Designing for the Microsoft Cloud

Whiteboard design session trainer guide

November 2020

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.

© 2020 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

[Trainer information 1](#_Toc526154536)

[Designing for the Microsoft Cloud whiteboard design session student guide 4](#_Toc526154537)

[Abstract and learning objectives 4](#_Toc526154538)

[Step 1: Review the customer case study 5](#_Toc526154539)

[Step 2: Design a proof of concept solution 9](#_Toc526154540)

[Step 3: Present the solution 10](#_Toc526154541)

[Wrap-up 11](#_Toc526154542)

[Additional references 12](#_Toc526154543)

[Designing for the Microsoft Cloud whiteboard design session trainer guide 13](#_Toc526154544)

[Step 1: Review the customer case study 13](#_Toc526154545)

[Step 2: Design a proof of concept solution 13](#_Toc526154546)

[Step 3: Present the solution 13](#_Toc526154547)

[Wrap-up 13](#_Toc526154548)

[Preferred target audience 14](#_Toc526154549)

[Preferred solution 15](#_Toc526154550)

[Checklist of preferred objection handling 16](#_Toc526154551)

# Trainer information

Thank you for taking time to support the whiteboard design sessions as a trainer!

#### Role of the trainer

An amazing trainer:

* Creates a safe environment in which learning can take place.
* Stimulates the participant’s thinking.
* Involves the participant in the learning process.
* Manages the learning process (on time, on topic, and adjusting to benefit participants).
* Ensures individual participant accountability.
* Ties it all together for the participant.
* Provides insight and experience to the learning process.
* Effectively leads the whiteboard design session discussion.
* Monitors quality and appropriateness of participant deliverables.
* Effectively leads the feedback process.

#### Whiteboard design session flow

Each whiteboard design session uses the following flow:

**Step 1: Review the customer case study (15 minutes)**

Outcome: Analyze your customer’s needs

* Customer’s background, situation, needs and technical requirements
* Current customer infrastructure and architecture
* Potential issues, objectives and blockers

**Step 2: Design a proof of concept solution (60 minutes)**

Outcome: Prepare to present a solution for your target customer audience

* Determine your target customer audience
* Determine customer’s business needs to address your solution
* Design and diagram your solution
* Prepare to present your solution

**Step 3: Present the solution (30 minutes)**

Outcome: Present solution to your customer

* Present solution
* Respond to customer objections
* Receive feedback

**Wrap-up (15 minutes)**

* Review preferred solution

#### Before the whiteboard design session: How to prepare

Before conducting your first whiteboard design session:

* Read the Student guide (including the case study) and Trainer guide.
* Become familiar with all key points and activities.
* Plan the point you want to stress, which questions you want to drive, transitions, and be ready to answer questions.
* Prior to the whiteboard design session, discuss the case study to pick up more ideas.
* Make notes for later.

#### During the whiteboard design session: Tips for an effective whiteboard design session

**Refer to the Trainer guide** to stay on track and observe the timings.

**Do not expect to memorize every detail** of the whiteboard design session.

When participants are doing activities, you can **look ahead to refresh your memory**.

* **Adjust activity and whiteboard design session pace** as needed to allow time for presenting, feedback, and sharing.
* **Add examples, points, and stories** from your own experience. Think about stories you can share that help you make your points clearly and effectively.
* **Consider creating a “parking lot”** to record issues or questions raised that are outside the scope of the whiteboard design session or can be answered later. Decide how you will address these issues, so you can acknowledge them without being derailed by them.

***Have fun****! Encourage participants to have fun and share!*

**Involve your participants.** Talk and share your knowledge but always involve your participants, even while you are the one speaking.

**Ask questions** and get them to share to fully involve your group in the learning process.

**Ask first**, whenever possible. Before launching into a topic, learn your audience’s opinions about it and experiences with it. Asking first enables you to assess their level of knowledge and experience, and leaves them more open to what you are presenting.

