Dynamics 365 Enterprise

Our Top Ten Takeaways!

Recently there has been a lot of activity from Microsoft in terms of their Dynamics product range, especially around ERP and CRM solutions. Microsoft Dynamics AX is now called "Microsoft Dynamics 365 for Operations" and sits within the group of functionality known as Microsoft Dynamics 365 Enterprise Edition.

Here, we look at the most important and exciting elements of Microsoft Dynamics 365 Enterprise Edition….

1 Unlimited Cloud Power: Azure

Microsoft's Cloud computing platform, Azure, has made huge steps forward recently in its bid to become the preferred choice for companies to host their business functions in the cloud. Microsoft have Azure running across more than one hundred data centres providing immense scalability and resilience.

Within this unparalleled datacentre capability, Microsoft configure cloud computing platforms which are based on Virtual Machines (VMs). A VM is an emulation of a computer system, spreading workload over as many physical machines as is required which optimises performance, costs and reliability.

One physical machine can run multiple VMs or one VM may be spread across many physical machines. This technology allows Microsoft to set-up as many VMs as a company needs and scale them by adding more VMs, or more power whilst the system is being used. The Azure model is costed based upon how much resource is being used. Therefore, a company gets an almost infinitely scalable and highly reliable server computing infrastructure, fully managed and maintained by Microsoft on a pay per usage basis.

Common justifications for sticking with on premise infrastructure revolve around perceived issues with communication connections and the risk involved with off-site servers. In fact, these explanations are becoming more and more outdated as performance and security meet even the most demanding standards; recently the Pentagon awarded the highest security rating (level 5) for non-classified data to Microsoft systems hosted on Azure Cloud.

In fact, many large companies are choosing Azure because it is actually more secure and cost efficient than physical "on premise" infrastructure which has a much higher risk of damage or deliberate sabotage. Microsoft data centres are subject to the most stringent security standards, far beyond the levels of any individual organisation. In any case, many Enterprise customers support their computing infrastructure across multiple sites and countries and are therefore already dependent upon communication reliability and off-site systems, no matter how their infrastructure is setup.

AXpact has many customers running large global infrastructures in both on and off premise scenarios. We are therefore able to assist our clients in helping them to understand the choices and what is best for their organisation.

Azure's pay per use model and highly automated configuration and management make it the cheapest and best form of full scale Disaster Recovery Infrastructure for most companies; typically costing a fraction of what a duplicated infrastructure might cost.

2 Unifying Data with the Common Data Model

Dynamics 365 for Operations is underpinned by Microsoft's new Common Data Model (CDM) which is a common data definition for an organisation's data. In situations where there are multiple applications and databases, CDM makes life much easier.

Operational databases synchronise their data with the CDM, which can include multiple systems using the same or similar data. The entire Enterprise data model is now in one place making it much easier to provide:

- Reporting and B.I.
- Data maintenance and integrity standards.
- A single point of integration for internal and external systems.

Microsoft has already mapped hundreds of entities into the CDM from Dynamics AX, CRM and Microsoft Exchange. Microsoft will continually add more, but organizations can also extend their own CDM. This is a massive step forward in integrating Enterprise applications.

3 The Power of Power BI

Microsoft Dynamics 365 for Operations now comes with Microsoft Power BI. Power BI is amazingly easy to use while still being incredibly powerful; enabling users to create stunning and informative visualizations of their data quickly and easily. Find out more here: -
https://powerbi.microsoft.com/en-us/features/

Power BI runs in the Azure Cloud, offering unlimited scalability and superb performance. It leverages the Common Data Model, so one Business Intelligence Suite can access all of your Enterprise's data from one data repository, with common naming conventions and one version of the truth. This brings top data analytics to 'normal' companies quickly and easily with very low cost. Finally, Power BI is integrated with Cortana Analytics, allowing for natural language queries to create automatic queries (yes you really do just speak to it/her!).

