City of Fort Worth's Automation Journey

2019 TEXAS GOVERNMENT DATA FORUM

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Presenters

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Robots today are working in the City

2019

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Agenda

- How did the automation journey start?

- What is robotic process automation?

- What can it do…for the City of Fort Worth?

- Where did we first apply RPA?

- What's next?

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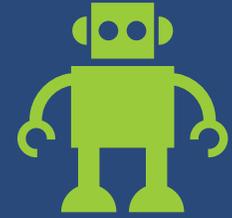
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How did the automation journey start?

Overall Change in the Market by Wave

City of Fort Worth in 2007 had not reached Wave 1

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In 2018 the City has launched its RPA Program as a first step into Connected Machines

① Digitalization of data
1995 - 2005
- Networking – Internet
- Digital infrastructure plays – computers, telecom/content
- Enterprise systems (ERP, CRM)

② Connecting consumers
2005 - 2015
- Digitization of transactions – retail, banking
- Social networking
- Mobile & sharing economy

③ Connecting machines
2015 - 2025
- Internet of Things – auto, aero, industrial, energy
- Rapid automation of activities & decisions using algorithms

Disruptors

Microsoft · AT&T · Apple · amazon · Google · Facebook · Uber · Tesla · Google · Uber
Dell · America Online · Google · CISCO · SAMSUNG · NETFLIX · WhatsApp · airbnb · KHAN ACADEMY · iTunes · Spotify · Apple · AT&T · SAMSUNG · BOSCH · IBM

Disrupted

MCI WORLDCOM · TOWER RECORDS·VIDEO·BOOKS · Kodak · hmv · NOKIA · RadioShack
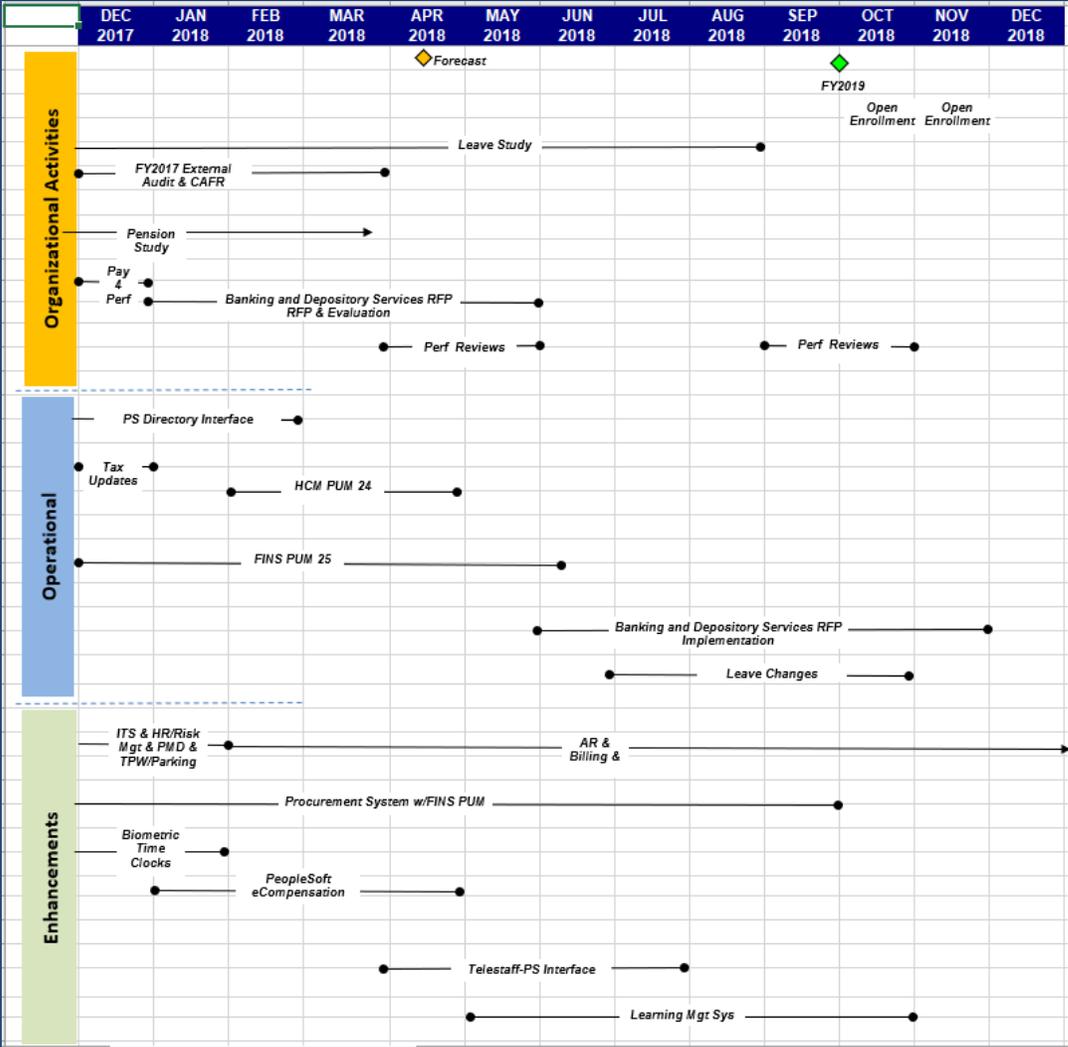IBM · xerox · BLOCKBUSTER · BORDERS · Circuit City · BlackBerry · TAXI

