Microsoft Azure - Starter Kits for Partners

Introduction to Starter Kits

Intelligent Apps & Analytics Scenario

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# Overview

In this document, we will cover the challenges our customers are facing with Intelligent and Analytics services scenarios, and how Microsoft Azure can solve this problem.

We also cover what application patterns will mostly benefit for moving to the Cloud.

Finally, we introduce the concept of a “Starter Kit”, essentially demonstrate how to leverage this concept of a packaged offering to accelerate the Partner sales and deployment cycle.

# The Traditional Data Solutions and Platform Problem

Today most organizations significantly over estimate or underestimate the amount of resources they need to processing and transforming their data and bring the data into insight. This leads to a higher cost for the infrastructure and the delivery of the overall applications.

**Whether you are a developer and a CEO – at the same time - in a one-person startup getting your mobile app out the door, or a multi-national enterprise with 100,000 employees, you need to ensure you can always provision enough capacity for your application during peak periods.**

* Implementing big data and advanced analytics on Azure will put increasing demands on scalability and flexibility.

Are you lacking auto scale capabilities that result on the symptoms below?

* + You have periods where you have insufficient infrastructure capacity and customers get a bad experience
  + Periods where you have excess infrastructure capacity. Capital laying idle, opex wasted powering and cooling servers
* Are you facing High LOB infrastructure costs?
* Do you need to respond quickly to changing business needs?
* Are your organization facing the common business intelligence challenges below?
  + Can’t getting an end-to-end view off what is happening
  + Need to managing multiple data sources
  + Hard to making the right data available to the right users at the right time
* Are you looking for an efficient way to bring your data into insight?
* Do you have customer support teams that need to re-produce errors reported by internal and external clients in order to resolve the issue during building up the data warehouse?

# The Proposed Solution

You can count on Microsoft Azure Infrastructure Services to quickly standup the infrastructure for setup your enterprise data warehouse on the Cloud. **You pay for what you use and no more**.

**Are you lacking auto scale capabilities that result on the symptoms below?**

One of the key benefits that the Azure technology data platform delivers is the ability to rapidly scale your big data analytics and data processing in the cloud in response to changes in demand.

As your business and its needs grow, your infrastructure will need to grow along with it. Continue to get value from your data in a secure, compliant, and scalable way.

**KEY BENEFITS**

* **Secure:** Keep your customers’ data safe on a trusted and secure cloud platform with encrypted communications, threat management, mitigation practices, and regular penetration testing
* **Compliant:** Ensure infrastructure compliance with your industry through our broad set of compliance standards such as ISO 27001, HIPAA, FedRAMP, SOC 1, and SOC 2
* **Scalable:** Elastically scale to petabytes of data as your business needs grow over time, while keeping the flexibility and choice to manage multiple data repositories in the cloud

Also, with Azure SQL Database/Azure Data Warehouse is a relational database as a service. SQL Database databases can be scaled up 500 GB per database. You can use tools that you are already familiar with such as Visual Studio or SQL Management Studio.

Management of the database itself is simplified with backup and point in time recovery built in to the platform.

SQL Database comes with advanced capabilities such as geo-replication just built-in to the platform. With SQL Database it is easy to build a globally available application that can scale.

**Are you facing High LOB infrastructure costs?**

With Azure PaaS features, you pay for what you use and no more – you can turn off Virtual Machines as the peak decreases to save money**.**

From an operational cost model, this comparison will not only allow the customer to see the value of the cloud, but also the operational cost savings of moving to a cloud environment using the Microsoft Azure Platform. Microsoft Azure Platform’s payment model provides a framework which allows BDMs to see the costs associated with their IT infrastructure, straight down to a specific application’s usage. (Which will determine COGS for most application/servers) It provides the ability to see which applications will benefit the most from the cloud environment as well, allowing them to make more detailed decisions on how to best use cloud for their organization.

**Do you need to respond quickly to changing business needs?**

As organizations move your business intelligence solutions into the cloud, the scenario architecture will help to decide how best cloud services can be used to support it. An entire solution process and data may be moved into the cloud, depending on its sensitivity, individual process of the ETL may be moved into cloud while leaving the secure data back on premises or an extension of services to augment an existing on premises line of business data processing to the cloud.