**Wait for responses**. If you ask a question such as, “What’s your experience with (fill in the blank)?” then wait. Do not be afraid of a little silence. If you leap into the silence, your participants will feel you are not serious about involving them and will become passive. Give participants a chance to think, and if no one answers, patiently ask again. You will usually get a response.

# 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. Ensure the data remains secure and located in the proper geographic region to ensure 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**

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.

## Wrap-up

Timeframe: 15 minutes

* Tables reconvene with the larger group to hear a SME share the preferred solution for the case study.

## 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> |
| Azure Networking | Choose a solution for connecting an on-premises network to Azure | https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/ |
| Azure Migrate | Migration Servers and Data to Azure | https://docs.microsoft.com/en-us/azure/migrate/ |
| Azure Databases | Find the data base product you need | https://azure.microsoft.com/en-us/product-categories/databases |

# Designing for the Microsoft Cloud whiteboard design session trainer guide

## Step 1: Review the customer case study

* Check in with your table participants to introduce yourself as the trainer.
* Ask, “What questions do you have about the customer case study?”
* Briefly review the steps and timeframes of the whiteboard design session.
* Ready, set, go! Let the table participants begin.

## Step 2: Design a proof of concept solution

* Check in with your tables to ensure that they are transitioning from step to step on time.
* Provide some feedback on their responses to the business needs and design.
  + Try asking questions first that will lead the participants to discover the answers on their own.
* Provide feedback for their responses to the customer’s objections.
  + Try asking questions first that will lead the participants to discover the answers on their own.

## Step 3: Present the solution

* Determine which table will be paired with your table before Step 3 begins.
* For the first round, assign one table as the Microsoft team and the other table as the customer.
* Have the Microsoft team present their solution to the customer team.
  + Have the customer team provide one objection for the Microsoft team to respond to.
  + The presentation and objections should be no longer than 10 minutes.
* Have participants on the customer team give feedback to the Microsoft team.
  + The feedback should be no longer than 5 minutes.
  + If needed, the trainer may also provide feedback.

## Wrap-up

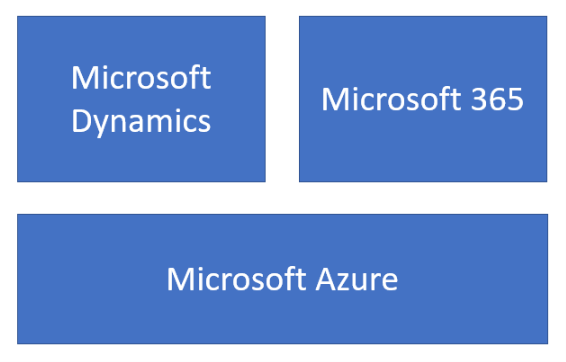
* Have the table participants reconvene with the larger session group to hear a SME share the following preferred solution.

## Preferred target audience

The primary audience is the business decision makers and technology decision makers. From the case study scenario, this would include the Carla Francis, VP of IT, David Furlong, Director of Applications and Chief Security Officer and Mickey Blanks Senior Network Engineer, Jennifer Holden, VP of Sales and Charles Scott, VP of Recruitment and Expansion. Along with these leaders it is important to work with the Security, Networking, Operations and Development teams. Each group needs to understand the nature of the move to the cloud and signoff on designs and migrations to take place.

