Financial Plan Refresh

Public Workshop

February 9, 2022

Information Technology (IT)

Executive Ownership: Benjamin L. Berry
Executive VP Information Technology and Chief Information Officer
Today's Presenter: Michael J. Harris
IT Asset Manager

IT Capital Prioritization Framework
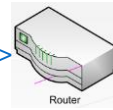# Asset Base

Office Automation:
  Desktop/laptop
  Monitors/keyboards/cameras
  Smartphones
  Local computer applications
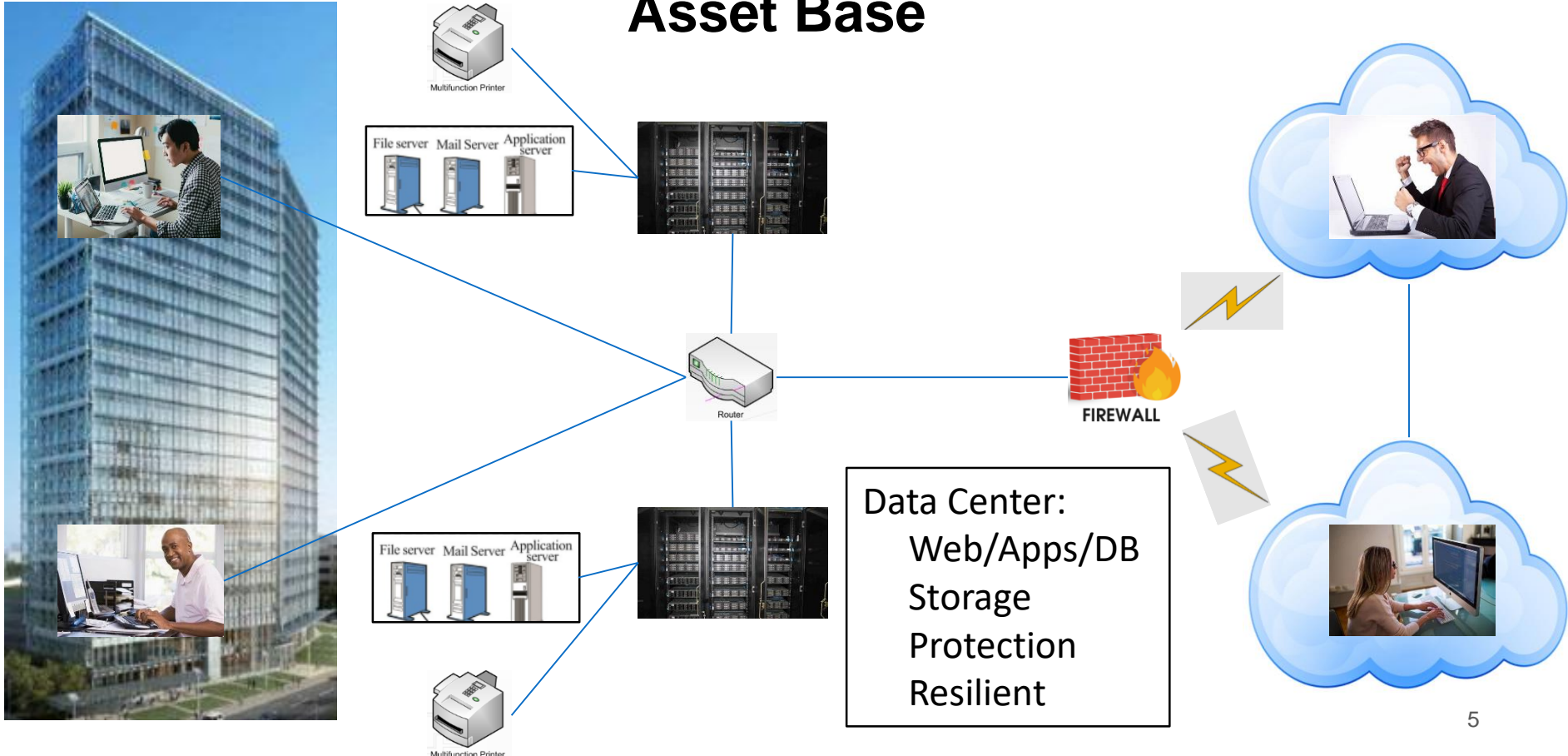
IT Capital Prioritization Framework
Asset Base

Network:

  Wired/wireless
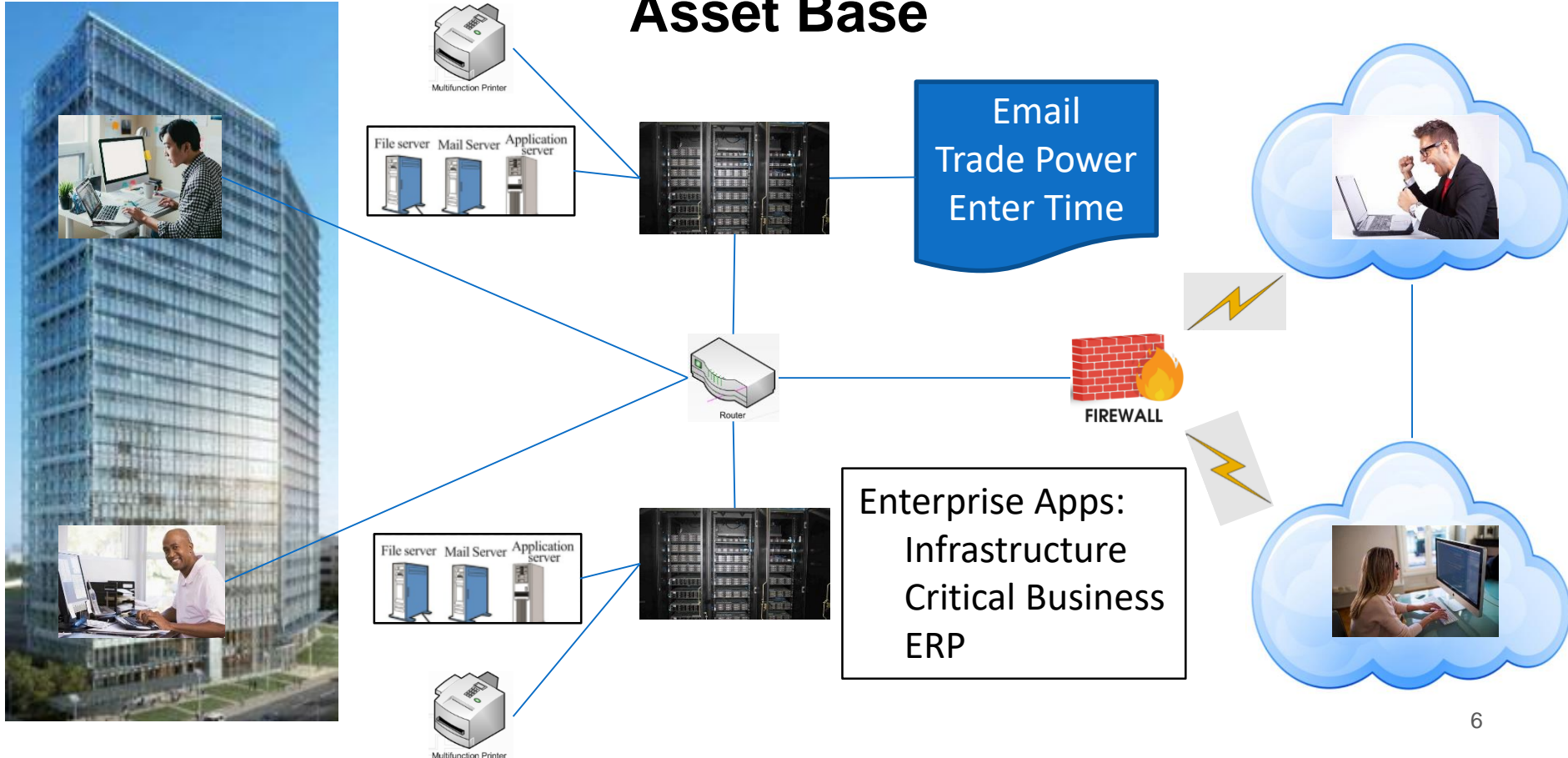 Routers/switches
  Voice/data
  Security

IT Capital Prioritization Framework
Asset Base

Data Center:
    Web/Apps/DB
    Storage
    Protection
    Resilient

IT Capital Prioritization Framework
Asset Base

FY22 BPA IT Operations & Asset Inventory

Business Solutions (Applications)

- Critical Business Apps — 27
  - Integration Interfaces — 89
  - Energy Imbal. Mkt. Interfaces — 111
- Enterprise Business Apps — 137
  - Integration Interfaces — 195
- Total J-org Business Apps — 559

