A Principled Technologies report: Hands-on testing. Real-world results.



# A cloud abroad in Paris

# A comparison of Google Sites and Microsoft SharePoint Online

Intranet management is evolving, and with the right tools, your employees can build internal sites quickly and easily. These online spaces provide your staff with a centralized location where they can get the answers they need when they need them. The easier it is for everyone to set up and update these important hubs of communication, the more likely your teams will find up-to-date information within them.

G Suite and Microsoft<sup>®</sup> Office 365<sup>®</sup> both provide site management tools—Google Sites<sup>™</sup> and Microsoft SharePoint<sup>®</sup> Online respectively. This report provides users with real-world data about intranet management when the cloud tenant is established in the U.S. and offices across the pond use these shared resources.

We set up G Suite and Microsoft Office 365 accounts in the United States and our team in France set up and maintained internal sites with Google Sites and Microsoft SharePoint Online to see which provided the better experience.<sup>1</sup>

Google Sites delivered a streamlined user experience and responsive mobile design that SharePoint Online couldn't match. Google Sites not only performed 100 percent of the routine site management task in less time, it did so with noticeably less effort than the Microsoft Office 365 tool. Read on to learn more. PREVIEW A SITE THEME in up to 98% LESS TIME with Sites

EMBED A YOUTUBE™ VIDEO in a page in 10 FEWER STEPS with Sites



# On the outs with your intranet?

We determined how long it took workers in Paris to create new sites and maintain existing ones with Google Sites and Microsoft SharePoint Online. We also compared the number of steps both tools required to complete common tasks such as adding text, images, video, and calendars to a page. Because mobility is crucial for the multinational enterprise, we used a variety of laptops and smartphones running different operating systems (OS), browsers, and apps to test real-world scenarios.

Before we started testing in France, we set up accounts in G Suite and Microsoft Office 365 at our hands-on testing facility in Durham, North Carolina. We used those accounts for testing in the United States. Then, our team in Paris used those same accounts for testing in France.

Read Principled Technologies' five-part series "Not all clouds are created equal" to see how G Suite and Microsoft Office 365 handled collaboration and productivity tasks in the U.S.

The following scenarios describe the results of our testing in Paris, with a hypothetical headquarters in the United States. These scenarios give us a glimpse into how G Suite and Office 365 perform for employees that travel or who work outside of their U.S. headquarters.

### A tale of two intranets

Isabelle and Maurice are communications coordinators for rival telecommunications groups in Europe. Part of their job is setting up and maintaining the internal sites used at their respective offices in Paris. They must embed video, add images, and edit copy for these pages. Isabelle's company uses G Suite and Maurice's company uses Microsoft Office 365.



# More time for core competencies

Routine tasks shouldn't be complicated. Our data shows that Isabel, using Google Sites, can perform every task in fewer steps than Maurice can using Microsoft SharePoint Online.

The real advantage isn't only saving steps when you embed video or upload images to a page—it's the fact that Google Sites is generally easier to use than Microsoft SharePoint Online (see pages 6 and 7).



### Isabelle outscores Maurice 3-1

Isabelle and Maurice are creating new pages and sites for their company intranets. Both need to build new group sales history pages for their sales teams, prepare commission breakdown pages for HR, and create contract sites for their legal teams.

Our results show that Google Sites helps Isabelle finish her tasks in less time than Maurice can with SharePoint Online. Creating new sites on her Windows<sup>®</sup> 10 laptop takes Isabelle 3 seconds. It takes Maurice over 10 seconds longer to do the same thing with SharePoint Online on the same laptop model! Simply put, Isabelle can create three new sites in the time it takes Maurice to create one. This advantage means Isabelle can start working on other objectives while Maurice is still far from done with his list.

Once each new project site is ready to go, Isabelle lets her coworkers know via email that their new portals are up and running. With Google Sites, Isabelle's team sees her emails sooner than Maurice's coworkers with SharePoint Online.



# Fast tools for staying up to date

Isabelle and Maurice now need to update their respective sites by changing the site's color scheme and reviewing individual team pages.

