# DO MORE WITH LESS:
# THE POWER OF AUTOMATION

Presented by
Janelle Rau
and
Tom Jakobsen

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# Janelle Rau
Deputy Chief Executive Officer – County of Mendocino

Ms. Rau serves as a liaison and to all County government operational leaders and elected officials, sits as a member of the County's Leadership Team dedicated to implementing a high performance organization model in the County, and manages the Executive Office's Central Services, Information Services, and Clerk of the Board/Board of Supervisors Divisions, including:

- Assessment and implementation of centralization and decentralization of government operations, tasks, and departmental responsibilities.
- Program development including team participation in state cannabis program development, implementation, and enforcement.
- Implementation of an automated permitting program involving multiple government processes and operations.
- Operational improvements associated with the County's Emergency Operations Center (EOC), including updating and replacing outdated technology, and implementing operational guidelines.
- Executive sponsor for the development and implementation of a Technology Master Plan.

# Tom Jakobsen
## Partner, IT Support and Infrastructure Practice Leader, ClientFirst

Mr. Jakobsen has over 35 years of experience in the information technology arena.  He serves as the IT Strategic Advisor for the County of Mendocino.

**Sample Clients/Projects**



- Specialties include:
  - IT Operations Management
  - Contract and Interim CIO/IT Management
  - IT Staffing
  - Cybersecurity
  - Disaster Recovery
  - Project Management
  - Assessments, Strategy, and Planning

# TODAY'S TOPICS

- Background
  - County of Mendocino
  - Why is this important?
- Efficiency and Automation
  - Measurement & Metrics
  - Business Applications
  - Technical Applications
- Summary
- Q&A

# Background

# County of Mendocino

- Rural county on California's North Coast
  - 3,878 square miles
  - 88,018 population as of 2017
  - About 23 residents/sq. mi.
  - 3 satellite locations
- Total Budget: $350MM
  - Discretionary revenue: $80MM
- 1,200 Total Staff
  - 26 IT staff

# County of Mendocino - Goals

- Board of Supervisors made increased efficiency a formal goal in early 2019
- BOS has emphasized investment in labor & wages with direction to operationally downsize
- Hiring freeze for non-essential positions
- Need to become more efficient!!!

# County of Mendocino - Goals

- Realizing the need to become more efficient:
  - Presented an IT Strategic Plan to the BOS in November, 2018
    - 130 initiatives
    - Many potential areas for efficiency gains
    - Initial studies indicated over 120,000 hours could be gained
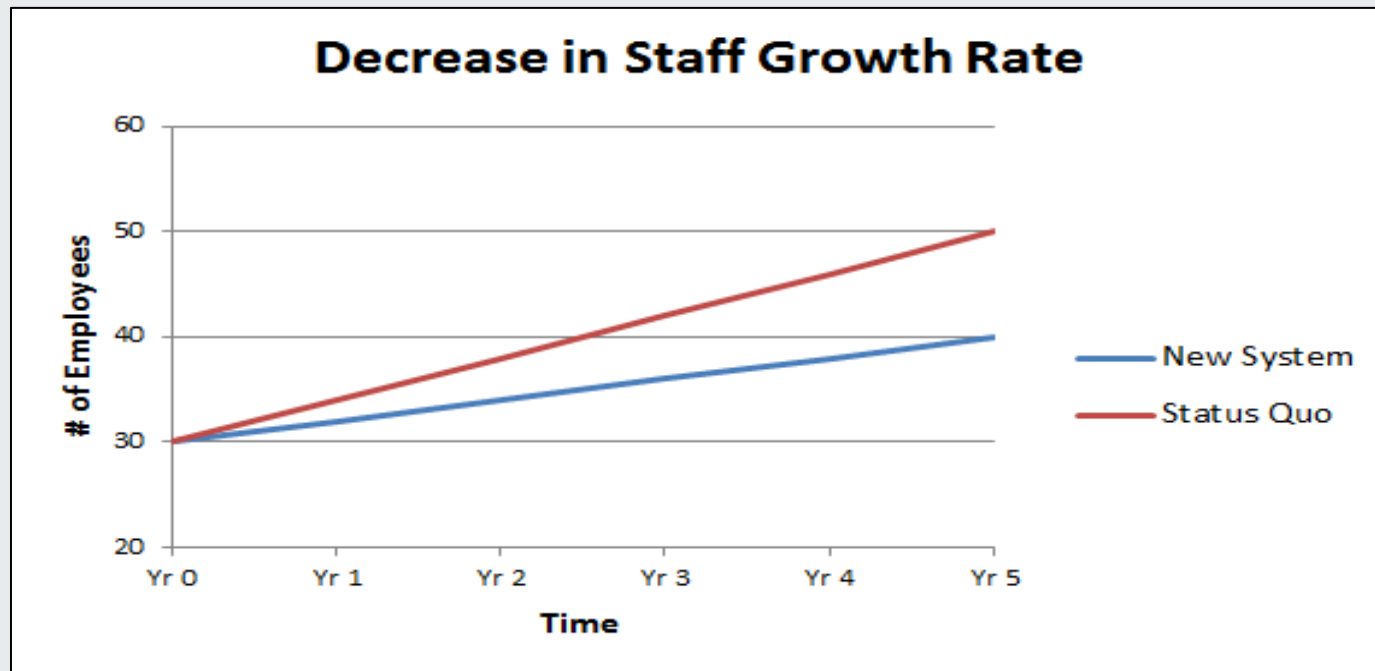    - Estimated savings through automation of *$4,462,000*!