With the cloud, why start from scratch when you don’t have to? Build with the solutions for your industry, or extend our basic building blocks to tailor the solution to your specific needs.

**KEY BENEFITS**

* **Get started quickly:** Build on top of industry-specific partner solutions or customize machine learning models, APIs, and templates from our Solutions Gallery
* **Use all your data:** Connect to, and get value from, data of any volume, variety, and velocity—from both cloud and on-premises databases
* **Open and extensible:** Work with the languages and frameworks your organization already knows and uses, including R, Python, and Hadoop

**Are your organization facing the common business intelligence challenges?**

Power BI is a cloud-based analytics service that provides faster time to insight. It is used for visualizing, exploring and extracting insights from data. It brings together data from diverse sources to deliver rich, comprehensive views of business operations.

What that means is, with Power BI, you can see all of your data through a single pane of glass and create an analytics environment in minutes to monitor data and share reports. Live dashboards and reports show visualizations and KPIs from data that reside both on-premises and in the cloud, providing a consolidated view across your business regardless of where your data lives.

There are several capabilities that are unique to Power BI – these include:

* Pre-built dashboards and reports for popular SaaS solutions such as Marketo, Salesforce, GitHub, ZenDesk, Dynamics CRM, and many others
* Dashboards and visualizations that support real-time updates
* Secure, live connections to on-premises data sources to drive insight across the entire range of organizational information (Analysis Services, Azure SQL Database, SQL Database Auditing, Azure SQL Data Warehouse)
* Automated, scheduled refreshing to keep your Power BI data in sync with on premises data sources
* Native mobile applications for keeping users connected on the go
* Easy integration with other Microsoft offerings, from Excel to Azure services
* Intuitive data exploration, which enables users to ask questions of their data in plain English

To summarize, Power BI is a SaaS offering that enables anyone to easily connect to their data, create live operational dashboards, and explore data via interactive visualizations.

**Are you looking for an efficient way to bring your data into insight?**

With the Advanced Analytics solution on Azure, you can create a more cost-effective supply chain and be more efficient in everything you do.

Integrate big data from across the enterprise value chain, use advanced analytics in real time to optimize supply-side performance, and save money. Embrace proactive measures with a live view into your supply chain – assess inventory levels, predict product fulfilment needs, and identify potential backlog issues.

Uncover insights buried in your data to optimize the way you do business. Whether it’s organizing human resources, managing supply chains, or forecasting staff and customer needs, understanding the factors that affect operational efficiency is essential to streamlining your business.

**What is Cortana Analytics Suite and why Cortana Analytics Suite?**

Cortana Analytics Suite delivers an end-to-end platform with an integrated and comprehensive set of tools and services to help you build intelligent applications that let you easily take advantage of advanced analytics.

Cortana Analytics Suite provides services to bring data in to analyze it. It provides information management capabilities like Azure Data Factory, so you can pull data from any source (relational DB like SQL or non-relational ones like your Hadoop cluster) in an automated and scheduled way while performing necessary data transforms (like setting certain data columns as dates vs. currency, etc.). Think ETL (Extract, Transform, Load) in the cloud. Event Hubs does the same for IoT-type ingestion of data that streams in from lots of endpoints.

The data brought in can then be persisted in flexible, big data storage services like Azure Data Lake and Azure SQL Data Warehouse.

You can use a wide range of analytics services, such as Azure Machine Learning to Azure Stream Analytics, to analyze the data that are stored in the big data storage. This means you can create analytics services and models specific to your business needs (say real-time demand forecasting).