It takes Isabelle under a second to preview a site theme with Google Sites on her Windows 10 laptop. In contrast, Maurice is stuck staring at his computer screen for over half a minute as he waits for SharePoint Online to preview the changes. This is the kind of delay that makes busy employees avoid certain tasks.

Opening a page for editing takes Microsoft SharePoint Online 1.5 times as long as it takes Google Sites. When workers like Isabelle and Maurice are reviewing dozens of team pages and adding new information to existing files, the time it takes to complete these tasks really adds up. And when they don't have the fastest tools helping them, routine tasks require more time than they should.



### Get the whole picture

Saving time and steps is important, but those savings aren't the only difference between Google Sites and Microsoft SharePoint Online.

### The Google Sites experience

Google Sites presented our testers in Paris with a consistent experience across devices, including Android<sup>™</sup> and iOS smartphones. It also created responsive pages that scaled properly on both laptop and mobile screens.

#### What a page editor on desktop sees **SharePoint Online Google Sites** Team Site III Office 365 🗠 🔿 🔕 🏩 PUBLISH 💌 🗄 4 0 ? 🔎 INSERT Aa AuBBCCDde AaBbC AaBbCCD AuBBCCDd AuBBCCDd AuBBCCDde Bengroch Heading 2 Heading 3 Heading 4 Bendro 4 Be ۵ **Team Site** Home Notebook Documents Site Content Recycle Bin Team Site Google Drive A From Driv 🛃 Change image 📑 Header type 2 0 1 Leverage agile frameworks 0 a robust synopsis for high level of approaches to corporate strates ative thinking to further the over Calenda Q Map . Orga Date: Slides Sheets Bring survival strategies to the table Forma ctive administration. At the end of the da 1. Charts

### What a user on desktop sees

#### **SharePoint Online**



#### Google Sites



### The Microsoft SharePoint Online user experience

Microsoft SharePoint Online has some mobile support, but what you see when designing a SharePoint site isn't always what you get. For example, in the screenshot on the left, the page title's formatting doesn't match how it appears in the SharePoint Online editor screen on the previous page, and you see only half of the image; you have to scroll horizontally to see the whole thing.

In contrast, Google Sites was mobile-friendly and didn't have any issues fluidly scaling from mobile screens to laptop screens.



### Conclusion: Google Sites makes routine tasks less complicated

Internal sites provide your employees with the information they need in one convenient location. When these sites are easy to maintain, they bring even more value to users, because it's not difficult to keep that important information up to date.

In our hands-on testing, Google Sites streamlined the process of site building and maintenance—each task took fewer steps. Every Microsoft SharePoint Online step-by-step process was more time-consuming and complicated. Google Sites also provided users with a consistent experience across devices, a consistency that was lacking in our SharePoint Online experience. Overall, we found that accomplishing day-to-day tasks using Google Sites was simpler and more intuitive. When we attempted the same tasks with SharePoint Online, we experienced up to 98 percent longer wait times.

Want to try out the tests yourself? Follow the methodologies at the end of the report.

This is the fifth report in our five-part series that explores the performance of Microsoft Office 365 and G Suite when set up in the United States and accessed abroad from Paris. These scenarios show how the two suites perform for employees that travel or who work outside of their U.S. headquarters. Read the full series for a more complete picture of each cloud's performance for multinational companies.

### Additional reports in the "A cloud abroad in Paris" series:

- A comparison of Google Docs<sup>™</sup> and Microsoft Word Online
- A comparison of Google Hangouts<sup>™</sup> and Skype<sup>®</sup> for Business
- A comparison of Google Drive™, Microsoft OneDrive® for Business, and SharePoint Online
- A comparison of Gmail<sup>™</sup> and Outlook<sup>®</sup>

<sup>1</sup> For our testing, we used the rebuilt Google Sites via the Google Sites Early Adopter Program: https://cloud.googleblog. com/2016/06/powering-a-more-connected-and-collaborative-enterprise.html

On August 18, 2016, we finalized the hardware and software configurations we tested. Updates for current and recently released hardware and software appear often, so unavoidably these configurations may not represent the latest versions available when this report appears. For older systems, we chose configurations representative of typical purchases of those systems. We concluded hands-on testing on August 18, 2016.

