Run longer and complete everyday tasks faster with powerful Dell Latitude Chromebook Enterprise devices

In our hands-on tests, Dell™ Latitude™ 5400 and 5300 2-in-1 Chromebook™ Enterprise devices beat five competitors on metrics including battery life, web browsing, productivity app performance, and serviceability. These performance wins could increase employee productivity and enable users to stay on the go longer and finish web-based tasks sooner.

How we tested

Resources

How we tested

In hands-on testing at Principled Technologies, we compared the performance of Latitude 5400 and 5300 2-in-1 Chrome devices to that of five other business-class Chromebooks in a wide range of performance metrics. We performed each test three times, then selected the median result.

Group 1:

- Dell Latitude 5300 2-in-1 Chrome (Intel® Core® i5 processor)
- Dell Latitude 5300 2-in-1 Chrome (Intel Core i7 processor)
- Lenovo® Yoga® Chromebook C630 (Intel Core i5 processor)
- HP Chromebook x360 14 (Intel Core i7 processor)
- Google™ Pixelbook™ (Intel Core i7 processor)

Group 2:

- Dell Latitude 5400 Chrome (8GB RAM)
- Dell Latitude 5400 Chrome (16GB RAM)
- Lenovo Chromebook 14e (4GB RAM)
- Acer® Chromebook 714 (8GB RAM)

About the Latitude 5300 2-in-1 Chrome

This new offering from Dell is a 13-inch convertible device that enables you to use a full-featured PC on the go as a tablet with an optional pen. Dell offers eight different configurations that feature up to an Intel® Core® i7-8665U processor, 16GB of RAM, and 512 GB of NVMe storage.[1]

About the Latitude 5400 Chrome

The Latitude 5400 Chrome is a14-inch business laptop offering from Dell. Users can configure the Latitude 5400 Chrome with up to a quad-core Intel Core i7-8665U processor, 32 GB of RAM, and a 512GB NVMe SSD for ultrafast storage.[2]

Battery life

With the better battery life of a Latitude Chrome device, users could:

IT decision-makers

Enhance employee mobility and availability: Users can stay online and in touch for longer, even when they're on the go

Increase the satisfaction of employees and executives who frequently travel and/or work remotely

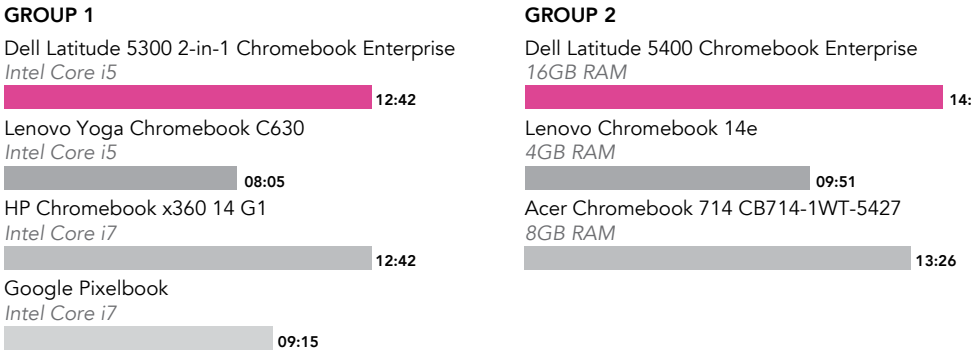
End users

Stay on the move for longer with up to fourteen and a half hours of battery life

Avoid hassle: Whether you're traveling or working remotely, longer battery life helps you avoid inconveniences like having to work near an outlet or always carry your charger

Stay on the move longer with up to 4 hours and 36 minutes more battery*

Testing battery with power_LoadTest *higher is better (HH:MM)*



**Compared to the competitor Chromebook devices we tested. Read the full report for test parameters and device specifications.*

Productivity

With the productivity gains from a Latitude Chrome device, users could:

IT decision-makers

Increase your employees' output on common productivity tasks: With faster devices, employees can complete their work faster

