Resource Planning (ERP) solution by Oracle called Oracle E-Business Suite
- ERP systems are modularized software solutions
- OPUS uses the various Finance, Procurement, Project Management, Human Resources, Oracle Learning Management, Payroll and Benefits modules
- BTS Board Resolution No. 09-01 – Created the Oracle Business Application Executive Committee (OBAEC) dated May 21, 2009
- BTS Board Resolution No. 11-01 – Created the membership use of the Oracle Project Unified Solution (OPUS) dated April 21, 2011

Who Uses OPUS?

- Everyone, except Sheriff and Tax Collector, uses OPUS for Payroll
- All departments under the BCC and most departments under the Clerk of the Circuit Court use OPUS for day-to-day operations
- Forward Pinellas (formerly PPC/MPO), Supervisor Of Elections and Property Appraiser use OPUS for Human Resources, Payroll, and Oracle Learning Management
- Tax Collector uses OPUS for Human Resources and Benefits

Happy Five Years OPUS!



Thank You

Certificate of Appreciation

Pam Dubov and Diane Nelson

In recognition of your dedication and service as a member
of the Business Technology Services Board of Directors.



Awarded By:

Martin P. Rose, Chief Information Officer
Business Technology Services

Commissioner Kenneth T. Welch, Chair
Business Technology Services Board