On September 29, 2016, Google rebranded Google Apps for Work as "G Suite." We completed our testing prior to that rebranding.

# Appendix A – What we tested

The table below shows the system information for the mobile devices we tested.

System	Apple <sup>®</sup> iPhone 6s Plus	Google Nexus™ 6P
Processor		
Vendor	Apple	Qualcomm®
Model number	A9 + M9 coprocessor	Snapdragon™ 810
Core frequency (GHz)	1.85	1.95 + 1.55
Number of cores	2	8 (4 + 4)
Memory		
Amount (GB)	2 (built-in onboard)	3 (built-in onboard)
Туре	LPDDR4	LPDDR4
Graphics		
Vendor	Imagination <sup>®</sup> Technologies	Qualcomm
Model number	PowerVR <sup>®</sup> GT7600	Adreno™ 430
Storage		
Amount (GB)	64	64
Туре	NAND Flash	NAND Flash
Connectivity		
Wireless internet	802.11ac (802.11a/b/g/n compatible)	802.11ac (802.11a/b/g/n compatible)
Cellular	LTE Advanced	LTE Advanced
Bluetooth	4.2	4.2
Battery		
Туре	Lithium-polymer	Lithium-polymer
Size	Integrated	Integrated
Rated capacity (Wh)	10.45	13.11
Display		
Size	5.5"	5.7"
Туре	LED-backlit widescreen Multi-Touch	AMOLED widescreen Multi-Touch
Resolution	1,080 × 1,920	1,440 x 2,560

System	Apple <sup>®</sup> iPhone 6s Plus	Google Nexus™ 6P		
Camera				
Front-facing (MP)	5 (720p FaceTime <sup>®</sup> HD)	8		
Rear-facing (MP)	12 (iSight®)	12.3		
Operating system				
Vendor	Apple	Google		
Name	iOS	Android		
Build number or version	9.3.2	6.0.1		
Dimensions				
Height	6.23"	6.27"		
Width	3.07"	3.06"		
Depth	0.29"	0.28″		
Weight (oz.)	6.77	6.27		

The table below shows the system information for the laptops we tested.

System	Apple 13" MacBook Air® (Early 2015)	Lenovo® ThinkPad® X1 Carbon		
Processor				
Vendor	Intel®	Intel		
Model number	Core™ i5-5250U	Core i7-6600U		
Core frequency (GHz)	1.6 (up to 2.7 Turbo Boost)	2.6 (up to 3.4 Turbo Boost)		
Number of cores	2	2		
Cache	3MB L3	4MB L3		
Memory				
Amount (GB)	8 (built-in onboard)	8 (built-in onboard)		
Туре	LPDDR3	LPDDR3		
Speed	1,600 MHz	1,866 MHz		
Integrated graphics				
Vendor	Intel	Intel		
Model number	HD Graphics 6000	HD Graphics 520		
Storage				
Amount (GB)	256	256		
Туре	PCIe-based flash	PCle NVMe™ SSD		

System	Apple 13" MacBook Air® (Early 2015)	Lenovo <sup>®</sup> ThinkPad <sup>®</sup> X1 Carbon
Connectivity/expansion		
Wireless internet	802.11ac (802.11a/b/g/n compatible)	802.11ac (802.11a/b/g/n compatible)
Bluetooth	4.0	4.1
USB	2 x 3.0	3 x 3.0
Thunderbolt	2 x 2	N/A
Video	N/A	1 x HDMI®, 1x Mini DisplayPort
Battery		
Туре	Lithium-polymer	Lithium-polymer
Size	Integrated	4-cell
Rated capacity (Wh)	54	52
Display		
Size	13.3″	14"
Туре	LED-backlit glossy widescreen display	LED IPS
Resolution	1,440 × 900	1,920 x 1,080
Touchscreen	No	No
Operating system		
Vendor	Apple	Microsoft
Name	OS X El Capitan	Windows 10 Pro
Build number or version	10.11.6	1511, OS Build 10586.318
Camera		
Front-facing	720p FaceTime HD	720p
Dimensions		
Height	0.11" to 0.6"	0.6"
Width	12.8"	13.1″
Depth	8.94"	9.00"
Weight (lb.)	2.96	2.58

# Appendix B – How we tested

### About our testing

#### Network infrastructure

We used two of each device under test. We connected the two devices in each pair to separate wireless networks. We connected the devices to the 5GHz band of identical, 802.11 ac-based TP-Link AC1750 wireless routers. We configured each router identically but set them to use different channels, to minimize traffic from nearby networks.