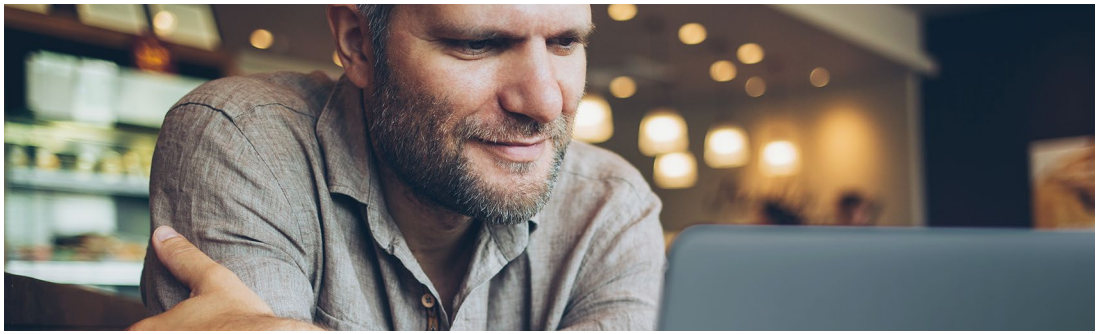
Keep your employees happy with a Dell Latitude Chromebook Enterprise device that performs well on common Microsoft and Google apps

End users

Get your work done sooner, helping improve your performance at work and freeing up time to finish the other items on your to-do list

Stay productive with a device that performs well on a variety of web-based productivity tasks

Users need a device that helps them complete a broad range of routine tasks quickly and efficiently. The Latitude devices outperformed the competitor devices on the majority of our tests; where they did slip to second place, they came within 1.5 seconds of the leading device.



Google apps results >

Microsoft apps results >

How we tested | Battery life | Productivity | Web browsing | Performance | Serviceability | Resources

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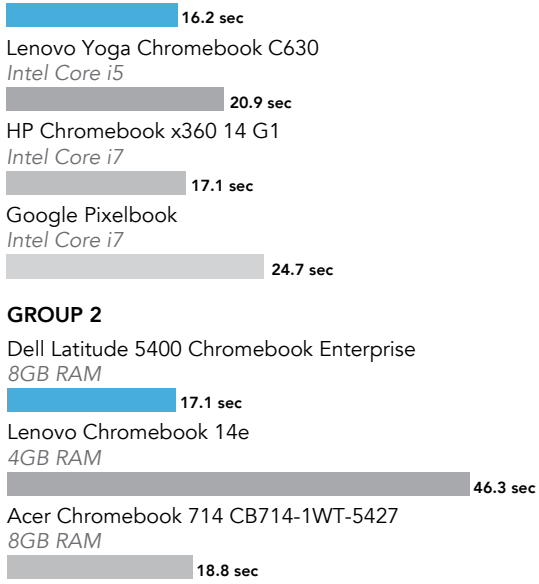
Complete everyday tasks like using Google Slides in up to 64% less time*

Open a large Google Docs™ document and export a document to a .docx file in up to **63% less time**

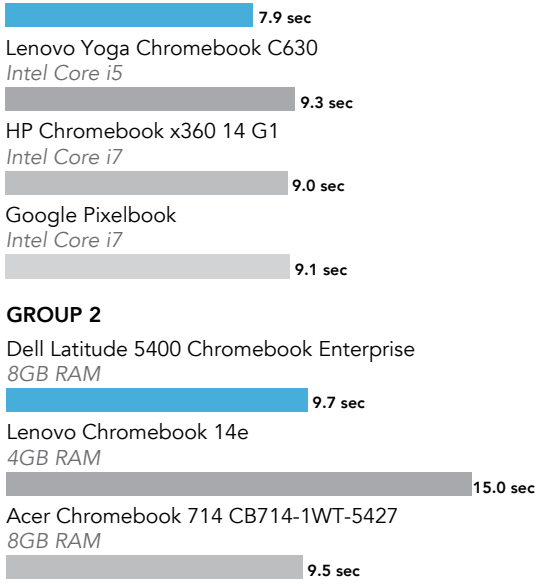
Create a new Google Sheets™ spreadsheet and open a large spreadsheet in up to **35% less time**

