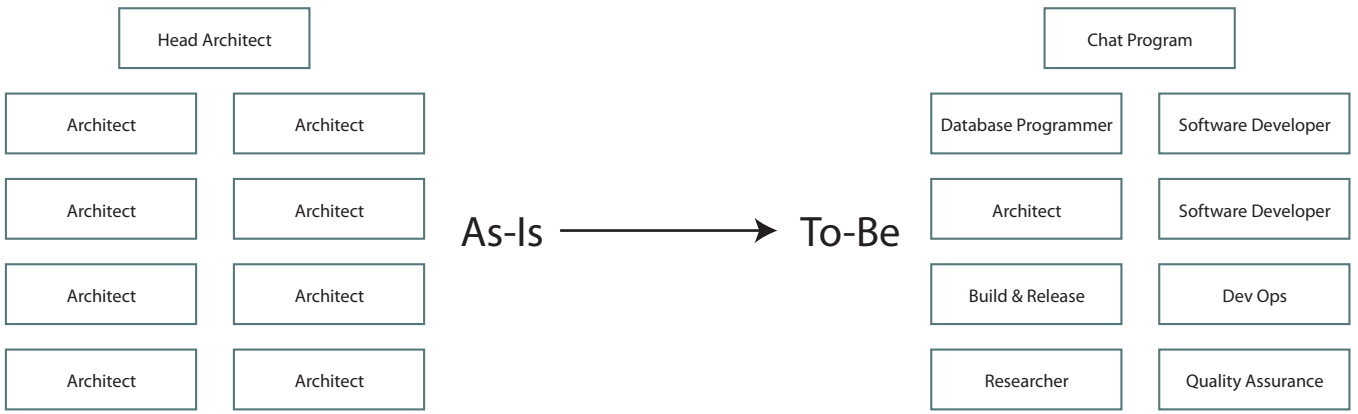
I.T. Portfolio Management

Employees need to belong to small, motivated teams
The team all needs to be working on the same project
The team needs to have a measurable end goal
Each employee needs to be fully accountable to team
The team as a whole needs to be accountable to I.T.
Project/budget creep should be eliminated for team
The team should be reviewed on project/program success

Leaders are responsible for all costs associated with their projects
CIO supports/coaches success, but does not drive any project directly

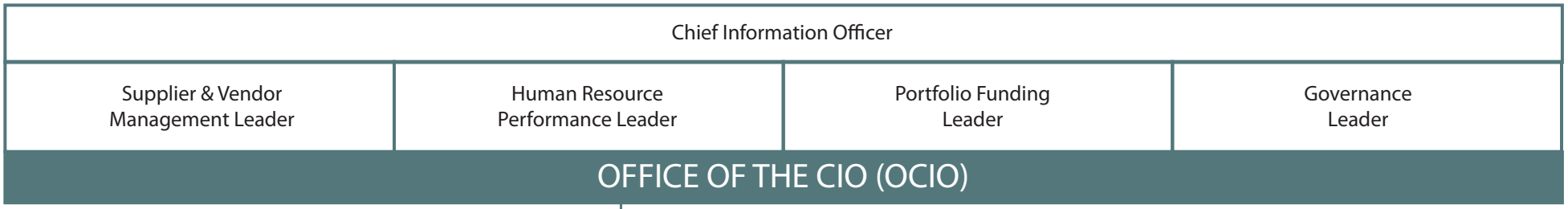


no portfolio/program manager
can purchase anything
all must come through strategic sourcing
purchases/licenses tracked by program

fully loaded personnel costs
assigned to each program
are resources being well used?
find needed resources

manages each program's finances
staying on budget
still need same resources?
how's program ROI?

regulatory requirements met?
team working well together?
on time? will deliver?
sharing best practices?



a portfolio is a set of initiatives with similar themes to facilitate sharing best practices

Portfolio Leaders

each portfolio leader reports to the OCIO

a program manager is similar to a product manager s/he leads a specific initiative within I.T.

