Microsoft Azure - Starter Kits for Partners

Azure Assessment

Intelligent Apps & Analytics

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# Overview

The purpose of this document is to provide Microsoft Partners with an assessment to identify key components in the customer scenario and serve as a guide to the available resources. This will help the partner to build an efficient architecture for the customer scenario and have an accurate cost proposal based in the customer needs.

In this document, we will cover the following topics:

* Common Scenarios
* Questionnaire
* Resources and Tools
* FAQ

# Azure Scenario Assessment

## Common Scenarios

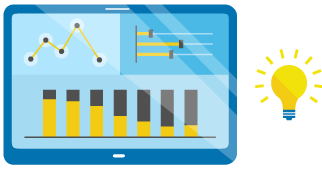
With the latest Microsoft Intelligent Apps & Analytics technology, you gain a greater business insight without dramatically increasing IT costs and with a very positive user experience. Business intelligence tools offering self-serve capabilities, collaboration, reporting, and analytics—give you the ability to better execute, control cost, find new opportunities and achieve your vision.

Microsoft Intelligent Apps & Analytics allows you effectively drive your business processes with a familiar tools using an extended capability for data analytics and reporting. These tools can bring you many benefits such as

* Empower users to discover, analyses and visualize data with powerful BI tools.
* Easily deliver dashboards that aggregate data from multiple sources, and track success metrics aligned to business strategies.
* Provide integrated ad-hoc data exploration and visualization to explore root cause.
* Address complex reporting needs with professional reporting tools.
* Quickly deploy a cloud-based business intelligence solution that provides an environment for rich analysis, collaboration, and governance.
* Improved user productivity through familiar tools in Excel and SQL Server.
* Take advantage of enterprise-class capabilities like high availability, superior performance, and scalability, without the up-front cost of infrastructure.

## Business intelligence

Transform your company’s data to support informed decision-making. Gain deeper insight into your data to stay in the know and spot trends as they happen. With modern business intelligence, your entire organization can understand and quickly act on data.



**Get the right insights into the right hands**

Offer business analysts, and everyone in your organization, powerful, self-service analytical tools to drive better, faster decision-making. Combine data from multiple sources to build tailored reports and create rich analytics that bring your data to life.

**Integrate and manage business intelligence securely**

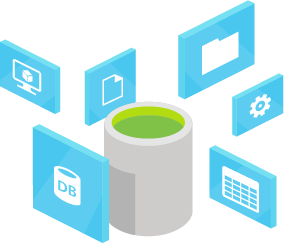
Better integrate with existing systems by choosing a feature-rich, enterprise-ready BI platform. Maximize resources, monitor access to data and assets, help ensure security and compliance and deliver a business intelligence solution designed for the needs of your organization.

**Bring data to life in your apps**

Help your customers easily access valuable data on any device at any time. Embed fully interactive and up-to-date visual analytics directly in your apps with ease—without the time and expense of writing code.

## Big data and analytics

Deliver better experiences and make better decisions by analyzing massive amounts of data in real time. Get the insight you need to deliver intelligent actions that improve customer engagement, increase revenue and lower costs.

**Bring together all of the data you need**

Data volumes are exploding – from traditional point-of-sale systems and e-commerce websites to new customer sentiment sources such as Twitter and IoT sensors that stream data in real time using Apache Hadoop and Spark. By analyzing a diverse dataset from the start, you’ll make more informed decisions that are predictive and holistic rather than reactive and disconnected.

**Hold onto your most valuable asset – data**

Keep your organization’s data indefinitely, no matter the size. Instead of making cost trade-offs on what data to hold onto, retain your data to meet regulatory and company standards at affordable prices – now possible with Hadoop and Spark technologies and the cloud.

**Deliver a personalized experience to customers**

Different people want different experiences. Delight your customers with a personalized experience that changes based on their behavior, even offering recommended products that include dynamic discounts for a personalized shopping experience. Give suppliers a predictive list of things to purchase based on current order information and historic customer data.

**Create a more cost-effective supply chain**

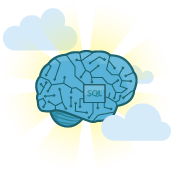
Integrate data from across the enterprise value chain and analyze it in real time to optimize supply-side performance and save money. Embrace proactive measures with a live view into your supply chain – assess inventory levels, predict product fulfilment needs and identify potential backlog issues.

**Be more efficient in everything you do**

Uncover insights buried in your data to optimize the way you do business. Whether 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.

## Data warehouse

Today’s data-driven world requires a new kind of data warehouse solution. One which can truly scale on-demand and pause when not in use, handle exponential data growth across all types of data, protect access to your data and deliver predictive analytics for true business transformation.

**Enable transformative data insights**

Transform your business through predictive analytics over all of your data with tools you already know and love – Power BI, Excel and third-party BI tools. Plus, seamless compatibility with machine learning, ingestion, data movement and data store services ensures transformative insights over all your data.