IT Client Services

- Desktops/Laptops — 3,046
- Tablet/2-in-1 — 180
- Thin Clients (myPC) — 1,346
- Mobile Thin (myPC) — 180
- Rugged — 496
- Printers — 537
- Service desk calls/mo. — 2115
  - Resolved in 4 hrs. — 73%
- Trouble tickets/mo. — 2263*
- Queue time — 2:52min
- Abandon rate — 5%
- 1st Tier resolution rate — 71%

* Includes calls and email request

Networking & Communications

- Firewalls — 198
- Total Network Nodes — 21,561
  - Desktop Connections — 20,579
  - Server Connections — 797
  - Wide Area Network Links — 180
  - Internet Links — 5
- Switches/Routers — 478/188
- Cellular Devices — 3,093
  - Smart Phones — 1,670
  - Standard Cell Phone — 223
  - Data Only Devices — 1,086
- Data/Voice Circuits — 382
- VoIP Desk Telephones — 5,031

Infrastructure & Data Center(s)
(Includes Dev, Test and Prod)

- Windows Servers — 2,396
- Unix/Linux Servers — 291
- Virtual Hosts — 155
- Storage Area Network
- SAN Growth/year — 185TB
- Virtual SAN Used — 1.8PB
- Free — 1.4PB
- Databases — 2,473
- Standard account users — 4,678
- Elevated account users — 612
- E-mails Received/year — 18,420,171
- E-mail Flagged [BULK MAIL] — 46%
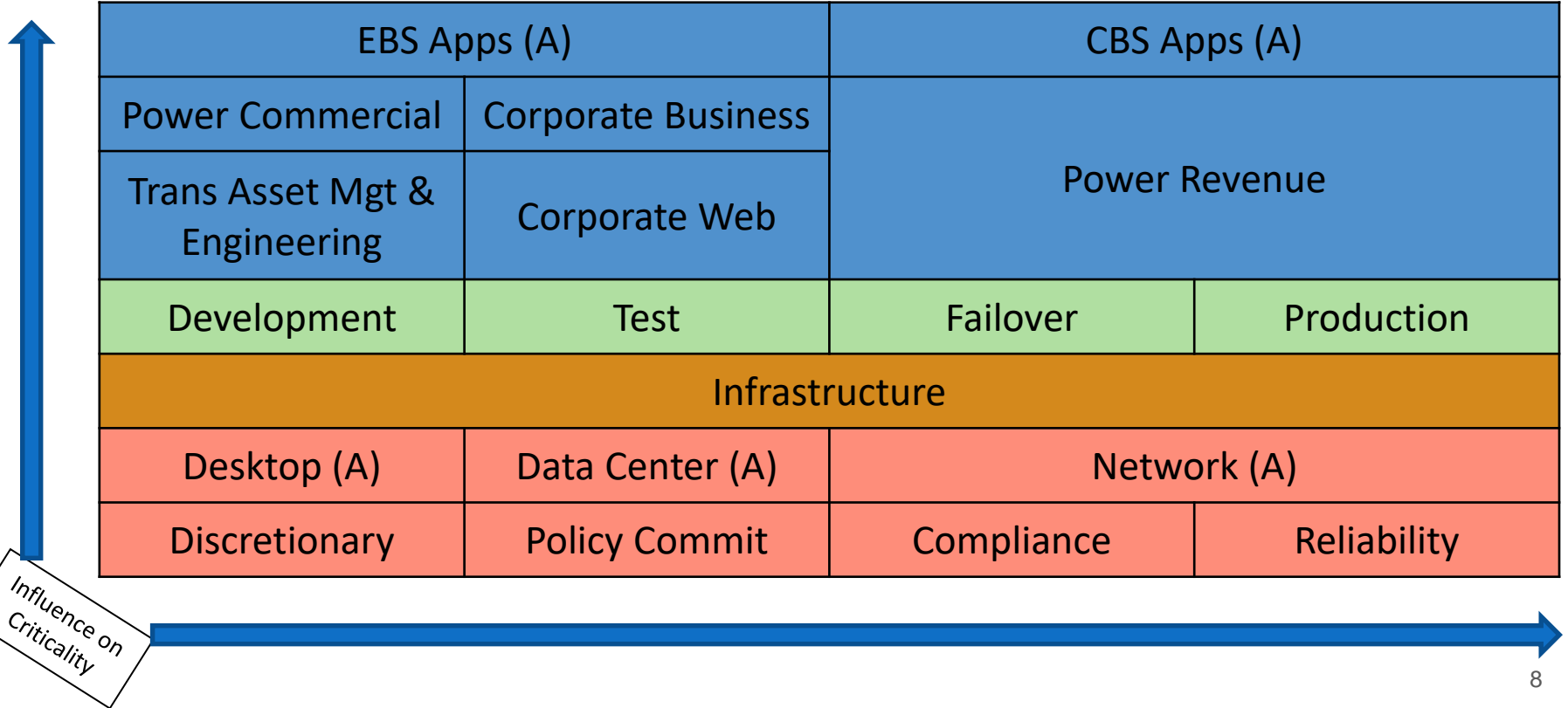- E-mail Viruses Blocked/year — 9,148
- Ransomware Prevented/year — 331