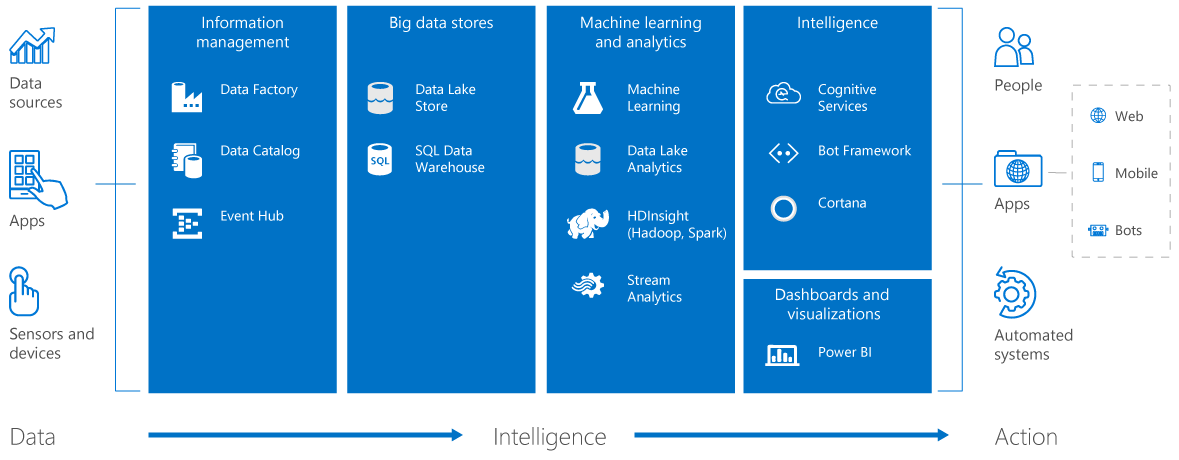
The resultant analytics services and models created by taking these steps can then be surfaced as interactive dashboards and visualizations via Power BI in Microsoft Excel.

These same analytics services and models can also be integrated into various UI (web apps, mobile apps, or rich client apps) as well as via integrations with Cortana, so end users can naturally interact with them through speech, etc. End users can also be notified proactively by Cortana if the analytics model finds a new anomaly (unusual growth in certain product purchases, in the case of the real-time demand forecasting example given above) or anything that deserves the attention of the business users.

**KEY BENEFITS**

* Predict: Predict what will happen with state-of-the-art machine learning algorithms
* Prescribe: Augment and improve your decision making processes with proactive alerting and prescriptive analytical recommendations on what actions to take
* Automate: Simplify and automate decision making when dealing with complex problems that involve multiple variables that may change in real time
* Natural and proactive interaction: Interact with your data using natural language and speech through Cortana
* Intelligent agents: Build intelligent agents or Bots that allow your users to interact with your intelligent solutions in a more contextual and natural way, including your social platforms—text/sms, Facebook, WhatsApp, WeChat, Slack, Skype, and more
* Cognitive APIs: Add vision, speech, text, recommendations, and face and emotion detection to your application to gain valuable insights for your business

# The Value of Microsoft Cortana Intelligence Suite and Azure IoT Suite

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**Information management**

Orchestrate data movement on a fully managed, end-to-end platform. Use [Azure Data Factory](https://azure.microsoft.com/en-us/services/data-factory/) to build pipelines and collect and orchestrate data from the services you use for easier analysis. Plus, use [Azure Data Catalog](https://azure.microsoft.com/en-us/services/data-catalog/) to effectively manage data sources and [Azure Event Hubs](https://azure.microsoft.com/en-us/services/event-hubs/) to provide a staging area for incoming streaming data.

**Big data stores**

Store and manage structured data using [Azure SQL Data Warehouse](https://azure.microsoft.com/en-us/services/sql-data-warehouse/) that elastically scales with massively parallel processing. Implement a hyper-scale repository with no file size limits for unstructured data using [Azure Data Lake Store](https://azure.microsoft.com/en-us/services/data-lake-store/) to attain massive throughput and analytic performance.

