



# White Paper: Collaborative Working 2013

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## Executive Summary

Research by Microsoft into project management processes across multiple workplaces demonstrates that project efficiency can be improved through the use of modern collaborative software, such as Office 365 and SharePoint.

Organisations that adopt more collaborative working practices discover that the delivery and management of project work can be improved. This whitepaper focuses on a number of areas:

- Supporting remote working
- Using shared workspaces to circumvent the problems with version control
- Cloud based collaboration solutions
- Using mobile devices to improve collaboration

The objective of this report is to provide insight into the way in which the adoption of the latest productivity software within an organisation can, along with proper training and support, enable teams to work more closely, even in an environment where they are no longer working face-to-face.



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igroup is an ISO 9001 certified organisation and a Microsoft Gold Certified Partner with our specialist competency in SharePoint. The SharePoint services we offer include development, hosting, consultancy, support and training. Our Managing Director, Steve Rastall has been named in Insider Magazine's 'Top 25 Up & Coming Entrepreneurs' and we have also won a HOT 100 Fastest Growing Companies award. Since we were setup, we have at least doubled sales revenue every year via organic growth.

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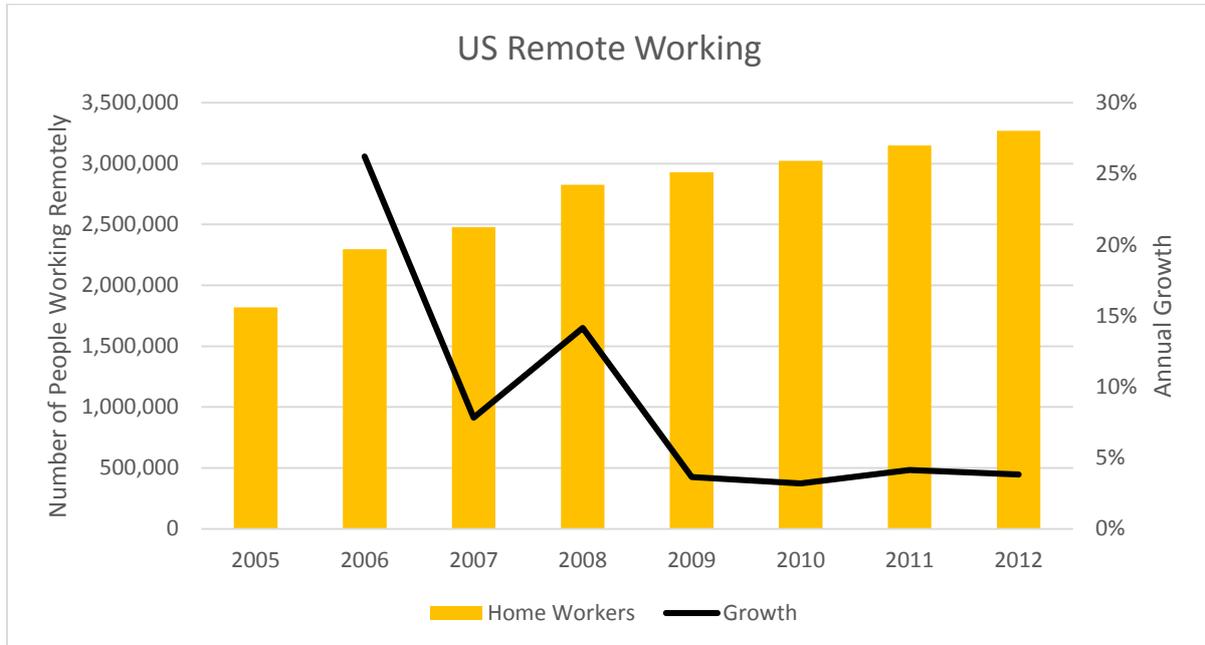
Or contact us using the following email address and telephone number:

[hello@igroupltd.co.uk](mailto:hello@igroupltd.co.uk)

0845 838 2184

## The Growth of Remote Working

For most of our history, the prevailing view of employment has been that work is a place where you go. More recently, work has become a thing that you do. A survey by Global Workplace Analytics that concentrates on the US working population shows that the number of office staff who work remotely has grown substantially over the past 8 years:



According to this research, the total population of remote workers in the USA exceeded 3 million in 2011, and continued to grow into 2012 and beyond. Since 2009, there has been a steady increase in the remote working population of approximately 3% per year.