TEAM Profiles MEET IT Help Desk

IT Capital Prioritization Framework
Criticality

EBS Apps (A)		CBS Apps (A)	
Power Commercial	Corporate Business	Power Revenue	
Trans Asset Mgt & Engineering	Corporate Web		
Development	Test	Failover	Production
Infrastructure			
Desktop (A)	Data Center (A)	Network (A)	
Discretionary	Policy Commit	Compliance	Reliability

Influence on Criticality

IT Capital Prioritization Framework
Asset Health

Value delivered

Cost to maintain

Applications:
DOE: N-1
About 4 yrs

Age Based – Hardware (3 yrs)

Year

0.00   1.00   2.00   3.00   4.00   5.00   6.00

■ Premature   ■ Normal   ■ Extended   ■ Past Due
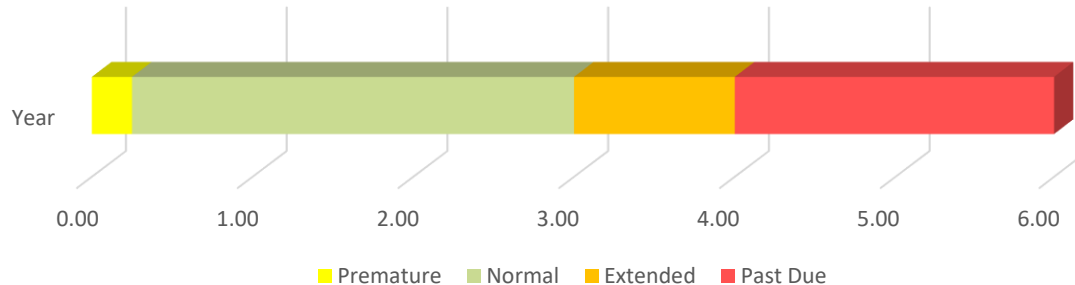
IT Capital Prioritization Framework
Asset Risk

IT Failure Mitigation:
        Modularity
        Redundancy
        Local vs regional
        Security Patching

- Cyber Security Program
    - Human – insiders, social engineering, phishing, etc.
    - Malware – email, ransomware, internet probing, etc.
- Financial
    - Value vs cost (benefit tracking)
    - Shrinking budget capacity vs rising demand

IT Current State

➢ Age-based refreshes for IT hardware are simple, but work.

   ➢ Some hardware can stretch.

   ➢ 90% of hardware assets are included.

➢ Software assets are a bit tougher

   ➢ Variety and vendor dependencies

   ➢ What's in a version?