Source: ISG Research

Governance Enables Technology Adoption

Organizational Activities
(e.g. annual audit, open enrollment)

IT Operational
(e.g. ERP system updates, tax updates)

Enhancements
(e.g. new modules & system projects)

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Municipal Level Challenges

Municipal environments today are presented with significant challenges:

- Attracting industry and jobs;

- Managing the associated growth;

- Addressing pressures on existing infrastructure; and

- Meeting the expanding demands on City services while...

....rising pension and healthcare costs constrain the ability to increase staff

What is Robotic Process Automation?

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Intelligent Automation
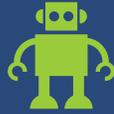
	Robotic Process Automation	OCR/Image Recognition	Natural Language Processing	Cognitive Reasoning	Conversational Artificial Intelligence
Current Usage	High	Medium	Low	Low	Medium
Implementation Effort	Low	Low	Medium	High	High
Cost	Low	Low	Low	High	Medium
Benefits	High	Low	Low	Medium	High
Process Penetration	High	Low	High	High	Medium

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Robotic Process Automation Overview

What is it?
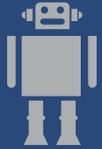
Software Platform

What it does?

"Digital Helpers"

Google

ORACLE PEOPLESOFT

Oracle

Java
Application

Mainframe/ Terminals

Unix

@ Email Applications

Legacy Applications

Windows Applications
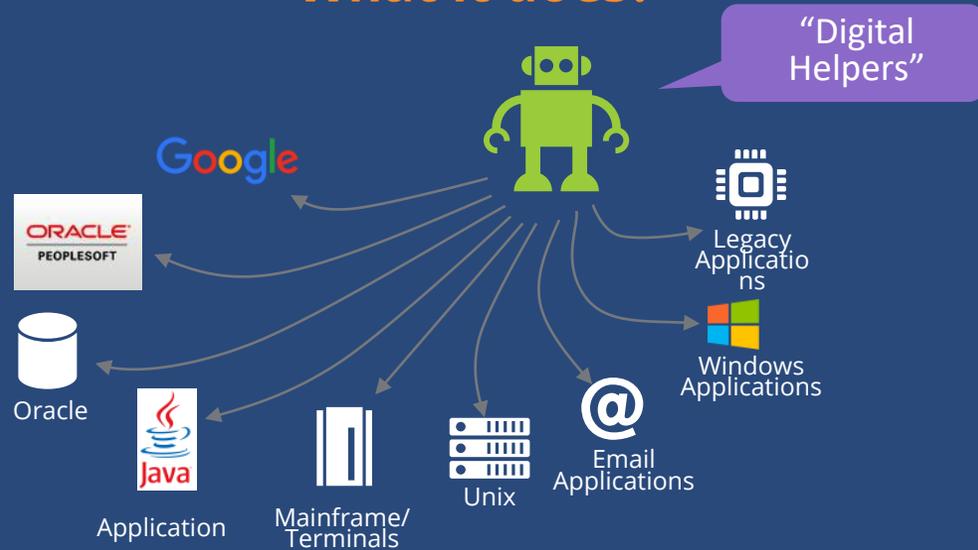
Automatically executes manual, routine tasks that we have people doing today

Where does it work best?