# Metrics and Measurement

# View of Efficiency Gains

- Demand for services, regulation and information requests continue to expand

- We typically look to efficiency gains to decrease staff growth



**Decrease in Staff Growth Rate**

# Justifying Improvements Through Measurement

- Maybe a study will be enough?
- A document management feasibility study by the North Dakota IT Department found:
  - An organization that scans 600 documents per day can have the following benefits:
    - An ROI payback period of 15 months
    - Gained productivity of almost $114,375
    - Subsequent annual savings of $110,295
    - An overall three-year benefit impact of $531,990
    - Saved $36,556 in annual costs when compared to manually storing and managing documents

# If Not, Let's Build Our Own Measure

- For staff time, we tend to develop an average hourly rate = pay rate + total benefits

| | Average Salary | Overhead % | Total Annual Comp |
|---|---|---|---|
| Total Annual Comp | $60,000 | 41.15 | $84,750 |

| | Total Annual Comp | Hours | Hourly Rate |
|---|---|---|---|
| Total Annual Comp | $84,750 | 2080 | $40.75 |

# If Not, Let's Build Our Own– IT Measure

- For IT staff time, we often remove admin. time, which is always at least 20%

| | Average Salary – IT Technician | Overhead % | Total Annual Comp |
|---|---|---|---|
| Total Annual Comp | $65,000 | 41.15 | $91,747 |

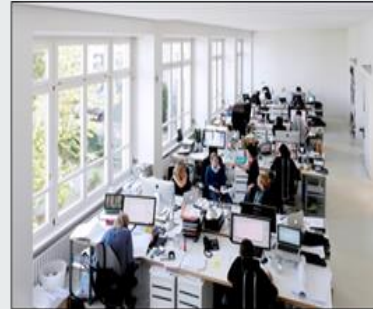| | Total Annual Comp | Hours | Hourly Rate |
|---|---|---|---|
| Total Annual Comp | $91,747 | 2080 – 416 = 1664 | $55.14 |

# Application Efficiencies

Real Long-Term Savings Are In Application Improvements!

# It's About the APPLICATIONS!

Purpose/Operations
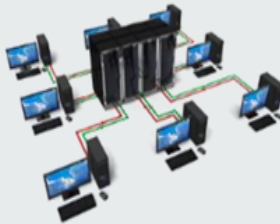
Systems Used

Foundation/Infrastructure

- 100-200 applications

- 80%+ are software

- Many systems are highly underutilized

- Need more effective Application Management and Training

  - **Productivity**
  - **Efficiencies**
  - **Customer Service**
  - **Transparency Improvements**

# Cannabis Improvements

# Challenges Faced

- Establishing regulations and processes the public can follow

- Incorporating rules for legacy and new cultivation sites

- Establishing a process that includes reviews from several departments with different timelines