### Factors Driving Increased Remote Working

There are a number of factors that contribute to growth in the population of remote workers around the world. These include social and economic elements. Employment costs for many businesses have risen since the 2008 economic crisis, as has the cost of fuel for employees commuting to work. Along with flat growth in wages over this period, these factors have created impetus for employees to reduce unnecessary travel to the office in order to maintain a steady cost of living. According to a 2012 survey by the Confederation of British Industry (CBI), the ability to work from home was considered to be a significant benefit for employees.

Employer benefits include:

- The ability to recruit from a wider geographic area
- Reduced requirements for office space
- Lower overheads

There are drawbacks to a remote workforce however. Employers cited a number of areas as barriers to enabling large scale remote working:

- Monitoring employee productivity
- Managing employee workload



- IT support concerns

Traditional management structures and IT resource management become more complex when the workforce is distributed across a wider area. There are challenges in ensuring that productivity requirements are met without additional management overhead and in providing appropriate levels of technical support to staff.

These challenges can be addressed through the use of improved project management software that provides better collaboration and monitoring functionality as well as a consistent technical deployment across the workforce. This allows for simplified first-line support and cloud storage of data to ensure that technical failures do not require the same level of on-site resolution.

Recent versions of Microsoft Office, Windows and SharePoint have been designed from the ground up to reflect changes in the employment market and to better support distributed workforces and remote project management.

## The Problem with Version Control

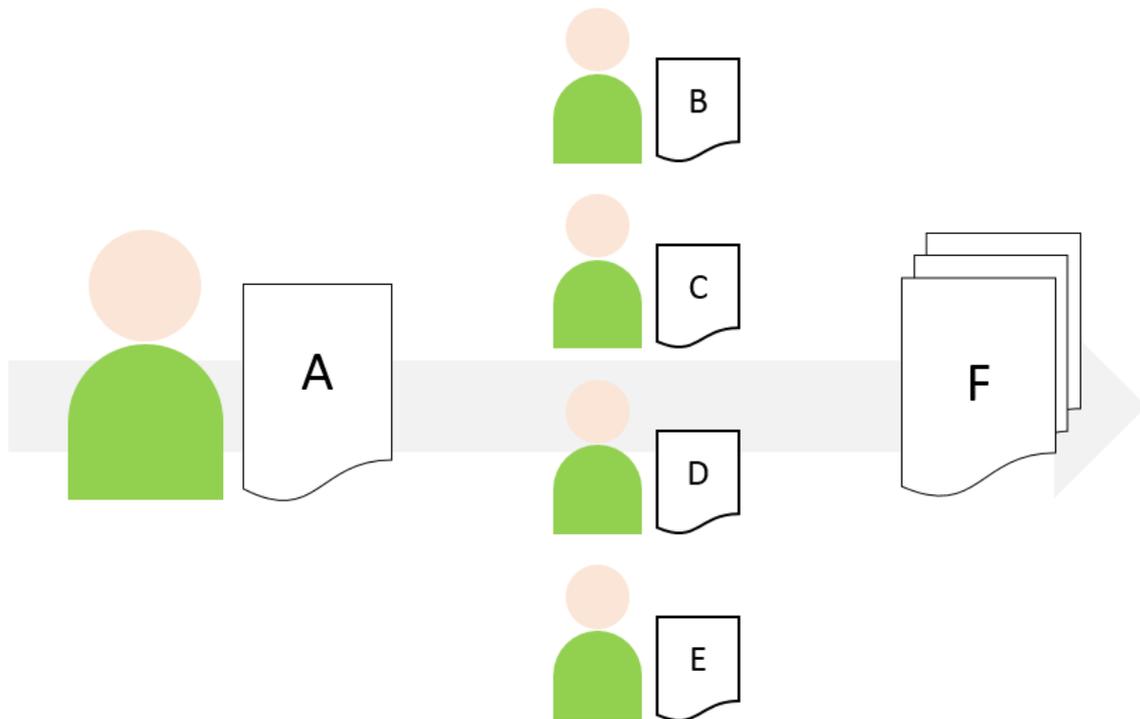
Poor use of technology can cause major issues with the delivery of complex collaborative projects when staff are working remotely from each other. In a traditional, inefficient model, the primary productivity tools might be:

- Microsoft Word
- Microsoft Excel
- Microsoft Outlook

The creation and management of documents and appropriate version control become complicated when multiple people are contributing to a project:

- Person 1 creates a document and provides an initial draft
- Person 1 emails the document to persons 2 and 3
- Person 2 makes changes to their copy of the document and emails it to person 1 and 3
- Person 3 makes changes to their copy of the document and emails it to person 1 and 2

With larger teams involved, the problems with this model of working become even more acute:



If documents are circulated in iterative fashion, between large teams, without appropriate controls over access and changes being tracked, the number of non-canonical documents can spiral out of control and cause major delays in project completion as all of the contributions are taken into account.

The key flaws with this model are:

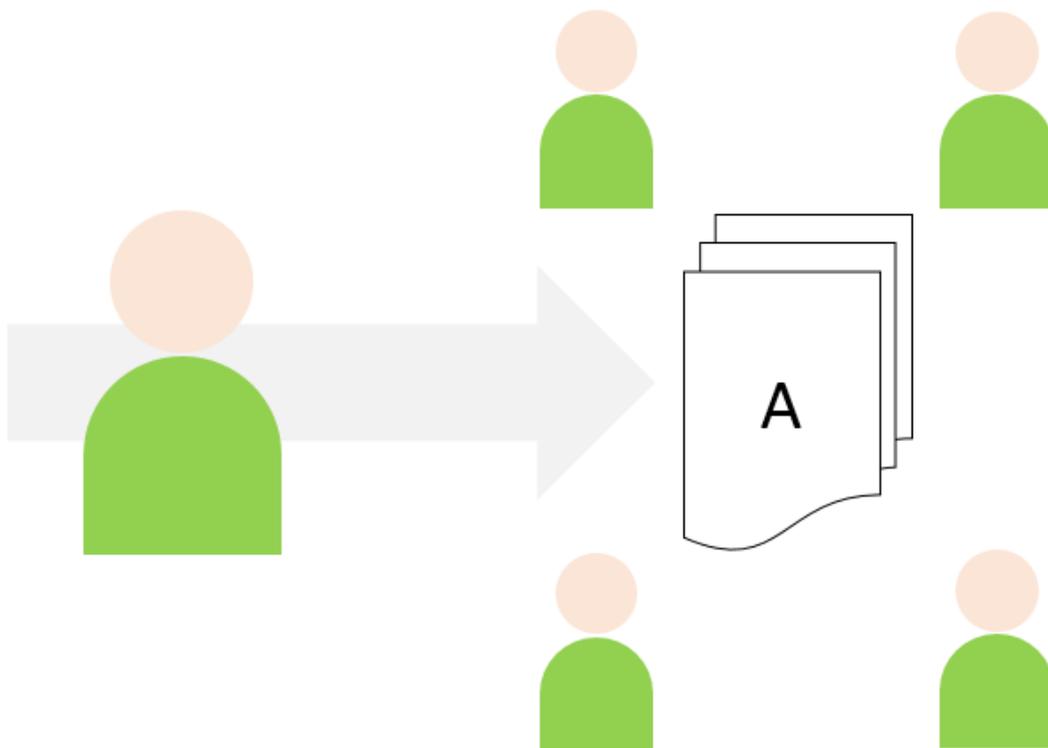
- Multiple versions of the document in circulation
- Duplication of effort in making initial changes
- Final review required to ensure document reflects all contributions

There are two key ways to avoid such issues with version control:

- Project stakeholders work on the project in turn, sending the document from one to the other in a chain
- The team use a productivity solution that enables them to work on the same document at the same time

The first option is undesirable, as a linear progression of work through a system negates the efficiency of a team working together entirely. If people can only contribute to the project once the previous stage has been completed, then there is no material advantage of their contribution from a speed to completion perspective.