- Structured data found in applications
- Activities with clear rules
- Space between applications where manual steps occur

What are the benefits?

- Improves efficiency
- Improves compliance
- Reduces errors
- Reduces proliferation of more manual, uninteresting tasks

What can RPA do...for the City of Fort Worth?

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City of Fort Worth RPA Phase 1

Cellular Cost Allocation Process

Review & correct problem data, create rows for split funding, & address problem data

Email Excel file to Accounting

Enter into ERP system

Cellular Provider

Yes

Log in, select desired fields of data, run report, & download to MS Excel

Convert Excel into format required by Accounting entry into ERP

No

Corrections Required?

Automation Focus
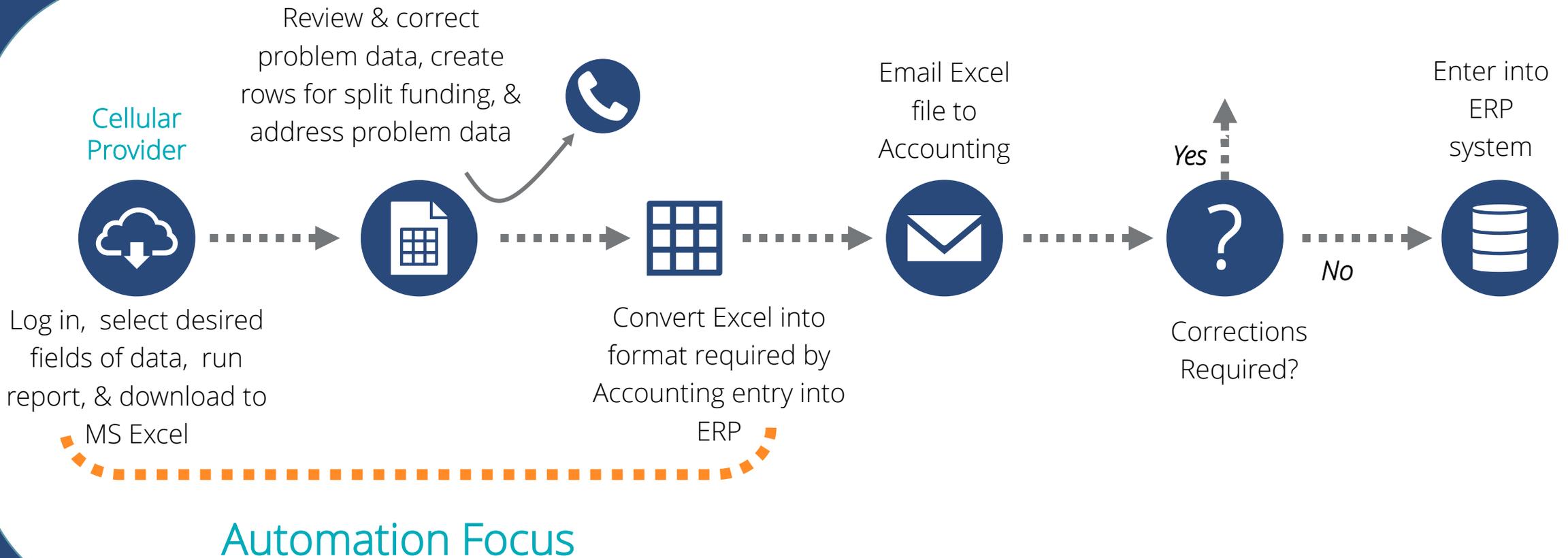
Automation Demonstration

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What we saw in this opportunity

- Quick development

- Follows existing processes

- No interfaces

- No modification of existing systems

- General purpose applicability

- 24 x 7 x 365 schedule

....most importantly we can reimagine IT

Where did we first apply RPA?