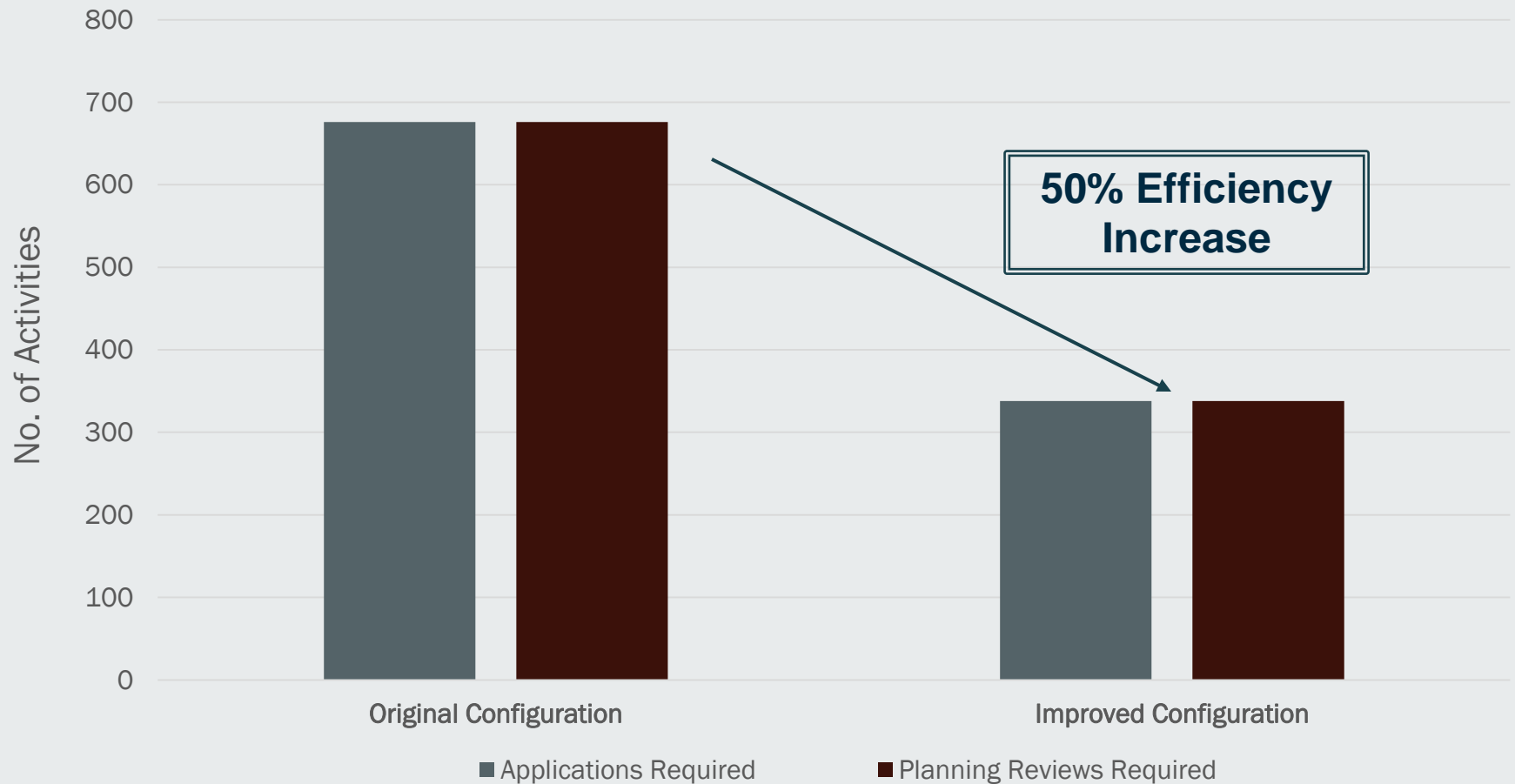- Establishing regulations and processes for permit renewals