Create a new Google Slides presentation, open a large presentation, and start a presentation in up to **64% less time**

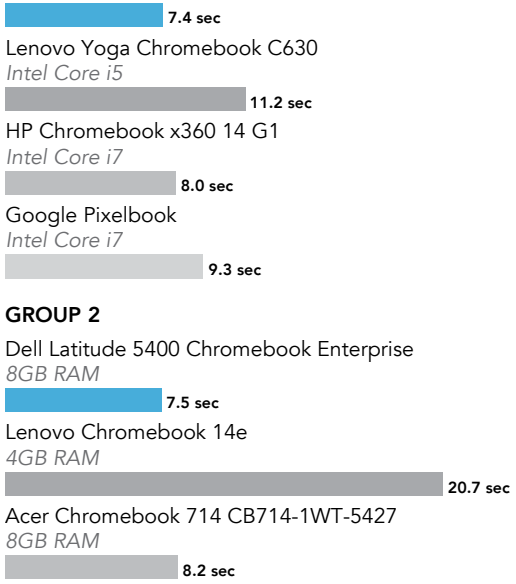
Google Docs workflow *lower is better*



Google Sheets workflow *lower is better*



Google Slides workflow *lower is better*



< Back to productivity benefits

*Compared to the competitor Chromebook devices we tested. Read the full report for test parameters and device specifications.

Increase productivity with up to 65% faster performance on common Microsoft apps like Excel*

Create a new document, open a large document, open the print preview of a document, and share a document as a PDF attachment in Microsoft Word in up to

22% less time

Open a large file in Microsoft Excel in up to

65% less time

Load a large presentation and convert a .ppt file to a PDF in Microsoft PowerPoint in up to

39% less time

Microsoft Word workflow *lower is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
18.5 sec

Lenovo Yoga Chromebook C630
Intel Core i5
22.3 sec

HP Chromebook x360 14 G1
Intel Core i7
20.0 sec

Google Pixelbook
Intel Core i7
22.3 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
25.7 sec

Lenovo Chromebook 14e
4GB RAM
32.8 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
24.3 sec

Opening a large spreadsheet in Microsoft Excel *lower is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
13.7 sec

Lenovo Yoga Chromebook C630
Intel Core i5
17.2 sec

HP Chromebook x360 14 G1
Intel Core i7
14.0 sec

Google Pixelbook
Intel Core i7
19.0 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
16.2 sec

Lenovo Chromebook 14e
4GB RAM
46.6 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
15.8 sec

Microsoft PowerPoint workflow *lower is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
6.8 sec

Lenovo Yoga Chromebook C630
Intel Core i5
9.2 sec

HP Chromebook x360 14 G1
Intel Core i7
8.1 sec

Google Pixelbook
Intel Core i7
7.9 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
6.7 sec

Lenovo Chromebook 14e
4GB RAM
11.0 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
7.8 sec

**Compared to the competitor Chromebook devices we tested. Read the full report for test parameters and device specifications.*

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Web browsing

With the web browsing performance gains from a Latitude Chrome device, users could:

IT decision-makers

Increase employees' productivity on web-based activities: With less time spent waiting for websites and apps to load, employees can spend more time on work that contributes to business growth

