Designing for the Microsoft Cloud

Whiteboard design session student guide

October 2019

Information in this document, including URL and other Internet Web site references, is subject to change without notice. Unless otherwise noted, the example companies, organizations, products, domain names, e-mail addresses, logos, people, places, and events depicted herein are fictitious, and no association with any real company, organization, product, domain name, e-mail address, logo, person, place or event is intended or should be inferred. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Microsoft Corporation.

Microsoft may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Microsoft, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

The names of manufacturers, products, or URLs are provided for informational purposes only and Microsoft makes no representations and warranties, either expressed, implied, or statutory, regarding these manufacturers or the use of the products with any Microsoft technologies. The inclusion of a manufacturer or product does not imply endorsement of Microsoft of the manufacturer or product. Links may be provided to third party sites. Such sites are not under the control of Microsoft and Microsoft is not responsible for the contents of any linked site or any link contained in a linked site, or any changes or updates to such sites. Microsoft is not responsible for webcasting or any other form of transmission received from any linked site. Microsoft is providing these links to you only as a convenience, and the inclusion of any link does not imply endorsement of Microsoft of the site or the products contained therein.

© 2019 Microsoft Corporation. All rights reserved.

Microsoft and the trademarks listed at <https://www.microsoft.com/en-us/legal/intellectualproperty/Trademarks/Usage/General.aspx> are trademarks of the Microsoft group of companies. All other trademarks are property of their respective owners.

Contents

[Designing for the Microsoft Cloud whiteboard design session student guide 1](#_Toc526767788)

[Step 1: Review the customer case study 1](#_Toc526767789)

[Step 2: Design a proof of concept solution 5](#_Toc526767790)

[Step 3: Present the solution 6](#_Toc526767791)

[Wrap-up 6](#_Toc526767792)

[Additional references 7](#_Toc526767793)

# Designing for the Microsoft Cloud whiteboard design session student guide

## Step 1: Review the customer case study

**Outcome**

Analyze your customer’s needs.

#### Facilitator/subject matter expert (SME) presentation of customer case study

Timeframe: 15 minutes

Directions: With all participants in the session, the facilitator/SME presents an overview of the customer case study along with technical tips.

1. Meet your table participants and trainer.
2. Read all of the directions for Steps 1–3 in the Student guide.
3. As a table team, review the following customer case study.

#### Customer situation

Best for You Organics Company (B4U) manufactures and sells non-toxic cosmetics that also minimize their impact on the environment. They have grown their business into a billion-dollar business by leveraging the network sales model. In network sales, B4U involves non-employee consultants (also called contractors) to sell their products in a person to person way.

Each consultant runs their own small-scale version of the business, including purchasing product inventory, performing product demonstrations, marketing on social media, handling sales both “on the spot” during in-person events and by driving clients to their personalized B4U website, recruiting and nurturing and building a team of consultants beneath them to help scale their personal organization’s sales force. Consultants start off as individuals but may end up growing their organizations to 100s or 1,000s of consultants beneath them. Some organizations are narrow and deep, with only a few legs directly reporting to the original consultant but having many consultants in the chain below the. Other organizations are wide and shallow, having 10’s to 100’s of direct reports, each only a few levels deep.

Today all of their corporate sales data is stored in SQL Server, but their reporting and analytics is mostly done in an offline fashion using Excel. The consultant sales process is largely paper based and provides very limited visibility to the managing Consultants. B4U sees tremendous opportunity in investing in a new data platform running in Azure that would help them scale to larger data sets and cost-efficiently handle their seasonality. In particular, they would like to move towards near real-time analytics, enabling them to assess the current state of the business with minimal latency resulting from the ingest of the source data. Upon this foundational data platform, they would like to layer on AI capabilities to begin performing advanced analytics like customer retention analysis, sales forecasting, anomaly detection and the creation of new product offers and discount programs.

Once packaged as tools, they would like to empower their consultants with the same AI tools they use at a corporate level, so that the consultants can operate their own businesses with the same degree of sophistication and insight.

Security is of course of utmost importance, as almost all their data is sensitive in one way or another. With such a wide and deep organization, managing logins alone in unified way is a challenge for them. Their employees want to use the same credentials they use to access their corporate email to access all other applications in the enterprise. Meanwhile their consultants, don’t want to juggle yet another login and password when most already have their own social account like a Microsoft Account, Google Account or Facebook login. IT for its part wants none of the risk associated with having to securely store and manage the passwords for any of these users, employees or consultants.

After the unified user credentials challenge, B4U has indicated they are very concerned about protecting their data that lives in the cloud. In fact, they have identified some subsets of data that for compliance purposes can never be stored in the cloud and must remain on-premises, even though some of their reporting websites might need to access it in an aggregate form. They would love to know how Microsoft might help them scale securely into the cloud.