## Preferred solution

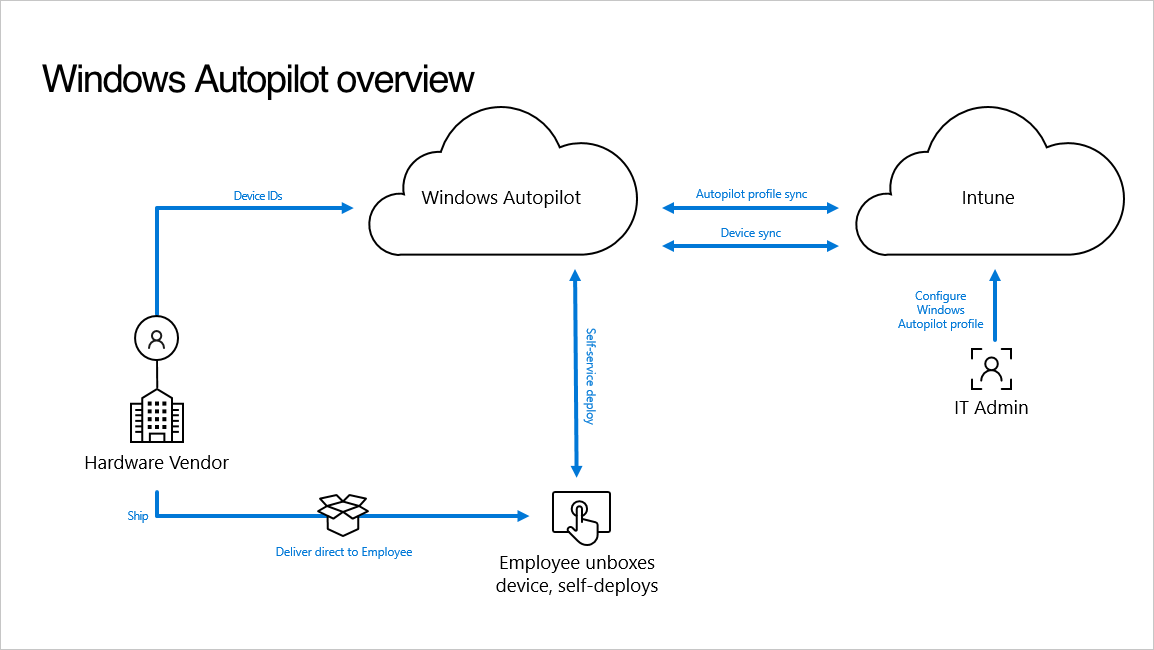
*The Microsoft Cloud*

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

*Modern Workplace*

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?

The biggest benefit IT would see from Microsoft 365 is to leverage Microsoft 365 in combination with Auto-Pilot. Leveraging autopilot the device could be shipped straight to the new employee without IT ever having to touch it. IT could then use Intune within Microsoft 365 to insure the devices was configured and software deployed in a way that was compliant with IT standards for software, security and compliance.



1. How would you leverage the Microsoft Cloud to replace the current file share B4U has in place?

To replace the typical on-premises file share, B4U could migrate the existing files to SharePoint Online and OneDrive. Now instead of VPN, users could go straight to SharePoint in the cloud. This would not only eliminate the file share, but also improve the ability of B4U to share files externally and with consultants without having to send email.

With some of the multi-geo features of SharePoint and OneDrive, it could also ensure that files in various sites, as well as employee files in OneDrive stay within a specific geographic region.

1. 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?

There are several options here. While they might not necessarily be wrong, there are definitely some options that are better than others.

* + 1. For internal employee communication B4U should leverage Microsoft Teams. This gives employees the ability to chat amongst themselves, either one-to-one conversations or group conversations within a team of people. It also provides functionality for ad-hoc videos calls and schedule meetings.
    2. For internal employee communication between employees and consultants. This could either be done in Yammer with an external network, or with teams by inviting consultants to a team as guests. The biggest things to take into consideration here is that a team is limited to 2,500 people. So, if there are thousands and thousands of consultants, Microsoft Teams would not be ideal. Considering the size of the organization, Yammer would be the preferred choice here given its ability to scale to a much larger group of people.
    3. For communication between consultants, Yammer is going to be the way to go. Again, the 2,500-person limit of teams would prevent all the consultants from joining a single group. You can also host multiple groups within Yammer allowing consultants to have a group to chat in based on size, region, products they sell, common interests, etc. These groups can be private or public as well as be open for anyone to join or require approval or an invitation to join a group. This keeps certain groups and conversations secure if they want to have a group for something like consultants with 1,000+ consultants reporting to them. Or consultants doing over $1million a year in sales.
    4. Another option that could be discussed here is providing larger consultants a SharePoint site that they are a guest of, or maybe even a licensed user to certain size consultants. This consultant could then use the SharePoint site as a portal to communicate with the consultants that report to them. At B4U there are a few consultants with a 1,000+ consultants reporting to them. SharePoint could be a good option for that “head consultant” to share information, documents and other material with the consultants that report to them.

