Motion10
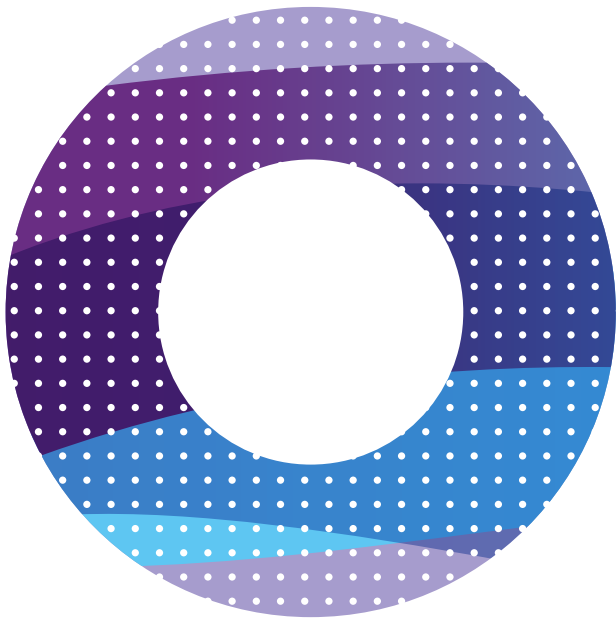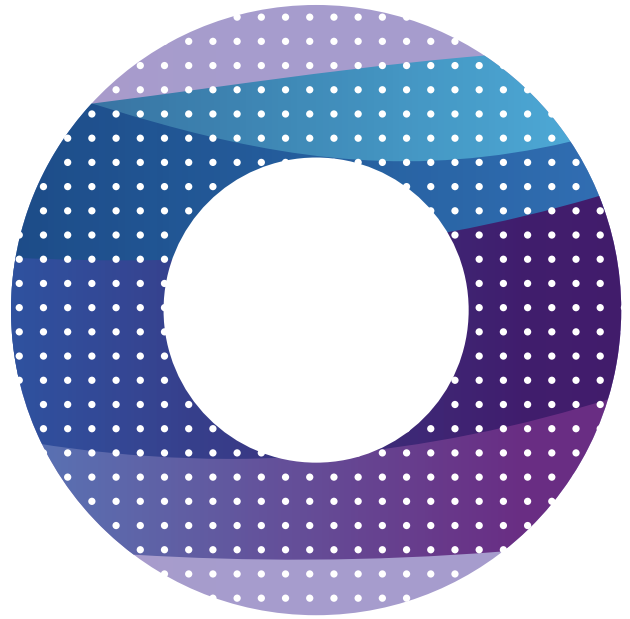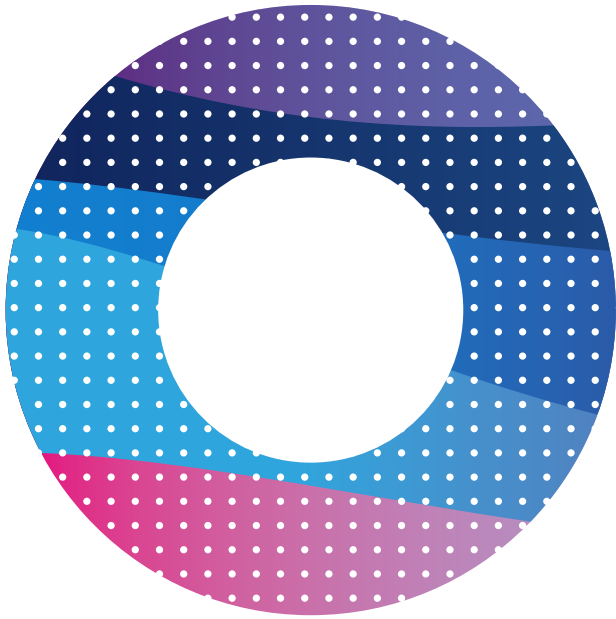
Azure Integration