- Program Leader
- Program Leader
- Program Leader
- Program Leader

Pool of talent

no project manager... the program manager leads the project(s)

- Architect
- Software Developer(s) — *program manager has to attract the best all vying for the best talent on their teams*
- Database Programmer — *remotes into the data center no local data is permitted*
- Quality Assurance
- Build & Release
- Researcher — *business intelligence business analysis*
- DevOps — *keeps team informed on cutting edge technologies that may help*

each program manager creates a build team working together with portfolio leader

Strawman Portfolios & Programs

note that no industry specific terms are used
to win over technologists, they have to know skills transferable

OFFICE OF THE CIO (OCIO)

Client Interfaces

Digital Channels Portfolio Team

- **Web Program**
  Self-Service
  Search Campaigns
  Content Marketing
- **Mobile Program**
  Point-of-Sale
  Retail & B2B
  Payments
- **Email Program**
  Digital Lead Management
  Marketing Integration
  Pricing
- **Chat Program**
  Virtual Assistance (Chat bots)

Voice Portfolio Team

- **IVR Program**
  Queuing & Prioritizations
  Voice Analytics
- **Telephony Program**
  Telemarketing

Client Services

Data Portfolio Team

- **Metrics & Analytics Program**
  Data Acquisition & Quality
  Management Reporting
- **Machine Learning Program**
  Risk Assessment
  Lead Scoring
- **Data Tools Program**
  ETL & Query Management
  Database Administration
  Data Warehouse

Transactions Portfolio Team

- **Client Relationship (CRM) Program**
  eSignatures & Paperless
  Client Retention & Recapture
  Document Capture/Mgmt
  Client Onboarding
  Major Client Reporting
- **Payments Program**
  Automatic & Semi-automatic
- **Partner Program**
  Data Flows & Transfers
  Service Level Agreements

Client Support

Hardware/Compute Portfolio Team

- **Cloud Program**
  Storage and Database
  Application Platforms
- **Asset Management Program**
- **Performance Monitoring Program**

Compliance Portfolio Team

- **Information Security Program**
  Access & Provisioning
- **Regulatory Program**
  Risk Management
- **Complaint Management Program**
  Verbal, Written and Regulator
  Conflict resolution & mitigation

Corporate Support

Employee Support Team

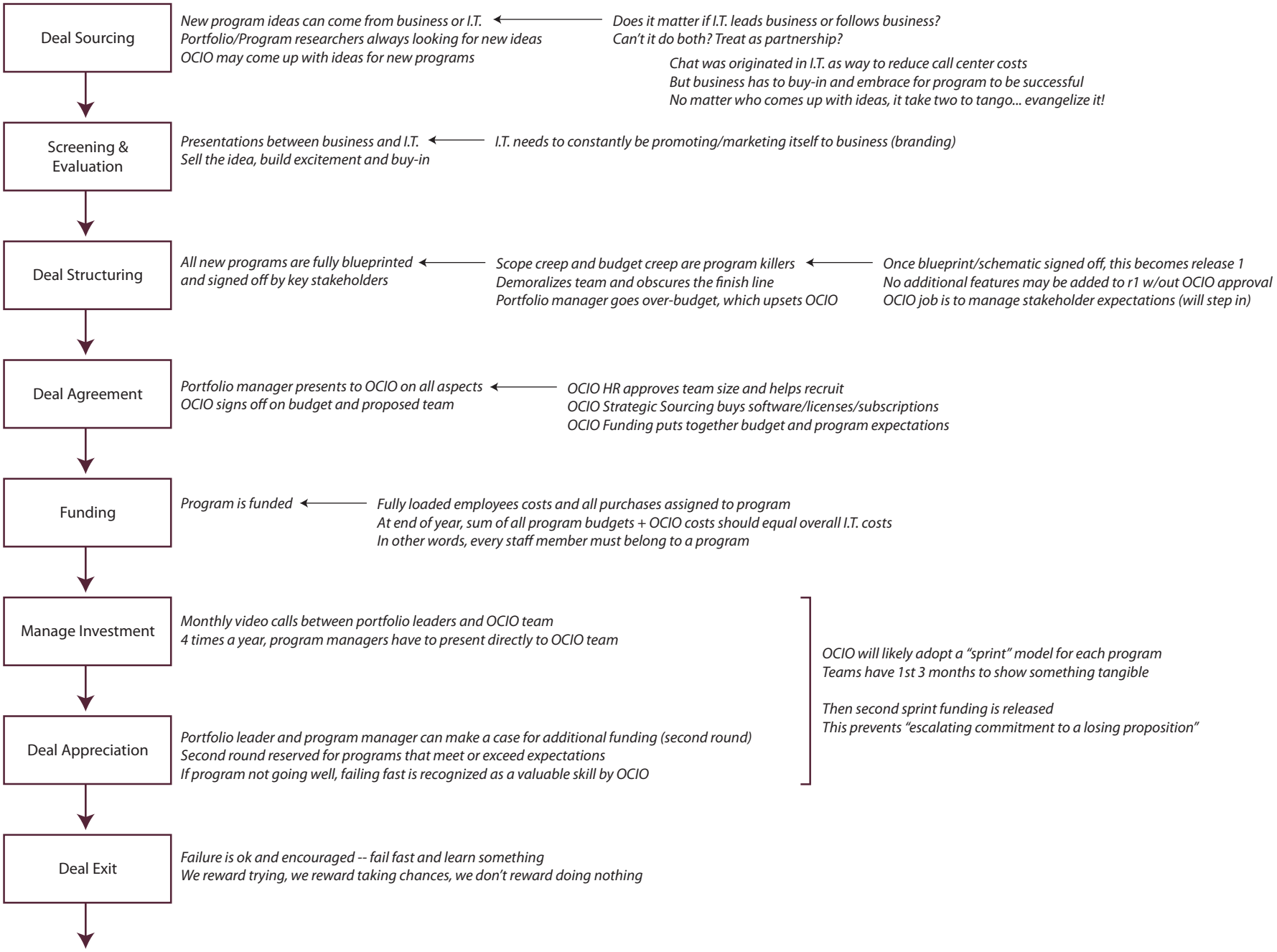
- **Email**
- **Help Desk**
  Technical Support
- **Facilities**