City of Fort Worth Production Bot

Bi-Weekly Review of Time and Absence Records for Corrections

- Payroll is important

- Meeting the 3pm deadline is important

- Over 100 time keepers across the City doing something similar to ITS

Central HRIS	ITS Time Keeper	Central HRIS	Payroll
Send Email to Dept. Time Keepers	Time & Absences Validation and Correction Process	Run Time & Absence Finalization	Run Payroll
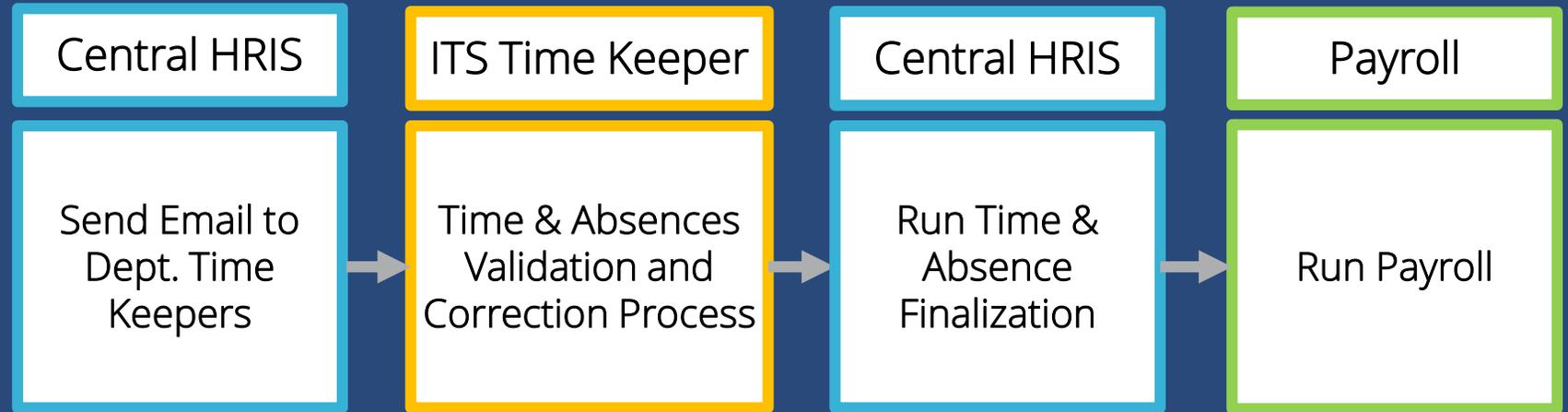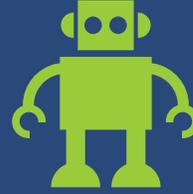
Bot is live in IT and working with PeopleSoft HCM

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Time Keeper Correction Process Overview

Central HRIS | Dept. Time Keeper

Tuesday Morning

Validation Report employees have conditions not addressed necessarily by the T&L Summary Report, e.g. Terminated Employees or Prior Period Adjustments

Z_PY_STD_HRS_REG_HRS_COMPARE_23934_PP25_SENT_TO_TL.XLSX

Run Validation Process within PeopleSoft → Send Email with Employee Validation Report to Dept. Timekeepers → Evaluate list of employees to determine if correction needed

Corrections Needed?

No → End

Yes

- If hours > 80, checks math of the inputs
- If hours < 80, determine appropriate correction, e.g. absence entered but not submitted, missing time, incorrect time reporting code, or change default schedule

Monday Evening of Payroll Week

Send Email to Dept. Time Keepers indicating availability of T&L Summary data

Tuesday Morning

Run T&L Summary Report Query in PeopleSoft → Access Query Results (presented as xls file) → Reformat Time & Labor Summary Excel → Print Time & Labor Summary Excel → Analyze Output & Identify Resolution using Report & PeopleSoft

Z_TL0050.xls

T&L Summary pp 25.xls

Correctable by Time Keeper?