The more desirable method is to have a system in place under which the work can be shared via a central location and into which all collaborators can contribute without creating version control conflicts. This might be summarised as follows:



This type of arrangement requires a productivity solution that allows multiple contributors to work together in real-time on a single instance of a document. This can be enabled using a cloud based office system under which access is granted to all stakeholders within a project so that they can all input to the document without any fragmentation caused by local copies being stored.

## Key Cloud Productivity Solutions

A number of cloud productivity solutions exist in the market place. The two best known and most popular within enterprise are:



Both of these solutions have benefits and drawbacks, however both allow for teams to work together through cloud sharing of content during the development process. This provides advantages to workflow as outlined in the previous section of this whitepaper.

- Version control is inherent in the system
- Real-time contribution is possible, meaning more rapid completion of the project

Although it is a relatively recent entrant into the productivity market, Google's growth has been significant and fast. According to a study by Forbes in 2013, some 37% of organisations in the US were planning to adopt Google Apps for business within the next 24 months (<http://www.forbes.com/sites/ciocentral/2012/06/01/google-apps-by-the-numbers/>). The key factor driving this change is the need for businesses to provide cloud-based productivity to enable better collaboration between teams.

It is important to note, however, that although the headline rate for adoption of Google solutions is relatively high, it is still well below the levels expected for Microsoft Office 365, which is estimated to have had 20% of the enterprise market at the start of 2013 and growth of 150% over the previous 12 months ([http://www.cio.com/article/734773/Is\\_Microsoft\\_s\\_Office\\_365\\_Bet\\_Starting\\_to\\_Pay\\_Off\\_in\\_Enterprise\\_Adoption\\_](http://www.cio.com/article/734773/Is_Microsoft_s_Office_365_Bet_Starting_to_Pay_Off_in_Enterprise_Adoption_)).

Microsoft Office has been the industry standard for productivity software for more than a decade and commands a significant existing market share. Smaller players such as Zoho have an offering which is enticing on paper, but which relies on other technologies in order to function properly, whereas Microsoft's offering is designed to support other technologies and place the whole process of information sharing within a consistent and secure environment at the heart of its structure.

### Differences between SharePoint and Google Drive

There are some fundamental differences between the way in which information is organised and shared on Google Drive and SharePoint - and these have major implications for adoption, particularly at enterprise level where sensitive information is concerned.

### Storage

SharePoint can be deployed in a number of different ways, either as a hosted instance on a secure, self-managed server, or remotely in the cloud. Either way, control over data is entirely owned by the company that publishes it. It can be exposed externally by choice, but by default it is central and secure.

In Google Drive, data is only hosted in the Google Cloud. It can be downloaded onto a central location, but not collaborated on. Ownership of content is at an individual level in Google Drive, so

User A shares it with their collaborators, whereas in SharePoint, the ownership resides at a group level. This has implications for sharing and access to content, which is highly important from a security and compliance perspective.

Further to the above, there are restrictions on the exportation of some sensitive data from specific markets. There is a legal grey area about the use of services such as Google Drive to host some financial information outside the UK, whereas in SharePoint, server location and therefore data location is handled by the systems administrator, rather than an external third party.

### Searching

Given that Google is primarily a company specialising in search, the ability to find content in Google Drive is a major asset of the service, however there are a number of limitations with the search results provided:

Ownership is not explicit - Google Drive makes no distinction between documents that an individual owns, and those which have been shared with them

Content organisation is limited - While content can be curated into individual folders within Google Drive, these are not persistent across multiple users. This means that the same article of content can exist in multiple locations making it more difficult to control which version is preferred. Solutions such as SharePoint have a much stronger hierarchy of information which is global to all users and which provides a consistent access paradigm across an organisation.