**Machine learning and analytics**

Design and publish predictive models with [Azure Machine Learning](https://azure.microsoft.com/en-us/services/machine-learning/), use [Azure HDInsight](https://azure.microsoft.com/en-us/services/hdinsight/) to analyze data in Storm and Spark for Hadoop environments, integrate your code from R or Python, and analyze any kind or any size of data you need with [Azure Data Lake Analytics](https://azure.microsoft.com/en-us/services/data-lake-analytics/) and [Azure Stream Analytics](https://azure.microsoft.com/en-us/services/stream-analytics/). Plus, use [Microsoft Power BI](https://powerbi.microsoft.com/) to create rich visualizations that bring your data to life. Power BI:

* Fast and easy access to data
* A live, 360º view of the business
* Data discovery and exploration
* Insights from any device
* Collaboration across the organization
* Anyone to visualize and analyze data

**Intelligence**

Explore [Cognitive Services](https://azure.microsoft.com/en-us/services/cognitive-services/) and learn how to enable natural and contextual interactions in your apps. Integrate analytics services and models with Cortana, your personal digital assistant, to let users interact with your app through speech and receive proactive notifications. Build and connect intelligent bots that naturally interact with your users wherever they are—from SMS to Skype and Office 365—by using the [Bot Framework](https://dev.botframework.com/).

**What is the Microsoft Azure IoT Suite?**

With a set of cloud services from Microsoft, you’ll be able to harness the value of IoT quickly and with the flexibility for future needs.

With the Microsoft [Azure IoT Suite](https://azure.microsoft.com/en-us/suites/iot-suite/), you can monitor assets to improve efficiencies, drive operational performance to enable innovation, and use advanced data analytics to transform your business with new business models and revenue streams. Small changes can have a big impact on your bottom line. When you take advantage of the Microsoft Cloud Platform, you can use the Azure IoT Suite to help you move faster, do more, save money, and capture the benefits of the Internet of Things for your business.

**KEY BENEFITS**

* Get started in minutes: Use pre-configured solutions and accelerate your IoT projects to jump ahead of the competition.
* Connect any device: Using an open and flexible solution, connect a broad range of existing and device types and operating systems.
* Predict the future: Use advanced analytics and machine learning to capture insights from data that weren’t possible before.
* Automate to transform: Integrate with your existing business systems and make the best use of the data and processes you already have.

We have seen over 40% growth in our all up enterprise cloud businesses with strong contribution from both hosting service providers, private cloud solutions and our own public cloud services. Microsoft Azure alone is outgrowing the overall cloud market by >150 points.

By 2016, 45% of IT budgets will be devoted to cloud initiatives with 15% of that devoted to public cloud. (Source: IDC).

# Partner Needs

Partners want to make profitable businesses by deploying and selling Microsoft Azure.

They also want to sell and deploy Intelligent Application or IoT Scenarios, but do not have the experience or understanding to say what is possible or know possible ways to sell the value of it or set it up.

At the same time, Partners and Customers have expressed a need to have more capacity that is flexible in their businesses for using PaaS features for various purposes. They want to spend less time managing hardware and IT and more time selling and deploying.

# Introduction to Starter Kits

This concept is a set of deliverables, packaged as an offering, that are named as a starter kit. Starter kits are designed to show a partner a specific scenario in Azure that could be possible for them to build and equip them in the technical sales cycle. Each kit will include:

1. A Description of the partner benefit for using and participating in the kit.
2. An assessment questionnaire and guidance that Partners could use with a customer.
3. An Architecture Topology presentation for a recommended way to implement the specified scenario.
4. A cost estimator (based on retail pricing) for implementing the recommended scenario on Azure.
5. A Statement of Work template for implementing the recommended scenario that a partner could use.
6. Hands on Labs a Partner can self-study with to build technical skills in implementing the recommended scenario.

# Starter Kits - Partner Benefits

1. Reduce time in creating a proposal for a customer through a sale and deployment template
2. Reduce the learning curve cost by focusing on a proven scenario
3. Help assess and determine the technical requirements for migrating existing Applications to the Cloud
4. Sell, estimate cost, and deploy working solutions to your customer.
5. Get tools and templates to use when discussing an Intelligent Application deployment with your customers.
6. Receive a recommended set of topology diagrams for implementing an Intelligent Application and Analytics Services scenario on Azure.
7. Receive guidance for self-study for learning the recommended Intelligent Application and Analytics Services at a technology level.