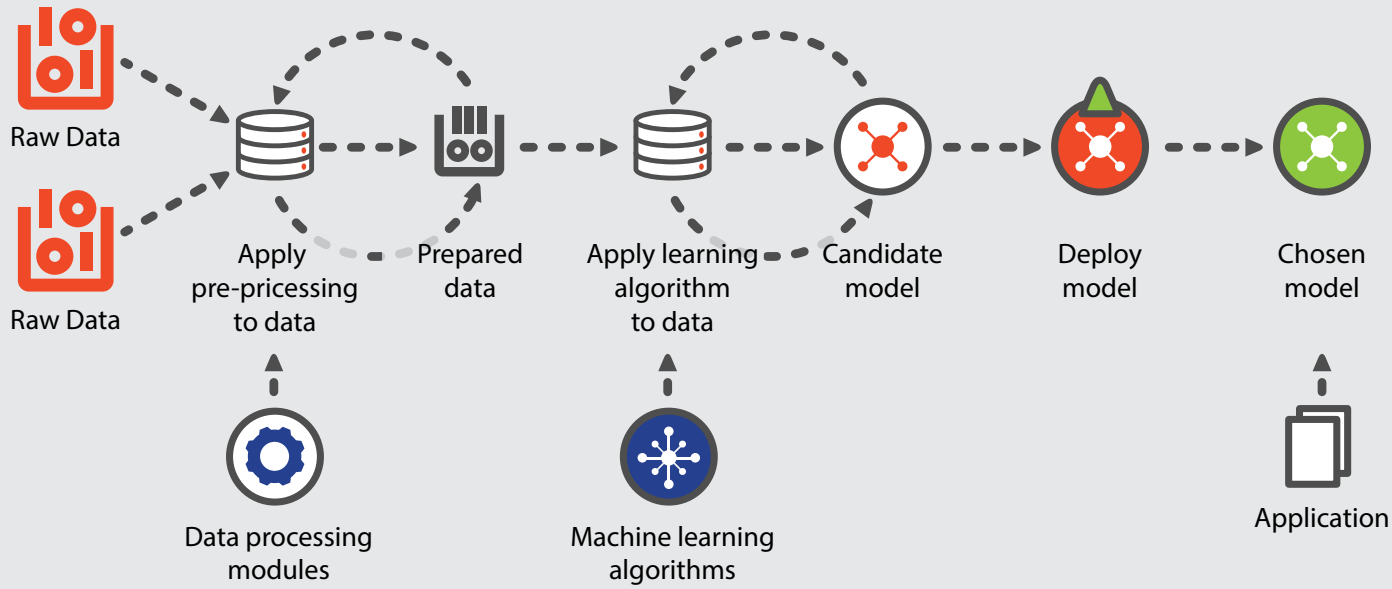
https://powerbi.microsoft.com/en-us/documentation/powerbi-service-cortana-intro/

4 Machine Learning

The recent exponential increases in computing power, especially with the cloud aggregating computer power over many datacentres (each being incredibly powerful in its own right) means that thousands of servers can work together. The power this creates enables Microsoft developers to write incredibly resource hungry applications some of which fall under the Artificial Intelligence (AI) banner. While AI definitions vary from mild to wild; Wikipedia has a decent article as a starting point https://en.wikipedia.org/wiki/Artificial_intelligence

The Machine Learning Process

Whether an organisation uses Azure ML or another approach, the basic process of machine learning is much the same. This is how it typically looks.



The machine learning process starts with raw data and ends up with a model derived from that data.

AI is basically applying computing power to cognitive functions. Whilst well short of simulating a human, computers can augment or replace certain discrete functions – AI is now being applied to areas such as Master Planning and Sales Promotions. Although human oversight is essential and in many smaller volume scenarios human expertise will provide better outcomes, the sheer ability of systems to do this type of quantitative analysis brings new opportunities to our systems.