### Extensibility

A key benefit of Google Drive is the ability to create functional web based applications using data across multiple sources. Team management and CRM are possible within Google Drive, however it is not possible to template types of application and deploy them in the same way as it is with SharePoint.



An example of this is Alerts. By using a Microsoft Stack (Exchange + Office + SharePoint), it is possible to create a system of alerts within the basic inbuilt functionality of the software to enable collaborators within a document to all have notification of changes or requirements. This is also possible within Google Drive, but it must be enabled by the individuals themselves, rather than being carried out at a team level. It is an opt-in technology, which means that errors can happen.

### Process Automation

A key selling point of Microsoft Office for many years has been the ability to simply create macros to repeat functionality. This is a technology that flows through the entire MS system using Exchange and SharePoint to control the flow of information and automate processes for users to create a more simple and efficient working environment. Again, Google Drive can be configured manually to carry out many of the same automation tasks as SharePoint, but it is not native to the system and requires significant development overhead and technical support to implement across multiple users.

## Mobile Collaboration

A key benefit of cloud based productivity solutions is that they can become device independent. The growth of smartphone and tablet adoption within enterprise has been rapid, to the point where almost all remote employees now have access to a web enabled device that can provide access to email and versions of productivity software to enable them to work “on the go”.

Both Google Drive and Office 365 are accessible via mobile devices – as are other web-based solutions such as Apple iWork, although functionality varies depending on device.

There are a number of barriers to true mobile collaboration, however, and technical teams should be mindful of the limitations of the technology before committing.

### Screen Size

Screen real estate is a major limiting factor in the ability of individuals to use a full featured office suite on a smart phone. Even the larger Android and Windows 8 “phablets” have a maximum screen of around 5-6 inches. This allows for very limited document editing, and for most users, content review is the primary benefit of mobile access.

On tablet devices above 7 inches (Nexus 7, iPad Mini, etc.), the screen real estate is larger, although a touchscreen keyboard will typically take up around 50% of the usable area, again limiting the use of the device as a true productivity tool.

Full-size tablet devices of 9+ inch screen size, such as Samsung Galaxy 10.1, iPad Air, and Microsoft Surface, provide a much more satisfying user experience, particularly with the addition of a hardware keyboard, and should be the minimum considered as a device where actual productivity is a consideration.

### Connectivity

Users typically have 3 main methods of gaining web access through mobile devices:

- 3G / 4G Network
- Public Wi-Fi
- Private (home / office) Wi-Fi

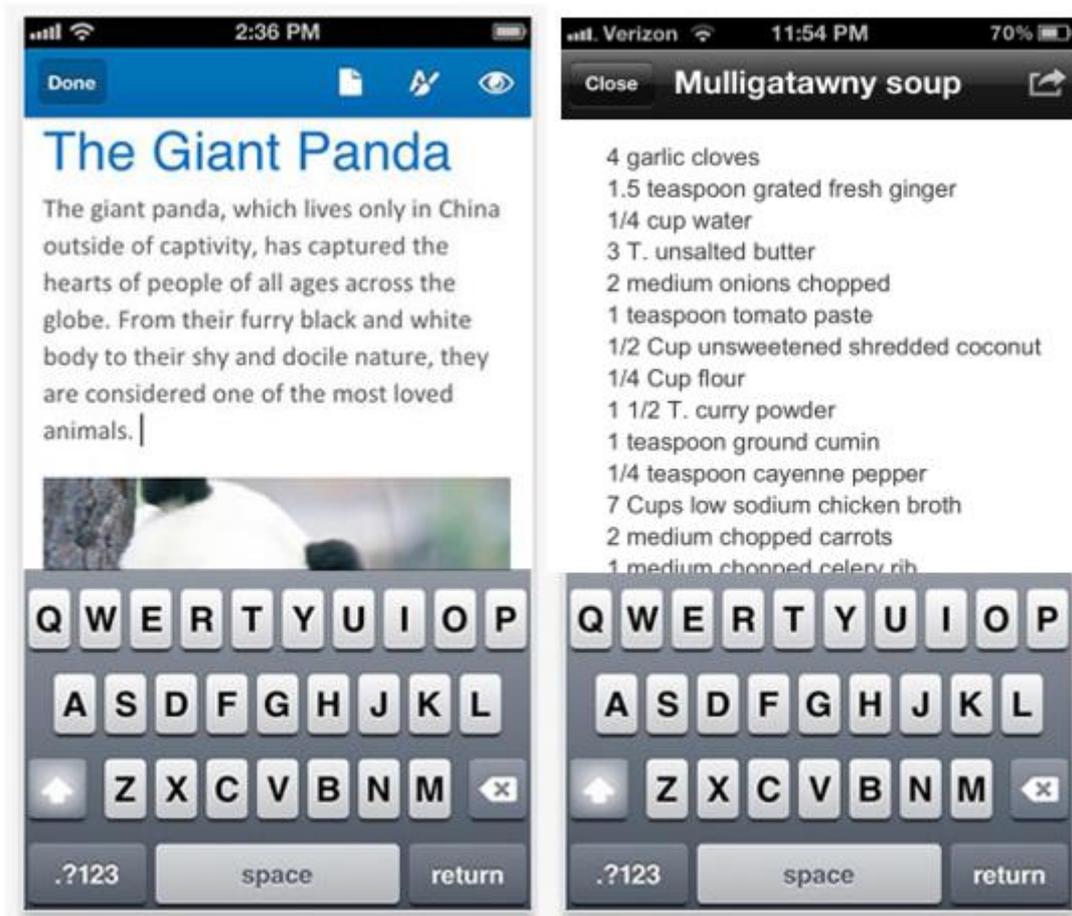
A reliable modern 3G connection in a device with suitable processing power is more than adequate for accessing documents via an online service and collaborating in real-time. According to BroadbandGenie.com, UK average 3G connection speeds in 2013 were 1-4MB/s, which means a typical document can be downloaded in under 10 seconds.

Typically, a 3G cellular connection will offer better security than a public Wi-Fi channel, so these should be the preferred method of accessing data away from the office and teams should be appropriately equipped to handle them.

## Software

As noted above, apps for both Google Drive and Office 365 are available for mobile devices. Both offer an optimised user experience, although, as noted above, the available screen real estate on a mobile device means that the experience is better suited to consuming rather than contributing to the overall work.

The following is a side by side comparison of the UI for Office 365 and Google Drive on the most popular screen size for iPhone:



In both examples, the available screen space is more or less identical and allows for similar amounts of text to be displayed on screen – roughly 12 rows with the keyboard visible.

The ability to view only 100 or so words on screen during editing a document on a phone would not be efficient under either platform, and, as such, from a collaborative perspective, the use of either solution is best confined to reviewing work in progress, rather than contributing.

## Summary

The prevailing trends in the market point to continued growth in the number of remote workers while the competitive advantage of collaborative working practice means that, over the next few years, it will become increasingly important for organisations of all sizes to invest in cloud solutions for productivity.

While Google Drive and its various applications offer a basic level of collaboration for workers through online editing and cloud storage, they do not provide the level of control expected and required for larger organisations who need the security of data ownership and user access control.

Microsoft Office 365 combined with SharePoint provides a more polished user experience and improved security. This is largely related to the experience Microsoft have in meeting the needs of enterprise and developing their productivity suite over a longer period of time.

Collaboration via mobile devices remains in its infancy, however is likely to grow in importance with an increasingly mobile workforce needing to access information on the go. The current generation of technology provides excellent connectivity and the ability to access documents from anywhere, however limitations in hardware, particularly around screen dimensions, mean that there is an inability to effectively contribute.

Trends toward larger mobile screens are likely to continue, as is tablet adoption in the workplace. Microsoft's position in that market is currently limited, however a unified experience across devices with Windows 8+ on phone and desktop, combined with the familiarity enterprise IT have with Microsoft technologies mean that business adoption of Windows Phone and tablet is highly likely.