Enterprise Resource Planning (ERP)

- **Finance**
  SAP
  Controls
- **Legal**
- **Human Resources**
  Time & Expense
  Recruiting
  Training
  Benefits

Networking

CIO as a Venture Capitalist



CompStat (OCIO Investment Management)

Manage Investment

Note: Digital Channels cannot make call on data center apps (Data Tools Program), but Sourcing is collecting intel for upcoming Tools call

Example dialogue that might take place during a video conference

Once a **month** - call with each **portfolio** leader
Other than that, leave the portfolio teams alone...

Digital Channels Portfolio Leader

Video Conference

Website needs to go to cloud
Can you light a fire under hardware portfolio team?

- Sourcing — *We have a statistics package no longer needed by a program... any interest? No charge for a month...*
  Do you still need Oracle licenses? When will you be transitioned to SQL? Can we use open source?
- HR — *You are 6 months into the project... why do you still need an architect? Can we see what your researcher is providing?*
  Do you need more software developers? You might start to fall behind schedule...
- CIO — *Microsoft just had their Build 2016 conference and talked a lot about chat bots. What do you think?*
  Could we put your researcher on chat bots and hear more about it during next month's call?
- Funding — *You are doing great and staying within budget. At about 6 months, we do see stresses on budget*
  I am increasing your budget 10% for 3 months, just as padding
- Governance — *Have you gotten legal sign off yet? Do you need me to call Chief Risk Officer?*
  How's it working with the central data warehouse? Any issues we need to bring up with Data Portfolio Team?

Collecting intel

OCIO observes trends across all programs
Can intervene before necessary
Example? 3rd sprint prone to falling behind

Once a **quarter** - call with each **program** leader
Other than that, leave the program teams alone...

Chat Program Leader

Video Conference

- Sourcing
- HR
- CIO
- Funding
- Governance
- Digital Channels Portfolio Leader — *Portfolio leader flies in to sit with OCIO team and do a more detailed portfolio walk-through*

OCIO speaks with every portfolio leader once a month and every program leader once a quarter (this almost acts as a performance review)