   ➢ User acceptance

IT Current State

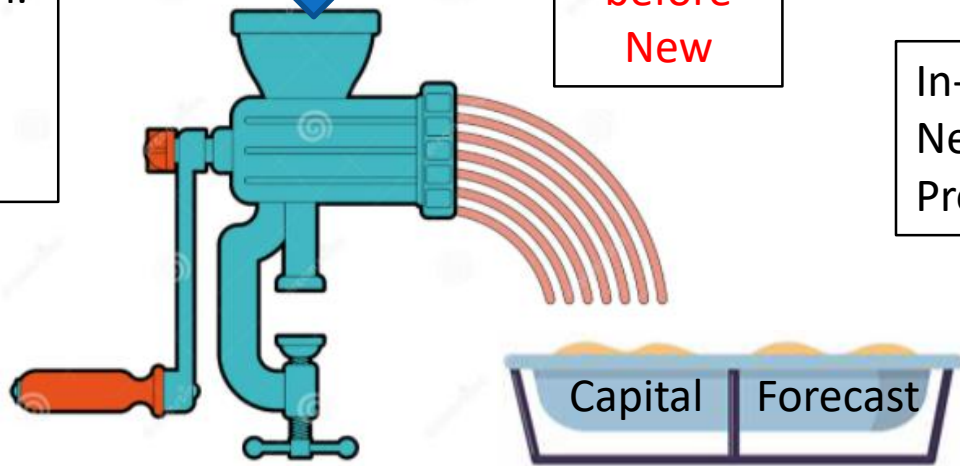| Future Improvements |
|---|
| <u>Reliability</u> - Measures the asset's ability to deliver capabilities without disruption of service or operations.   Metric is intended for hardware and for software systems. |
| <u>Financial Value</u> - Intended to be applied to discretionary systems where the annual cost of operations is greater than the annual business value being provided by the system. |
| <u>Business Needs</u> - Measures how well the solution is meeting business needs. Requests for high levels of enhancements indicate the solution is not meeting current or evolving business needs. This is an indication that either a major upgrade is needed or a new solution may be needed to meet current and/or future business needs. |
| <u>Security and Risks</u> - Measures if the asset is adequately addressing security (POAM items) and risks. |
| <u>Continuity of Operations</u> - Measures the asset's ability to meet COOP/DR requirements. |

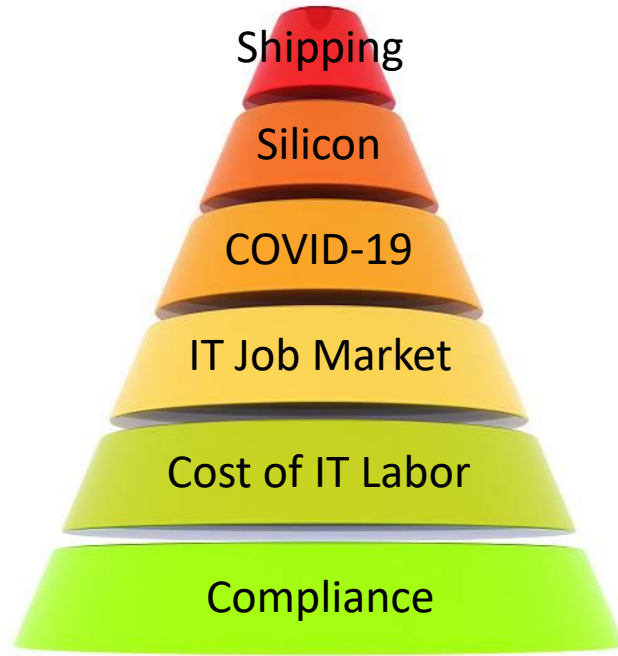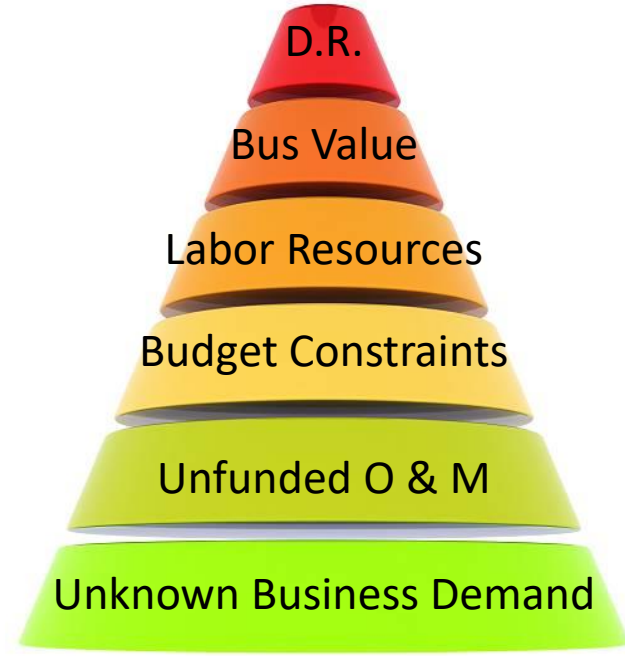# IT Capital Forecast Process

CIO Budget Analyst

IT PMO

IPR History.
Financial History.
Financial Determination.
Agency Strategy.
Asset Plans.
Finance Organization.