#### Devices

- Lenovo ThinkPad X1 Carbon (Windows 10)
- Apple 13" MacBook Air (OS X El Capitan)
- Google Nexus 6P (Android 6.0.1)
- Apple iPhone 6s Plus (iOS 9.3)

#### OS and browser versions

- OS X El Capitan
  - Chrome<sup>™</sup> 52.0.2743.116
  - Safari<sup>®</sup> 9.1.2 (11601.7.7)
- Windows 10
  - Chrome 52.0.2743.116 m
  - Edge 38.14393.0.0
- Android 6.0.1
- iOS 9.3.4

### Running the laptop tests

#### Measuring the time to create a new site

- 1. In Google Chrome, navigate to the dashboard page for the site management service being tested.
- 2. Create the site:
  - In Google Sites, simultaneously click the Create New Site button and start the stopwatch.
  - In SharePoint Online, click the Create Site button and provide a name, then simultaneously click Create and start the stopwatch.
- 3. Stop the stopwatch:
  - In Google Sites, stop the stopwatch when the new site appears and has fully loaded.
  - In SharePoint Online, stop the stopwatch when the new site's dashboard appears and has fully loaded.
- 4. Record the result.

#### Measuring the time to share site via email

- 1. Prepare another notebook (the same model as the one being used for testing) by navigating to the browser-based email client for the platform under test, Gmail or Outlook Online.
- 2. On the notebook under test, prepare to share the site:
  - In Google Sites, click the Add Editors button, provide the email address being used on the other notebook, then simultaneously click Done and start the stopwatch.
  - In SharePoint Online, click the Share button, provide the email address being used on the other notebook, then simultaneously click Share and start the stopwatch.
- 3. When the invite email appears in the inbox on the other notebook, stop the stopwatch.
- 4. Record the result.

#### Measuring the time to create a new blank page

- 1. In Google Sites, navigate to the Pages tab, or in SharePoint, navigate to the Site Contents page, and click Site Pages.
- 2. Create a new blank page:
  - In Google Sites, click the Add Page button, provide a name for the page, then simultaneously click Done and start the stopwatch.
  - In SharePoint Online, click the New button, provide a name for the page, then simultaneously click Create and start the stopwatch.
- 3. Stop the stopwatch:
  - In Google Sites, when the new page has fully loaded and is editable, stop the stopwatch.
  - In SharePoint Online, when the new page appears in the editor and is editable, stop the stopwatch.
- 4. Record the result.

#### Measuring the time to open an existing page for editing

- 1. Open an existing page:
  - In Google Sites, navigate to the site under test, then simultaneously click the button for an existing page (that is not currently open in the editor) and start the stopwatch.
  - In SharePoint Online, navigate to an existing page, then simultaneously click the Edit button and start the stopwatch.
- 2. When the page appears in the editor and is fully loaded, stop the stopwatch.
- 3. Record the result.

#### Measuring the time to preview a site theme

- 1. In Google Sites, click the Themes tab, or in SharePoint, click the What's your style? button.
- 2. Simultaneously click a theme (other than the one you're currently using) and start the stopwatch.
- 3. Stop the stopwatch:
  - In Google Sites, when the new theme loads on the page in the editor, stop the stopwatch.
  - In SharePoint Online, when a preview of the new theme loads, stop the stopwatch.
- 4. Record the result.

#### Measuring the number of steps to add bulleted list and one item

#### **Google Sites**

- 1. In the Insert menu, click Text box.
- 2. Click the bulleted list icon.
- 3. Type item text.