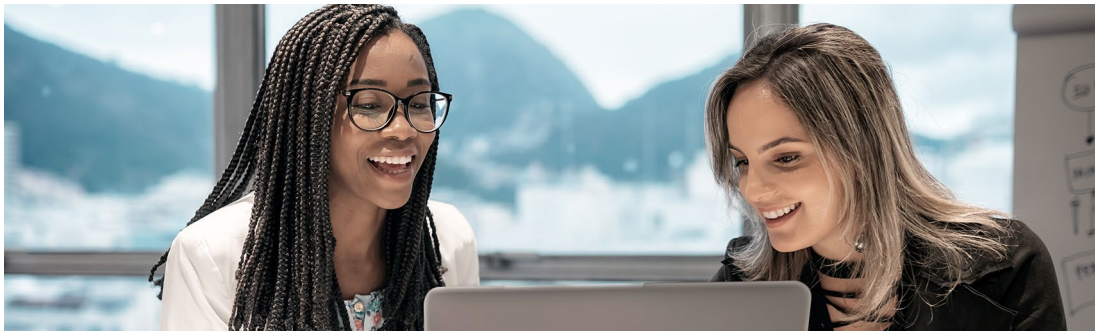
Get more out of your investment: Our testing demonstrates that users could get more web browsing performance with Dell Latitude Chromebook Enterprise devices than the other Chromebooks we tested

End users

Complete web-based tasks faster, freeing up time for other activities

Enjoy a better user experience with less lag time

Browser performance is an important consideration on any device, but it's especially important for Chromebooks, where much of a user's work relies on an internet connection. We ran three industry-standard benchmarks to measure browser responsiveness on the devices we tested.



Speedometer benchmark results >

WebXPRT benchmark results >

CrXPRT benchmark results >

How we tested | Battery life | Productivity | Web browsing | Performance | Serviceability | Resources

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Finish web-based tasks sooner with up to 3.7x the performance on the Speedometer benchmark*

Speedometer 2.0 benchmark score *higher is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
130

Lenovo Yoga Chromebook C630
Intel Core i5
105

HP Chromebook x360 14 G1
Intel Core i7
119

Google Pixelbook
Intel Core i7
84

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
119

Lenovo Chromebook 14e
4GB RAM
31

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
109

Speedometer 2.0 is a browser responsiveness benchmark that uses demo web applications to simulate user actions.

*Compared to the competitor Chromebook devices we tested. Read the full report for test parameters and device specifications.

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Latitude devices outperformed the competitors by up to 166% on the WebXPRT benchmark

WebXPRT 3 benchmark score *higher is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
207

Lenovo Yoga Chromebook C630
Intel Core i5
167

HP Chromebook x360 14 G1
Intel Core i7
193

Google Pixelbook
Intel Core i7
149

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
194

Lenovo Chromebook 14e
4GB RAM
73

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
184

WebXPRT 3 shows how well a system handles web-based tasks, such as photo editing and online homework, that real-world users do every day. It includes two AI-based workloads to reflect new kinds of tasks users do on their devices.

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Latitude devices outperformed the competitors by up to 154% on the CrXPRT benchmark

CrXPRT benchmark score *higher is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
286

Lenovo Yoga Chromebook C630
Intel Core i5
221

HP Chromebook x360 14 G1
Intel Core i7
257

Google Pixelbook
Intel Core i7
219

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
272

Lenovo Chromebook 14e
4GB RAM
107

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
228

CrXPRT is a performance and battery life benchmark application for Chrome OS™ devices. It measures a Chromebook's speed using HTML5- and JavaScript-based workloads designed to simulate everyday tasks.

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Performance

With the web-based performance gains from a Latitude Chrome device, users could:

IT decision-makers

Satisfy employees in creative fields with faster performance on common photo editing programs

Meet user demands for more flexibility and access to Linux®

End users

Complete graphics-based work in Adobe® Photoshop® Lightroom®, Pixlr, and GIMP faster

Enjoy the flexibility of the Linux platform—and access open-source apps—from your Dell Latitude Chromebook Enterprise device

To gauge how well the devices could help users complete activities in common photo editing apps, we tested performance on two cloud-based applications, Adobe Photoshop Lightroom and Pixlr. To measure Linux performance, we tested several applications on Linux (Beta):

- LibreOffice, an open-source suite of office software
- Visual Studio Code, a source-code editing tool
- GIMP, an open-source image editor