Maintain
before
New

In-flight Projects.
New Project Demand.
Project Backlog.

Capital   Forecast

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IT Capital Forecast Process

Shipping

Silicon

COVID-19

IT Job Market

Cost of IT Labor

Compliance

External Influences

D.R.

Bus Value

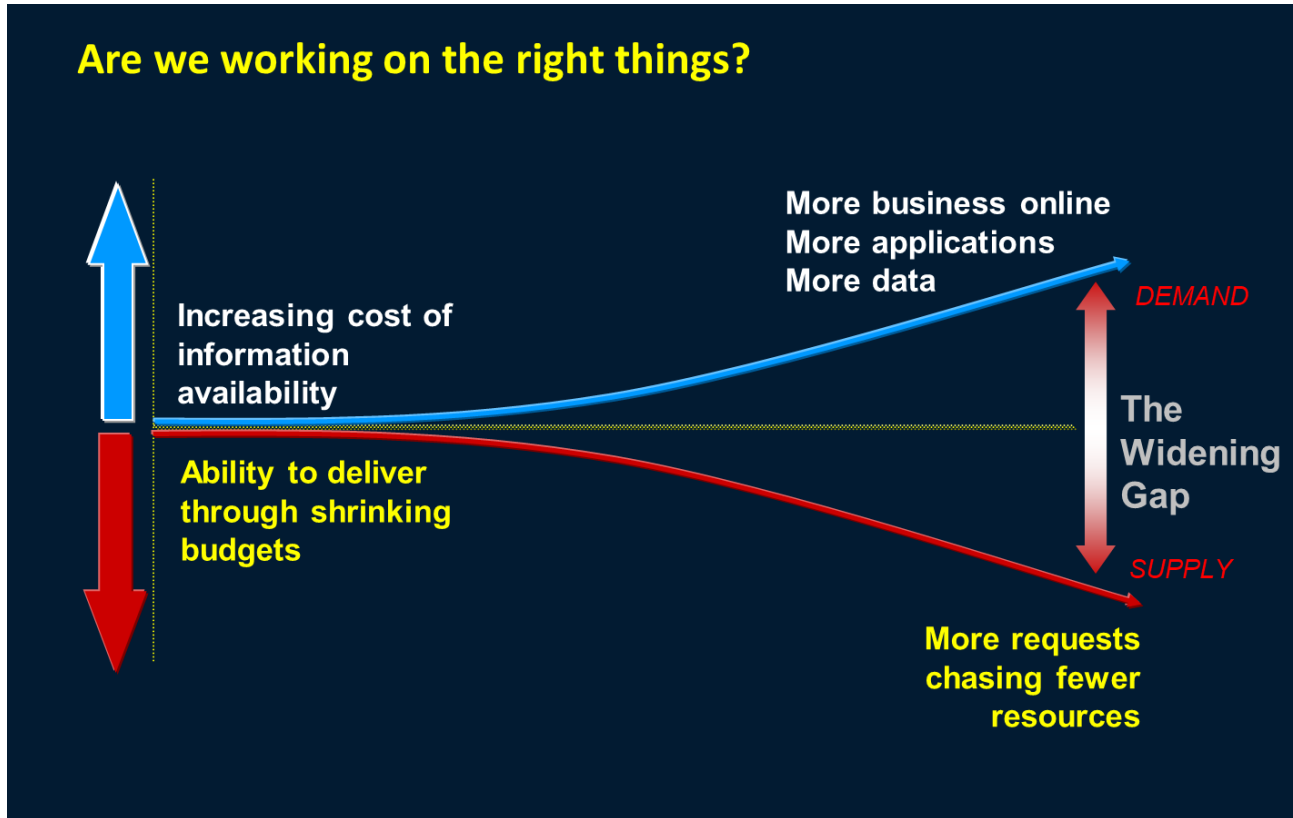Labor Resources

Budget Constraints
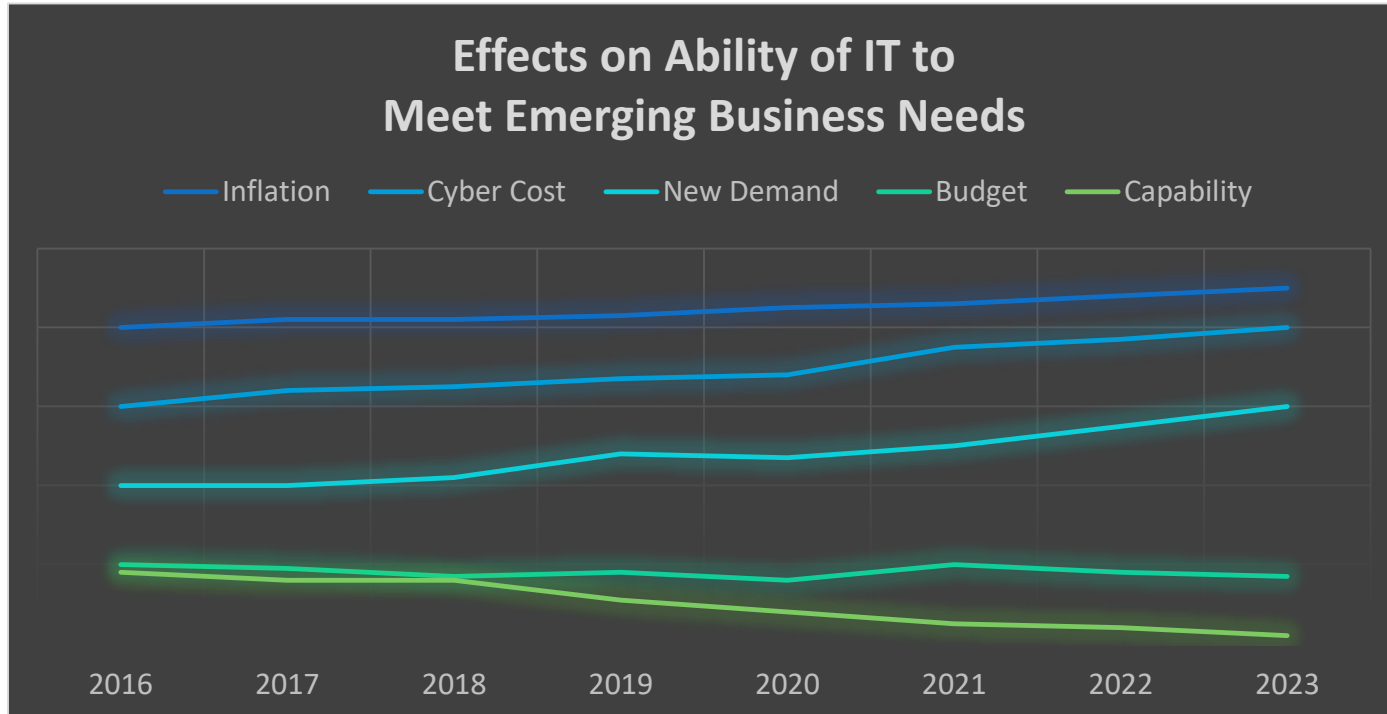
Unfunded O & M

Unknown Business Demand

Internal Influences
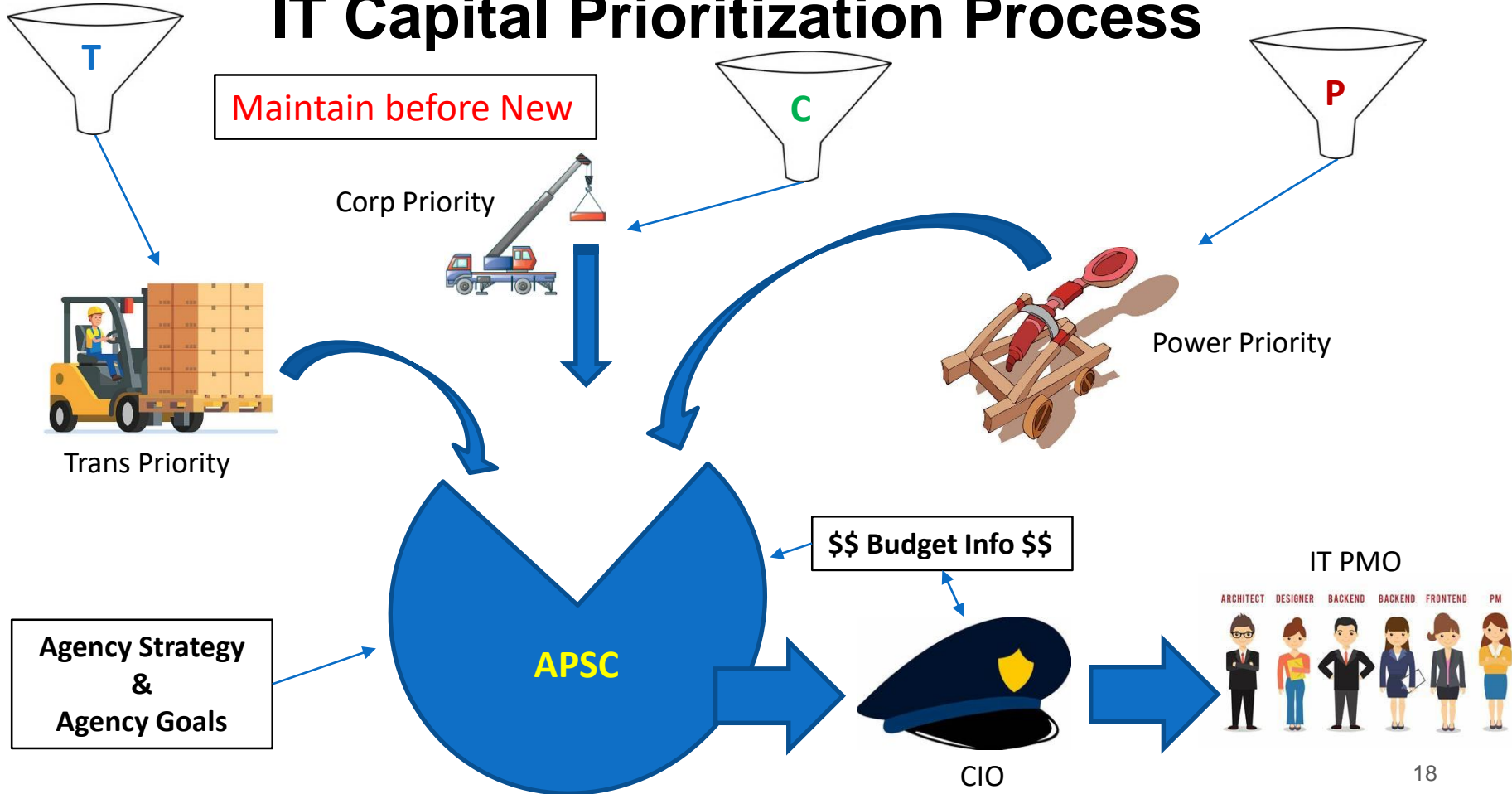
IT Capital Forecast Process
