



Mobile Content Management



# Out-of-the-Box Thinking for SharePoint Mobility

## Part 3: Field Technicians



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# Mobile Access is Not Easy with SharePoint

Today, mobility means not just the type of device you are using, but the way you are working.

In this four-part series of mobile worker scenarios, our goal is to help you understand what you can achieve out of the box with OneDrive for Business, SharePoint and Office 365, and where you may need third-party solutions to create secure, yet user-friendly access to mobile and offline content.

When we look at the mobile experience in SharePoint, OneDrive for Business and Office 365, the out-of-the-box scenarios don't necessarily give mobile workers the richest and most user-friendly experience possible. Getting to a document library to open, edit and save a document in a browser on a device can be a difficult task. It's even tougher when you try to work offline as many of the mobile access points in SharePoint assume you are connected to your environment.

*"Mobility is about professionals who work remotely, who need access to content in distant, sometimes poorly or disconnected locations, and who collaborate with other parties, not just within their organization, but outside their organization as well."*

**Dan Holme**  
Office 365 MVP

## A 2015 AIIM study highlights the mobile experience in SharePoint, OneDrive for Business and Office 365:



35% of respondents reported frustrations with the lack of mobile support in SharePoint and the difficulties of getting external access.



20% are concerned that the frustration with the SharePoint user experience is leading employees to look for easier to use, non-sanctioned services.



To solve this, 12% of the companies surveyed already use a third party tool to gain a better mobile experience for SharePoint, and a further 32% have firm plans to implement a third party solution for their mobile workforce within 12-18 months.



## Worker Safety and Regulatory Compliance Drive Field Engineers' Mobility Needs

For engineers and technicians who work in the field, worker safety, and mitigating risk and liability, are top of mind.

Field engineers and technicians are responsible for overseeing operations, monitoring progress, maintaining worker safety and ensuring operations and environmental compliance.

To effectively manage their tasks and meet regulatory compliance, field engineers and technicians need access to:

- Their **contact list** of team members and vendors.
- **Data** which includes the most current versions of safety standards and operating procedures to help manage schedules and projects.
- **Forms** for reporting to regulatory agencies and ensuring compliance. Worker safety and procedures are critical in the field.
- **Rich media integration** to be able to view and upload rich media, such as photos and video, from the worksite.
- **Offline access** to ensure that field engineers and technicians can have access to their content at all times, even without an Internet connection. They may be on a remote work site or travelling to a site with poor reception. Their access to the above critical information cannot be contingent on being online.

All of this needs to be highly auditable and reportable, to ensure **compliance** at every stage.

*"Looking at the daily needs of field engineers and technicians, many industries come to mind. For example, consulting and engineering firms and building and construction, but the oil and gas industry is a particularly interesting one, so let's review that scenario.*

*Today's drilling engineer is responsible for overseeing drilling operations from initial well design to testing, completion, and abandonment at wells. He's responsible for monitoring drilling progress, for maintaining worker safety and, of critical importance, for ensuring compliance with dynamic operating environmental regulatory requirements. In this scenario, compliance is key."*

**Dan Holme**  
Office 365 MVP

## Mobile worker requirements:



### A single source of truth on multiple devices

The ability to access the same content on multiple devices with content looking uniform across desktops and devices.



### A simple user experience

Intuitive and easy to access and work with the content on any device – online and offline.



### A platform that can be controlled

A set of applications that are sanctioned enterprise-wide, where all content can be managed centrally.



### Governance

A secure system that allows the enterprise to govern the content and the devices from which that content is accessed.

# Out-of-the-Box Solutions

We're going to look at how Office 365 and SharePoint can support access to these 5 content types for field technicians:



Contact Lists



Data



Forms



Rich Media



Compliance



In Office 365, there are two common options for storing contacts: a SharePoint contacts list or an Outlook contacts folder.

You can add a contacts list to any SharePoint site. A SharePoint contacts list can be accessed from the SharePoint site itself, using a web browser. Or, a field technician can connect the SharePoint contacts list to Outlook, and interact with the list directly in Outlook, online or offline.

Working with contacts in Outlook, field workers can:

- search for contacts by name, company, title, etc.
- click a contact's email address to send a message
- initiate a mobile or Skype for Business call with a contact
- export contacts

Alternately, contacts can be stored in an Outlook contacts folder in the employee's Office 365 mailbox, hosted by Exchange Online, in a public folder, or in a shared mailbox. Public folders and shared mailboxes provide a centralized store of contacts that can be shared across users. When a field worker requires a list of personal contacts, those should be stored in his or her personal mailbox.

In any of these three configurations of an Outlook contacts folder in Office 365, sales executives will use Outlook or Outlook Web Access to manage their contacts. For offline access on a PC or Mac, Outlook will be the tool of choice, as Outlook Web Access requires connectivity to Office 365.