The business value of Microsoft Azure Logic Apps
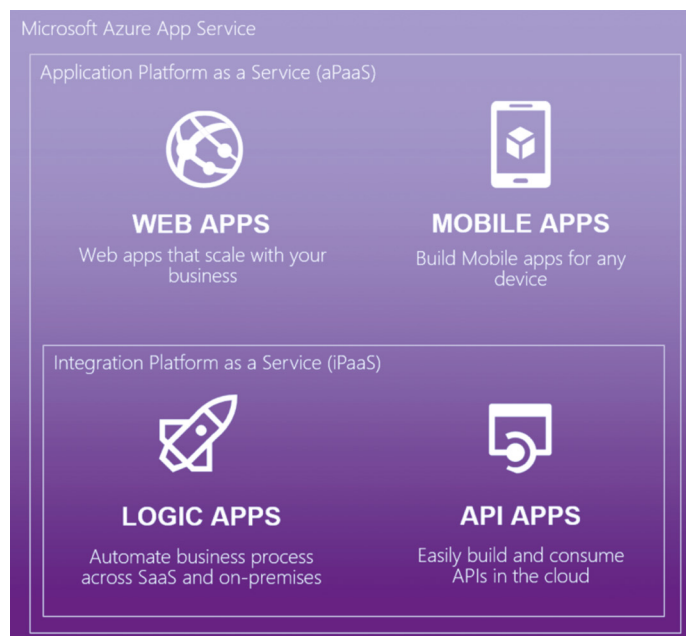
Inhoud

3

The components of Microsoft Azure

Microsoft Azure is a comprehensive set of services that together make up the public cloud offering that enables Platform as a Service (PaaS) and Infrastructure as a Service (IaaS).

Azure App Service is the Application Platform as a Service (aPaaS; see http://www.gartner.com/it-glossary/application-platform-as-a-service-apaas) that is part of the larger PaaS platform. It consists of Logic Apps, API Apps, Web Apps and Mobile Apps.

Azure Logic Apps (together with API Apps) is Microsoft's Integration Platform as a Service (iPaaS; http://www.gartner.com/it-glossary/information-platform-as-a-service-ipaas).

Microsoft Azure in general makes it possible to host packaged applications, custom applications and composite applications (a combination of functionalities provided by multiple different applications) in the public cloud or in hybrid scenarios.

Microsoft Azure App Service

Application Platform as a Service (aPaaS)

WEB APPS
Web apps that scale with your business

MOBILE APPS
Build Mobile apps for any device

Integration Platform as a Service (iPaaS)

LOGIC APPS
Automate business process across SaaS and on-premises

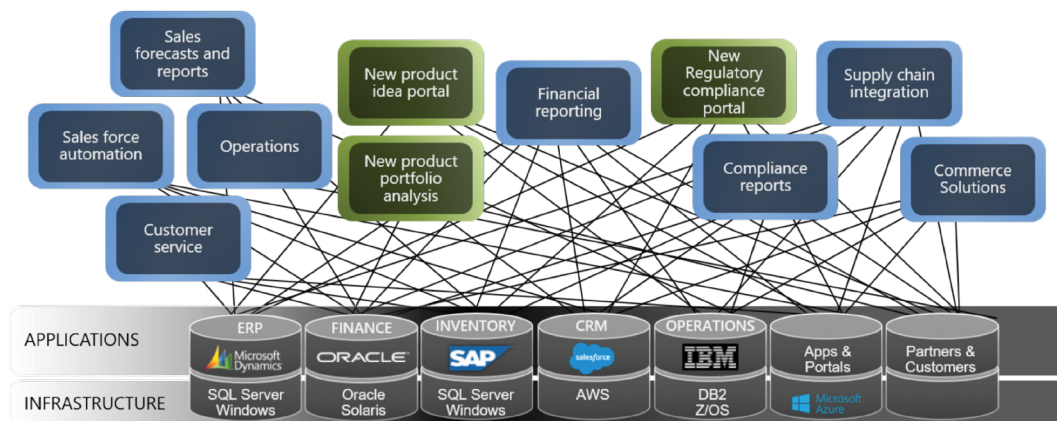**API APPS**
Easily build and consume APIs in the cloud

Logic Apps, together with API Apps and API Management, provides the functionalities for Enterprise Application Integration (EAI), Service Oriented Architecture (SOA), Business Process Management (BPM) and Business-to-Business (B2B) communications.

That all sounds great, but what is the actual business value of Microsoft Azure Logic Apps?