1. What services in Microsoft 365 can be used to alleviate the issues of the aging Exchange server and support growth going forward?

There isn’t a lot to this one. Considering everything else, B4U should migrate their aging Exchange 2013 environment to Exchange Online. There are some other advantages they can gain here as well that could be discussed. While the employee move to Exchange Online is straight forward, this could also provide the ability for B4U to give consultants a B4U Exchange mailbox as well for a minimal monthly fee. It gives B4U a solid email platform to grow on and potential offer some extra service to help their consultants.

1. How can Microsoft 365 be leveraged to support the other initiatives going on within the company?

By implementing Dynamics 365 for Sales for the Corporate Employees and Platinum Consultants B4U can modernize and expedite their sales process and increase visibility. PowerBi should be used for Self Service reporting for Corporate Employees and Platinum Consultants. A portal should be explored as a cost saving option for Basic Consultants. PowerApps should be created to empower Platinum Consultants in the field when there are interacting with their customers. The Dynamics 365 security model should be used to handle a Consultants visibility to their Consultants.

1. 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?

By going with Microsoft 365, B4U has EMS they can leverage to help with security and regulatory requirements. Multi-geo was talked about with SharePoint around data sovereignty. EMS has Intune, Data Loss Prevention, Information Rights Management, and Advanced Threat Protection that can all be used to help secure the environment both on Windows 10 devices as well as mobile iOS and Android devices.

Cloud App security and Advanced Threat Analytics can also be used to detect any shadow it or breaches in security.

*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?  
   Microsoft Azure provides a number of services that could potentially improve their data platform and reporting capabilities. Some of the services which B4U might benefit from include Azure SQL Database, Cosmos DB, Azure Analysis Services and Power BI.
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?  
   For their big data needs, B4U might benefit from standardizing on Azure Databricks for their data processing pipeline, querying of big data and for performing near real-time analytics on streaming data. Alternately, they could use Azure Stream Analytics for performing analytics on streaming data in real-time, and use other data platform services like Azure SQL Data Warehouse to provide analytics against the big data in a batch fashion.
3. Regarding augmenting B4U AI capabilities, what spectrum of services might you suggest as a starting point for B4U?  
   B4U should consider the AI spectrum of options available in Azure that begins with pre-built AI services in the form of Cognitive Services and ends with custom AI services built using traditional data science tools and operationalized using the Azure Machine Learning service. They could also consider using Azure Databricks here, which would provide them a collaborative platform addressing their data science and advanced analytic needs.

*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?  
   B4U would benefit from standardizing on Azure Active Directory for all of their credential management concerns, with Azure Active Directory B2C specifically being deployed to support and manage the credentials of their consultants.
2. What are some big capabilities that Azure brings that might alleviate concerns around data security hosted in Azure?  
   Azure brings a host of security capabilities around securing access to resources in Azure, encrypting data in transit, encrypting data at rest as well as monitoring and auditing access.
3. How might they be able to support the reporting applications getting access to data that must remain on-premises?  
   Azure provide services that support delivering hybrid solutions whereby applications running in Azure can make secure requests back to on-premises environments to get specific data to which they have been granted access. Examples of this include Azure App Services Hybrid Connections, Azure Data Factory Data Gateway and the Power BI Gateway. B4U would do well by exploring one of these options to address their concern.

*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?