SharePoint contacts lists cannot be accessed using Outlook Web Access.

Contacts stored in Exchange Online can often be incorporated directly into the contacts app of the field worker's mobile device. This is particularly straightforward for contacts stored in the user's personal mailbox. Support for direct integration of shared mailbox and public folder contacts varies based on the device and the app.

It would seem that storing contacts in Exchange Online, and accessing them using Outlook or mobile device apps is a "no brainer" choice. Why would one choose to store contacts in a SharePoint list?

[continued »](#)

## Out-of-the-Box Solutions

# Contact Lists



SharePoint lists are easy for users to add to a team site. It is more difficult to configure shared contacts in public folders or shared mailboxes. Configuration of shared resources in Exchange often requires IT intervention.

SharePoint lists also provide customization that Outlook cannot as easily support. A user can add custom columns that can include metadata and lookups against other SharePoint lists. However, while those customizations will be visible in the SharePoint list, those customizations will not be synchronized to or accessible from Outlook.

While this white paper focuses on Office 365, there are, of course, other options for contact and customer relationship management in the Microsoft cloud—specifically, Dynamics CRM—and with other third-party services.



To create a calendar to manage schedules, field engineers have a few options. They can create a calendar within a SharePoint site, they can use their personal Exchange calendar or a calendar in a public folder or shared mailbox, or they can use the calendar of an Office 365 Group.

Mobile access is available to all of these options, contingent on connectivity to the servers or to Office 365.

On a Mac or PC, Outlook provides offline access to each of these types of calendars. On a mobile device, only those calendars stored in a user's personal mailbox can be integrated with mobile apps like Outlook Mobile, Sunrise, and the native calendar apps on iOS, Android, and Windows. There is no out-of-box solution for offline access to calendars in SharePoint sites or Office 365 groups, although Microsoft expects to add Calendars to the Outlook Groups mobile app in 2016.

Field engineers and technicians require the most current versions of safety standards and operating procedures. These documents can be stored, like any other file, in SharePoint document libraries, OneDrive for Business, or in Office 365 Groups.

**Document libraries in a SharePoint Team Site** provide the richest support for metadata, workflows, document approval, version control and auditing. Users can access a document library using a web browser, which requires online connectivity to the document library.

For offline access on a PC, users can synchronize a SharePoint document library to the local disk using the legacy OneDrive for Business client application. Mac OS X users can use Microsoft Document Connection. Microsoft will be adding the ability to synchronize SharePoint document libraries to the new One Drive for Business sync client in 2016.

There is no out-of-box application for synchronizing SharePoint document libraries to mobile devices.

**Office 365 Groups** provide a file sharing capability with a modern and responsive user experience in a web browser. Behind the scenes, each group includes a SharePoint document library as the file store, so Office 365 Groups files are synced in exactly the same ways—and with exactly the same limitations—as SharePoint document libraries.

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## Out-of-the-Box Solutions

# Data



The best experience for offline access is currently the user's personal OneDrive for Business. Although a user's OneDrive for Business is not designed to be heavily utilized as a shared resource, it can be shared. Files in a user's OneDrive for Business store can be synced to a PC, Mac OS X, iOS or Android device using the OneDrive for Business clients or apps.

Each of these have undergone significant revision in the last weeks of 2015, resolving limitations and performance issues that plagued the legacy OneDrive for Business client.

There are no out-of-box methods to "push" files to a user's offline cache. Users must manually select libraries and folders to take offline.

Field engineers and technicians can view, edit, and present using Office Online, when connectivity to Office 365 is available, or using Office client or mobile applications.

In this compliance-focused scenario, document security and data loss prevention (DLP) is a significant focus. Documents with sensitive information can easily be shared via email or sent to other non-sanctioned repositories. The out-of-box solution to these vulnerabilities requires a subscription of Office 365 that includes Azure Rights Management, which can add to the cost and complexity of your Office 365 implementation.

# Forms



In compliance-heavy environments, many forms must be locked down, declared a record and have document retention policies applied.

Records management features are missing from OneDrive for Business and Office 365 Groups files.

The remaining solutions are SharePoint document libraries, forms libraries, and lists. Each of these repositories provide records management capabilities. Forms libraries and lists don't have any out-of-the-box option for offline access. Document libraries are available offline only on a Mac or PC, as described earlier. Therefore, third party or custom solutions are generally required when field engineers and technicians require offline access to forms.

# Rich Media



Organizations are increasingly relying on photos and videos to communicate safety standards and procedures, as well as to document work scenarios. Both SharePoint and Office 365 have some great media capabilities.