Common integration needs

- In most organizations, automated business process functionalities are not provided by one application. Depending on the following factors, the application landscape can become very complex:
- **Complexity of the operations:** Because of the very nature of operations of a company, one or two applications do not suffice to support the business processes.

- **A history of mergers and acquisitions:** When a company has not grown organically, chances of ending up with a multitude of different applications are big.
- **A best of breed approach:** Many companies have this approach where the best application for each particular purpose is chosen.

Application landscapes like the following are not uncommon:

As can be seen, most applications are logically linked to each other. You will certainly recognize this. There are many reasons why these links have to be created. The following are the most important:

- **Keeping master data in sync:** Many applications manage the same kind of information, for example article, customer and employee information, but in different places. To get a single version of the truth, this information has to be kept in sync and centrally managed.

- **Creating composite applications:** Business processes are often not set in stone. And they often use cross application functionalities. In order to create new or improve existing business processes, application functionalities and services need to be combined in smart ways.
- **Involving 3rd parties in your automated business processes:** Supply or demand chain integration makes your processes more efficient. This can be done through B2B integration of your suppliers, customers and logistics providers.

- **Surfacing data and processes in portals and apps:** In order to provide central, web and app based access to application data and processes and give access to many (incidental) users, these data and processes have to be integrated in a structured way.

- **Surfacing business intelligence:** Intelligence gathered from underlying (composite) business processes, applications and databases needs to be surfaced in dashboards by means of key performance indicators (KPI).

And as can be expected, there are also numerous lines between these applications that are not automated. In these cases your company's employees actually manually copy-and-paste or re-enter information from one screen to another. This is called "alt-tab" or "swivel chair" integration. As can be imagined, these manual integrations are slow, error prone and prevent straight-through processing (STP).
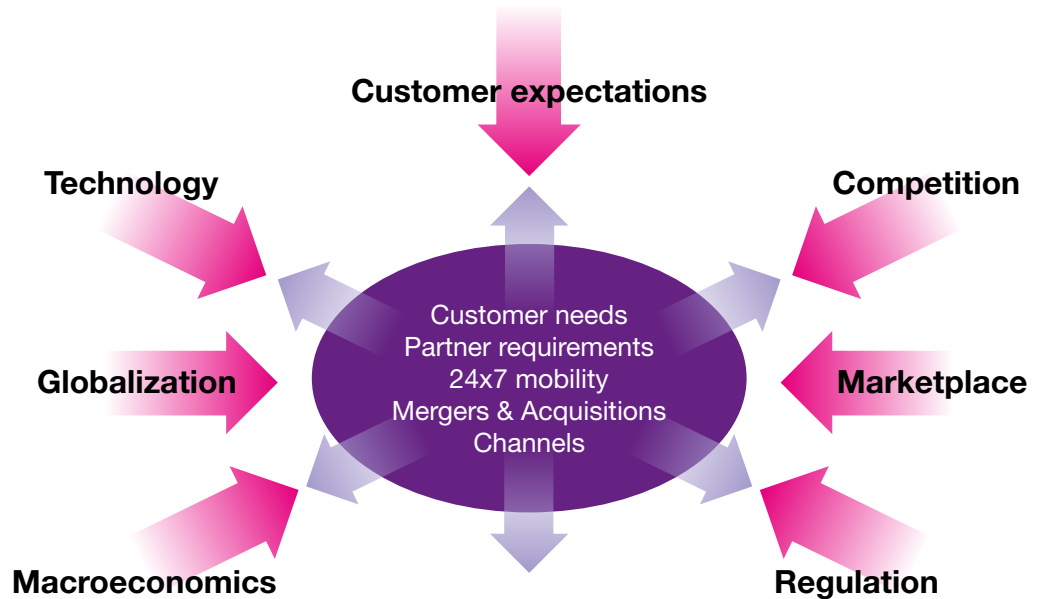
The real business value of integration

In order to survive during worsening economic climates and preferably grow in better economic times, organizations have to continually innovate and improve business processes and business models. Sometimes it is even necessary to undergo a digital transformation. To facilitate this, companies get to rely more and more on integrated, automated systems. Some of these systems are still hosted in your own datacenter, but more and more IT solutions are also running in the cloud. IT resources should be involved as such, that they provide the greatest business value to the organization.

