Building a Successful Request Management System in SharePoint and Office 365
Helping businesses succeed with Office 365 & SharePoint!
BUSINESS APPLICATIONS

• IT Help Desk
• Asset Management
• Customer Service
• Facilities Requests
• Equipment Tracking
• HR Requests

• Security Access Requests
• Onboarding
• Contract Renewals
• Document Management
• Marketing
• Purchasing Requests
Application Creation Platform for SharePoint & Office 365

- Suite of enhancements to SharePoint and Office 365.
- Quick development of flexible, easily deployed applications.
- Build simple or complex applications that meet specific needs.
WEBINARS

NITRO Forms and the Power Portal
Wed. May 30, 11 am PDT / 2 pm EDT

NITRO Workflows and Custom Actions
Thurs. May 31, 11 am PDT / 2 pm EDT

https://www.crowcanyon.com/webinars
Request Management using SharePoint & Office 365

- **IT**
  - Trouble Tickets, Hardware Requests, Change Requests
  - Asset Maintenance, Inventory Tracking, Access requests
- **Facilities**
  - Fixes, Moves, Equipment management
- **Contract/Document Management**
  - Creation, Updates, Renewals
- **Human Resources**
  - Onboarding, Leave Requests, Benefit updates, Travel requests
- **Purchasing**
  - Requesting, ordering, receiving, deploying

... and on and on and on and on!
Type of Request

• Technical Issue, Bug, Problem, Complaint
  • Needs immediate attention

• Information Request, How-to Question
  • Automation with KB, FAQs, Canned Responses

• Forms-based, Process-driven
  • Set of required information, resolved by pre-determined process
Who is submitting request?

INTERNAL
- Employee
- Staff
- Manager

EXTERNAL
- Customer
- Client
- Member
- Student
- Partner
How is request submitted?

- Phone
- Email
- Web Form
- SharePoint
- Portal
When is Request needed?

- Response Due
- Due Date
- Completion Date
- Priority
- Importance
- SLAs
Categorization of Request

- By Issue: one, two, or three levels
  - Category, Type, Issue
- By Department
- By Location
- By Product
- By any other useful criteria!
• Type of Request
• Who is submitting Request?
• How is it submitted?
• When is it needed?
• Categorization of Request
Request Management–simple workflow

1. Make a Request
2. Approval
3. Fulfill Request
4. DONE!
Common workflow – Leave Request
More Complex Workflow - Onboarding

Manage Employee Onboarding

HR-060-2 Manage New Hire Pre-Joining

- Send confirmed orientation dates HR-060-2-16
- Send confirmed arrival dates HR-060-2-14
- Arrival Info includes:
  - Arrival Date
  - No. of accompanying dependants
  - Departure Airport
- Receive copy of visa & e-ticket to new hire HR-060-2-29

- Extract new hire(s) info from Banner into a information sheet HR-060-2-3
- Fill in Relocation Regulation Form with info sheet to ES Manager HR-060-2-16
- Open up bank account HR-060-2-21

- Plan Orientation HR-060-1
- Update the information sheet with HR info HR-060-2-2
- Update new hire Info sheet HR-060-2-11
- Seek residence of new hire(s) HR-060-2-12
- Check residency of new hire(s) HR-060-2-19
- In case of bulk recruitment
- Send orientation link & seek confirmation on orientation dates HR-060-2-19
- Fill in Housing Allocation Form HR-060-2-3
- Send Housing Allocation Form with Info sheet to ES Manager HR-060-2-4
- Receive updated Info sheet HR-060-2-5
- Receive updated Info sheet HR-060-2-6
- Allocate accommodation HR-060-2-6
- Update spreadsheet & send to Resourcing along with the signed form HR-060-2-7
- Receive Furniture/Shipping Form and prepare cheque HR-060-2-24
- Send cheque to Recruitment Specator HR-060-2-25
- Receive Furniture/Shipping Form with Info sheet to ES Manager HR-060-2-17
- Review newly arrived employee details HR-060-2-28
- Review newly arrived employee details HR-060-2-29
- Review newly arrived employee details HR-060-2-30

- Manage New Hire Orientation HR-060-3
- Send copy of visa(s) & e-ticket to new hire HR-060-2-28
- Add all received documents to new hire file HR-060-2-27

- Update new hire info sheet HR-060-2-25
- Update new hire info sheet HR-060-2-15
- Work Entry Visa
- Hotel Reservation
- Tickets
- Greeting Services
- Transportation
- Health Insurance

- Send Furniture/Shipping Form to Finances HR-060-2-28
- Receive new hires info in Banner & send new hire(s) & health cards HR-060-2-30