SharePoint 2010 introduced picture libraries and SharePoint Sites has asset libraries, both of which provide a rich interaction with the media content. If you store a photo in a picture library or an asset library, it shows up as a thumbnail and users receive previews of media in those libraries.

Last year, Microsoft introduced Office 365 Videos – a corporate video portal that allows users to upload videos from desktops as well as mobile devices, and share those videos with all that need access to them.

Again, these new rich media capabilities are not available offline. The only offline option is the traditional document library and OneDrive for Business. Media files in these stores can be accessed and synchronized as described earlier.



Finally, there is the important topic of regulatory compliance. There are a number of questions to consider when reviewing the insight and reporting capabilities of out-of-the-box tools. How does an engineering firm know that its workers read the safety procedures? How do they know the procedures were followed? How does the firm keep track of forms that were filled in?

SharePoint and Office 365 provide some auditing and reporting capabilities. However, these capabilities rarely align with real business requirements. Among the more significant challenges is that logs are maintained for only a short period of time—often much shorter than required to meet regulatory compliance guidelines. There's also a lot of work that needs to tease information from the logs and report it in a way that is fully compliant.

Therefore, most organizations find that they require third party solutions that align more directly with the compliance information they are asked to gather and report.

# Mobile Requirements Checklist



Taking a broader view of the requirements we've introduced in the field technician scenario, here is a checklist to use as a shortcut to evaluating and prioritizing your mobility needs.

## Mobile Requirements Checklist

### **Mobility**

- When needed
- Across devices
- Where needed
- Low speed/latency
- Offline
- Secure

### **User experience**

- Easy: "discoverable"
- Integrated: "native"

### **Content requirements**

- Documents
- Contacts
- Calendars
- Tasks
- Lists
- Forms
- Media
- Business data
- Business intelligence
- Conversations

### **Enterprise content**

- Information architecture
- Findability

### **Adoption & usage**

- Measurable

### **Governance**

- Access control
- Rights management
- Records management
- Auditing
- Reporting
- E-Discovery
- Supportability

## **Mobility**

First, you need to think about mobility itself. Where and when is the content needed? Is it needed across multiple devices? In what kinds of locations do employees need to reach their content? Do these locations have low speed or latency problems? Do you need offline access to the content? What requirements do you have for mobile security?

## **User experience**

How easy, or discoverable, does the experience need to be for your users? How native does it need to feel?

## **Content**

What do users need to have access to? Take into consideration documents, other content, calendars, tasks, lists, forms, media, business data, business intelligence that makes sense of that data, and conversations with peers and customers. Is there a need for information architecture? What are the taxonomy requirements, and how are you going to make that content findable?

## **Adoption**

How are you going to drive adoption of the solution? How are you going to measure it? How are you going to know that people are using the solution you've built and not bypassing IT in favour of rogue solutions on unsanctioned platforms?

## **Governance**

How are you going to govern the solution as a whole? How are you going to manage access and permissions? Do you need to apply information rights management? Do you need to preserve content as records? What kind of auditing, reporting and insight do you need? If you ever get a legal action that surrounds this particular use case, are you going to need to support it with e-discovery?

## **Support**

If you're going to deploy a mobile solution, what happens if something goes wrong? What level of support do you need from Office 365 or a third-party vendor?

# Configure, Build or Buy?



The best way to evaluate your needs for enterprise mobility is to consider the requirements in the context of each group of content and examine them across your requirements – do you need to configure the platform, build your own extension or buy a third-party solution? For example, if you need offline access to documents, can you configure your current solution, will you need to build an extension to achieve caching of documents or should you buy a third-party solution?

The below mobile requirements matrix is a starting point for you to evaluate your organization's requirements.

