Dealing with Lack of Technical Staff

- **47%**: Understaffed
- **23%**: Fully staffed
- **30%**: Need to hire to expand

Source: CompTIA’s Q2 2016 Business Confidence Index | Base: 277 U.S. IT executives
Outline

• What is the IT Infrastructure Library?
• ISO 20000 & ITIL
• The Service Lifecycle and You!
  – Strategy
  – Design
  – Transition
  – Operation
  – Improvement
• PDCA and how it relates to Troubleshooting Theory
• Service Management
  – Capability, Resources, Service, Portfolio
  – Change
  – Release
• Incidents and Problems, your bread and butter
• Service Desk
• ITIL and other Methodology
What is the IT Infrastructure Library

• ITIL is a set of global bests practices that focus on aligning IT with the business.
• Not Line of business specific, should work in any industry
• Covers 5 volumes/books of IT Service Management Lifecycles
ISO 20000 & ITIL

• IS/IEC 20000 is the first international standard for IT Service Management
• Originally intended to represent ITIL, expanded to include major players
  – Microsoft Operations Framework
  – COBIT
The Service Lifecycle and You!

- The Service Lifecycle outlines the birth of an IT service to its ongoing support and operation as it aligns with business needs
  - Strategy
  - Design
  - Transition
  - Operation
  - Improvement
What is a Service?

• A service is a means of delivering value to our customer by giving them the results they are need
• Identify business needs and create services that cost effectively support them
• The IT Organization makes transparent the services they offer so the business can take advantage of them
Service Lifecycle: Strategy

• Architecture and Planning
  – Intent is to implement basic Service Management
  – Consider how this technology drives and impacts the business objectives
  – Investigate affordable & wanted features
  – How technology and features will need to adapt over time
Service Lifecycle: Design

- Adding, changing and removing
- Start building your catalog, the menu of what you can do
  - Service Level Agreement/Expectations
  - Capacity and Availability
  - Continuity; availability in the case of a major event
  - Last but not least, SECURITY!
Service Lifecycle: Transition

• Ensure all the work we’ve done so far meets business expectations
  – Manage and mitigate risks
  – Deploy services/code into production environment (RADM)
  – Build testing and validation standards
  – Assets, Configuration and Change management (SACM)
  – Knowledge Management
Service Lifecycle: Operation

- This is where most of your work is and where most services exist
  - Health & Event Monitoring
  - Incident Management; get back to normal
  - Request Management; order from the menu
  - Access Management
  - Problem Management; Root Cause analysis and reduce incidents
Service Lifecycle: Improvement

• This should be a part of every phase, start and finish
• Ensure we continue to provide value to the customer and increase quality
• PDCA Cycle Deming Model
• Measure, Monitor, move the needle(s)
  – Processes, Costs, maturity/capability
  – SMART (specific, measurable, accurate, repeatable, timely)
• Customer Feedback
PDCA and Troubleshooting

• Plan
• Do
• Check
• Act
Change

• A process that makes or breaks an organization
  – Manage ALL changes to services and systems to limit service disruption
  – Tie IT changes back to business benefit
  – Often the root cause associated with a problem record
  – Standard, Normal, Emergency
  – CAB and ECAB
Knowledge

- Well maintained, available and useful documentation
- Search, tag, update and make available information
- Data, Information, Knowledge and Wisdom
- Covers KB Articles, config management, asset information, even change
- Important to make articles able to be updated!
Incident

• What our customers tend to think of as ‘IT’
• Ideally we find an incident before our customers do (event mgmt)
• Stop the bleeding, Restore service
• Please please please create incidents when you fix problems
• Classifications that dictate priority
• Status categories; often over complicated

![Meme](image.png)
Problem

- Problem is the root cause of some number of recurring incidents
- Reduce frequency of repeat incidents
- Improve service reliability, customer experience, etc
- Known errors can be problems, but still have workarounds
- Root Cause Analysis (RCA).
  - 7 Whys
- Fix the problem root cause and follow change, release, deployment processes
Request

- The menu of IT activities you offer to your customer
- Similar to a standard change, but for operations
- Put in as few ‘custom solutions’ as possible
The Service Desk

• Central point of contact between IT and customers
• Performs all of the above activities
  – Resolve incidents
  – Document problems
  – Fulfill Requests
  – Create and access knowledge
• Tiered System, allows for escalation
ITIL and Other Methodology

- Agile
- DevOps
- Lean
Questions?