B4U has two main options for applications that aren’t replaced directly by Microsoft Cloud SaaS Services: First is the option to Lift and Shift servers to the cloud and run them in Azure IaaS. This can be done by using the Azure Migration and Azure Site Recovery tools. Both of these support physical and VMware workloads for migration. The second and preferred option is to refactor them to PaaS Services for applications and data. Azure supports by Windows and Linux workloads on Azure App Services. For data there is Azure SQL Database, Azure Database for MySQL and Azure SQL Managed Instance. By moving to these PaaS Services B4U can focus on the applications and data while leaving the management and updates to Microsoft.

1. What type of connection will we have to those services?

Since these applications will now be in the Azure cloud, B4U will need to connect their corporate sites to Azure created a hybrid network. This can be accomplished using either a Site to Site or ExpressRoute connection. This allows the local PCs to connect to these systems just as they do today, but they will now be hosted in Azure.

1. What benefits will be gained by moving to PaaS services over our traditional VMs?

Moving to PaaS allows B4U to regain resources they are using to maintain aging systems. They also can move to higher value tasks rather than mundane patching and upgrades. B4U will not fall behind on these upgrades as they did prior to this move to the cloud.

## Checklist of preferred objection handling

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?

The Microsoft Cloud can be best understood as three product families that work together to comprehensively address the needs of the enterprise. There is the Microsoft Dynamics family of products which provide businesses with software that support their operations across functions like sales, marketing, customer service and finance. Then there is Microsoft 365 which brings together Office 365, Windows 10 and Enterprise Mobility + Security the empower the organization to work together, securely. Both Dynamics and Microsoft 365 sit atop Microsoft’s cloud service Microsoft Azure, which provides over 100 services to support the enterprise solutions in the cloud such as hybrid on-premises and cloud solutions, security solutions, developer tools, web and mobile applications, scalable compute, storage and networking, data, analytics, artificial intelligence and internet of things (IoT).

1. Can Microsoft 365 really handle the security requirements of B4U? I like my own data center, it’s more secure there.

Microsoft is a huge company that invests billions in security. An analogy might be: “Where is your money more secure, a Bank or safe in your house? The Bank is like the “cloud”, versus the safe in your house is “on-premises”.

While Microsoft does have a much larger attack footprint, the amount of resources and security they invest in is far beyond anything you’ll ever be able to accomplish on your own. Microsoft receives upwards for 6.5 trillion signals a day which are analyzed for security threats and has thousands of employees focused just on security. Microsoft has extensive programs also looking for vulnerabilities in their own platforms. In fact, they even offer a bounty if you’re able to find a security flaw in Office 365.

1. 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?

To be fair, this can be hard to calculate. There are many factors to consider including: hardware costs, costs of electricity and cooling, data center space, and licensing to run on those servers. There are also many the extra services above the features provided in just the software along that come with Office 365 that aren’t even available or unless using the cloud. These include archive, spam, security features, multifactor authentication just to name a few.

Another aspect of it, is the time it frees up for IT staff. They don’t have to worry about fixing hardware, installing new hardware, patching servers, upgrading software, etc. They can now use this time to actually help the business leverage their Microsoft 365 investment to be more productive, enabling the company to make more money do to the improved productivity.

1. It’s the “cloud” how can I be sure where my data is stored for compliance?

While it is true that you don’t know exactly which data center or where in a particular country your data is stored, Microsoft does offer some options there.

First, the address of your organization when you stood up your Office 365 tenant will determine your default country (and storage location for you data). If you have multiple locations around the world and you need some data to be stored in a particular country for data sovereignty and compliance reason. Microsoft offers multi-geo options you can have enabled on your tenant by Microsoft to dictate which country the data for a specific SharePoint site is stored.

1. We have certain regulations we have to comply to, is Microsoft 365 compliant with those regulations?

While Microsoft may not have every certification in the book. They have all the major certifications when it comes to Microsoft 365. By referring to the trust center for the various cloud services you can get all the details and information you need to around the regulations they meet and the certifications they have. They do have different trust centers for the various products that can all be found at https://www.microsoft.com/en-us/trustcenter/cloudservices/