Ask, find, and act—harnessing the power of Cortana and Power BI

What could be more natural than talking? Cortana, the Microsoft Windows personal assistant, and Q&A, the Power BI natural language data search feature, have joined forces in a powerful way. This integration helps you pull more value out of your data. Cortana intelligently reasons over your datasets in Power BI, and provides rich, data‑driven answers to your questions. Cortana and Power BI intuitively put business analytics power into the hands of your business users.

In this article, we describe how the Windows Shell team at Microsoft uses Cortana—by talking or typing—to get tailored views of critical business data, without ever touching a dashboard. This technology helps the team create curated views for both tactical and strategic purposes.

# Easy integration

Connecting your Power BI datasets to Cortana is simple. You point to a dataset in Power BI and provide Cortana access to it. Any Windows 10 user who has permissions to a dataset through Power BI sharing, groups, or content pack features can then ask Cortana questions.

Cortana provides potential answers either directly from the data, or by using reports already created in Power BI for Cortana. The answer can be a single data point, or a complete Power BI report. Results are displayed directly on your Windows 10 device. Asking Cortana questions is quick and answers can be tailored for specific users. Answers can be presented in a variety of ways, such as Cortana-size cards that you create with Power BI, or the standard reports and charts that you already have in your dashboards and content packs. (A content pack is a pre-configured set of reports, dashboards, or datasets.)

Some sample questions and answer types include:

Table 1. Cortana questions and answers

|  |  |
| --- | --- |
| Question example | Answer type  |
| “Revenue for the last quarter” | Numerical values  |
| “Number of opportunities by team” | Charts |
| “Average customer spending in California by city” | Maps |

# Quick and powerful

Power BI datasets and Cortana integrate with just a few clicks in Power BI. Any user that has access to the dataset can use the natural language feature. Teams do not have to wait for a prolonged and costly IT development process or formal delivery cycles. We put processing power directly in the hands of business users.

Microsoft IT provides business partners with guided learning and a strong community. We host internal training for a variety of different user profiles, such as business users, business analysts, BI professionals, and developers. Additionally, we provide links to help resources, social connections such as blogs, and a Yammer community.

# Fill the gap

Dashboards are useful to many people, but there are always outliers who need different, specialized information. Asking Cortana questions allows business groups to quickly generate personalized information and help fill that gap. Teams can populate a dashboard with data that applies to most people in a business group, and then use Cortana questions for those people with unique data needs.

# Profile: The Windows Shell team

The Windows Shell team at Microsoft manages worldwide health data and KPIs for a variety of Windows 10 user experiences. The team also manages Windows 10 engagement experiences with new users. Examples include:

* Customized Windows 10 demonstration experiences for specific retailers.
* The Windows 10 Start lock screen experience, which is cloud-driven and personalized.
* Suggested Windows 10 apps on startup, tailored to specific user profiles and interests, such as designers or game enthusiasts.
* Windows 10 tips.

The Windows Shell team manages worldwide health data and KPIs for Windows 10 experiences, and tracks data across a wide variety of categories, such as specific markets, segments, geographies, Windows editions, and installation types, such as upgrades or new installations.

The team’s Power BI dashboard includes a map that shows the status of health goals around the world. For example, if a user clicks on the Marshall Islands, they will see the number of installed Windows 10 computers there, with errors. The dashboard is widely used across the team.

## Experiment and codify

The Windows Shell team is enthusiastic about Cortana and Power BI integration. The functionality lets people quickly serve specific audiences in their business. Also, it helps them manage their business in different but related ways—both tactically, day to day, and strategically, long-term. Team members can quickly and easily transfer questions and answers from Cortana that are applicable to a significant number of users, into existing dashboards.

### Experiment

What is important to an engineer isn’t necessarily important to the engineer’s manager, or the manager’s manager. Questions to Cortana can quickly create very customized, confidential dashboards or provide answers on a Cortana card.

Cortana helps the Windows Shell team by allowing them to dynamically respond to questions from managers such as “How many machines are running Windows 10 now?” or “How is Windows 10 health?” By questioning Cortana in this way, business leaders don’t have to go to a dashboard—they can immediately see results on a Cortana card.

Here’s an example: The team created and configured a “Shell offers health” question for Cortana. A Cortana card displays the results, and it can be used by managers across the team. Typically, it is used once a week.

Team leaders also question Cortana for business management data. Questions are configured to show progress in hiring team members, and to represent the spectrum of the hiring process—how many have applied for roles, how many have accepted, and so on. The Cortana card result provides a dynamic picture of hiring activity overall.

For those users on the team that dig deep into health information every day, such as engineers, another question for Cortana displays a card with key data that is critical to regularly monitor over 300 million deployed devices. The card includes features and health data points such as:

* A clickable world map, to quickly filter on criteria such as particular experiences, markets, and geographies.
* The number of Windows 10 devices running in a healthy state.
* The number of Windows 10 devices in an error state.
* The types of Windows 10 errors.
* The number of active Windows 10 users.

### Codify

Questions for Cortana can be quickly incorporated into existing Power BI deliverables. If a Cortana query proves useful to many people, the resulting report or answer can be pinned to a standard dashboard. In this way, questions for Cortana can be easily generalized to serve more users.

# Conclusion

Questioning Cortana is rapid, powerful, and easy. Business analytics become even more intuitive, as customized data views can be immediately served to specific users. Because it is so straightforward to integrate datasets with Cortana, it almost immediately benefitted the Windows Shell team.

Cortana with Power BI helps the Shell team run their business both tactically and strategically. They can quickly fill a gap that a standard BI dashboard might leave open. Both engineers and leadership teams use Cortana with Power BI.

As the amount of available data grows, the need to retrieve the most insightful data as easily as possible grows also. Cortana is a great way to help users ask, find, and act!

# For more information

## [Bring your data to life with Microsoft Power BI](https://powerbi.microsoft.com)

## [Announcing Power BI integration with Cortana and new ways to quickly find insights in your data](https://powerbi.microsoft.com/en-us/blog/announcing-power-bi-integration-with-cortana-and-new-ways-to-quickly-find-insights-in-your-data/)

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