Here is an excellent article on the basics of machine learning:

https://azure.microsoft.com/en-gb/services/cognitive-services/

5 Extensibility via Appsource

Microsoft have also released a marketplace for Dynamics 365 Apps and other extended functionality. This identifies complementary functionality by industry sector to help customers leverage the vast number of ready-made solutions.

In regard to Microsoft Dynamics 365 for Operations (Dynamics AX), AXpact members have some of the best ready-made solutions in the world of ERP. We have created a dedicated website called AXpact Additions to profile these solutions. Here's the link for the site: http://axpactadditions.com/

6. What is Cortana doing in there?

Cortana was initially a character in the Microsoft XBox video game HALO. In the game, Cortana is a synthetic intelligence accessed via holograph or a Heads Up Display in a helmet.

More recently Microsoft has branded its collection of AI applications as Cortana Analytics which surfaces numerous applications such as the Machine Learning suite via the Cortana synthetic persona. Today you will find Cortana as the presenter of the Microsoft Windows search engine, in Power BI, on Microsoft phones (similar to Apple's Siri) and now providing analytics in Microsoft Dynamics 365 applications.

7 PowerApps

Apps are typically small software applications designed to run on mobile platforms. Developing apps has become easier over the last few years but for Dynamics 365, Microsoft have integrated their PowerApps platform making it very easy to build simple, custom applications that can be deployed to many device platforms (Android, Windows, Apple's IOS).

Power Apps can be used to connect field operatives or remote stakeholders (staff, customers or suppliers) to the ERP and CRM system with simple and seamless remote applications, for example:

- Sales pricing or portal
- Expenses
- Workflow approvals
- KPI monitoring

Power Apps are so simple to develop, they can literally be built, tested and deployed in just a few hours.

8 Office 365 Integration

Microsoft has extended the integration of Microsoft Dynamics and Office 365, particularly via the Common Data Model and through common user authentication. This seamless authentication of users and their licensing is critical to providing the advanced capabilities found in Dynamics 365.

9 Licensed Per Workload

Microsoft have announced very attractive pricing for the integrated Dynamics 365 editions compared to making separate purchases as required previously. The suite can be bought wholesale or as specific silos of functionality such as Sales, Financials, Operations, Customer Services and so on. The new pricing is attractive to new customers and even more so when switching from a competitive product or upgrading from an older Microsoft product. The applications and infrastructure can all be purchased in subscription plans, minimising the initial capital outlay familiar to companies implementing ERP systems and infrastructure.

More details can be found here:

https://ut5ff3npbyx1sqnpx41jwye1-wpengine.netdna-ssl.com/wp-content/uploads/2016/04/Dynamics-365-Pricing-and-Licensing-FAQ-October-2016.pdf

10 Harnessing the Full Power of Advanced Analytics

The greatest feature of Microsoft Dynamics 365 is the integration of these applications and technologies into a single platform. Each leverages the others' benefits providing something so new in the ERP world, that they don't even call it ERP anymore!

The following was once talked about but is now very attainable:

- Best in class ERP and CRM running on infinitely scalable but reasonably priced Azure.
- Power BI reporting against the Common Data Model.
- Specialist mobile apps built in Power Apps plus Workflow (Microsoft Flow).
- Cortana machine learning and the Internet of Things (IOT) integrated with real time control systems.

Want to learn more about working with AXpact?

Microsoft Dynamics 365 for Operations is revolutionary and truly delivers the next generation of business management systems.

As an organisation AXpact is at the forefront of Microsoft Dynamics 365 for Operations with years of experience, global coverage and the best people in the business. A partner you can trust in taking your global business to the next level!

Can AXpact Help?

If you are considering or even currently involved with an international Microsoft Dynamics AX Project and want to discuss or expand upon any of the above points, then we would be happy to assist. Our initial advice is without obligation or charge.

Call +44(0)845 456 3433

Visit the AXpact website - Click Here