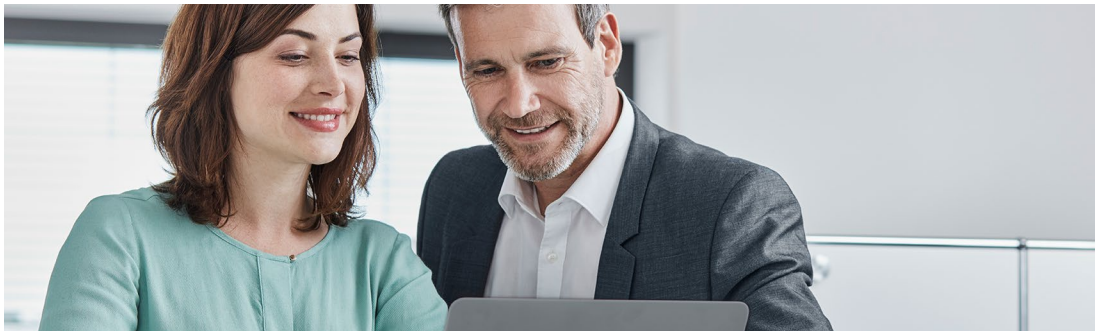

Photo editing results >

Linux (Beta) results >

Edit and save photos with ease with up to 6x the speed saving images on common photo editing apps

Saving an edited image to the gallery in Adobe Photoshop Lightroom *lower is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
4.8 sec

Lenovo Yoga Chromebook C630
Intel Core i5
6.7 sec

HP Chromebook x360 14 G1
Intel Core i7
5.0 sec

Google Pixelbook
Intel Core i7
7.2 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
4.3 sec

Lenovo Chromebook 14e
4GB RAM
30.6 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
4.2 sec

Save an edited photo to a gallery in Lightroom in up to **86% less time**

Creating a collage from 10 images in Pixlr *lower is better*

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
3.9 sec

Lenovo Yoga Chromebook C630
Intel Core i5
4.7 sec

HP Chromebook x360 14 G1
Intel Core i7
5.5 sec

Google Pixelbook
Intel Core i7
3.7 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
3.8 sec

Lenovo Chromebook 14e
4GB RAM
9.0 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
4.3 sec

Create a collage in Pixlr in up to **58% less time**

< Back to performance benefits

**Compared to the competitor Chromebook devices we tested. Read the full report for test parameters and device specifications.*

Complete Linux-based tasks sooner with up to 53% better performance in GIMP and LibreOffice*

Linux (Beta) is a feature that enables Chromebooks to install and access a Linux terminal, as well as install and use Linux applications. Linux (Beta) offers flexibility to users looking to install coding and development tools, open source software, or applications that otherwise might not be available on the Google Chrome or Play Store. The Linux environment is also sandboxed, or isolated from the rest of the Chromebook, meaning that Linux apps can't affect the rest of the Chromebook.

Install a source code editor in up to **28% less time**

Install an office suite in up to **53% less time**

Install GIMP and open and export a large photo in up to **53% less time**

Installing Visual Studio Code on Linux (Beta)

lower is better

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
20.6 sec

Lenovo Yoga Chromebook C630
Intel Core i5
28.5 sec

HP Chromebook x360 14 G1
Intel Core i7
22.9 sec

Google Pixelbook
Intel Core i7
27.4 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
25.5 sec

Lenovo Chromebook 14e
4GB RAM
29.5 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
27.7 sec

Installing LibreOffice on Linux (Beta)

lower is better

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
143.0 sec

Lenovo Yoga Chromebook C630
Intel Core i5
174.8 sec

HP Chromebook x360 14 G1
Intel Core i7
148.9 sec

Google Pixelbook
Intel Core i7
226.2 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
149.1 sec

Lenovo Chromebook 14e
4GB RAM
315.8 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
162.0 sec