As B4U has grown, the number of full-time employees has also grown to support the ever-growing number of consultants. This has caused them to rethink how they manage IT internally and work together to support the 1000’s of consultants they now have. In addition, some of their larger consultants managing large numbers of consultants on their own have also come to B4U for guidance on working the 100’s or even 1000’s of consultants below them.

Some of the roles of the full-time employees at B4U are: the executive team, finance, human resources, sales and marketing support, inventory management, product design, and a small IT team to support the organization.

Computers are currently purchased and sent straight to the IT department to install Windows, configure and install software, and prepare it to be delivered to the appropriate employee. They have also had a central file server located on-premises where all the company files are stored. Employees would then connect over VPN to access the files.

B4U has an aging Infrastructure made up of physical servers and VMware VMs. These include their Exchange email, applications and SQL Server. Instead of investing in this infrastructure they want to invest in their applications and data capabilities. They are looking for options to move these servers to the cloud or decommission them where it makes sense and replace them with either SaaS or IaaS services.

As B4U has grown, a couple of things have occurred:

1. To get high quality employees B4U has started hiring more remote employees.
2. As they have grown with consultants around the globe, they have hired employees in various locations around the world to support these consultants.
3. The largely paper-based sales process is seen as outdated by potential consultants and is barrier to recruiting new younger consultants.

With the growth of remote workers B4U has started encountering multiple issues hindering further growth:

1. The IT department is getting backed up with the time it has been taking to configure new computers. They also find themselves shipping more and more devices to the various remote workers.
2. In the past, they weren’t as disciplined in the computer they ordered, as such they have a wide range of brands and types of devices making support a challenge.
3. With the number of people connecting to VPN to access the file server, access has become painfully slow with the increased amount and size of files, especially in the marketing department.
4. Communication has become a challenge between all the remote employees as well as communication from B4U to consultants. Some of the consultants managing 100’s or 1000’s of other consultants have started asking for recommendations on how they can better communicate with the consultants reporting to them.

With all these challenges, as mentioned before, security and data residency are also extremely important both with internal content as well as content shared with their consultants.

1. Their aging Exchange 2013 environment is running out of space to host the ever-increasing amount of email. The hardware and software are both ready for an upgrade, but B4U is also open to other options besides hosting their email on-premises.
2. They feel that resources which are being used to manage an aging infrastructure and datacenter should be reallocated toward their modernization efforts. They want to move all of their applications and data to the cloud.

With B4U looking to leverage the cloud, they would like to stay with Microsoft for as much as possible as well as offload as much as possible to the cloud.

#### Customer needs

1. Modernize their analytics capabilities in the cloud.
2. Maintain and improve their security posture.
3. Speed up the deployment process of Windows 10.
4. Standardize on computer hardware across the organization.
5. Eliminate the need for VPN to access files and resources.
6. Provide tools for better communication:
   1. Between full time employees
   2. Between full time employees and consultants
   3. Between consultants and the consultants, they manage
7. Look at alternatives for an email server that can scale to support 1000’s of mailboxes and terabytes of email for users around the globe.
8. Insure the data remains secure and located in the proper geographic region to insure compliance.
9. A platform for rapidly creating and deploying mobile apps to employees and consultants.
10. Give consultants a simplified, mobile centric process for entering sale details and customer contact information
11. Self-service reporting capabilities for employees and consultants.
12. All remaining servers and VMs need to be moved to the cloud. B4U wants to focus on their applications and consultants not running a datacenter.

#### Customer objections

1. We’re a little confused- what is the Microsoft Cloud and how do the big pieces fit together? How do they relate to what we do with our on-premise laptops and devices?
2. Can Microsoft 365 really handle the security requirements of B4U? I like my own data center, it’s more secure there.
3. I like to purchase software one and use it for a while. I’m not so sure about a subscription, is it really worth it?
4. It’s the “cloud” how can I be sure where my data is stored for compliance?
5. We have certain regulations we have to comply to, is Microsoft 365 compliant with those regulations?
6. We are concerned about the cost to create and update mobile applications for our consultants. We aren’t interested adding a web development department.
7. If we move all of our infrastructure to the cloud how will our corporate team access those servers? Do we need a new WAN connection?

## Step 2: Design a proof of concept solution

**Outcome**

Design a solution and prepare to present a solution to the target customer audience in a 15-minute chalk-talk format.

Timeframe: 60 minutes

**Business needs**

Directions: With all participants at your table, answer the following questions and list the answers on a flip chart.

1. Who should you present this solution to? Who is your target customer audience? Who are the decision makers?
2. What customer business needs do you need to address with your solution?

**Design**

Directions: With all participants at your table, respond to the following questions on a flip chart.