# Process Improvements
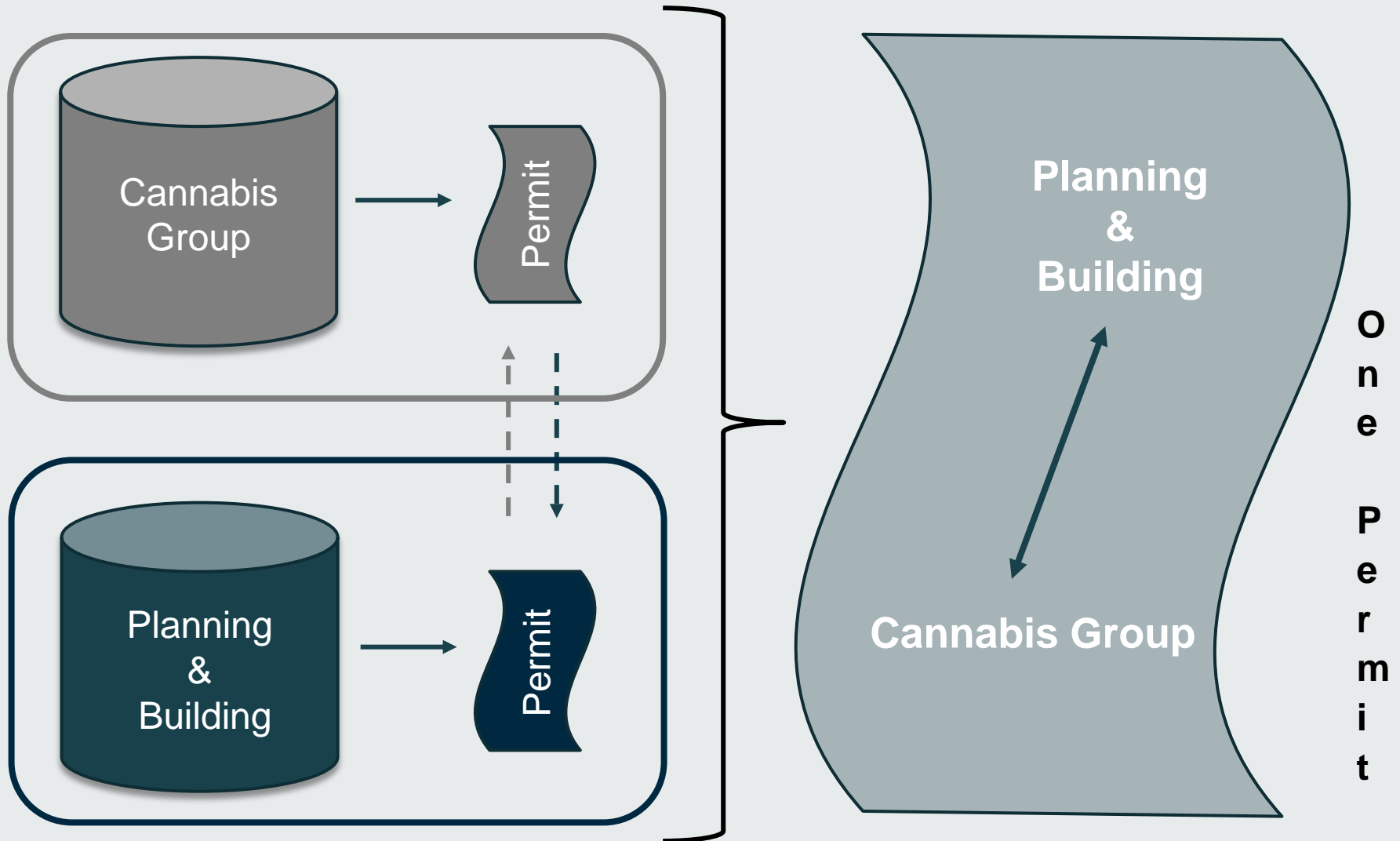
# Increased Efficiency

# Continuous Improvements

- Simplify application process as much as possible

- Consolidate work steps and forms

- Simplify requirements for permit renewals

- Streamline permit processing to shorten time between application and issuance

- Improve data capture to reduce time spent manually generating reports

# Procurement Processes Review

- Scope of Work:
  - Requisitions
  - Travel Expense Reimbursement
  - Bids Management
  - Purchasing
  - Contracts Management
  - Payables (invoice approval processing)
  - Check Requests



Procurement Workflow Process

# Procurement Processes Improve

- Results:
  - 53 specific improvements
  - Many save an hour/staff/week and affect 20 staff
  - Some improvements may affect 100 staff, twice/week
  - Total estimated savings = $1,450,000+



Procurement Cycle

# Procurement Process ROI Examples

| # | Initiative & Description of Improvement/Benefit | Recommended Change |
|---|---|---|
| | ***Requisitions and Purchase Orders*** | |
| 1 | Currently send requisition order files to be printed by email to the Central Services, but still have to hand deliver the requisition form to Central Services. | Eliminate the need for a requisition to be printed and routed within Central Services by incorporating the Admin Services Manager and Deputy CEO approvals into Munis' approval workflow. |
| 2 | Departments complete a form to add a new vendor in Munis, which they then give to the Auditor's Office along with other documentation (e.g., W-9) in order for the Auditor's Office to create the vendor. | Create a new vendor request in Munis which uses workflow functionality to route the request (potentially with W-9 attachments) to the Auditor's Office. |
| 3 | Once a requisition is entered into Munis and is final approved by a department, an admin staff from the Executive Office's Purchasing Division prints and manually routes the requisition for Executive Office approval | Eliminate the need for a requisition to be printed and routed within Central Services by incorporating the Admin Services Manager and Deputy CEO approvals into Munis' approval workflow. |