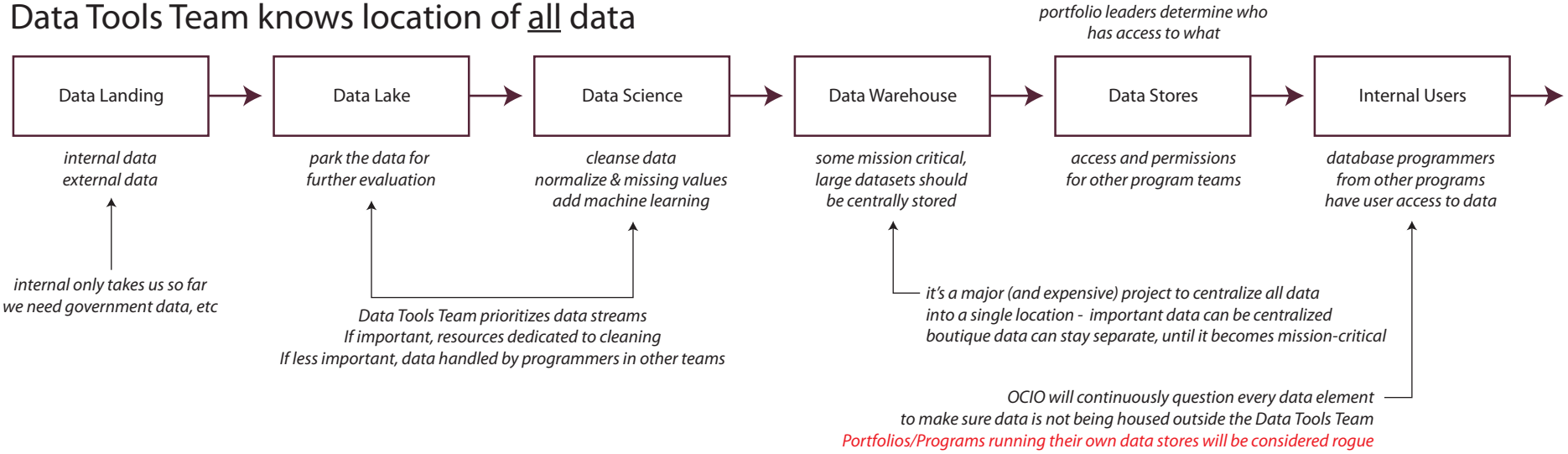
Most important, problems cannot go undetected for more than a month/quarter
Allows for early interventions and for OCIO to go fight battles for I.T. team
Allows OCIO to see if portfolio leader and program manager on same page

Both Democrats and Republicans embrace CompStat approach to accountability
Police Commissioner William Bratton introduced in New York City (21 years ago)
Meetings were monthly and mandatory -- crime dropped 60%
Been adopted all over the country and world - CompStat 2.0 available to public

We may create a mobile app for all I.T. employees
Shows progress/updates for every program

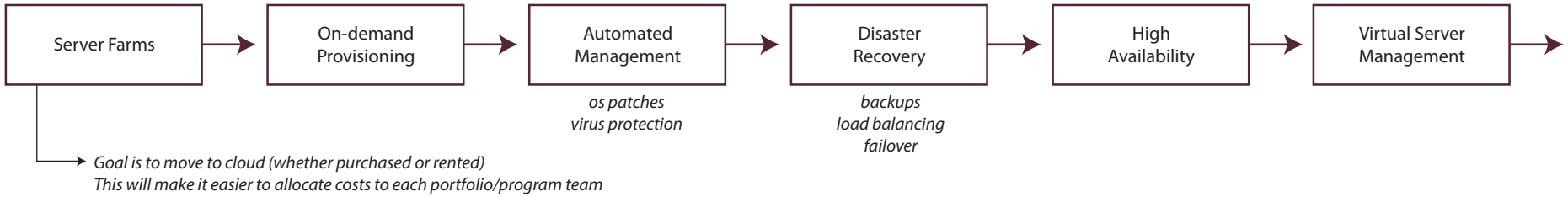
Data Portfolio Team

Data Tools Team knows location of all data



All Portfolios/Programs expected to use/leverage Machine Learning Program Team

Hardware Portfolio Team



Additional Items

No portfolio leader should manage more than 5 programs

Recommend portfolio leader have a weekly 1 hour call with each (entire) program team
Attendance is mandatory - same time every week, team members can plan for next year

Autonomy is important

Program managers should expect 4 out of 5 days to be left alone
Portfolio leaders should expect 29 out of 30 days to be left alone
Let program call portfolio call OCIO -- otherwise do your jobs

OCIO may decide to hire field consultants (VPs with no reporting responsibilities)

Client Interfaces	Client Services	Client Support	Corporate Support

Might have four consulting VPs, highly paid to make sure portfolios are successful
Specialists in standing up new programs - handle blueprintng and executive buy-in (scope/budget creep preventers)
Move from portfolio to portfolio consulting and seeing how they can help overall program success
These are not spies and are not in charge. They are cleaners, troubleshooters, people who can remove obstacles
Field consultants/engineers have the full backing of OCIO - do not ignore their calls