**Scale with more freedom**

No need to over-provision or over-pay. Decoupled storage and compute models give you more freedom to easily scale your environment. Plus, the ability to pause compute gives you even more budget flexibility for batch-based workloads. Now you can ingest all your data with no trade-offs.

**Get up and running quickly**

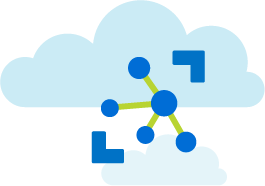
Provision a data warehouse solution in 3 to 5 minutes. Azure uniquely scales your compute in seconds – delivering the promise of cloud elasticity to data warehousing. Use T-SQL skills to ingest and query data from on-premises and cloud sources – all for approximately 10 times the value of traditional solutions.

**Protect and help secure data**

Gain multiple layers of data protection – starting with data encryption and auditing. Azure uniquely offers threat detection which functions like an alarm system over your data. Also, support for Azure Active Directory helps limit BI access to the appropriate subset of the data to further support compliance policies.

## Remote monitoring with IoT

Bring the Internet of your things to life. Connect and monitor all your devices, assets and sensors. Increase visibility into performance and efficiency, and enable innovation and improve business outcomes through previously untapped data.

**Scale to millions of devices for a quick time to market**

Create a broad-scale Internet of Things (IoT) solution by connecting devices, assets and sensors to the cloud. Scale with ease and confidence – from just a few sensors to millions of simultaneously connected devices – with the reliable, global availability you need to keep a competitive edge.

**Uncover insights with previously untapped data**

With your company’s devices and sensors connected, you can collect previously untapped data, then use built-in capabilities to improve operational efficiencies. Set up real-time analytics in a scalable, high-performance and resilient way, without having to manage complex infrastructure and software.

**Build IoT solutions with confidence**

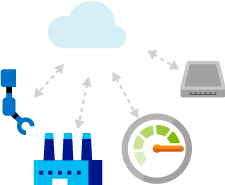
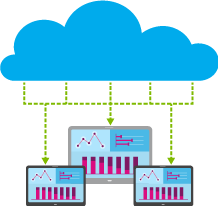
Enhance the security of your IoT solution across physical devices, connections and data. Use per-device authentication by setting up individual identities and credentials for each of your connected devices. And retain the confidentiality of both cloud-to-device and device-to-cloud messages.

**Monitor assets anywhere in real time**

Whether assets are down the street or across the globe, automate the tracking of their status and health, more effectively, efficiently and reliably than your existing systems. No matter how remote your assets are, get live data and insights to make real-time decisions that move your business forwards.

## Predictive maintenance with IoT

Predict equipment failures before they happen, and systematically prevent them, for millions of machines across the globe. Use streaming data from sensors and devices to recognize warning signs, predict equipment maintenance needs and pre-emptively repair equipment, saving you time and money.

**Increase asset reliability with rich insights**

Focus on what matters most to your customers: reliability. Improve asset availability by gathering and transforming data from sensors and systems to vastly improve operations, offering predictive, and even pre-emptive, maintenance.

**Predict equipment failures before they happen**

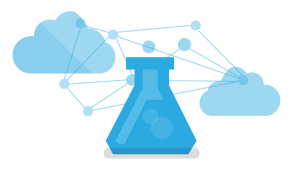
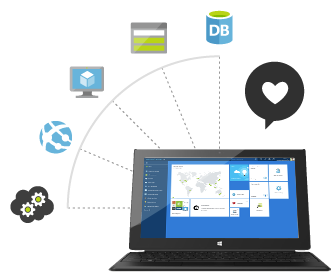
Monitor an asset’s health to prevent potential problems, whilst promoting equipment efficiency. Collect and analyze the untapped data from your connected assets to proactively plan maintenance, decrease downtime and improve retention of the asset’s value.

**Monitor millions of devices, globally**

Use a cloud solution to connect devices and assets, then collect untapped data and create predictive models, in any location worldwide. Improve access to production and supply chain data worldwide, reducing costly downtime and maintenance and increasing productivity.

## Cognitive Services

Enable natural and contextual interaction with tools that augment users' experiences using the power of machine-based intelligence. Tap into an ever-growing collection of powerful artificial intelligence algorithms for vision, speech, language, and knowledge.

**Language**

Allow your apps to process natural language, evaluate sentiment and topics, and learn how to recognize what users want.

**Speech**

Processing spoken language in your applications

**Vision**

State-of-the-art image processing algorithms to build more personalized apps by returning smart insights such as faces, images, and emotion recognition.

**Knowledge**

Map complex information and data in order to solve tasks such as intelligent recommendations and semantic search.

# Questions

Intelligent Apps & Analytics represents a large, complex undertaking with many, interdependent parts. The first step of a Microsoft Intelligent Apps & Analytics is determining where to begin, what to produce, and how to produce it. Complexity of the assessment is compounded by partial artifacts of previous projects, missing history, and multiple agendas. As with any complex undertaking, assessment is most successful when the large, complex problem is divided into smaller, more manageable pieces.