- Update fields:
  - Hotel reservation info
  - Driver name & contacts
  - Greeting Service
  - Health Insurance Section

Crow Canyon Software
www.crowcanyon.com
Some ways (other than SharePoint) to manage requests

**EMAIL/SPREADSHEETS**
- Limited collaboration
- No tracking & reporting
- Lack of accountability
- Limited access & scalability

**LEGACY SYSTEMS**
- Outdated technology
- Discontinued support

**PAPER FORMS**
- Manual processing
- Non-searchable
- Hard to revise

**ENTERPRISE SOFTWARE**
- Expensive
- Feature overkill
- Lack of customization

Crow Canyon Software
www.crowcanyon.com
SharePoint Out-of-the-Box

- Sites, Site Collections
- Lists & Libraries
- Permissions
- Views/Filters on lists
- Columns
- Integration with AD
But SharePoint Needs More

What about:

• Forms?
• Workflows?
• Custom columns?
• Email sync?
• Reporting?
• Database integration?
Custom Development using outside firm

- Means hiring company skilled in development and project management
- Usually involves RFP’s, vendor selection, contract negotiation.
- Appropriate for specialized projects

Concerns/Issues

- Finding reliable, known firm
- Keeping costs under control
- Keeping project on track
- Change management
Third-Party Applications

- Fully supported
- Regular upgrades
- QA / Tested
- Quick to implement
- “Battle-hardened” – mature, in use at multiple locations
- Configurable without coding using utilities built into the application

Concerns/Issues

- Reliable, known vendor?
- Reasonable support/maintenance fees?
- Is there a suitable application out there?
- Time and effort of trials and selection
Build-Your-Own using components/platforms

SharePoint/Office 365 native tools
- Standard lists and libraries
- SharePoint Workflows
- SharePoint Designer
- Visual Studio
- InfoPath Forms
- Microsoft Flow/Power Apps
Build-Your-Own using components/platforms

- Apps & Web Parts
  - available in Office Store and from vendors

- Platforms (Nintex, K2, NITRO Studio)
Build-Your-Own using components/platforms

- SharePoint/Office 365 native capabilities
  - Standard lists and libraries
  - SharePoint Workflows
  - SharePoint Designer
  - Visual Studio
  - InfoPath Forms
  - Microsoft Flow/Power Apps
- Apps & Web Parts (available in Office Store and from vendors)
- Platforms (Nintex, K2, NITRO Studio)

Concerns/Issues

- Need to know the tools and how to use them
- More important: need to know how to design and build an application.
- Costs in time and fees
- Often requires hiring a consultant or developer
- Support is an issue when that person or group moves on
Three Pillars of Application Design

Crow Canyon’s Approach
Three Pillars of Application Design

- **UI/UX**
  - Engage & Empower Users

- **Workflow & Business Processes**
  - Streamline & Automate Processes

- **Reporting**
  - Drive Continuous Improvement
Why is UI/UX important?

DRIVE USER ADOPTION and ENGAGE USERS

- Ease-of-use
- Simplicity
- Information at your fingertips
- Attractive visual elements

POWER UP USER ADOPTION WITH:

- Dynamic Forms
- Custom Columns
- Application Portals
- Configurable Workspaces
- Dashboards
- Branding
- Responsive Design
UI drives Workflows and Reporting

Type of Request? Who is submitting it? How is it submitted? When is it needed? Categorization of Request?

Crucial to:

-- Assign and route request
-- Set priority and due date
-- Determine if approvals are needed
-- Set up sub-tasks, if needed
-- Reporting
Email

The Printer in Room 203 is low on toner. Please replace the cartridge.

Scott Restivo, Crow Canyon Software
707-746-5272 | www.crowcanyon.com
Web Form

SharePoint Support Tickets

Please check our Online Knowledge Base before sending in a ticket. Thank you!