OCIO meeting process is rigorous

Recommend portfolio/programs email essay-type answers to 5 standard questions 3 days before each meeting
A 6th question is customized for each portfolio and changes each month/quarter
6th (custom question) designed to keep leaders on their toes and allow OCIO to get more specific
Portfolios and programs will be treated as stand-alone businesses with OCIO's capital, expectations are high
OCIO team members are expected to ask tough questions and hold presenter 's feet to the fire

OCIO can update business executives as often as they want to be updated

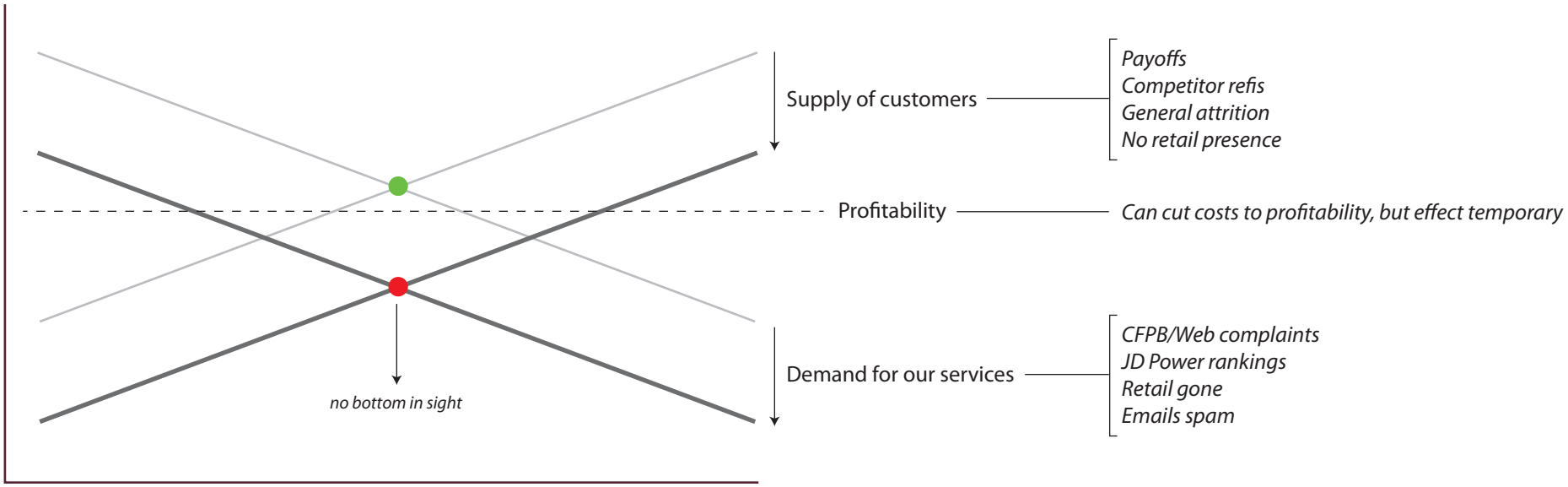
2 year rotations into the OCIO may be considered

Weekly can be deep dive into a few projects, with more detail shared
Monthly can be an overview of all portfolio teams
Quarterly can be a report on every project happening in I.T., if executives would like that level of detail

OCIO 100% accountable to the business

CFO gets detailed reports on all I.T. spend from the OCIO Funding leader
COO gets detailed reports on all project status' and expected outcomes
Chief Risk Officer gets reports from OCIO Governance leader
HR gets reports from OCIO Human Resources leader
CEO gets strategic reports from CIO on project status and new ideas being presented

Critical Need



Big banks servicing down 14% from two years ago
Rocket Mortgage is right now focused on speed, not quality
SoFi focused on whole person, e.g. degrees and schools attended
Refinancing slowing down as rate increases and Govt. programs retired
56% of Americans are subprime - no one is focusing on this group
Machine learning may help us target this subprime group
- Are all subprimes equal? Are some better risks than others?
- ML can digest and analyze 50+ areas of an application

Machine Learning can help predict "probability of default"
- 3MM+ historical loans can be studied, with emphasis on financial crisis
- Models remove (never see) all discriminatory features

Other opportunities for machine learning
- Use it to help predict which loans may become delinquent
- Help marketing with customer segmentation for SmartWatch
- Look at it for analyzing call center volumes and complaint data

Recommend immediate investment in ML experiments
- If we wait, competitors will get a leg up on us
- We need time to learn and tune (ML new to everyone)

How SoFi can ruin fintech for everyone
TechCrunch - 2 days ago
I'm going to start by saying I'm actually a huge fan of SoFi. I think they have a great product, ...