## Business Needs

Business Needs Assessment includes an analysis of the underlying business drivers and objectives and overall context of business need that has been established for Intelligent Apps & Analytics. In an assessment the objective is not to perform the analysis. It is to determine the degree of analysis that has been done, and to identify any business analysis gaps and their impacts.

The following key questions are among those that a business needs assessment may address:

|  |  |
| --- | --- |
| Question | Response |
| Have business drivers and objectives been identified? |  |
| Have business requirements been documented? |  |
| Please describe your mains goals and objectives for this engagement. Do the requirements align with business drivers and objectives? Do they focus on strategies that respond to the drivers? |  |
| Do the information needs identify and target the enabling of specific business processes and tactics? |  |
| Do the information needs identify the key performance indicators (business metrics) and business perspectives (dimensions, descriptive attributes) needed to measure, analyze, and optimize the targeted business processes? |  |
| Do they identify the roles to be supported, their number and distribution? |  |
| Do they identify the frequency and volume of reporting and analytical needs? |  |

## Information Architecture

Information Architecture Assessment includes an analysis of logical data structures, their feasibility, completeness, documentation, and fit to business requirements. Information architecture assessment also includes analysis of data sourcing and transformation, the methods and assumptions applied, and validation of mappings to business requirements. Metadata, as part of the information architecture, is examined with respect completeness of metadata being tracked, user metadata requirements, and approaches to management of the metadata.

Key questions addressed by information architecture assessment include:

|  |  |
| --- | --- |
| Question | Response |
| Are the information requirements modeled? |  |
| Do they map to and support the identified business requirements? |  |
| Does data access and analysis clearly add business value and meet business needs? |  |
| Is the underlying data architecture flexible and extensible? Can it support multiple analytical needs? Does it readily allow for integration of new data? |  |
| Have data quality issues have been identified and addressed? Is the data being delivered is valid? |  |
| Can users get to, manipulate, and analyze the data when and in form needed? |  |
| Does data access and analysis clearly add business value and meet business needs |  |

## Technical Architecture

Technical Architecture Assessment looks at current Architecture designs and services adopted. Technical architecture assessment seeks to identify any technical risks or constraints with regard to performance, maintenance, scalability, data distribution, disaster recovery, and sizing. This assessment also seeks to identify opportunity to leverage the value of existing technical resources. Effective use of tools, and their overall fit to the business.

Some of the key questions of technical architecture assessment include:

|  |  |
| --- | --- |
| Question | Response |
| Does the technical architecture provide for the efficient delivery result? |  |
| Do they map to and support the identified business requirements? |  |
| Does data access and analysis clearly add business value and meet business needs? |  |
| Is the underlying data architecture flexible and extensible? Can it support multiple analytical needs? |  |
| Have data quality issues have been identified and addressed? Is the data being delivered is valid? |  |
| What kind of BI strategic platform is needed? Big Data platform, Analytics tools, or Visualization tools? |  |
| Is current access and performance adequate? What about performance of data acquisition and refresh processes? |  |

## Organization

Organizational Assessment includes an examination of the existing organizational structure and identification of the roles and responsibilities of both IT and the business community that need to be addressed.

Among the key questions that organizational assessment addresses are:

|  |  |
| --- | --- |
| Question | Response |
| Have roles and responsibilities for each service been identified and documented? |  |
| Has ownership of service used been addressed from the perspective of strategic business objectives and direction setting? From the perspective of tactical enhancement and ongoing business needs? From perspectives of information management and technical support and responsibilities? |  |
| Has the key issue of business/IT collaboration been directly articulated and addressed? |  |
| Has the need for ongoing operational support and tuning, in parallel with continuing development, been considered? |  |
| Has any structure been put in place for ongoing monitoring of the whole system, and for periodic assessments, as needed? |  |
| Are deliverables clearly identified? |  |

# Resources and Tools

### Big data and analytics

<https://azure.microsoft.com/en-gb/solutions/big-data/>

### Business intelligence

<https://azure.microsoft.com/en-us/solutions/business-intelligence/>

### Data warehouse

<https://azure.microsoft.com/en-gb/solutions/data-warehouse/>

### Remote monitoring with IoT

<https://azure.microsoft.com/en-gb/solutions/remote-monitoring/>

### Predictive maintenance with IoT

<https://azure.microsoft.com/en-gb/solutions/predictive-maintenance/>

### Cognitive Services

<https://azure.microsoft.com/en-us/services/cognitive-services/>

**Microsoft Azure IoT Starter Kits**

Start innovating today with kits that include development boards that are ‘Azure Certified for IoT’, sensors and actuators. Simple user-friendly tutorials help you to seamlessly connect your devices to the cloud with Microsoft Azure IoT.

<https://azure.microsoft.com/en-gb/develop/iot/starter-kits/>

Related Azure services and Microsoft products (HDInsight, SQL Data Warehouse, Machine Learning)

<https://azure.microsoft.com/en-gb/services/hdinsight/>

<https://azure.microsoft.com/en-gb/services/sql-data-warehouse/>

<https://azure.microsoft.com/en-gb/services/machine-learning/>