Yes → Enter Correcting Entry in PeopleSoft → Write Notes on Hard Copy of Excel Report → Update HRIS Correction Tracking XLS document until complete → Send HRIS Correction Tracking

No

Send Email to Employee confirming choice of resolution → Receive employee feedback

Markup.PDF

Mark Validation Variance_pp 25.xls up.PDF

All corrections must be completed by 3pm, Tuesday

Make copy of Tracking sheet and file with T&L Summary in Payroll Binder → End

Deployed Automation

Next Steps

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Calendar

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 0	Installation			Process Interviews	
Week 1	Process Design Activities		System Design Activities		
Week 2	Labor Day	Automation Development			Sprint Review
Week 3	Automation Development				Sprint Review
Week 4	Automation Development			Sprint Review	End to End Testing
Week 5	End to End Testing		User Acceptance Testing		

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Why RPA Matters to Public Sector

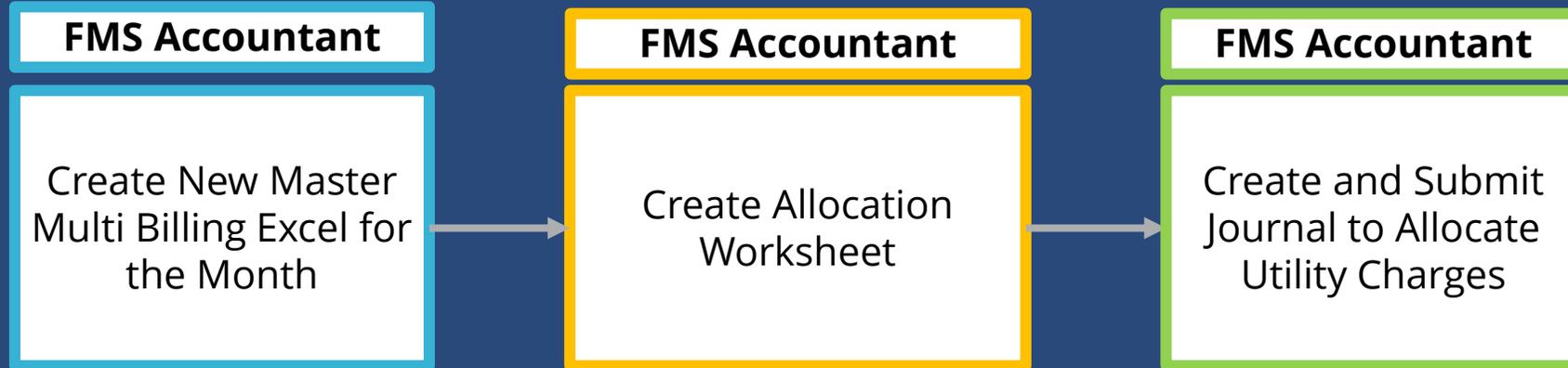## Challenges For Public Sector

- <u>More work "on the plate" than staff size and skills can typically support</u>

- Inconsistent policy/procedure compliance

- Labor intense, time-consuming processes for unintegrated systems that require humans to key data from one to another

- Systems that were new at Y2K now aging; challenging upkeep, skill sets, repair and functionality

- Many important responsibilities get pushed back due to higher priorities or emergencies that arise

- <u>Waves of experienced workers retiring</u>

- Need "quick" return on investments to drive savings in budget year

- <u>Enable technology improvements while preserving effective workforce and transitioning into digital future</u>

- Citizens heightened expectations for seamless automation when interacting with governmental agencies

- Complexity of security, controls and auditability

RPA Advantages

- Automate business processes to relieve workers of routine and repetitive tasks, allowing staff to be repurposed to more urgent matters

- Improve efficiency and effectiveness of vital but time-consuming processes

- Drive increased output with reduced errors and improved policy compliance

- Speedier design, configuration and technical deployment and integration than traditional automation solutions

- Enables doing more with the same resources, or more with less

- Automations not pre-configured and not limited to certain departmental, functional or process areas

- No requirement to change the current process, systems and applications – works with processes, systems and applications "as is"

- Supports requirements for security, controls, change management, auditability, scalability, reporting

- High compliance with process requirements and sensitive data, clear audit trails and thorough documentation

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What's Next?

Monthly Electricity Cost Allocation Process

FMS Accountant	FMS Accountant	FMS Accountant
Create New Master Multi Billing Excel for the Month	Create Allocation Worksheet	Create and Submit Journal to Allocate Utility Charges

Systems/Applications

PeopleSoft Query

Outlook

PeopleSoft GL

Excel – Master Multi Billing Workbook

Excel – Cavalo Bill
Excel – Master Multi Billing Workbook

Excel – Master Multi Billing Workbook

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