The company claims its underwriting approach, proprietary technology and word-of-mouth referral rate (currently 30 percent of its volume) is what sets it apart from banks and other lending institutions. A wide variety of venture funds are backing SoFi, including Third Point Ventures, Renren and Baseline Ventures. The company has raised nearly $800 million since it was started, and CEO Mike Cagney has publicly stated he envisions an IPO in the next year.

"Machine learning is a core, transformative way by which we're rethinking everything we're doing" - Google CEO

"A break through in machine learning would be worth ten Microsofts" (Bill Gates)

"Machine learning is the next Internet" (Tony Tether, Former Director, DARPA)

#1 Stanford University class

Appendix:
Questions & Answers

Has this approach been implemented before?

Microsoft uses something similar to this approach (Program/Project) to manage teams as diverse as Halo gaming to a specific machine learning algorithm. Google and others probably have a similar approach (Gmail team, Cloud team, etc) This approach is more based on consumer product companies. Whether bringing Tide, Rain-X wipers or Cherrios to market, these teams have overall responsibility and are accountable for sales figures. Product teams are ultimately responsible for success and failure of a product. We are borrowing this approach from them.

What's to prevent chaos inside the teams?

There are two checks on each team member, the program and portfolio leaders. Going rogue will be caught, probably within 30 days, definitely within 90. Teams would need to almost be conspiratorial to keep something significant from the OCIO. The program manager is running a business. The portfolio leader is running something equivalent to a VC fund. Neither want to be on the hook for bad behavior.

The deck does not mention talent acquisition?

I.T. talent will be less likely to pay attention to stock prices and consumer complaints. In fact, they may see the challenge in coming into a fixer-upper. What they will not tolerate is disorganization and inefficiencies. They want to work, work hard and not be bothered with bureaucracy and politics. Once this consumer model is in place, promoting it will attract the right talent. Start everybody (new) as a contractor.

What are the weaknesses in this model?

Responsiveness. Program teams will complain about holdups in getting resources, technology licenses, space in the cloud, access to data, etc. This has to be mission #1. Do it and ask for forgiveness later. Program teams should have zero excuses for not getting the job done. OCIO has to deliver.

What will staff think of this model?

Executives will see it as driving full accountability. Staff will see it as protection. Each will feel protected from all the chaos that happens in the upper ranks. Scope creep will be stopped. Calls will be at a minimum. Program managers will provide specific tasks. If staff feels a conflict, punt to program manager... that's what they are there for. First question OCIO will ask staff member in quarterly call? When did you mention this to PM?

Should we call it CompStat?

No. Let marketing brand it or have no brand. But while designing a new approach to I.T., it's important to leverage best practices, like CompStat and the consumer product model. These are executive-level concepts that will be repackaged when rolled out to staff.

Should staff be collocated?

No. There is nothing less motivating to a programmer than to sit in a cubicle. Let them work at night, in their pajamas, wherever. Staff is there to deliver the wins, not for planning and strategizing. One call a week for entire team fine. Program manager can check in as needed/requested.

What if the business side is being difficult?

Staff tells Program manager. PM tries to deal with business. No dice? PM tells portfolio leader. Now, it's escalating. Portfolio leader should leverage the 4 VP field engineers/consultants. These I.T. leaders spend more time with business execs than with I.T. Their mission is to learn as much about the business as possible. They will be excellent at resolving conflicts with business. If that fails, send conflict to OCIO. Business leaders will be told if resolution cannot be found, CEO will have to mediate.

Will this model work for keeping the lights on?

Absolutely. Some project teams will exist to support all the portfolio teams. This is not an admin position. This is a mission critical position. These specialized teams will be well treated by all staff and portfolios, since they hold the keys to much needed resources. Data Tools and Cloud Program are excellent examples.

How will this impact the I.T. stack (over 100 different technologies)?

This is the charge of Strategic Sourcing in the OCIO. The goal is to keep the stack relevant and bleeding edge, while sunsetting outdated technologies. Expect to standardize on one database platform soon. Sourcing will have metrics on how often a technology is used. During CompStat, expect to be asked why a multi-thousand dollar license was only used twice in the last month. Use it or lose it.

How does this fit with Gartner's bimodel IT model?