*The Microsoft Cloud*

1. In a single diagram, illustrate the big components of the Microsoft Cloud as you would explain it to B4U.

*Modern Workplace & Business Apps*

1. Desktop deployment – How can Microsoft 365 Help with the IT Staff delivering workstations to users quicker and standardizing on hardware for the varying roles within the company?
2. How would you leverage the Microsoft Cloud to replace the current file share B4U has in place?
3. B4U has several different “types” of people that need to communicate with each other. How can Microsoft 365 be used to improve communication between them all?
4. What services in Microsoft 365 can be used to alleviate the issues of the aging Exchange server and support growth going forward?
5. How can Microsoft 365 be leveraged to support the other initiatives going on within the company?
6. B4U has several security and regulatory requirements for their organization. What can you use in Microsoft 365 to help insure all these requirements are met?

*Azure – Data & AI*

1. Without getting into details, what high level components would you suggest B4U leverage in Azure for enabling them to improve their data platform and reporting capabilities?
2. Which components might you suggest they consider for scaling to support analytics against their largest data sets and improve their capability for performing near real-time analytics?
3. Regarding augmenting B4U AI capabilities, what spectrum of services might you suggest as a starting point for B4U?

*Azure – Security*

1. At a high level, what services within Azure might you point B4U at that address their goal for unified user credentials management for both their employees and their consultants?
2. What are some big capabilities that Azure brings that might alleviate concerns around data security hosted in Azure?
3. How might they be able to support the reporting applications getting access to data that must remain on-premises?

*Azure – Infrastructure and Applications*

1. For the servers that are not replaced directly by cloud based services how will we deploy them to the cloud?
2. What type of connection will we have to those services?
3. What benefits will be have by moving to PaaS services over our traditional VMs?

**Prepare**

Timeframe: 15 minutes

Directions: With all participants at your table:

1. Identify any customer needs that are not addressed with the proposed solution.
2. Identify the benefits of your solution.
3. Determine how you will respond to the customer’s objections.

Prepare a 15-minute chalk-talk style presentation to the customer.

## Step 3: Present the solution

**Outcome**

Prepare to present a solution to the target customer audience in a 15-minute chalk-talk format.

**Presentation**

Timeframe: 30 minutes

**Directions**

1. Pair with another table.
2. One table is the Microsoft team and the other table is the customer.
3. The Microsoft team presents their proposed solution to the customer.
4. The customer makes one of the objections from the list of objections.
5. The Microsoft team responds to the objection.
6. The customer team gives feedback to the Microsoft team.
7. Tables switch roles and repeat Steps 2–6.

## Additional references

|  |  |  |
| --- | --- | --- |
| **Item** | **Description** | **Links** |
| Modern Workplace | Microsoft Modern Workplace Home | <https://www.microsoft.com/itshowcase/modern-workplace> |
| Microsoft 365 | Microsoft 365 Home Page | <https://www.microsoft.com/en-us/microsoft-365?&OCID=AID720919_SEM_lguEsQKG> |
| Microsoft 365 Products and Plans | Plans and Feature comparisons for Microsoft 365 | <https://www.microsoft.com/en-us/microsoft-365/compare-all-microsoft-365-plans> |
| Office 365 Plans | Office 365 Enterprise Plan Comparison | <https://products.office.com/en-us/business/compare-more-office-365-for-business-plans> |
| Office 365 Enterprise | Documentation for Office. Office 365, the Server Products, Desktop Office, Security and Compliance. The starting place for all documentation Office related. | <https://docs.microsoft.com/en-us/office/admins-itprofessionals#pivot=home&panel=home-all> |
| Office 365 Service Descriptions | Office 365 Service Descriptions. All the details about the various services and the features included. | <http://Office365sd.com> |
| Enterprise Mobility + Security | Enterprise Mobility + Security Home Page | <https://www.microsoft.com/en-us/cloud-platform/enterprise-mobility-security> |
| Enterprise Mobility + Security Feature Comparison | List of EMS features (as well as pricing) comparing E3 to E5. Also contains links to more details about most of the services | <https://www.microsoft.com/en-us/cloud-platform/enterprise-mobility-security-pricing> |
| Windows 10 Autopilot | Over of Windows Autopilot and navigation to additional documentation about Autopilot | <https://docs.microsoft.com/en-us/windows/deployment/windows-autopilot/windows-10-autopilot> |
| Microsoft Surface | Home of the Surface devices family | <https://www.microsoft.com/en-us/surface> |
| Microsoft Surface Hub | Home for the Microsoft Surface Hub | <https://www.microsoft.com/en-us/surface/business/surface-hub> |
| Dynamics 365 for Sales | Overview of Sales and Sales Hub | <https://docs.microsoft.com/en-us/dynamics365/customer-engagement/sales-enterprise/overview> |