# Procurement Processes Sample

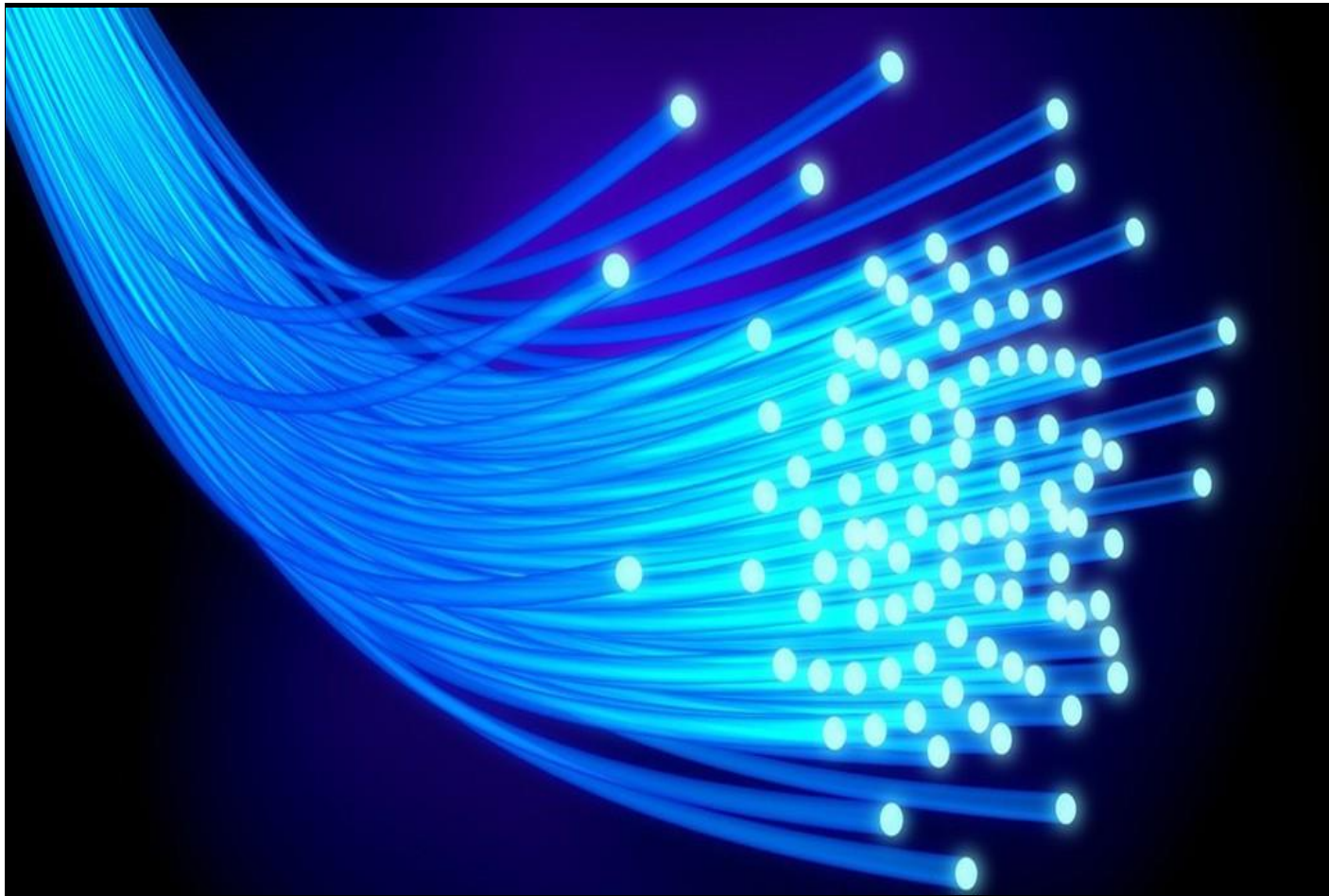| No. | Est. Time Savings (minutes) | Number Staff Affected | Daily (200 days) | Weekly (52 weeks) | Est. Total Savings (minutes) | Est. Total Savings (hours per year) | Cost Efficiency (Hrs. x Rate) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 1 | 10 | 100 | | 2 | 104,000 | 1,733 | $70,625 |
| 2 | 30 | 100 | | 2 | 312,000 | 5,200 | $211,875 |
| 3 | 30 | 5 | | 2 | 15,600 | 260 | $10,594 |

# Efficiency (ROI) Calculations

- In another example, we were asked to perform ROI calculations for all Year One IT Strategic Plan Initiatives.
  - 34 initiatives
  - Some used industry studies "Route Management Software reduces overtime by 15%".
  - In many cases, we surveyed the users.
  - Others used a form of risk analysis.

  *90% of projects showed payback < 2 years!*

# Efficiency (ROI) Calculation (Cont.)

| Construction Project Scheduling Software – Efficiency Savings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Description (sequential order, if applicable) | # of Staff | Approx. Hours Spent per Staff | Total Hours Spent | Process Change Description | Approx. Hours Saved | Annual Frequency weekly = 52 monthly = 12 yearly = 1 | Total Annual Hours Saved | Average Hourly Rate | Gross Average Hourly | Potential Annual Labor Efficiency |
| MUED - Time spent manually generating reports | 8.00 | 3.00 | 24.00 | Automated Reports (Layouts can be created in P6 automating the process) | 24.00 | 12 | 288.00 | $37.84 | $56.56 | $16,289 |
| MUED - Time spent updating website content | 4.00 | 3.00 | 12.00 | Automated website updates | 8.00 | 52 | 416.00 | $37.84 | $56.56 | $23,529 |
| MUED - Time spent scheduling projects | 11.00 | 1.50 | 16.50 | Improved efficiency through scheduling tools | 8.25 | 52 | 429.00 | $37.84 | $56.56 | $24,264 |
| Sub-Totals | | | 53 | | 40.25 | | 1,133 | | | $64,082 |

# High Potential Technical Applications

Geeks Need Process Improvements Too!