#### SharePoint Online

- 1. Click add an app.
- 2. Click Custom List.
- 3. Type name.
- 4. Click Create.
- 5. Click New Item.
- 6. Enter a title.
- 7. Click Save.

#### Number of steps to add calendar

#### **Google Sites**

- 1. In the Insert menu, under Google Embeds, click Calendar.
- 2. Click a calendar in the list to select it.
- 3. Click Insert.

#### SharePoint Online

- 1. Click Add lists, libraries, and other apps.
- 2. Click Calendar.
- 3. Provide name.
- 4. Click Create.

#### Number of steps to add image to page from cloud

#### **Google Sites**

- 1. In the Insert menu, click Images.
- 2. Click the Google Drive tab.
- 3. Click an image to select it.
- 4. Click Select.

#### SharePoint Online

- 1. Click Edit.
- 2. Click Insert tab.
- 3. Click Picture.
- 4. Click From SharePoint.
- 5. Click existing image.
- 6. Click Insert.
- 7. Click Save.

#### Measuring the number of steps to add image to page from computer (upload)

#### **Google Sites**

- 1. In the Insert menu, click Images.
- 2. Drag an image file to the upload box from a local folder.
- 3. Click Upload.

#### SharePoint Online

- 1. Click Edit.
- 2. Click Insert tab.
- 3. Click Picture.
- 4. Click From Computer.
- 5. Click Choose File.
- 6. Select existing image.
- 7. Click Open.
- 8. Click OK.
- 9. Click Save.

#### Number of steps to resize inserted image

#### **Google Sites**

- 1. Click the image in the editor.
- 2. Click and drag one of the circles on the corners to resize it.

#### SharePoint Online

- 1. Click Edit.
- 2. Click the image you want to resize.
- 3. Click the Image tab.
- 4. Click in either the Horizontal Size or Vertical Size fields.
- 5. Type the desired width or height in pixels.
- 6. Press Enter.
- 7. Click Save.

#### Number of steps to move inserted image

#### **Google Sites**

1. In the editor, click and drag the previously embedded image to the desired location.

#### SharePoint Online

- 1. Click Edit.
- 2. Click the previously embedded image.
- 3. Click Image tab.
- 4. Click Position drop-down menu.
- 5. Click a position.
- 6. Click Save.

#### Number of steps to add text to page

#### **Google Sites**

- 1. In the Insert menu, click Text box.
- 2. Enter the text.

#### SharePoint Online

- 1. Click Edit.
- 2. Enter text.
- 3. Click Save.

#### Measuring the number of steps to embed YouTube video in page

#### **Google Sites**

- 1. In the Insert menu, under Google Embeds, click YouTube.
- 2. Enter a search query.
- 3. Press Enter.
- 4. Click the desired video.
- 5. Click Select.

#### SharePoint Online

- 1. Click Edit.
- 2. Click Insert tab.
- 3. Click Embed Code.
- 4. Navigate to http://www.youtube.com in another tab.
- 5. Enter search term or phrase.
- 6. Press Enter.
- 7. Click the desired video.
- 8. Click Share.
- 9. Click Embed.
- 10. Select Embed Code.
- 11. Copy embed code.
- 12. Return to the tab in which SharePoint is open.
- 13. Paste embed code in the Embed dialog in SharePoint.
- 14. Click Insert.
- 15. Click Save.

#### Number of steps to change site/page theme

#### **Google Sites**

- 1. Click the Themes tab.
- 2. Click a theme to apply it.

#### SharePoint Online

- 1. Click What's your style? Change the look of your site.
- 2. Click the desired theme.
- 3. Click Try it out.
- 4. To apply the theme, click Yes, keep it.

#### Number of steps to create new page

#### **Google Sites**

- 1. Click the Pages tab.
- 2. Click the Add page icon.
- 3. Type in the desired page name.
- 4. Click Done.

#### SharePoint Online

- 1. Click Site Contents.
- 2. Click Site Pages.
- 3. Click New.
- 4. Type in the desired page name.
- 5. Click Create.

This project was commissioned by Google.





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