(http://www.cio.com/article/2875803/cio-role/what-gartner-s-bimodal-it-model-means-to-enterprise-cios.html) The program team does both. They deploy the technology. They service the technology. They renew the technology. They transition the technology. The upgrade the technology. Both modes sit within each program team. If there is an assumption that certain programs will only be stability and efficiency, this is wrong. All teams are expected to drive improvements... whether it's SAP, hardware asset management or chat. Be creative. Always be moving the needle.

How does the business participate in this model?

Program managers interact with business staff continuously. Portfolio leaders update business execs on progress and obstacles. Business can always contact OCIO directly if there are problems. While there is a standard model for I.T. projects and delivery, it's up to each portfolio leader to find the right way to communicate with the business. The business is responsible for providing a SPOC for each program. This is mandatory. The senior executives are briefed directly by the OCIO. By the way, if OCIO contacted directly, always has the I.T. teams back. 100% loyalty.

How does business and I.T. prioritize initiatives?

This is all pre-program. Once chat (for example) goes to program status, gets funded and gets resources, it is a priority. Business will need to wait until more funding becomes available or heavy lifting on an early-stage project frees up resources. But again, if it goes to program status, the decision has been made. VP field consultants can help business side queue up and make cases for additional programs.

What about information security and managing all the regulations?

We will have an information security program inside the compliance portfolio. Any staff/team can consult as needed. InfoSec will perform audits of technologies before delivery to ensure security and regulatory compliance. They will also have a direct connection to all data in the data portfolio. OCIO governance leader will not do the reviews, but will ensure that program teams are doing their own self-audits (pre-InfoSec review) and complying with standards.

What if we tried something before and it did not work?

Take chat for example. Many tried it in previous jobs. We even tried it years ago. A) is it chat's fault or our fault for poorly implementing chat? And B) technology changes every 18 months. The chat of today may be light years ahead of the chat 5 years ago. Just because it did not work yesterday, does not mean it won't work tomorrow. It may actually take virtual chat bots to make chat a success, but we need chat in place first!

How will this affect performance reviews?

Program managers review staff. Portfolio leaders review program managers. CIO reviews portfolio leaders, with input from OCIO team and field consultants/engineers. Raises and bonuses will be divided up by portfolio performance. Portfolio leaders will further divide by program performance (with OCIO sign-off). Note: performance reviews should contain zero surprises. There is more than enough face-time and feedback throughout the year. 4 times a year, every member of I.T. gets an audience with the CIO.

Within technologies, should I.T. lead the business or should I.T. follow the business (needs)?

Either. This is like asking if a husband or wife should make 100% of the decisions. Business leaders are not going to read up on virtual chat bots. I.T. is not going to interface with BofA. Either group can suggest a new technology for program status. Remember, if you deploy chat and the business does not embrace it, that is an I.T. failure. If machine learning is developed and marketing does not embrace the prospect segmentations, fail. Tech has to evangelize the business and vice-versa. You win and lose together.

Do we need a chief architect?

No. Sourcing will help control a runaway stack. Governance will set boundaries. Funding will set expectations. HR will provide more of one type of coding resource. The architect on a program team already has boundaries set at the OCIO. Let each architect work within those boundaries to create a best practice for that team.

Do we need a chief data officer?

No. Data is not there to be controlled. Data tools (team) will probably not understand most of the data in it's charge. Data is like a local library. It's there for program teams to check out. But data tools organizes it (i.e. dewey decimal) and makes sure you are really using the data. A service like this does not require an OCIO executive.

Who owns the product/project roadmaps?

The program managers. Roadmaps are managed as close to the finished product as possible. Portfolio leaders have multiple programs to lead. Program managers have only one. The portfolio leaders should always assume programs are going well unless called. Don't micro manage, just like the OCIO should not micro manage the Portfolio leaders. Give staff room to breathe. OCIO is not going to want to hear that portfolio leaders are calling a program manager every single day (in the quarterly PM reviews).

What is the role of the 4 VP field consultants/engineers?

The OCIO is a service organization, not a leadership organization. We are here to remove obstacles and provide access to resources as fast as possible. Bottom line - OCIO removes excuses for poor performance. The 4 VP specialists are an extension of this paradigm. Agreements will be made with business execs that 4 VPs are to be invited to audit (listen to) any business line meeting or conference call. They are constantly on the prowl for insights into business-side leadership. Their only specific function is to stand-up new programs. No one else can blueprint a new program for funding. Portfolio and program leaders are expected to be very responsive to these VPs. They know the business. Use them!