# Measuring Efficiency Is Difficult

- Key Metric – Productivity!

**IT Staffing Resources Analysis**

FY18 Prioritization - 1st Quarter Actuals

**30% Productivity Goal**

| | Joe | Diane | Troy | Intern | InterDev | DIV | GOAL |
|---|---|---|---|---|---|---|---|
| Hours Available Per Week | 40 | 40 | 40 | 23 | 28 | TOTAL | GOAL |
| Administration - Management, | 69.0% | 38.0% | 54.0% | 43.0% | 13.0% | 46% | 43% |
| Maintenance and Updates | 27.60 | 15.20 | 21.60 | 9.89 | 3.64 | | |
| Help Desk User Support | 2.0% | 24.0% | 22.0% | 31.0% | 73.0% | 27% | 27% |
| | 0.80 | 9.60 | 8.80 | 7.13 | 20.44 | | |
| Prioritized Non-CIP Project List | 4.0% | 5.0% | 20.0% | 0.0% | 10.0% | 8% | 7% |
| | 1.60 | 2.00 | 8.00 | 0.00 | 2.80 | | |
| CIP Projects | 25.0% | 33.0% | 4.0% | 26.0% | 4.0% | 19% | 23% |
| | 10.00 | 13.20 | 1.60 | 5.98 | 1.12 | | |
| Check Total | 40.00 | 40.00 | 40.00 | 23.00 | 28.00 | 100% | 100% |

# Log Management



Figure 4—Umbrella View of SIEM
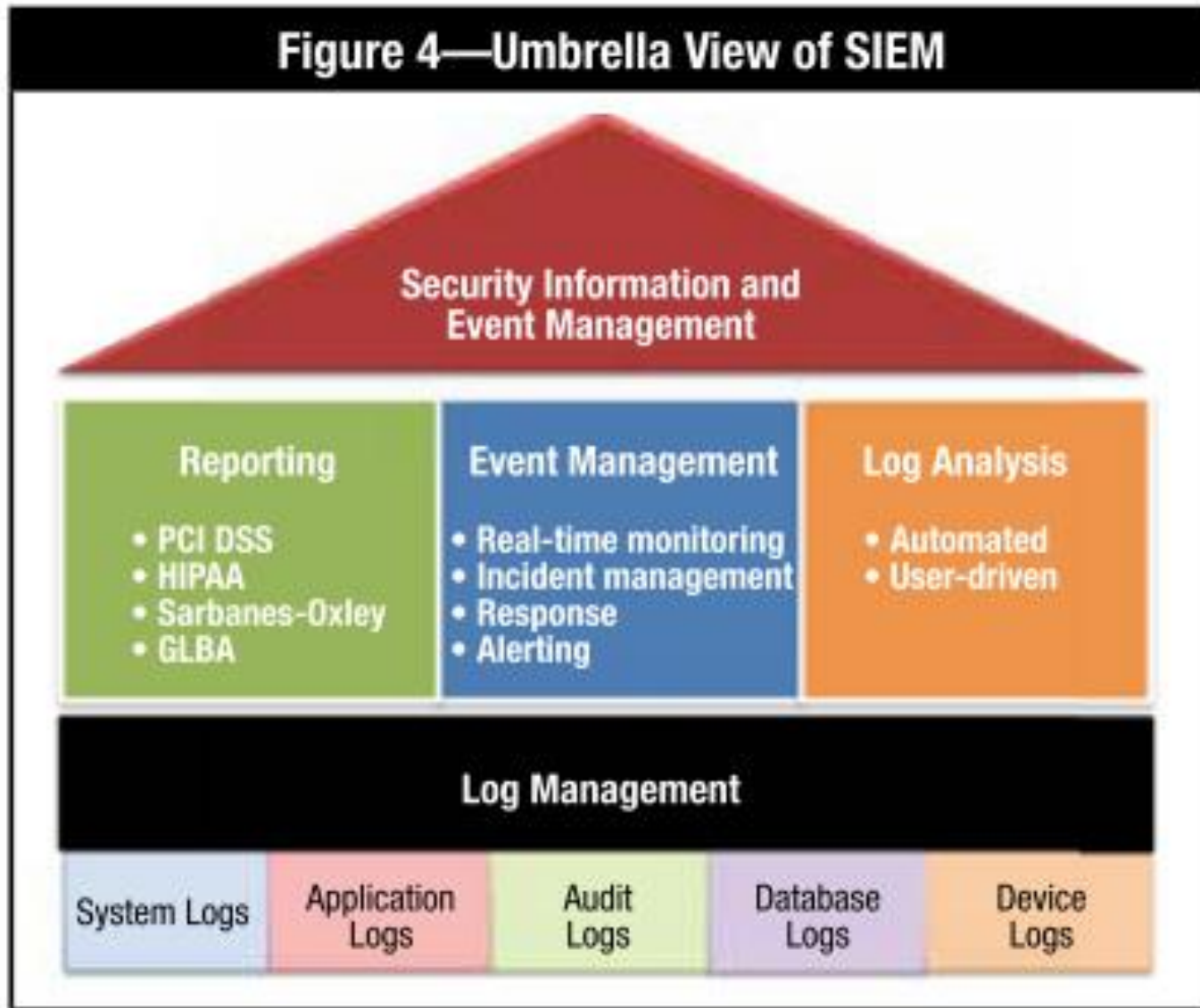
# Log Management