The following is a list of themes that can help improve business processes and thus your bottom line and will prove the actual business value of an iPaaS solution such as Microsoft Azure Logic Apps:

- **Creating value add on top of SaaS applications:** Most SaaS applications, such as SalesForce and Dynamics CRM Online are one-size-fits-all applications because of their very multi-tenant, "commodity" nature. By integrating these applications with other (on-premise) applications or cloud services, more value add can be created by supporting your unique business processes in a better fashion.
- **Leverage existing investments in applications:** Large investments have typically been made in company-wide ERP implementations and other best-of-breed applications. Most likely, these applications are not going to be written off any time soon. By integrating the applications with others, the life expectancy and usefulness of the existing applications will be enhanced.
- **Supply and demand chain integration:** By involving your business partners such as suppliers, large customers and logistics providers directly and electronically in your business processes, major efficiency gains can be accomplished by eliminating manual processes.
- **Composite business processes:** By combining functionalities provided by various applications and (cloud) services into even better business processes and thus enhancing overall usability and efficiency, composite applications can be created without the need for modifications to existing applications.
- **Business process management:** Gartner says the following about BPM: "Business managers and knowledge workers today are being asked to make faster and better decisions and to 'do more with less' in an ever-changing business context, but cannot do so without improved visibility into their operations and environments. To meet this challenge, leading organizations are seeking to make their business operations more intelligent by integrating analytics into their processes and the applications that enable them". The BPM features of Azure App Service can certainly facilitate this.

- **Agility through flexibility:** By implementing visually designed business process flows and the accompanying business rules it becomes much easier to change business processes and adjust them to your customers' needs. Aligning your processes with the customers processes makes your company a much better player in a highly competitive market.
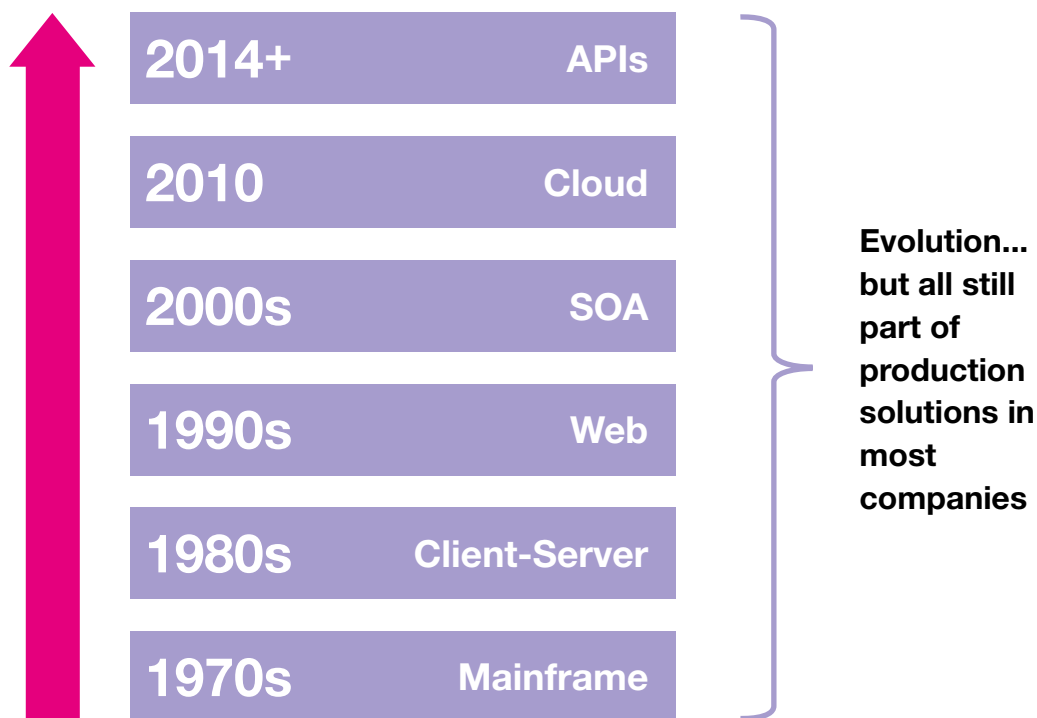

- **Time-to-market:** Instead of waiting for your application vendors to modify and or add functionalities to your applications, you are in control by adjusting or creating (composite) business processes by either adding or modifying (plain English) business rules or visually re-designing process flows.