Name *

Company *

Phone *

Email *

Issue, Problem, Question *

Support Ticket
Submit Ticket

Email Support
support@crowcanyon.com

Call Support
925 – 478- 3110

SUBMIT
**Tickets - Change Toner in Printers**

<table>
<thead>
<tr>
<th>Employee</th>
<th>Staff</th>
<th>Knowledge Base</th>
<th>Time Tracking</th>
<th>Related Items</th>
<th>Work Log</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Id</td>
<td>115</td>
<td>1st Issue</td>
<td>Technical Support</td>
<td>Printing</td>
<td>Toner Low</td>
</tr>
<tr>
<td>Reason for Request</td>
<td>Change Toner in Printers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Change Toner in Printers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incident Type</td>
<td>Technical Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Printing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requester</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Requester Email</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requester Phone</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requester Department</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notify Additional Contact</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approver</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approval Status</td>
<td>Not Required</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Queue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Content Type: Item
Versions: 3.0
Created at 9/26/2016 12:00 AM by System Account
Last modified at 9/26/2016 12:00 AM by System Account
Tabbed SharePoint List Form

- Tabs / Sections
- Dynamic
- Tab permissions
- Column permissions
- Mandatory fields
- Field validation
- Custom fields
- Related Items
- Database Integration
Custom Form using Forms Designer tool

Employee

Title*
Please enter title for the item

Category
Select Category...

Issue Type
Select Issue Type...

Category Owner
Enter a name or email address...

Additional Contact
Enter names or email addresses...

Description

Additional Information

Case Id

Requester*
Admin Account x

Requester Email
crowcanyon@crowcanyon365.com

Requester Phone
707 746-5272

Requester Department
Marketing
Good Forms

- Are Interactive
- Are Dynamic (show/hide fields)
- Validate inputs / Have required fields
- Pull information from other data sources
- Initiate workflows & business processes
Custom Columns

- Cascaded Lookup
- Cross-site Lookup
- Color Choice
- Associated Items
- Discussion Column
- User Profile Info (AD)
- Database Connections
Portals

- Submit or view requests
- Search FAQs
- Configurable
- Secure
- One or more sites
- For Customers or Employees
- Can drive self-service
Mobile / Responsive Design

- Growing use of mobile devices
- Flexible, anywhere access to data
Three Pillars of Application Design

UI/UX

Workflow & Business Processes

Streamline & Automate Processes

Reporting

Crow Canyon Software
Workflows, Workflows, Workflows

• Request Creation
  • Auto-reply, Auto-assign, Notify staff, Create Sub-tasks, Approvals

• Request Progression
  • Re-assign, Escalate, Update, Logging
  • Sub-tasks, Linked Items, Email History, Time Tracking

• Request Completion
  • Ask user to verify, Surveys
Workflow functions

- Routing
- Approvals
- Alerts/Notifications
- Service Level Agreements
- Auto Assignment/Escalation

- Recurring Items - Tickets/Tasks
- Sub-tasks & linked Items
- Printing of lists or items
- Email synchronization
- Database integration
What triggers a workflow?

- Item created
- Item modified
- Item deleted
- Date/Time field on Item
- Absolute time
- Manual kickoff (button on form or ribbon)
- Other actions can trigger workflow

Could also be based on meeting certain conditions

Field(s) equals/not equals/contains/is greater or less than/begins with/etc.

Multiple Conditions may apply
What actions take place?  
In what order?  
Are they dependent on each other?

- Create Item
- Delete Item
- Update Item
- Send Email
- Print Item
- Run Web services
- Run Stored Procedures
- Update database
- Run another workflow
For example:

When an Item is created:
  If the Priority is “High” and the Category is “Network”:
    Notify Director
    Set Due Date to 4 hours
    Assign to Team One

**TRIGGER:** When an Item is created:

**CONDITIONS:** If the Priority is “High” and the Category is “Network”:

**ACTIONS:**
  - Notify Director [Send Email action]
  - Set Due Date to 4 hours [Update Item action]
  - Assign to Team One [Update Item action]
    -- Notify Team One [Another workflow kicked off by this action]
Mapping out the process

**Important to understand the process and have it mapped out—before building the workflow.**

What business need(s) are you trying to solve?

What is the current work process -- highlights, pain points, bottlenecks?

- What key steps in the current process can be automated using SharePoint.
- What key pain points and bottlenecks can the SharePoint solution overcome?
- What “soul-crushing” work can be eliminated or automated?
- As a rough estimate, how much time can be shaved off the existing work process? This will help determine a return on investment (ROI).

What would users/business owners like to see happen? Ideally, how should things work?