- Depending on organization, one or more engineers spend hours each day reviewing logs
- Engineer pay approx. = $80/hr.
- Annual savings approx. $16K
- Onetime implementation around $25K...
- Easy to justify

# Identity Management

# Identity Management



**IAM service components**

**AUTHENTICATION SERVICES**
- Single sign-on
- Multifactor authentication
- Session and token management

**AUTHORIZATION SERVICES**
- Roles
- Rules
- Attributes (e.g., metadata)
- Privileged access

Governance Framework

Reporting & Analytics

**USER MANAGEMENT SERVICES**
- Provisioning
- Deprovisioning
- Self-service
- Delegation

**DIRECTORY SERVICES**
- Identity store
- Directory federation
- Metadata synchronization
- Virtual directory

# Identity Management

- Provisioning/Deprovisioning
  - Over 20 systems
    - Sheriff has another 10 systems
  - 4 different groups
  - Average of 4 hours/week/group

24 hours * 50 weeks * $80/hr = $96,000/year

Identity Management systems budget = $100K - $200K
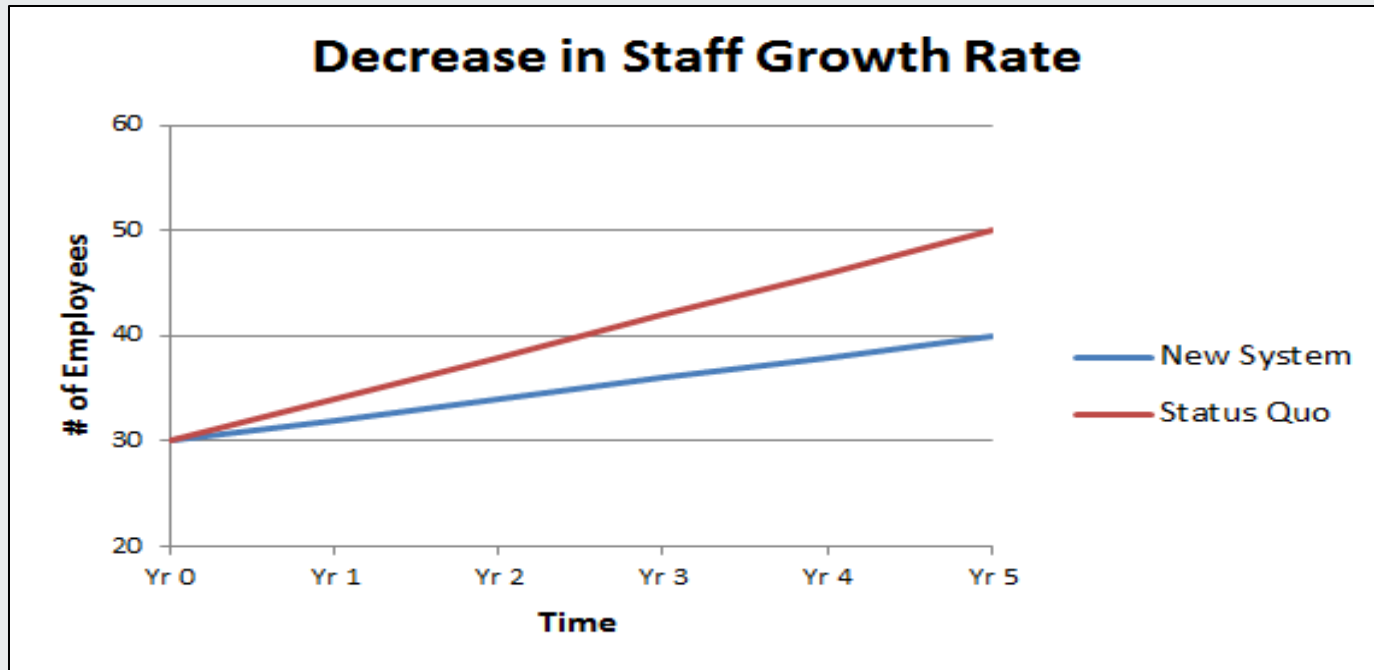
Payback is a bit more than 2 years!