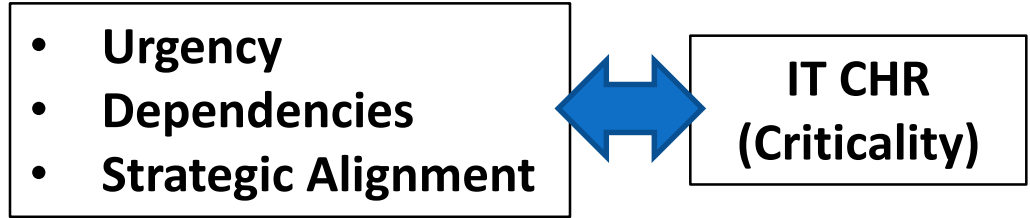
IT Capital Forecast Process

Uncertainty in IT Forecasting

➢ Complexity:
  - ➢ Crossing fiscal year borders
  - ➢ Scheduling downtime
  - ➢ Business SME availability (requirements to user acceptance)
➢ Known projects:
  - ➢ 50%-60% initial accuracy
  - ➢ Financial determination – capital vs expense
  - ➢ Long before solutions analysis
  - ➢ Customization
➢ Unknown projects
  - ➢ Which business line and when?

IT Capital Prioritization Process

Maintain before New

T

C

P

Corp Priority

Power Priority

Trans Priority

Agency Strategy
&
Agency Goals

APSC

$$ Budget Info $$

CIO

IT PMO

ARCHITECT   DESIGNER   BACKEND   BACKEND   FRONTEND   PM

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IT Capital Prioritization Process

- **Urgency**
- **Dependencies**
- **Strategic Alignment**

⟷ **IT CHR (Criticality)**

Cross-Org APSC

- **Prioritize**
- **Monitor**

- Costs
- Benefits
- Impact of not doing
- Monitor: Scope/Schedule/Cost

Additional Criteria:

- Definition
- Sponsorship
- Impact

Questions?