- **Channel renewal:** By adding more modern ways of interacting with your organization, more and different groups of customers can be attracted. For example, providing the means to interact through portals, smartphones and apps can be accomplished through smart integration of applications.

Basically, this is all about enabling Gartner's pace-layered application model
(see http://www.gartner.com/it-glossary/pace-layered-application-strategy).

How can Azure Logic Apps help you?

By implementing Azure Logic Apps sitting in-between your applications, apps and portals, you can eliminate manual and direct, oftentimes hard coded integration lines (spaghetti) between them and create a more manageable layered integration platform (lasagna) applying a loosely coupled, service oriented design. And of course new integrations can be created that were previously impossible because App Service has built-in Connectors (API Apps) for all kinds of systems, databases and platforms, even for IBM mainframes, Oracle databases and other non-Microsoft environments. Both old and new ways of integrating are supported. That is crucial, because this is the reality in most organizations:

2014+	**APIs**
2010	**Cloud**
2000s	**SOA**
1990s	**Web**
1980s	**Client-Server**
1970s	**Mainframe**

Evolution... but all still part of production solutions in most companies

Azure Logic Apps provides the following key functionalities that can help address your integration needs:

- **Enterprise Application Integration (EAI):** Connect multiple different applications, hosted in their own infrastructure and keeping their own databases. This facilitates event driven data streams between applications and processes.

- **Business-to-Business (B2B) Integration:** Integrate your suppliers, customers and logistics providers in your end-to-end business processes, thereby creating more efficient supply and demand chains by means of standardized electronic business transactions.
- **Business Process Orchestration (BPO):** Visually design and execute business processes that expose composite functionalities hosted in many different applications and services, thereby creating new "virtual" applications.
- **Business Process Management (BPM):** Visually design, host and continually improve composite business processes by means of workflows, business rules and business intelligence.
- **Cloud integration:** Create hybrid solutions that span applications hosted in your own datacenter and running in the cloud, thereby adding significant value add to the one-size-fits-all SaaS solutions used by every company these days.
- **App integration:** Expose your business services to mobile users.
- **APIs:** Expose your business services and data through APIs and make it possible to open up new revenue streams.

For each of the above integration themes real-world, proven patterns and practices have been developed and fine-tuned during the past decade that are used every day by system integrators (SI) specialized in implementing the Microsoft Application Platform technologies.

Conclusion

Integration is key in complex application landscapes. It provides the means to improve your time-to-market and business process efficiency. At the same time it improves the manageability of your processes and provides real-time operational insight. Microsoft Azure Logic Apps is a key component in Microsoft Azure to provide the features and functionalities to address your common integration needs, including Enterprise Application Integration (EAI), Business-to-Business (B2B) integration, Business Process Orchestration (BPO), Business Process Management (BPM), Cloud-, App- and API- integration. At the center of your application landscape it provides valuable capabilities to improve your business agility and in the end your bottom line.

Motion10

About the author

Gijs in 't Veld

Gijs in 't Veld is co-founder and CTO at Motion10, responsible for technical vision, strategy and architecture. He has more than 25 years of experience in integration architecture and has been involved with Microsoft's integration platform solutions from their early inceptions. During 2006-2013 he was awarded Microsoft MVP seven times in a row for his many contributions to the technical community involved with BizTalk Server and Microsoft Azure. Microsoft often involves him as a pre-sales resource (P-TSP) during complex Application Platform sales projects. Gijs regularly writes papers and articles on all things related to the Microsoft Application Platform. He is also a frequent speaker at Microsoft events.
Gijs can be followed on linkedin.com/in/gintveld and twitter.com/gintveld.

We are Motion10.

We help organizations work smarter, more effectively and more efficiently. So they can grow, change, or innovate.

System integration is part of our DNA. We are specialists in digital collaboration and business intelligence. We know how to extract more value from the systems and information within organizations.

We connect people, systems and processes. We build flexible data platforms that allow people to collaborate more efficiently and speed up decision-making processes. We use the latest Microsoft technologies to help them achieve those goals.

We're not happy until our solutions work. Literally.

We want our customers to be able to tweak and adjust our solutions themselves. We train people and help organizations become independent.

More information: www.motion10.nl