# Summary

# Goals of Automation

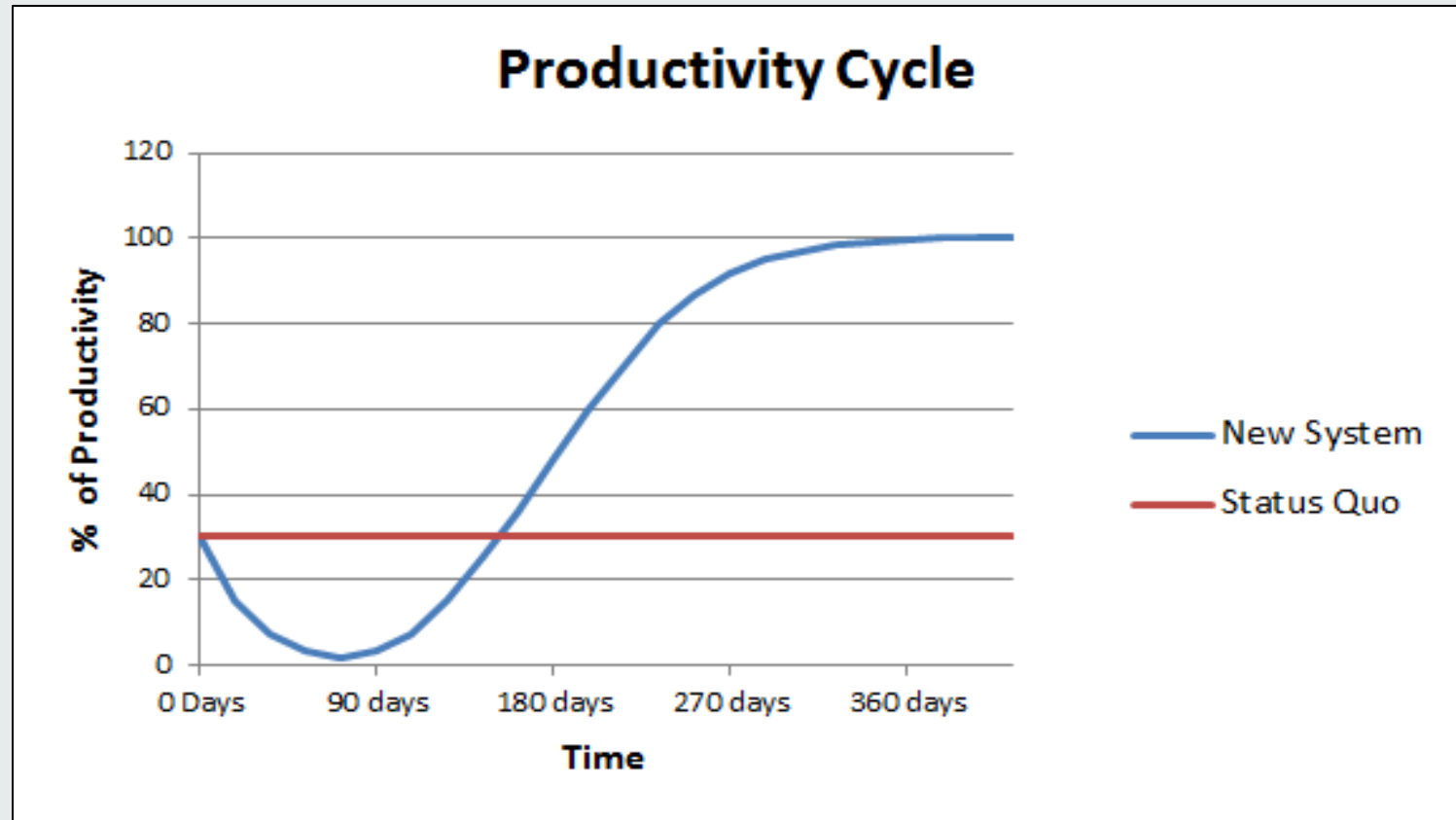- Use gains from automation to decrease staff growth

**Decrease in Staff Growth Rate**



Some call automation gains "staff multipliers"

Gains from automation take time - and commitment.

# Gains Through Automation

- And finally, sometimes, we have to spend $ to save $s.
- Gains from automation can include:

Improved service levels

Time to implement new services

New hire avoidance

Eliminating positions through attrition

Position consolidation

Questions?

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