GIMP workflow on Linux (Beta)

lower is better

GROUP 1

Dell Latitude 5300 2-in-1 Chromebook Enterprise
Intel Core i7
194.9 sec

Lenovo Yoga Chromebook C630
Intel Core i5
223.6 sec

HP Chromebook x360 14 G1
Intel Core i7
193.8 sec

Google Pixelbook
Intel Core i7
275.1 sec

GROUP 2

Dell Latitude 5400 Chromebook Enterprise
8GB RAM
198.6 sec

Lenovo Chromebook 14e
4GB RAM
421.8 sec

Acer Chromebook 714 CB714-1WT-5427
8GB RAM
235.6 sec

**Compared to the competitor Chromebook devices we tested. Read the full report for test parameters and device specifications.*

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Serviceability

With the serviceability of a Latitude Chrome device, users could:

IT decision-makers

Reduce employee downtime with faster component replacements, helping increase overall productivity

Save IT and maintenance costs: Avoid the costs of outsourcing or sending devices back to the manuacturer; your IT team can easily replace HDD, RAM, battery, and WLAN in-house

Minimize the need for expensive new purchases: With the ability to replace HDD, RAM, battery, and WLAN, you could extend the lifespan of your employees' devices

End users

Extend the lifespan of your device with the ability to replace common components as your device ages

Increase flexibility and allow customization: Make the modifications you want to the HDD, RAM, battery, and WLAN of your Dell Latitude Chromebook Enterprise device

Serviceability matrix >

Only the Latitude Chrome devices we tested allowed users to replace battery, memory, storage, and WLAN.

	Dell Latitude 5300 2-in-1 Chromebook Enterprise	Lenovo Yoga Chromebook C630	HP Chromebook x360 14 G1	Google Pixelbook	Dell Latitude 5400 Chromebook Enterprise	Lenovo Chromebook 14e	Acer Chromebook 714
Customer-replaceable SSD	★	✕	✕	✕	★	✕	✕
Customer-replaceable RAM	★	✕	✕	✕	★	✕	✕
Customer-replaceable battery	★	✕	✕	✕	★	✕	✕
Customer-replaceable WLAN	★	✕	✕	✕	★	✕	✕

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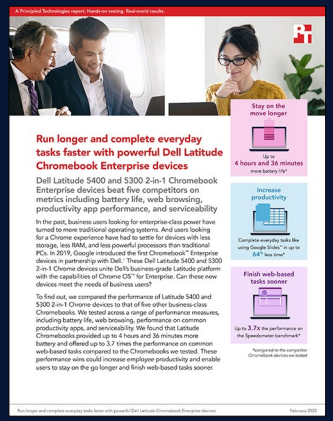
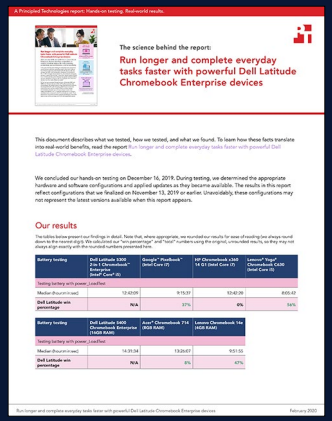
Resources

To see the full results and learn how businesses and their employees could benefit from using Dell Latitude Chromebook Enterprise devices, read the full report and the accompanying science behind the report. For a quick overview of our testing, check out the executive summary or infographic.

Report



The science behind the report



Executive summary

Infographic

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1 "New Latitude 5300 2-in-1 Business Laptop," accessed December 17, 2019, https://www.dell.com/en-us/work/shop/tablets-and-2-in-1-laptops/new-latitude-5300-2-in-1-business-laptop/spd/latitude-13-5300-2-in-1-laptop.

2 Dell Technologies, "Dell Latitude 5400 Chromebook Enterprise," accessed December 17, 2019, https://www.dell.com/en-us/work/shop/dell-laptops-and-notebooks/dell-latitude-5400-chromebook-enterprise/spd/latitude-14-5400-chrome-laptop/.