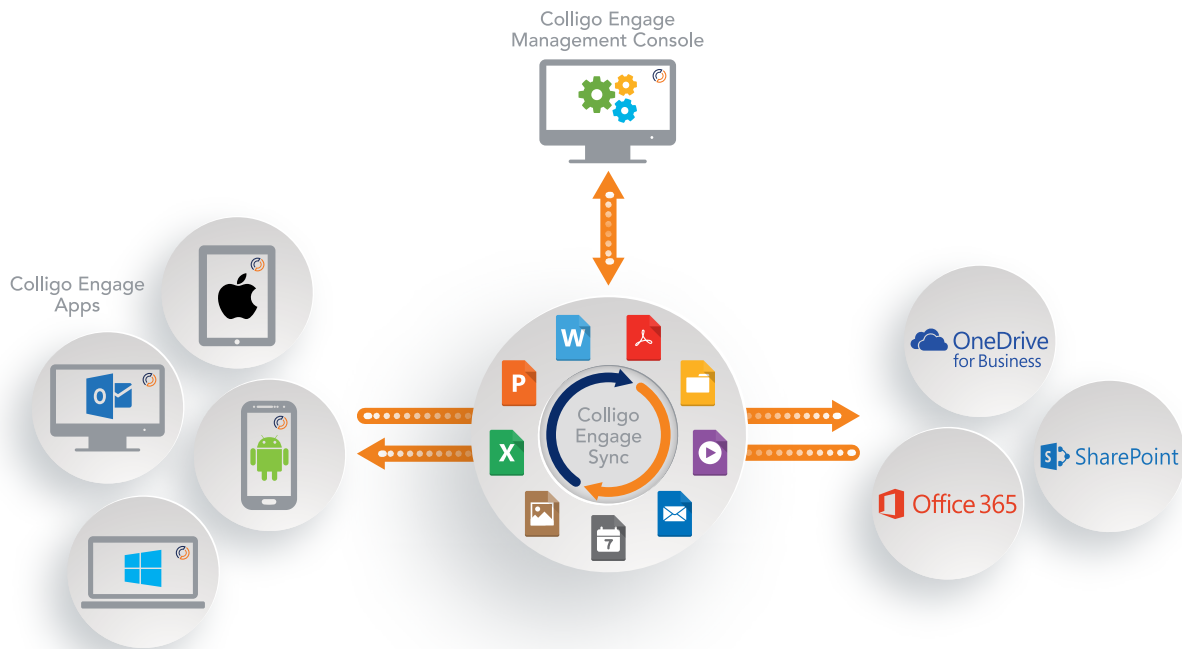
| Content types         | Mobility    |                |              |                   |         |        | User Experience      |                      | Enterprise Content       |             | Adoption & Usage | Information Governance |                   |                    |          |           |             |
|-----------------------|-------------|----------------|--------------|-------------------|---------|--------|----------------------|----------------------|--------------------------|-------------|------------------|------------------------|-------------------|--------------------|----------|-----------|-------------|
|                       | When needed | Across devices | Where needed | Low speed/latency | Offline | Secure | Easy: "discoverable" | Integrated: "native" | Information architecture | Findability | Measurable       | Access control         | Rights management | Records management | Auditing | Reporting | E-Discovery |
| Documents             |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Contacts              |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Calendars             |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Tasks                 |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Lists                 |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Forms                 |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Media                 |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Business Data         |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Business Intelligence |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |
| Conversations         |             |                |              |                   |         |        |                      |                      |                          |             |                  |                        |                   |                    |          |           |             |

Choose a content type from the left column and score the top row requirements from 0 to 5, with 5 being a top priority.



Colligo helps organizations accelerate SharePoint/Office 365 adoption for content filing and sharing.

Our Colligo Engage platform includes highly engaging 'native' apps, multi-system sync technology and a management console. Colligo solutions are deployed in F500 enterprises and thousands of organizations of all types to increase productivity, support mobility and mitigate risk.



## Next Steps

You've invested time and money to deploy SharePoint. Now is the time to fully leverage your system for the unique business scenarios of your mobile users. Take this opportunity to do it right!

[www.colligo.com/request-demo-form/](http://www.colligo.com/request-demo-form/)

# Meet the Authors

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Dan Holme's 20 years of experience and his impact on hundreds of thousands of IT professionals and business decision makers have earned him a reputation as one of the world's most respected analysts, consultants, authors and experts on Microsoft technologies. A native of Colorado, resident of Maui and graduate of Yale, Dan has been recognized as an MVP for nine years across three technologies, and is one of the top ten partner MVPs in the world. Dan has penned hundreds of articles for [SharePointProMag.com](http://SharePointProMag.com) and numerous best-selling books for Microsoft Press. Dan also serves as the Microsoft Technologies Consultant for NBC Olympics.

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Todd is a ten-time Microsoft SharePoint Server MVP and a SharePoint Top 25 Influencer who specializes in Microsoft SharePoint, Office 365, Azure, Mobile, Office and cloud technologies. Todd is the VP of SharePoint and Mobility at Canviz Consulting where he leads the SharePoint and Mobility divisions. In his free time, he enjoys playing with his son, relaxing with his wife, and playing a variety of sports like skiing, lacrosse, hockey, football, and softball.

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Barry is the founder and CEO of Colligo, and has been a technology innovator and entrepreneur for over 25 years. Barry is a recognized expert on SharePoint client technology and a frequent speaker at SharePoint and Enterprise Content Management (ECM) conferences worldwide. He manages Colligo's popular SharePoint blog, which discusses important issues in email and records management, governance and compliance, as well as technology trends affecting the SharePoint and ECM market. Barry holds degrees in Science and Electrical Engineering and was named Ernst and Young's 1997 Pacific Region 'Entrepreneur of the Year' for Technology.

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