What improvements can SharePoint workflows/automation bring?
Mapping out the process  - *diagrams/presentations*

- Pen and paper
- Word or Excel
- Whiteboard for simple presentations

- Mockups in the tools themselves
  - Create some proof-of-concepts

- Wireframes  - for more elaborate workflows and for executive sign-off
  - Microsoft Visio
  - Microsoft PowerPoint
  - Balsamiq ([http://www.balsamiq.com/](http://www.balsamiq.com/))
  - Many other workflow design tools
Common workflow – Leave Request
<table>
<thead>
<tr>
<th>Workflow Name</th>
<th>List Name</th>
<th>Event Type</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send mails/item creation</td>
<td>Send Mails</td>
<td>Item Added</td>
<td></td>
</tr>
<tr>
<td>Send Mails/item updated</td>
<td>Send Mails</td>
<td>Item Updated</td>
<td></td>
</tr>
<tr>
<td>Process missed send mails list items</td>
<td>Send Mails</td>
<td>Timer Based</td>
<td></td>
</tr>
<tr>
<td>Delete old send mails list items</td>
<td>Send Mails</td>
<td>Timer Based</td>
<td></td>
</tr>
<tr>
<td>Update Ticket</td>
<td>Tickets</td>
<td>Item Added</td>
<td></td>
</tr>
<tr>
<td>Notify Account Rep</td>
<td>Tickets</td>
<td>Item Added</td>
<td></td>
</tr>
</tbody>
</table>
Three Pillars of Application Design

UI/UX

Workflow & Business Processes

Reporting

Drive Continuous Improvement
Why are Reporting & Analytics important?

Key business questions:
- Are we meeting our service level goals?
- Is the staff performing optimally?
- What are the most common issues?
- What is blocking better performance?
- How can we improve?

Tools that help answer these questions:
- Report Center
- Dashboards
- Tiles & Dials
- Data Integrations (Excel, SSRS)
- Power BI
Reporting & Analytics: Continuous Cycle of Improvement

Find root causes and fix them:
- Hardware
- Software
- Procedures
- People
Good Data = Good Reports

Good Reports = Good Decisions
Three Pillars of Application Design

UI/UX  
Workflow & Business Processes  
Reporting
Where does the data come from?

• Forms users or customers fill in
• Outside sources -- Active Directory, databases
• System events -- Time created, modified
• Worker-initiated events – reassign, escalate, closed
• Worker input – change fields, add to Log
• Surveys of users

*Be sure to gather the data points you need for reporting.*
Classic Questions: *who, what, when, where, how*

The tools we describe later can generate many, many types of reports. But these questions need to be asked first:

- WHO should be able to view them?
- WHAT reports do you need?
- WHEN are the reports needed?
- WHERE should they be viewed?
- HOW should they be displayed?
TYPES OF REPORTS

• Immediate, real-time views
  • Dashboards
  • List Views
  • Configurable workspaces

• Historical views, trends
  • Charts – pie, line, bar, column, etc.
  • Tables
  • Graphs
  • Comparison
Dashboards

Current information shown graphically

• Visual displays
• Counters
• Gauges
• Meters
• Drill-down
List Views

Features of SharePoint lists

- Filtering
- Grouping
- Sorting
- Choice of Views

Enhancement of lists

- Highlighting
- Color Indicators
- Bolding
Configurable Workspaces

- Role-based
- Easy to configure
- Many web parts available
- Visual displays
- Pertinent information is readily available
Example of a Report Center in Office 365
Report on Important Stats
Example: Open tickets by staff
Dashboard pages bring visibility
| Category                          | None | Calendar           | Concierge Deskside Support Request | Email | Hardware Problem | Hardware Request | Internet | Network | Printing | Remote Access | Software | System Access Request | Telephone | Web Site | Total |
|----------------------------------|------|-------------------|-----------------------------------|-------|------------------|------------------|----------|---------|----------|-----------|-------------|---------|------------------------|-----------|----------|-------|
| Priority                         | High | Low               | Normal                            |       |                  |                  | High     | Low     | Normal   | High      | Low         | Normal  | Total                  | High      | Low      |       |
| Total                            | 12   | 7                 | 12                                | 1     | 4                | 7                | 5        | 1       | 1        | 2         | 1           | 1       | 55                     |           |          |       |
Tiles & Dials
Power BI
Components of Power BI

- Power BI Desktop
- Power BI Service
- Power BI Mobile
Building Blocks of Power BI

- Visualizations
- Datasets
- Reports
- Dashboards
- Tiles
Three Pillars of Application Design

UI/UX
- Forms Manager
- Dynamic Forms
- Custom Columns
- Employee & Customer Portals
- Configurable Workspaces
- Responsive Design
- Branding

Workflow & Business Processes
- Workflow Manager
- Ticket Routing
- Alerts/Notifications
- Service Level Agreements
- Auto Assignment/Escalation
- Recurring Tickets/Tasks
- Sub-tasks & Linked Items
- Print Manager
- Email Synchronization
- Database Integration

Reporting
- Report Center
- Dashboards
- Tiles & Dials
- Data Integration
- PowerBI
THANK YOU!
Q & A
Stay in Touch

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